Draft Generic Environmental Impact Statement for the Implementation of Golf Course Re-Zoning

Prepared on Behalf of the Riverhead Town Board

4 W. 2nd Street, Riverhead, NY 11901

September 2026

Date of Lead Agency Acceptance:

Date by which comments must be submitted:

Table of Contents

Cover Sheet

1.0 Executive Summary
2.0 Description of the Proposed Action
- **2.1 Introduction**
- **2.2 Project Background, Need, Objectives, and Benefits**
  - 2.2.1 Project Background
  - 2.2.2 Public Need and Town Objectives
  - 2.2.3 Benefits of the Proposed Action
- **2.3 Permits and Approvals Required**

3.0 Natural Environmental Resources
- **3.1 Water Resources**
  - 3.1.1 Existing Conditions
  - 3.1.2 Anticipated Impacts
  - 3.1.3 Proposed Mitigation
- **3.2 Aesthetic Resources**
  - 3.2.1 Existing Site Conditions
  - 3.2.2 Anticipated Impacts
  - 3.2.3 Proposed Mitigation

4.0 Human Environmental Resources
- **4.1 Transportation**
  - 4.1.1 Existing Conditions
  - 4.1.2 Potential Impacts
  - 4.1.3 Proposed Mitigation

5.0 Other Required Sections
- 5.1 Cumulative Impacts

6.0 Alternatives
- 6.1 Alternative 1: No Action Alternative
- 6.2 Alternative 2: Re-Zoning of Existing Golf Courses to Residence A-80 (RA80) Zoning Use District.

7.0 References
8.0 Figures
9.0 Appendices

References

1.1 Suffolk County Department of Health Services References Standards for Approval of Plans and Construction for Sewage Disposal Systems for Other than Single-Family Residences
1.2 New York State Department of Environmental Conservation Full Environmental Assessment Form Workbook
1.3 Riverhead Water District 2025 Pumpage Data Report
1.4 2024 Riverhead Comprehensive Plan Draft Generic Environmental Impact Statement, Appendix 5: Transportation Data
1.5 Institute of Transportation Engineers Trip Generation Manual, 12th Edition, Volume 3, Land Use Code 320 (Motel)

Figures

1.1 Existing Town Zoning Map
1.2 Proposed Zoning Map Identifying Parcels Targeted for Golf Course Zoning Use Designation
1.3 Town GIS Layer Showing Suffolk County Groundwater Management Zone
1.4 Town GIS Layer Showing Existing Riverhead Water District Extensions
1.5 Aerial Image of The Rock Golf Club
1.6 Aerial Image the Baiting Hollow Club
1.7 Aerial Image of Friar's Head
1.8 Aerial Image of Cherry Creek
1.9 Aerial image of the Woods at Cherry Creek
1.10 Aerial image of the Long Island National Golf Club

Appendices

1.1 SEQRA Documents

1.1.A Full Environmental Assessment Form (FEAF) Part 1, dated July 20, 2026
1.1.B Full Environmental Assessment Form (FEAF) Part 2, dated July 20, 2026
1.1.C Full Environmental Assessment Form (FEAF) Part 3, dated July 20, 2026
1.1.D Town Board Resolution No. 2026-747: Resolution Assuming Lead Agency, Issuing Positive Declaration
1.1.E Town Board Resolution No. 2026-748: Resolution Setting Comment Period for the Submission of Written Comments on the Draft Scope

1.2 Draft Code Amendments

1.2.A Golf Course (GC) Zoning Use District
1.2.B Chapter 301-3: Definition; word usage
1.2.C Chapter 301-208: Redemption of Preservation Credits
1.2.D Chapter 301, Attachment 2: Residence Districts Schedule of Dimensional Regulations

1.0 Executive Summary

This document is the Draft Generic Environmental Impact Statement (DGEIS), which will study the potential environmental impacts of the implementation of a series of amendments to the Riverhead Town Code which will form the regulatory framework necessary to implement the recommendations of the Town of Riverhead 2024 Comprehensive Plan Update (2024 CPU), adopted in September 2024, as it relates to the creation of golf cottages on existing golf courses within the Town of Riverhead.

Because the amendments to Town Code will require the creation and mapping of new Transfer of Development Rights (TDR) receiving districts, the Town Board, as Lead Agency, is required to prepare a Generic Environmental Impact Statement, pursuant to New York Town Law §261-A(2)(a).

The Town Board, by Resolution No. 2026-747, adopted on August 4, 2026, assumed Lead Agency Status, and issued a Positive Declaration pursuant to SEQRA, requiring the preparation of a DGEIS. By Resolution No. 2026-748, also adopted on August 4, 2026, the Town Board accepted a Draft Scope to be used for the preparation of a DGEIS, and set a twenty-one (21) day public review comment period, with the record being left open until the end of day on August 25, 2026 for the submission of written comments on the Draft Scope.

2.0 Description of the Proposed Action

The proposed implementation of the regulatory framework to support the creation of golf cottages involves several actions by the Town Board relating to the Town's Zoning Ordinance (Chapter 301 of the Riverhead Town Code). The following amendments are collectively referred to as "the proposed action" for the purposes of SEQRA analysis:

1. Creation of a new zoning use district entitled "Golf Course (GC) Zoning Use District"
2. Amending the official Zoning Map of the Town of Riverhead to re-zone six (6) existing golf courses to the new Golf Course (GC) zoning use designation.
3. Amending Town Code §301-3 entitled "Definitions; word usage" to include a definition of "Golf Cottage," as well as amending the definition of "Standard Golf Course."
4. Amending Town Code §301-208 entitled "Redemption of Preservation Credits" to include the new Golf Course (GC) zoning use district as a receiving area, as well as identify the redemption formula for the redemption of TDR's as it relates to golf cottages.
5. Amending Town Code §301, Attachment 2 entitled "Residence Districts Schedule of Dimensional Regulations," to include dimensional regulations for the new Golf Course (GC) zoning use district.

The creation of the new GC zoning use district, and its application to six (6) existing golf courses located within the Town of Riverhead, specifically The Rock Golf Club in Wading River, the Baiting

Hollow Club in Baiting Hollow, Friars Head, Cherry Creek Golf Links, the Woods at Cherry Creek, and the Long Island National Golf Club in Riverhead, as well as the amendments to the Town Code's definition of a "standard golf course" would make the existing golf courses conforming within the new GC zoning use district, and would eliminate the need for a special permit for the construction of golf cottages, which would currently constitute the expansion of a pre-existing non-conforming use within the existing Residence A-80 or Agricultural Protection (APZ) zoning use districts in which the golf courses are currently located. The amendments would also establish a definition of a golf cottage, and set TDR redemption rates for golf cottage uses, which are currently proposed at a rate of 1,200 square foot of floor area per TDR credit redeemed. The proposed action would also create a GC zoning use designation in the Town's Residence Schedule of Dimensional Regulations, which exactly mirrors the existing RA80 and APZ dimensional regulations (i.e. a minimum lot size of 80,000 square feet, or two "builder's acres" per residential lot), thereby establishing consistency with the existing zoning without creating the potential for increased residential development in the event a golf course closes and the owner elects to redevelop a site with a residential subdivision. Certain other protections are built into the proposed GC zoning use district, including the requirement for cluster development in the event a golf course is redeveloped into a residential subdivision, which is also a requirement in the existing RA-80 and APZ zoning use districts.

The metrics below are provided in order to clearly identify a theoretical maximum buildout, TDR redemption, and monetary value of the land preservation:

- 6 golf courses x 1 unit per hole x 18 holes per course = 108 units
- 108 units x 600 sq. ft. per unit = 64,800 sq. ft. of building development
- 64,800 sq. ft. ÷ 1200 sq. ft. per TDR = 54 TDR's for full buildout
- 54 TDR's x 43,560 sq. ft. of land preserved per TDR = 2,352,240 sq. ft. of land preservation
- $80,000 value per TDR x 54 TDR's = $4,320,000 preservation cost

2.1 Introduction

2.2 Project Background, Needs, and Objectives

2.2.1 Project Background

Chapter 14 of the Town of Riverhead's 2024 Comprehensive Plan Update included a recommendation to consider allowing for golf cottages as an accessory use on golf courses (in any zoning district) with the use of TDR credits (Page 207, 2024 CPU). The plan stated this would be an accessory use on or adjacent to a golf course, with golf cottages being intended to provide

convenient lodging for golfers or visitors who want to stay close to the golf course for a short stay. The plan noted that golf cottages are not meant to be used for long-term housing, which was considered in the drafting of the proposed definition of a golf cottage, where the proposed definition includes language which states that "Golf cottages shall not be used for the purposes of establishing residency within the Town of Riverhead."

The 2024 CPU also included a proposed redemption formula for the use of TDR's as it relates to golf cottages, and recommended a rate of 1 TDR per golf cottage, and capped the size of a golf cottage at a maximum of 600 square feet per unit. At the current trading rate for TDR's (approximately $80,000 per TDR credit, based on a recent contract of sale for an existing TDR Certificate, Certificate No. 15.01), the initial cost of TDR's for a golf course to construct eighteen cottages, which is the maximum allowable build out for a standard golf course, would be approximately $1,440,000. This cost does not include permitting, engineering, and construction, and represents only the cost for the right to construct the cottages.

After the Planning Department's initial drafting of amendments to the Town Code, the amendments were presented to and discussed with the Town Board at its work session on September 17, 2025. At that work session, a majority of Town Board felt that the up-front TDR cost, which was presented the at the recommended rate of one (1) TDR per cottage, could potentially be a financial deterrent for a golf course owner seeking to create golf cottages. The Town Board subsequently requested a change the redemption formula for golf cottages from one (1) TDR per cottage to a redemption rate of 1,200 square feet of floor area for golf cottage use per preservation credit, effectively cutting the TDR redemption rate recommended by the 2024 CPU in half. It is acknowledged, however, that the 2024 CPU does recommend revisiting the transfer formula periodically in order to ensure that redemption rates are appropriately calibrated to both maximize the use of TDR credits without overburdening potential projects.

The code was amended, at the Town Board's direction, and discussed again at its work session on December 11, 2025. A public hearing on the code amendments was subsequently scheduled by the Town Board, and held on January 21, 2026. At that meeting, public comment was received and considered, which resulted in the re-working of the proposed code amendment to its current form being considered in this DGEIS.

2.2.2 Public Needs and Town Objectives

The 2024 CPU, specifically Chapter 4: Economic Development, speaks extensively about enhancing and expanding tourism opportunities, as the tourism industry has become a steady economic driver for Riverhead since the 1990's as the North Fork emerged as a prominent tourist destination with attractions such as Long Island wind country, historic downtown, Splish Splash water park, the Long Island Aquarium, Tanger Mall, the Suffolk Theater, as well as numerous farm-stands and agritourism destinations. The Town's goals in the implementation of the creation of golf cottage zoning are twofold, first is to increase tourism opportunities, as visitors to the North Fork who take advantage of a golf cottage stay are likely to spend money at the

Town's tourist destinations. Second is the increased usage of the Town's TDR program. If the six (6) proposed golf courses targeted for the proposed re-zoning were to all develop golf cottages at the maximum allowable densities under the proposed framework, which would be eighteen (18) cottages each at 600 square feet (totaling 64,800 square feet), at a TDR redemption rate of 1,200 square feet per TDR, the result would be 54 acres. Based on the current trading rate of approximately $80,000.00 per TDR (as noted above, based on a recent TDR transaction), the resulting benefit of 54 TDR would equate to approximately $4,320,000.00 of private funds to preserve the 54 acres.

2.2.3 Benefits of the Proposed Action

As drafted, the proposed series of code amendments would create a framework and regulatory structure to accomplish one of the recommendations of the 2024 CPU, while simultaneously bolstering the Town's TDR program. Protections written into the current draft will allow for preservation of the Sound Avenue Scenic and Historic Corridor, by establishing a minimum 300-foot setback from Sound Avenue, as well as protect other neighboring properties by establishing a minimum 125-foot setback from all other property lines.

In creating the regulatory framework to allow for the creation of golf cottages, the Town Board has elected to consider a series of amendments to the Town Code that will accomplish the following goals:

1. Allow for golf courses within the Town to construct golf cottages to help foster tourism opportunities within the Town, and further support the economic success of the golf industry within the Town.
2. Serve as a potential vehicle for land preservation through the use of TDR's.
3. Increase the Town's tax base by adding value to existing golf courses.

2.3 Permits and Approvals Required

The following agencies and departments have been identified as having permitting authority over the proposed code amendments:

Agency or Entity Having Jurisdiction	Permit/Approval Required
Town of Riverhead Town Board	Adoption of Local Laws
Suffolk County Planning Commission	239m review

Additionally, although the following agencies and departments do not have direct permitting authority over the proposed code amendments, they have been identified as interested agencies, and will be provided a copy of this DGEIS for their review and consideration during the public review period:

Interested Agencies and Departments
Riverhead Water District

Interested Agencies and Departments
Riverhead Fire District
Riverhead Planning Board
Suffolk County Department of Health Services

3.0 Natural Environmental Resources

3.1 Water Resources

3.1.1 Existing Conditions

The proposed action has the potential to increase demand for public water as well as increase sanitary density loading related to future development. In order to understand existing conditions, the DGEIS will detail the existing conditions for water resources, including identifying existing golf course locations within Riverhead Water District extensions, describe existing infrastructure, as well as describe existing golf course locations within Suffolk County Groundwater Management Zones (SCGWMZ), and detail requirements of Suffolk County Sanitary Code Article 6.

The six existing golf courses, described in Section 2.0 of this DGEIS, are located within the following Riverhead Water District Extensions:

1. **The Rock Golf Club**: Located within Riverhead Water District Extension No. 35.
2. **Baiting Hollow Club**: Located partially within both Riverhead Water District Extension No. 20 (Sound Avenue), and Extension No. 26 (Fresh Pond Landing & Vicinity).
3. **Friar's Head**: Located partially within both Riverhead Water District Extension No. 23 (Reeve's, Rollingwood, & Dolphin), and Extension No. 31.
4. **Cherry Creek Golf Links**: Located within Riverhead Water District Extension No. 19c (Woodfield Meadows).
5. **The Woods at Cherry Creek**: Located within Riverhead Water District Extension No. 65 (Woods at Cherry Creek).
6. **Long Island National Golf Club**: Located within Riverhead Water District Extension No. 95 (Northville).

All of the above referenced golf courses are currently served by the Riverhead Water District's existing infrastructure, which include 12-inch water mains located within public roadways which front all of the proposed sites, including along Sound Avenue, Northville Turnpike, Reeves Avenue, as well as Fairway Drive.

Suffolk County is broken up into eight (8) distinct GWMZ's, all of which have an allowable sanitary density of 600 gallons per day (gpd) per acre, with the exception of GWMZ Nos. III, V, or VI, where the allowable density is 300 gpd per acre. The Town of Riverhead is generally located within

either GWMZ III, IV, or VIII, as described below. The allowable sanitary density of a specific property is determined by multiplying the adjusted gross lot area in acres (43,560 square feet per acre), by the allowable gpd based on the underlying GWMZ. The location of the six existing golf courses, described in Section 2.0 of this DGEIS, existing SCGWMZ's, as well as the size of the respective parcels are and their allowable sanitary densities pursuant to Suffolk County Sanitary Code Article 6, are identified as follows:

1. **The Rock Golf Club**: Located within SCGWMZ Zone VIII, with an allowable sanitary density of 600 gallons per day (gpd) per acre. The property size is approximately 132 acres, with an allowable sanitary density of approximately **79,200 gpd.**
2. **Baiting Hollow Club**: Located within SCGWMZ Zone VIII, with an allowable sanitary density of 600 gpd per acre. The property size is approximately 155 acres, with an allowable sanitary density of approximately **93,000 gpd.**
3. **Friar's Head**: Located within SCGWMZ Zone VIII, with an allowable sanitary density of 600 gpd per acre. The property size is approximately 349 acres, with an allowable sanitary density of approximately **209,400 gpd.**
4. **Cherry Creek Golf Links**: Located within SCGWMZ Zone IV, with an allowable sanitary density of 600 gpd per acre. The property size is approximately 166 acres, with an allowable sanitary density of approximately **99,600 gpd.**
5. **The Woods at Cherry Creek**: Located within SCGWMZ Zone IV, with an allowable sanitary density of 600 gpd per acre. The property size is approximately 128 acres, with an allowable sanitary density of approximately **76,800 gpd.**
6. **Long Island National Golf Club**: Located within SCGWMZ Zone IV, with an allowable sanitary density of 600 gpd per acre. The property size is approximately 150 acres, with an allowable sanitary density of approximately **90,000 gpd.**

3.1.2 Anticipated Impacts

The Suffolk County Department of Health Services (SCDHS) Office Division of Environmental Quality's July 21, 2020 "Standards for Approval of Plans and Construction for Sewage Disposal Systems for Other Than Single-Family Residences" (Reference 1.1) contains guidance for determining sanitary density rates for uses other than single-family residences. Based on the nature of a golf cottage, in that it is not to be used as a residence, but operates more akin to a transient lodging unit, such as a hotel, it is presumed that each golf cottage would be treated by the Department of Health Services as a "motel/hotel unit." The SCDHS guidance document prescribes a sanitary flow of 150 gpd for a motel/hotel unit exceeding 400 square feet. In the event that a golf course seeks to develop the maximum number of cottages allowable under the proposed action, or eighteen cottages, the presumed sanitary density rate would be 2,700 gpd, which is well below the allowable sanitary densities permitted on each of the six golf courses targeted for the proposed re-zoning.

The Riverhead Water District utilizes the above referenced SCHDS standards in determining anticipated potable water demand, plus additional flow for fire suppression, which is determined

based on site specific factors such as size and type of building, use and occupancy, as well as location.

It is acknowledged that the golf courses targeted for the proposed re-zoning have existing sanitary density loads from clubhouses which often include restaurants and bars, maintenance buildings, other improvements, and potentially from the maintenance of the golf course grounds themselves. Ultimately, as the SCDHS maintains jurisdiction over the final use, lot area, design and location of the sewage disposal and water supply systems, review and approval from the SCDHS will be required before any construction can begin. Any site plan application submitted to the Town for the construction of golf cottages would be referred to the SCDHS for review and comment prior to any approval action by the Planning Board.

It is also noted that the creation and implementation of the GC zoning use district does not create any change in the permissible number of single-family residences that would be permitted under the current zoning, as the underlying base density remains at one single-family residence per two "builder's acre" (80,000 square foot minimum lot size). As such, there are no anticipated impacts related to residential development resulting from the change of zone from either APZ or RA-80 to the new GC zoning use designation.

3.1.3 Proposed Mitigation

The proposed action is not anticipated to require any mitigation, as all of the golf course parcels targeted for re-zoning are located within existing Riverhead Water District extensions and are already served by public water, and the potential increase in sanitary density from the construction of golf cottages falls within the permissible sanitary densities established by the SCHDS. Never-the-less, any site plan application submitted to the Town will be referred to both the Riverhead Water District and SCDHS for review and approvals based on site specific proposals. Approval from the SCDHS will be required prior to the issuance of any building permits.

3.2 Aesthetic Resources

3.2.1 Existing Conditions

All six parcels targeted for re-zoning are all currently improved with existing eighteen-hole golf courses, and all parcels are also improved with existing accessory clubhouse facilities, parking areas, as well as related maintenance structures (Figures 1.5 through 1.10). The character of the areas surrounding each golf course is as follows:

1. **The Rock Golf Club**: This course is a 132-acre parcel located to the north of New York State Route 25A in Wading River, and is accessed by a Town of Riverhead roadway called Fairway Drive. The course is in between several residential subdivisions, including multiple sections of the Sound Breeze subdivision, as well as the Century Farms East subdivision, and is directly bordered by approximately four dozen single family residences along its property boundaries. Many of these residential properties

are buffered by the golf course by existing trees and vegetation, some of which is protected by non-disturbance easements. The course is located directly to the west of a ±190-acre farm, with development rights intact, which is currently owned by Lewin Holdings, LLC.

2. **Baiting Hollow Club**: This course is a 155-acre parcel located on the north side of Sound Avenue in Baiting Hollow, situated between Oakleigh Avenue and Warner Drive. The course shares its northern boundary with several multi-unit residential condominium communities, known as the Knolls at Fox Hill, the Vistas at Baiting Hollow, and the Bluffs. There is also a catering facility, known as Giorgio's Baiting Hollow, located to the north of the golf course. A residential subdivision, called the Baiting Hollow Club II is located on the east side of the golf course, which also takes access via the private roadway that serves the golf course and clubhouse. Several lots within the Baiting Hollow Club II subdivision are currently under development.
3. **Friar's Head**: This course is a 349-acre parcel located on the north side of Sound Avenue in Riverhead, and extends north all the way to the Long Island Sound. The course is bordered on its western side by residential developments, including the Johnstone Farm and Marlwood of Baiting Hollow subdivisions, which are buffered from the golf course by an existing wooded buffer several hundred feet in depth. There are several single-family residences located directly adjacent to the golf course which front on Sound Avenue. The course shares its eastern property boundary with three parcels, a 61-acre wooded parcel with development rights sold, a vacant wooded 3.9-acre parcel with development rights intact, and a single-family residence location on a 0.77-acre parcel which is owned by the operators of the golf course. The course is not visible from Sound Avenue, as the site is screened by existing vegetation.
4. **Cherry Creek Golf Links**: This course is a 166-acre parcel situated between Reeves Avenue and Sound Avenue in Riverhead. The course shares its western property boundary with a 71-acre farm with development rights sold, and shares its eastern property boundary with an open space/drainage/buffer area connected with the Highlands at Reeves residential development (originally developed as NF Golf Resorts). Elements of the course, including greens, fairways, and sand traps are visible from both Sound Avenue and Reeves Avenue, while the clubhouse and parking areas are centrally located within the course, and are not visible from either Sound Avenue or Reeves Avenue.
5. **The Woods at Cherry Creek**: This course is a 128-acre parcel located on the south side of Reeves Avenue in Riverhead, directly across the street from Cherry Creek. The property shares its eastern property boundary with a 76-acre farm with development rights sold, and shares portions of its western property boundary with a 55-acre horse farm with development rights sold, as well as a cluster of single-family residences located on Tyler Drive within the Reeves Farm major subdivision. The course shares its southern property boundary with two residential condominium communities

known as Sunken Pond Estates, Stoneleigh Woods, and Saddle Lakes. The clubhouse and associated parking lot are visible from the Reeves Avenue right-of-way.

6. **Long Island National Golf Club**: This course is a 150-acre parcel located on the southeast corner of the intersection of Northville Turnpike and Sound Avenue. The bulk of the course's frontage, approximately 2,050 feet, lies along the east side of Northville Turnpike, while the course also has approximately 450 feet of frontage along the south side of Sound Avenue. The course shares its eastern property boundary with the residential development known as the Highlands at Reeves (originally developed as Aquebogue Golf Resorts). The course's southern property boundary is shared with several agricultural parcels, including a mix of farms with development rights sold, as well as horse farms with development rights intact. The site's western property boundary is shared with a 27-acre farm with development rights sold, as well as a single-family residence owned by the operators of the horse farm. The course's clubhouse and associated parking areas are visible from Northville Turnpike.

3.2.2 Anticipated Impacts

The current draft of the proposed amendments to the Riverhead Town Code includes significant setbacks for golf cottages, including a minimum 125-foot setback from any property line, as well as a significantly increased setback of a minimum of 300 feet from Sound Avenue. These proposed setbacks exceed the existing minimum setback requirements for the RA80 and APZ zoning use districts, which currently require a 60-foot front yard setback, a 30-foot/65 foot combined side yard setback, and a 75-foot rear yard setback. Additional protections built into the proposed code amendments include the requirement that golf cottages shall be sited in such a manner that minimized visibility of structures from public roadways and neighboring properties.

Regarding the rezoning of the targeted parcels from either RA80 or APZ to the proposed GC zoning use district, all dimensional regulations for the GC zoning use district are exactly consistent with those required in the RA80 and APZ, so there are no anticipated impacts from potential redevelopment of any of these courses into residential subdivisions that would be a deviation from that which is already permitted under the existing zoning.

3.2.3 Proposed Mitigation

With due consideration given to the enhanced setbacks for golf cottages from existing property lines, as well as the significantly enhanced setback from the Historic Sound Avenue corridor, no additional mitigation measures are proposed. It is noted that any application for golf cottages that is submitted to the Town for site plan approval must include architectural elevations, which will be reviewed by the Town's Architectural Review Board, as well as the Planning Board, to ensure compatibility with existing community character.

4.0 Human Environmental Resources

4.1 Transportation

4.1.1 Existing Conditions

The proposed action has the potential Pursuant to create additional vehicle trips on public roadways within the Town of Riverhead.

The six existing golf courses, described in Section 2.0 of this DGEIS, are located on the following roadways and take access as follows:

1. **The Rock Golf Club**: This course is located to the north of New York State Route 25A in Wading River, and is accessed by a Town of Riverhead roadway called Fairway Drive. Fairway Drive is the sole public access point for the course property.
2. **Baiting Hollow Club**: This course is located on the north side of Sound Avenue (a Town of Riverhead roadway) in Baiting Hollow. Access to the course property is taken by a private driveway called Club Drive, located on the west side of Warner Drive. Club Drive is a two-legged road, with a one-way entrance from and one-way exit onto Warner Drive.
3. **Friar's Head**: This course is located on the north side of Sound Avenue in Riverhead. The course has two existing curb cuts, a western curb cut which serves as access to the club's maintenance facilities and employee parking areas, and an eastern curb cut, which serves as access to the course's member facilities, including clubhouse, existing cottages, and member parking areas.
4. **Cherry Creek Golf Links**: This course is located between Reeves Avenue and Sound Avenue in Riverhead. Public access to course is provided by its main entrance via an existing curb cut located on Reeves Avenue. An existing dirt driveway on Sound Avenue serves as access to the course's maintenance facilities on the north end of the property.
5. **The Woods at Cherry Creek**: This course is located on the south side of Reeves Avenue in Riverhead, directly across the street from Cherry Creek. The property takes its sole access via an existing curb cut on Reeves Avenue.
6. **Long Island National Golf Club**: This course is located on the southeast corner of the intersection of Northville Turnpike (Suffolk County Route 43) and Sound Avenue. The property takes its sole access from an existing curb cut on the east side of Northville Turnpike.

The Draft Generic Environmental Impact Statement prepared for the Town of Riverhead's 2024 Comprehensive Plan Update included, in Appendix 5, Transportation Data for Town, County, and State roadways within the Town of Riverhead. The data set included existing 2020 Annual Average Daily Traffic (AADT) counts and Levels of Service (LOS), as well as anticipated 2050 AADT's and LOS's (Reference 1.4). All roadways within the Town were identified as operating at LOS A through C, in both the 2020 existing conditions, and anticipated 2050 conditions.

Public transportation in the general region includes the Long Island Railroad and Suffolk County Transit bus lines, although the LIRR lines and existing SCT bus routes do not provide direct service to any of the parcels targeted for re-zoning.

4.1.2 Anticipated Impacts

Similar to section 3.1.2, where demand and sanitary densities would be expected to be similar to a hotel/motel use, the proposed golf cottages would operate in a similar manner and would be expected to have a similar trip generation and traffic impacts to a hotel/motel.

The Institute of Transportation Engineers Trip Generation Manual, 12th Edition, Volume 3 (Reference 1.5), Land Use Code 320 (Motel), indicates an average vehicle trip generation between 0.33 trips per AM peak hour, and 0.3 vehicle trips per PM peak hour, with the range of rates falls between 0.12 and 0.62 vehicle trips per room.

For the purposes of this DGEIS, and in order to establish a thoroughly conservative estimate of the vehicle trip generation at a given location, the highest value of the range of trip generation (0.62 trips per room) will be utilized.

In the scenario where a golf course that avails themselves of the ability to construct up to eighteen (18) cottages on their course, the anticipated increase in vehicle trips would be approximately 11.16 vehicle trips per hour (0.62 trips per room multiplied by 18 rooms per course).

The New York State Department of Environmental Conservation's Full Environmental Assessment Form Workbook (Reference 1.2) provides guidance for reviewing agencies to assist in understanding location, size, and characteristics of a proposed project. Per the NYSDEC's guidance, a project would be considered to have a "significant increase" in traffic if the project is expected to produce in excess of 100 vehicle trips per peak hour per day (FEAF Workbook, Page 52). The conservative estimate of 11 vehicle trips per hour falls well below the NYSDEC's threshold of significant traffic impacts.

4.1.3 Proposed Mitigation

As the existing golf courses are located on existing Town or County roadways, and based on the minimal anticipated increased vehicular trip generation, no traffic mitigation is proposed in connection with the anticipated increased development.

5.0 Other Required Sections

5.1 Cumulative Impacts

In order to take a "hard look" at the potential cumulative impacts of the proposed re-zoning, this section will assume a full-buildout of the six-existing golf courses targeted for the proposed Golf Course re-zoning.

As discussed in Section 3.1.2 above, the anticipated increase in water demand for a golf course seeking to construct eighteen cottages is 2,700 gpd of domestic, plus potential additional demand for fire suppression. In the event that all six golf courses developed golf cottages to the maximum extent allowed under the proposed code amendments, the total anticipated increase in domestic water usage would be approximately 16,200 gpd. The Riverhead Water District, based on its 2025 Pumpage Data Report (Reference 1.3), which was provided to the NYSDEC, experienced a peak daily pumping rate of 17,935,000 gallons. The potential increase generated by a full build out of golf cottages would equate to an approximately 0.009% increase in the peak daily pumping rate.

As also discussed in Section 3.1.2 above, the anticipated increase in sanitary density for a golf course seeking to construct eighteen cottages is 2,700 gpd per course. Full buildout of the six courses targeted for the proposed re-zoning would equate to an increased sanitary density of 16,200 gpd, where the total allowable sanitary density by SCDHS standards is 648,000 gpd, based on the total acreage of the golf courses. This increase constitutes 2.5% of the total allowable sanitary density of the existing golf courses.

As discussed in Section 4.1.2, the anticipated increase in vehicle trip generation based on a golf course seeking to build eighteen cottages is approximately 11 vehicle trips per peak hour. A full buildout of the six courses targeted for re-zoning would be expected to result in approximately 66 additional vehicle trips per peak hour. Based on the geographic dispersion of the parcels targeted for rezoning, as well as existing AADT's and LOS's throughout the Town, a full buildout of golf cottages is not expected to result in any significant impacts.

6.0 Alternatives

6.1 Alternative 1: No Action Alternative

The no-action alternative would result in no change from the existing zoning and land use patterns at the sites targeted for rezoning. While the no-action alternative would not result in any increased demand for water usage, increase in sanitary density, or increase in vehicular trip generation, there would also be no increase in land preservation through the use of TDR's, nor would there be an opportunity for the Town to foster and grow the tourism sector of the Town's economy.

In the no action alternative, in the event a golf course closes and abandons operation in favor of the development of a residential subdivision, each site, with the exception of Great Rock and the Baiting Hollow Club due to existing restrictions placed on those properties connected to prior development approvals, could be developed under the existing two-acre zoning regulations. The total acreage of the four remaining golf courses (Cherry Creek, The Woods at Cherry Creek, Long Island National, and Friar's Head) is approximately 793 acres, which would yield approximately 397 new single-family residences, based on the minimum required lot size of 80,000 sq. ft.

Anticipated water demand from 397 new single-family residences would be approximately 119,100 gallons per day, plus irrigation, based on SCDHS standards for single-family residenc

6.2 Alternative 2: Re-Zoning of Existing Golf Courses to Residence A-80 (RA80) Zoning Use District*.

The Residence A-80 (RA80) zoning use district is already a TDR receiving district, pursuant to Riverhead Town Code §301-205A, which would allow the use of TDR's in the district. If the existing golf courses were targeted for a potential rezoning to RA80, it would require and amendment to the Zoning Use district to allow for the creation of golf cottages with TDR's, and would also require an amendment to Town Code §301-208 to set the TDR redemption value as it relates to golf cottages.

In addition to allowing for the potential development of golf cottages under the RA80 zoning use district, rezoning golf courses to RA80 has the potential to increase the allowable residential density. Pursuant to Town Code §301-208A, the use of TDR's permits a developer to increase the development yield of a tract of RA80 land to one lot per 40,000 square feet, or double the density which would currently be permitted under the proposed Golf Course zoning use district designation. Under the proposed Golf Course zoning designations, Friar's Head (349 acres), Long Island National (150 acres), Cherry Creek (166 acres) and the Woods at Cherry Creek (128 acres), which total approximately 793 acres, in the event of residential redevelopment, could yield ±397 new single-family residences based on the proposed development density of one lot per 80,000 sq. ft.

In the alternative scenario where the courses were re-zoned to RA80, the ±397 single-family residences that could be developed on the courses would double to ±794 single-family residences. In this scenario, it is acknowledged that there would be a significant use of TDR's, approximately 397, in order to achieve the maximum allowable density under the RA80 zoning designation.

The potential increase in residential density afforded under the RA80 zoning designation would have the potential to increase water demand by a minimum of 119,100 gpd (based on the SCDHS's sanitary flow of 300 gpd per single-family residence, multiplied by the 397-unit increase), plus water for irrigation, as opposed to the 16,200 gpd of additional water usage from a full buildout of golf cottages across all six courses identified for rezoning.

Similarly, sanitary density would increase by 119,100 gpd, again, based on the SCDHS standards for a single-family residence.

Although the threshold for significant traffic impacts resulting from single-family residential subdivisions are relatively high, with the NYSDEC's FEAF workbook identifying the threshold for significant impacts at 95 units, each of the courses under a potential RA80 rezoning, could be redeveloped with new single-family residences which exceed this threshold, resulting in

additional mitigation measures, such as the installation of traffic signals, road widening, re-striping, etc.

*It is noted that for the purposes of this analysis, the Baiting Hollow Club is not considered for residential redevelopment, as its residential density has been exhausted from prior development and is now encumbered with an easement restricting the site to golf course use, and the Rock Golf Club is not considered, as it was established using a Recreational Zoning Use District overlay, and no further residential development density exists.

7.0

REFERENCES

Reference 1.1:

Suffolk County Department of Health Services References Standards for Approval of Plans and Construction for Sewage Disposal Systems for Other than Single Family-Residences

Reference 1.1

COUNTY OF SUFFOLK



STEVEN BELLONE
SUFFOLK COUNTY EXECUTIVE

SUFFOLK COUNTY
DEPARTMENT OF HEALTH SERVICES
DIVISION OF ENVIRONMENTAL QUALITY

STANDARDS FOR APPROVAL OF PLANS AND CONSTRUCTION FOR SEWAGE DISPOSAL SYSTEMS FOR OTHER THAN SINGLE-FAMILY RESIDENCES

July 21, 2020

Gregson H. Pigott, MD, MPH
Commissioner of Health Services

Walter Dawydiak, PE, JD
Director of Environmental Quality

TABLE OF CONTENTS

Section **Page**

I. INTRODUCTION 4

II. DEFINITIONS APPLICABLE TO THESE STANDARDS 4

III. PROHIBITION OF INSTALLATION OF SEWAGE DISPOSAL SYSTEMS 10

IV. PLANS/PERMIT TO CONSTRUCT/APPROVALS REQUIRED 11

V. INSPECTION/CERTIFICATION OF CONSTRUCTED WORKS REQUIRED 12

VI. FINAL APPROVAL OF CONSTRUCTED WORKS REQUIRED 13

VII. DETERMINING POPULATION DENSITY EQUIVALENT 14

VIII. DETERMINING DENSITY LOAD 15

IX. DETERMINING DESIGN SEWAGE FLOW 15

X. DETERMINING TYPE AND REQUIREMENTS FOR SEWAGE DISPOSAL SYSTEM 20

XI. LOCATION/SITING OF SEWAGE DISPOSAL SYSTEM 22

XII. SUBSOIL AND GROUNDWATER CONDITIONS 26

XIII. CONSTRUCTION MATERIALS REQUIREMENTS 29

XIV. SEPTIC TANK REQUIREMENTS 29

XV. GREASE TRAP REQUIREMENTS 36

XVI. INNOVATIVE AND ALTERNATIVE ONSITE WASTEWATER TREATMENT 42

XVII. LEACHING STRUCTURE REQUIREMENTS 51

XVIII. MANHOLE REQUIREMENTS 57

XIX. GRAVITY SEWER LINE REQUIREMENTS 60

XX. SEPARATION OF SEWER AND WATER LINES 63

XXI. SEPARATION OF SEWER AND DRAINAGE LINES 64

XXII. BACKFILL AND FINAL GRADING 64

XXIII. SEWAGE PUMP STATIONS 65

XXIV. SEWAGE FORCE MAINS 69

XXV. PUMP-OUT FACILITIES 71

XXVI. ALTERNATIVE SEWAGE DISPOSAL SYSTEMS 72

XXVII. ABANDONMENT OF EXISTING SEWAGE DISPOSAL SYSTEMS 73

XXVIII. COVENANTS AND RESTRICTIONS 74

XXIX. VARIANCES 74

XXX. APPROVAL BY THE COMMISSIONER OF HEALTH SERVICES 74

LIST OF TABLES

Table **Page**

TABLE 1 – PROJECT DENSITY LOADING RATES & DESIGN SEWAGE FLOW RATES 16

TABLE 2 – MINIMUM HORIZONTAL SEPARATION DISTANCES 25

TABLE 3 - APPLICATION RATES 29

LIST OF FIGURES

Figure **Page**

FIGURE 1 – TYPICAL SOIL PERCOLATION TEST ARRANGEMENT 75

FIGURE 2 – SINGLE UNIT CONCRETE SEPTIC TANK.....76

FIGURE 3 – TWO UNIT CONCRETE SEPTIC TANK.....77

FIGURE 4 – MULTIPLE UNIT CONCRETE SEPTIC TANK (3 & 4 Units) 78

FIGURE 5 – MULTIPLE UNIT CONCRETE SEPTIC TANK (5 & 6 Units) 79

FIGURE 6 – SINGLE UNIT CONCRETE GREASE TRAP 80

FIGURE 7– MULTIPLE UNIT CONCRETE GREASE TRAP.....81

FIGURE 8 – CONCRETE LEACHING POOL DESIGN AND CONSTRUCTION DETAILS 82

FIGURE 9 – CONCRETE LEACHING POOL ARRANGEMENT/LAYOUT.....83

FIGURE 10 – TYPICAL CONCRETE LEACHING GALLEY AND LAYOUT.....84

FIGURE 11 – CONCRETE ACCESS/JUNCTION MANHOLE 85

FIGURE 12 – CONCRETE DROP MANHOLE 86

FIGURE 13 – CONCRETE DISTRIBUTION MANHOLE.....87

FIGURE 14 – CONCRETE SAMPLING MANHOLE.....88

FIGURE 15 – TYPICAL CLEAN-OUT DETAIL.....89

FIGURE 16 – PRE-CAST CLUSTERED DISPOSAL SYSTEM FOR HIGH GROUNDWATER.....90

LIST OF APPENDICES

APPENDIX A – STANDARDS FOR APPROVAL AND CONSTRUCTION OF MODIFIED SEWAGE DISPOSAL SYSTEMS AND SMALL COMMUNITY SEWERAGE SYSTEMS

APPENDIX B – STANDARDS FOR APPROVAL AND CONSTRUCTION OF SEWAGE COLLECTION SYSTEMS AND TREATMENT WORKS

APPENDIX C – REQUIREMENTS OF DEPARTMENT OF HEALTH SERVICES AND RESPONSIBILITIES OF LICENSED DESIGN PROFESSIONALS IN INSPECTING ON-LOT SEWAGE TREATMENT SYSTEMS OR COLLECTION SYSTEMS

STANDARDS FOR APPROVAL OF PLANS AND CONSTRUCTION FOR SEWAGE DISPOSAL SYSTEMS FOR OTHER THAN SINGLE FAMILY RESIDENCES

I. INTRODUCTION

These are the Suffolk County Department of Health Services Standards for the Administration of Section 502, of Article 5 (Sewage Disposal), Sections 607-613 of Article 6, Sections 705, 706, 709-716 of Article 7, and Article 19 of the Suffolk County Sanitary Code.

The purpose of these standards is to provide a means for achieving protection of the groundwater from excessive contaminant loading and to assure a safe, sanitary means of disposing of wastewater. Diseases such as infectious hepatitis, typhoid fever and dysentery can be transmitted by water, food, insects, pets, and toys contaminated by human waste. Properly designed, maintained and operated sewage disposal systems minimize the possibility of disease transmission and the potential for contamination of ground and surface waters.

These standards apply to commercial, industrial, multiple residential or other buildings and only address sewage as herein defined. Other solid, liquid or gaseous emissions or discharges are subject to a separate review and approval by the Department. For details relating to single-family residences, refer to "**Standards for Approval of Plans and Construction for Sewage Disposal Systems for Single-Family Residences".**

II. DEFINITIONS APPLICABLE TO THESE STANDARDS

AASHTO H-20 Loading. AASHTO is the American Association of State Highway and Transportation Officials. H-20 refers to the manufacture of sewage disposal system components and access covers capable of withstanding a 16,000 lb./sq. ft. live load, caused by traffic conditions. H-20 loading simulates the load due to a 20-ton truck.

Acre. Forty-Three Thousand Five Hundred Sixty (43,560) square feet.

Absorption Area. An area to which wastewater is distributed for infiltration to the soil.

Adjusted Gross Land Area. Gross land area of a parcel minus area of regulated freshwater or tidal wetlands and ponds or other underwater lands.

Alternative Sewage Disposal System. A subsurface sewage disposal system which contains design elements not explicitly described herein or components that are arranged differently than shown in the conventional layouts of these standards.

Apartment. A premises occupied by an individual or family which is leased or rented from a corporation, entity, or another individual. Apartments are considered multiple residential units.

ASTM. American Society for Testing and Materials.

AWWA. American Water Works Association.

Backfill. a) The operation of refilling an excavation, usually after some structure or pipe has been placed therein; b) the material placed in an excavation in the process of backfilling.

Cesspool. Any buried chamber, including, but not limited to any perforated metal tank, perforated concrete or block vault or hollow excavation, which receives direct discharges of wastewater from a building sewer for the purpose of collecting solids and discharging liquid to the surrounding soil.

Clean Sand. Soil classified in accordance with ASTM D-2487 (Unified Soil Classification System) as SW or SP.

Clean-out. A device brought to grade to facilitate cleaning of sewer lines.

Collection System. The network of sewer pipes, structures and devices installed for the purpose of collecting and transporting sewage to the sewage disposal, sewage treatment or sewer system.

Commercial Projects. Restaurants, office buildings, nursing homes, hospitals, assisted living facilities, warehouses, hotels, motels or any other type of project not considered a single-family residence.

Community Sewage Treatment System. A system utilized for the collection and disposal of sewage or other waste of a liquid nature, including the various devices for the treatment of such wastes, serving more than one parcel, whether owned by a municipal corporation, private utility, or otherwise. A community sewage treatment system requires acceptance by the Suffolk County Sewer Agency.

Conventional Septic System or Conventional Onsite Wastewater Treatment System (OWTS). An onsite sanitary system consisting of a septic tank and any associated interconnecting piping, a leaching structure(s) and any associated interconnecting piping that does not have any active or mechanical means of treatment or any supplemental filtration components.

Density Load. The quantity of sewage expected to be discharged from existing and/or proposed permanent structure(s) on a parcel, excluding kitchen/gray load, expressed in gallons per day per applicable unit and utilized to evaluate the need for sewage treatment when compared to the population density equivalent for the project.

Density Loading Rate. The flow factor established by Department standards to determine the density load of a parcel based on the use of the parcel.

Department. The Suffolk County Department of Health Services.

Design Professional. A person licensed or registered in the State of New York and authorized by the State Education Law to design the systems described in these standards.

Design Sewage Flow. The sum of the hydraulic load(s) from all uses of a building(s) on a parcel and utilized to determine the size of the sewage disposal system.

Distribution Manhole. A type of manhole used to distribute equal volumes of sewage to multiple leaching structures, or sewage system components.

Drop Manhole. A type of manhole used when the difference in elevation between the inflow and outflow sewer line exceeds two feet.

Grease Trap. A watertight chamber, which promotes the separation of fats and greases from sewage.

Gross Floor Area. The floor area of all levels, within the exterior walls of a building or enclosed structure. Unfinished and/or mechanical spaces within cellars and attics are not included in the gross floor area.

Groundwater. The subsurface water occupying the zone of saturation below the established water table.

Groundwater Management Zone. Any of the areas delineated in Suffolk County by the "Long Island Comprehensive Waste Treatment Management Plan (L.I. 208 Study)," as revised by the "Long Island Groundwater Management Plan," and subsequent revisions adopted by the Suffolk County Board of Health identifying differences in regional hydrogeology and groundwater quality conditions. The boundaries of the Groundwater Management Zones are set forth on a map adopted by the Board, filed in the Office of the Commissioner.

Groundwater Monitoring Well. A well introduced into a particular aquifer for the purpose of obtaining samples of the groundwater for chemical analysis.

Highest Recorded Groundwater. The highest recorded groundwater elevation based upon the historic data of both the Department of Health Services and the United States Geological Survey.

Hydraulic Load. The sum of the density load and kitchen/gray Load for a particular use of a building on a parcel expressed in terms of gallons per day per applicable unit.

Individual Sewerage System. Any onsite sanitary system consisting of a septic tank and/or I/A OWTS tank(s) with any associated interconnecting piping, a leaching structure(s) and any associated interconnecting piping. OWTS and I/A OWTS are classified as Individual Sewerage Systems.

Innovative and Alternative Onsite Wastewater Treatment System(s) (I/A OWTS). An onsite decentralized wastewater treatment system(s) that, at a minimum, is designed to reduce total nitrogen in treated effluent to 19 mg/l. An I/A OWTS can serve more than one parcel, but shall not be considered sewering, Community Sewerage Systems, or Modified Subsurface Sewage Disposal (denitrification) by the Department under the Suffolk County Sanitary Code.

Invert Elevation. The lowest elevation of the inside of a sewer line, water line, or other piping.

Kitchen/gray Load. The volume of sewage discharged from food preparation and service areas, or other gray water uses from other construction projects (excluding residential uses such as, but not limited to, condominiums, two family residences, multi-family housing) expressed in terms of gallons per day per applicable unit, which has been omitted from the density load.

Leaching Area. The effective sidewall and/or bottom absorption area in a leaching structure, absorption trench, pool, galley. For leaching pools and galleys, it shall be sidewall area only.

Leaching Pool or Galley. A covered pit constructed with a perforated, reinforced concrete wall through which septic tank and/or I/A OWTS effluent infiltrate the surrounding soil.

Liquid Depth. The depth measured from the bottom of a septic tank or grease trap to the outlet invert elevation.

Maintenance Provider. A private entity hired by a property owner to provide operation and maintenance and contractual service for an I/A OWTS.

Manhole. A watertight chamber used for smooth redirection of sewage flow and/or to provide access to sewer lines.

Modified Subsurface Sewage Disposal System. An onsite sewage treatment system or treatment works which includes processes capable of meeting applicable discharge standards of total nitrogen in treated effluent of 10mg/l or less and where the designed sewage treatment capacity of the system shall not exceed 15,000 gallons per day.

Multiple Residential Projects. All residential construction other than detached single-family housing units each on its own separate lot. Examples include two-family houses, apartment complexes, town homes, condominiums, co-ops, mobile home parks, or other similar arrangements.

Municipal Sewage Treatment System. A system utilized for the collection and disposal of sewage, or other waste of a liquid nature, including the various devices for the treatment (treatment works) of such wastes, serving a municipal sewer district.

NEC. National Electrical Code published by the National Fire Protection Association.

NEMA. The National Electrical Manufacturers Association.

NYSDEC. The New York State Department of Environmental Conservation.

Occupancy Rating. The maximum number of persons permitted to occupy an establishment as determined by the appropriate agency.

On - Site Sewage Treatment System. A treatment system (treatment works) located on the same parcel as the building(s) it serves which includes processes capable of meeting applicable discharge standards.

Operation and Maintenance (O&M). The act of performing tasks specified by the Department and/or the manufacturer of an I/A OWTS, sewage treatment plants, and modified subsurface sewage disposal systems including, but not limited to, cleaning, inspection, and adjustment of control settings to ensure proper operation of the system and related components.

Operation and Maintenance Contract. A signed contract between the property owner and the maintenance provider setting forth all required Operation and Maintenance procedures and monitoring schedules along with effective dates of the contract.

OWTS Replacement. The abandonment and/or removal of an existing individual sewerage system or cesspool and installation of a new individual sewerage system.

OWTS Retrofit. The modification or alteration of an existing cesspool or individual sewerage system. Such modification or alteration shall include, but not be limited to: the replacement or addition of a septic tank, grease trap, components of an I/A OWTS, lift station, pump station, distribution box or manhole to an existing Sewage disposal system; replacement or addition of new leaching structures to an existing sewage disposal system; or replacement, addition, or re-configuration of sewage disposal system piping, control panel, pumps or other appurtenances.

Perched Groundwater. Groundwater, which is separated from the main body of groundwater by an aquiclude (e.g. a clay lens).

Planned Retirement Community (PRC). A multiple residential project in which each unit is required by law or regulation to be occupied by at least one resident per unit who is 55 years of age or older.

Population Density Equivalent. The maximum density load permitted to be discharged from a parcel utilizing an individual sewerage system in the absence of a community sewerage system, a sewage treatment system or a modified subsurface sewage disposal system, based on the calculated population per unit area expressed in gallons per day.

Property Owner. The holder of the legal and/or equitable title to real property.

PVC pipe. A type of flexible thermoplastic pipe, manufactured from ethylene and chlorine, which may be used for sewer lines.

Registration. The approval process by which a property owner completes and submits routine documentation required by the Department to certify his/her/its ownership and use of an I/A OWTS.

Responsible Management Entity. The Department, which shall administer and conduct a comprehensive set of activities and have the legal authority and technical capacity to ensure the long term operation, maintenance, and management of all I/A OWTS.

Rooming House. A building arranged or used for lodging for compensation, where group-sleeping accommodations are provided in one room, or a series of rooms, and shared bathroom and kitchen areas may be provided.

SCDPW. The Suffolk County Department of Public Works

Standard Dimension Ratio (SDR). The ratio of the outside pipe diameter to the pipe wall thickness.

Septic Tank. A watertight chamber used for the settling, stabilizing and anaerobic decomposition of sewage.

SEQRA. State Environmental Quality Review Act. A process that requires the consideration of environmental factors in the planning stages of a proposed action(s).

Sewage. Water-carried human or animal wastes from residences, institutions, businesses, commercial buildings and establishments, and industrial buildings and establishments or a combination thereof, together with kitchen/gray load. Industrial wastes or other wastes shall not be considered sewage for

purposes of this Standard unless otherwise stated. "industrial wastes" and "other wastes" have the meanings as defined in Environmental Conservation Law sections 17-0105(5) and (6).

Sewage Disposal System. Any plumbing or conveyances, which result in or are capable of resulting in a discharge of sewage. This includes, but is not limited to, building sewers, septic tanks, I/A OWTS leaching structures, sumps, tile fields, holding tanks, treatment works, outfalls, and connecting piping. The term may also refer to a part of a larger disposal system.

Sewage Pump. Any type of device designed for the purpose of pumping sewage or other liquid wastes. Some examples of sewage pumps include the following:

1. ***Grinder Pump.*** A type of submersible sewage pump used to cut, shred, or reduce in size, solids found in raw sewage.

2. ***Positive Displacement Pump.*** A type of pump capable of pumping raw sewage or liquids at a constant rate while utilizing various pressure heads.

3. ***Submersible Sewage Pump.*** A type of pump designed to operate while submerged in sewage.

4. ***Vacuum Pump.*** A type of pump capable of pumping air or a mixture of air and liquid.

Sewage Pump Station. A structure that contains pumps, piping, and other equipment used for the purpose of receiving, temporarily storing, and pumping sewage.

Sewage Recharge Bed. A designated area exposed to the atmosphere where treated wastewater is distributed for the purpose of infiltrating the surrounding soil.

Sewage Treatment Plant (STP). A sewage treatment system which includes processes capable of meeting applicable discharge standards of total nitrogen in treated effluent of 10mg/l or less and where the design sewage flow exceeds 15,000 gpd. I/A OWTS are not Sewage Treatment Plants.

Sewage Treatment System. A sewage disposal system consisting of a sewage collection system and treatment works.

Sewer Line. A pipe designed to convey sewage. Examples include the following:

1. ***House Connection.*** The gravity sewer line which extends from the face of the building to the sewage disposal or sewer system.

2. ***Lateral or Branch Sewer Line.*** The gravity sewer line used to collect sewage from one or more building sewers or house connections.

3. ***Main Sewer Line.*** The gravity sewer line used to collect sewage from one or more lateral or branch sewer lines.

4. ***Sewage Force Main.*** A sewer line designed to receive the sewage discharged from a pumping station and convey it under pressure to the point of discharge.

Sewer System. (Also referred to as sewage collection system, public sanitary sewer, municipal sewage disposal system, privately owned communal sewerage system, and communal sewage disposal system) Pipelines, conduits, pumping stations, and force mains, and all other constructions, devices, and appliances appurtenant thereto, used for conveying sewage to a point of ultimate disposal.

SPDES (State Pollutant Discharge Elimination System) Permit. A permit, issued by the NYSDEC, authorizing discharges of 1,000 gallons per day or greater to the ground or surface waters of New York State.

Stormwater Recharge Basin. A designated area exposed to the atmosphere where stormwater is collected and distributed for the purpose of infiltrating the surrounding soil.

Subsurface Sewage Disposal System. A sewage disposal system designed to treat and dispose of septic tank, I/A OWTS or other treatment facility effluent, in the absence of a community sewerage system, sewage treatment system or modified subsurface sewage disposal system, by application of the effluent to a soil surface at a depth below the surface of the ground.

Suffolk County Sewer Agency (Sewer Agency). The agency responsible for directing the means and method of sewage disposal for projects involving multiple ownership where the Suffolk County Health Department or other municipal entity has determined that sewage treatment is required.

Thrust Block or Restraint. A device used to resist thrust forces due to changes in alignment or direction of force mains.

Treatment Works. A facility designed for the purposes of removing certain components from sewage by mechanical, chemical or biological means, and stabilizing and disposing of sewage. The facility shall meet New York State Department of Environmental Conservation discharge requirements. I/A OWTS are not treatment works.

USGS. United States Geological Survey. (Also, the NYS Building Code refers to the USC&GS - United States Coast and Geodetic Survey.)

Valve Chamber. A separate concrete box or chamber used to contain and access valves for the purpose of flow control or to isolate pumping units without having to enter the pump station.

Wet Well. The portion of a sewage pump station that receives and temporarily stores sewage.

III. PROHIBITION OF INSTALLATION/USE OF SEWAGE DISPOSAL SYSTEMS

1. The installation of a sewage disposal system(s) is prohibited by the Suffolk County Sanitary Code unless a permit to construct has been issued by the Commissioner.

2. The installation of an I/A OWTS is prohibited unless a permit to construct the I/A OWTS has been issued by the Department.

3. The construction of a new building or an addition to an existing building is prohibited unless the proposed sewage disposal system(s) serving such building has been approved by

the Department and/or the existing sewage disposal system(s) have been approved by the Department for the additional use.

4. The construction of a building or building addition without plumbing or additional sewage disposal facilities is prohibited unless sewage disposal system(s) serving such facilities have been certified to the Department by a licensed design professional as capable of accepting sewage flows generated by the use of such new facilities and such facilities conform to the density load requirements of the Department.

5. A change in use or renovation to an existing building that may affect the density load or design sewage flow is prohibited unless the proposed sewage disposal system(s) serving such building has been approved by the Department and/or the existing sewage disposal systems have been approved by the Department for the additional use.

6. The occupancy of a building(s) and/or the use of a sewage disposal system(s) is prohibited without (final) approval of constructed works by the Department.

7. The installation of individual subsurface sewerage system(s) or alternative sewage disposal system(s) is prohibited when the site to be developed is within the boundaries of a municipal sewer district or is served by an on-site/community sewage treatment system.

IV. PLANS / PERMIT TO CONSTRUCT / APPROVALS REQUIRED

1. Plans / Permits Required to Construct

   a) Written Approval of Plans Required Prior to Construction

   Written approval of plans is required before start of construction of new subsurface sewage disposal systems and components. Approval of Plans is also required prior to the start of construction of all new buildings, building additions with or without internal plumbing, or changes in use or renovations of existing buildings that may affect sewage flows or density load. Plans shall be prepared by a Design Professional and shall conform to these standards and guidelines issued by the Department. These plans once signed and approved by an authorized representative of the Department, in conjunction with form WWM-016, become a permit to construct a sewage disposal system. Refer to **Application Requirements For Sewage Disposal Facilities & Water Supply Systems For Other Than Single Family Residences - Form WWM-003**. The approved site plan must be at the site and available during construction of the sanitary system.

   Written approval of plans is required before start of construction of all new I/A OWTS and components for proposed and existing buildings or modifications to existing I/A OWTS and components. Plans shall be prepared by a Design Professional and shall conform to these standards and guidelines issued by the Department. These plans once signed and approved by an authorized representative of the Department, in conjunction with form WWM-016, become a permit to construct a sewage disposal system. Refer to **Application Requirements For Sewage Disposal Facilities &**

Water Supply Systems For Other Than Single Family Residences - Form WWM-003.

Written approval of plans is also required prior to construction of sewage collection facilities, Modified Subsurface Sewage Disposal Systems, On-site sewage treatment systems, or Community Sewage Systems. Refer to **Application Requirements For Sewage Disposal Facilities & Water Supply Systems For Other Than Single Family Residences – Form WWM-003,** as well as **Appendix A** and **Appendix B** of these standards. In addition, separate residential applications must be submitted to and approved by the Department for projects involving condominiums or other attached residences prior to construction.

b) Responsibility of Design Professional

The design professional retained to design the sewage disposal system, I/A OWTS, sewer system, or treatment works shall be responsible for all aspects of the system design. That responsibility includes gathering all design information as necessary, making the site evaluation, and creating the design. These standards shall not be construed as providing sufficiently detailed guidance as to relieve the design professional from undertaking whatever additional steps or measures that may be necessary to achieve an appropriate design.

2. Permits / Approvals from other Agencies Required

a) Permits from other agencies

Permits from other agencies, where such permits may affect placement of the sewage disposal systems, shall be submitted to the Department prior to the Department's issuance of a permit to construct. Such permits include but are not limited to wetlands or natural resources permits from the New York State Department of Environmental Conservation, the Army Corps of Engineers, and/or the appropriate local regulatory authority (e.g. delegated agents for NYSECL Articles 15, 24, 25; Wild, Scenic & Recreational Rivers; Town natural resources permits, etc.).

b) A SPDES permit issued by the New York State Department of Environmental Conservation or its agent is required for all discharges to groundwater where the discharge to an outfall(s) is 1,000 gallons per day or greater.

c) Sewer district approval is required from Suffolk County Department of Public Works for county sewer districts or the appropriate agency for other sewer districts.

V. INSPECTION / CERTIFICATION OF CONSTRUCTED WORKS REQUIRED

1. Inspection by the Department Required

Sewage disposal systems, I/A OWTS, sewer systems, or treatment works constructed in Suffolk County shall conform to standards herein approved by the Commissioner of the Suffolk County Department of Health Services and plans approved by the Department.

Prior to backfilling, installed subsurface sewage disposal system components and piping shall be inspected and authorized for backfilling by a representative of the Department. The Department shall be notified in accordance with the permit conditions, provided with the approved plans, to schedule an inspection of the subsurface sewage disposal system components and piping. Backfilling prior to Department inspection is prohibited and may result in an order by the Commissioner to remove all backfill for inspection. The property lines shall be "staked" in order to ascertain that the system is located on the property in accordance with these standards. All mechanical and electrical components associated with the sanitary system must be inspected by the Department to verify that they are in working condition. Refer to **Instructions for Obtaining Final Health Approval of Constructed Projects for Other than Single-Family Residences – Form WWM-019** for additional inspection requirements for sewer systems and treatment works.

2. Excavation Inspection Required

In the case of unacceptable soil and/or groundwater conditions, inspection of the excavation by a representative of the Department is required prior to the installation of the leaching structures including leaching pools, leaching galleys, absorption trenches or other leaching structures/systems.

3. Separate Certification of Construction May Be Required

In certain instances, the Department may also require a separate certification of construction by a Design Professional for various aspects of the project as noted in the Permit Conditions issued at the time of approval.

VI. FINAL APPROVAL OF CONSTRUCTED WORKS REQUIRED

1. Final Approval of Constructed Works Required

Final approval of constructed works is necessary to operate or discharge into constructed sewage disposal systems, I/A OWTS, sewer systems, or treatment works. In addition, occupancy of a building(s) is prohibited without the issuance of final approval by the Department.

2. As-Built Plans Required

Final approval of constructed works will be granted to the applicant on as-built plans, which are to be submitted after the final satisfactory field inspection is completed. Plans are to be signed and sealed by a licensed professional engineer or architect except a licensed surveyor may sign for conventional subsurface sewage disposal systems only. Refer to **Instructions for Obtaining Final Health Approval of Constructed Projects for Other than Single-Family Residences – Form WWM-019** for the as-built plan requirements.

3. Other Requirements

For further information, refer to **Instructions for Obtaining Final Health Department Approval of Constructed Projects for Other Than Single-Family Residences – Form WWM-019** and **Appendix C** of these standards.

VII. DETERMINING POPULATION DENSITY EQUIVALENT

A population density equivalent estimate must be made in order to determine the type of sewage disposal system required for a project, and to determine if a project meets the density requirements of Article 6 of the Suffolk County Sanitary Code. There are two alternative acceptable methods for determining population density equivalent, a **Calculation Method**, or a **Yield Map Method.**

1. Calculation Method

a) Commercial Projects

Population density equivalent is calculated by multiplying the adjusted gross lot area in acres (43,560 sq.ft./acre) by 600 gallons per day/acre (300 gallons per day per acre in Groundwater Management Zones III, V, or VI, or where a community water supply is not being provided). Adjusted gross lot area is obtained by subtracting the area of regulated freshwater wetlands, tidal wetlands, ponds, or other underwater lands from the land area as delineated and shown on official surveys and site plans.

b) Multiple Residential Projects

The population Density Equivalent is calculated as seventy-five percent (75%) of adjusted gross land area in square feet (sq. ft.), multiplied by 600 gallons / day / 40,000 sq. ft. of land area (300 gallons / day / 40,000 sq. ft. of land area in Groundwater Management Zones III, V, or VI, or when a community water supply is not being provided). The resultant value is the population density equivalent expressed as gallons / day.

Adjusted gross lot area is obtained by subtracting the area of regulated freshwater wetlands, tidal wetlands, ponds, or other underwater lands from the land area as delineated and shown on official surveys and site plans.

2. Yield Map Method

The Yield Map Method may be used as an alternative method for calculating population density equivalent. A map illustrating the location of building lots together with roads, recharge basins, and other appurtenances as would normally be necessary to develop single-family lots on the site, shall be submitted for a lot yield determination by the Department. All lot areas and dimensions must be shown together with recharge basin calculations. Lot configurations should conform to local Town/Village zoning requirements for similar sized lots, and minimum zoning requirements should be specified on the maps. Yield maps shall be signed and sealed by the licensed design professional.

Regulated freshwater wetlands, tidal wetlands, ponds, or other underwater lands may be shown as part of the lots on a yield map. However, an applicant must demonstrate that all lots shown on the yield map will conform to the requirements of the Department with respect to the location of individual sanitary systems and water supply on these delineated lot areas or by the appropriate agencies having jurisdiction.

All lots shown on a yield map must be at least 20,000 sq.ft. in area (40,000 sq.ft. in Groundwater Management Zones III, V, or VI, or where a community water supply is not being provided).

The population density equivalent, in gallons / day, is obtained by multiplying the number of building lots by 300 gallons / lot / day.

VIII. DETERMINING DENSITY LOAD

Density Load is the sum of all density loads generated on a site. Density Load is derived from occupancy ratings and/or from density loading rates shown in Table 1 below. For mixed type buildings such as office/warehouse an appropriate density-loading rate should be used to calculate the proportionate density load for each building use as applicable. The (total) Density Load is the sum of the proportionate density loads for all existing and proposed uses on the site. The density load does not include the kitchen/gray load from the site.

IX. DETERMINING DESIGN SEWAGE FLOW

The Design Sewage Flow for a project is derived from the hydraulic load rates shown in Table 1 below. For a mixed type building(s) such as office/warehouse, the design sewage flow rate should be calculated as the sum of all hydraulic loads for each individual use within the building(s). The Design Sewage Flow may be apportioned appropriately if more than one sewage disposal system is being proposed or modified.

TABLE 1 - PROJECT DENSITY LOADING RATES & DESIGN SEWAGE FLOW RATES

(Based upon gross floor area in square feet (sf) unless otherwise noted)

Structure Use	Density Load	Kitchen/Gray Load	Hydraulic Load
FOOD SERVICE			
Bar (in restaurant)	10 gpd/seat	5 gpd/seat	15 gpd/seat
Bar, Tavern, Disco (no fixed seating)	10 gpd/occupant[1]	5 gpd/occupant[1]	15 gpd/occupant[1]
Bar (outdoor/seasonal)	5 gpd/seat	2.5 gpd/seat	7.5 gpd/seat
Cafeteria (open to public)	See Primary use + 5 gpd/seat	2.5 gpd/seat	Primary use + 7.5 gpd/seat
Cafeteria/Continental Breakfast (not open to public)	See Primary Use	2.5 gpd/seat	Primary use + 2.5 gpd/seat
Snack Bar	See Primary Use	0.12 gpd/sf	Primary use + 0.12 gpd/sf
Juice Bar	See Primary Use	2.5 gpd/seat	Primary use + 2.5 gpd/seat
Catering Hall	5 gpd/seat	2.5 gpd/seat	7.5 gpd/seat
Outside Patio Dining	5 gpd/seat	10 gpd/seat	15 gpd/seat
Restaurant (full service or single services > 16 seats[2])	10 gpd/seat	20 gpd/seat	30 gpd/seat
Wet store w/ food (Deli/take-out with max 16 seats single service[2])	0.03 gpd/sf	0.12 gpd/sf	0.15 gpd/sf
Convenience store/Market/Farm Stand	0.03 gpd/sf	0.02 gpd/sf	0.05 gpd/sf
Commercial Bakery	0.04 gpd/sf	0.02 gpd/sf	0.06 gpd/sf
Wine/Beer Tasting (in a winery/brewery only)[10]	5 gpd/occ	2.5 gpd/occ	7.5 gpd/occ
GENERAL INDUSTRIAL			
General Industrial[3]	0.04 gpd/sf	Industrial process water[4]	0.04 gpd/sf
Greenhouse	0.03 gpd/sf	N/A	0.03 gpd/sf
MEDICAL			
Drug Rehabilitation	75 gpd/bed	See note [5]	75 gpd/bed
Mental Health Residence	75 gpd/bed	See note [5]	75 gpd/bed
Hospital	300 gpd/bed	See note [5]	300 gpd/bed
Nursing Home	150 gpd/bed	See note [5]	150 gpd/bed
Assisted Living	110 gpd/bed	See note [5]	110 gpd/bed
Medical office space	0.10 gpd/sf	N/A	0.10 gpd/sf
Dialysis Center	0.10 gpd/sf	Dialysis process water[4]	0.10 gpd/sf
Veterinary[6]	0.10 gpd/sf + 10 gpd/animal boarding	N/A	0.10 gpd/sf + 10 gpd/animal boarding

Structure Use	Density Load	Kitchen/Gray Load	Hydraulic Load
MUNICIPAL SERVICES			
Library, firehouse, precinct, museum, art gallery (w/ meeting rooms)	0.03 gpd/sf + 5 gpd/occupant[1] for meeting rooms	2.5 gpd/occupant[1]	0.03 gpd/sf + 5 gpd/occupant[1] + 2.5 gpd/occupant[1]
Library, firehouse, precinct, museum, art gallery (w/o meeting rooms)	0.03 gpd/sf	2.5 gpd/occupant[1]	0.03 gpd/sf + 2.5 gpd/occupant[1]
OFFICE			
Non-medical office space	0.06 gpd/sf		0.06 gpd/sf
RECREATION			
Bath house/comfort station	5 gpd/occupant[1]	5 gpd/shower/occupant[1] + Food service[7]	5 gpd/occupant[1] + 5 gpd/shower/occupant + Food service[7]
Bowling alley/tennis court/racquetball	100 gpd/court or alley	Food service[7]	100 gpd/court or alley+ Food service[7]
Miniature golf	15 gpd/parking space	Food service[7]	15 gpd/parking space + Food service[7]
Ice/roller Skating Rink	15 gpd/skater[1] + 5 gpd/spectator[1]	Food service[7]	15 gpd/skater[1] + 5 gpd/spectator[1] + Food service[7]
Recreation	15 gpd/parking space	Food service[7]	15 gpd/parking space + Food service[7]
Spa/Fitness Center/ Karate/Dance/etc. (w/ showers & amenities)	0.1 gpd/sf	0.2 gpd/sf + Food service[7]	0.3 gpd/sf + Food service[7]
Spa/Fitness Center/ Karate/Dance/etc. (w/o showers & amenities)	0.1 gpd/sf	Food service[7]	0.1 gpd/sf + Food service[7]
Marina	10 gpd/boat slip	Food service[7]	10 gpd/boat slip + Food service[7]
OTB	5 gpd/person	Food service[7]	5 gpd/person + Food service[7]
Theater	3 gpd/seat	Food service[7]	3 gpd/seat + Food service[7]
Horse Farm[6]	0.04 gpd/sf + 10 gpd/stall		0.04 gpd/sf + 10 gpd/stall
Camp Ground	10 gpd/camper	5 gpd/shower/camper	10 gpd/camper + 5 gpd/shower/camper
Billiard Hall	5 gpd/occ	2.5 gpd/occ	7.5 gpd/occ
RESIDENTIAL			
Single Family Residence	300 gpd		300 gpd
Two Family Residence	600 gpd		600 gpd

Structure Use	Density Load	Kitchen/Gray Load	Hydraulic Load
Rooming house	75 gpd/bed		75 gpd/bed
Motel/Hotel unit up to 400 sq.ft. gross floor area w/o kitchenette (w/kitchenette see Housing Unit)	100 gpd/unit		100 gpd/unit
Motel/Hotel unit > 400 sq.ft. gross floor area w/o kitchenette (w/kitchenette see Housing Unit)	150 gpd/unit		150 gpd/unit
Housing Unit[8] up to 450 sq.ft. gross floor area (1-bedroom maximum/unit)	110 gpd/unit		110 gpd/unit
Housing Unit[8] between 451-600 sq.ft. gross floor area	150 gpd/unit		150 gpd/unit
Housing Unit[8] between 601-1200 sq.ft. gross floor area	225 gpd/unit		225 gpd/unit
Housing Unit[8] > 1200 sq.ft. gross floor area	300 gpd/unit		300 gpd/unit
PRC unit up to 600 sq.ft. gross floor area	100 gpd/unit		100 gpd/unit
PRC unit between 601-1600 sq.ft. gross floor area	150 gpd/unit		150 gpd/unit
PRC unit between 1601-2000 sq.ft. gross floor area	225 gpd/unit		225 gpd/unit
PRC unit > 2001 sq.ft. gross floor area	300 gpd/unit		300 gpd/unit
RETAIL			
Dry store	0.03 gpd/sf		0.03 gpd/sf
Wet store w/o Food (Hair salon, nail salon, pet shop w/o animal boarding, etc.)	0.03 gpd/sf	0.07 gpd/sf	0.1 gpd/sf
Car Dealership	0.03 gpd/sf for showroom/offices + 0.04 gpd/sf for maintenance/storage areas		0.03 gpd/sf for showroom/offices + 0.04 gpd/sf for maintenance/storage areas
Massage/Tanning	0.03 gpd/sf		0.03 gpd/sf
Tattoo Parlor	0.03 gpd/sf		0.03 gpd/sf
SCHOOL			
Boarding school/ Dormitory	75 gpd/capita[1]	2.5 gpd/capita[1]	77.5 gpd/capita[1]
Day School	5 gpd/capita[1]	2.5 gpd/capita[1]	7.5 gpd/capita[1]

Structure Use	Density Load	Kitchen/Gray Load	Hydraulic Load
MISCELLANEOUS			
Car Wash	0.04 gpd/sf	Car wash process water[4]	0.04 gpd/sf
Laundromat	0.03 gpd/sf	Laundromat process water[4]	0.03 gpd/sf
Funeral Home	0.05 gpd/sf	Funeral Home process water[4]	0.05 gpd/sf
House of Worship (w/ meeting rooms)	1.5 gpd/seat + 5 gpd/occupant[1] for meeting rooms	2.5 gpd/occupant[1]	1.5 gpd/seat + 5 gpd/occupant[1] + 2.5 gpd/occupant[1]
House of Worship (w/o meeting rooms)	1.5 gpd/seat	2.5 gpd/occupant[1]	1.5 gpd/seat + 2.5 gpd/occupant[1]
Public Storage[9]	0.04 gpd/sf		0.04 gpd/sf
Animal boarding[6]	0.03 gpd/sf + 10 gpd/animal		0.03 gpd/sf + 10 gpd/animal
Winery/Brewery[10]	0.04 gpd/sf	Winery/Brewery process water[4]	0.04 gpd/sf

1 Occupancy ratings can be determined using New York State Uniform Fire Prevention and Building Code as a guide.

2 Single Service means disposable plates, silverware & cups. Takeout seating is for waiting patrons and is not convertible to full seating or for density credit at full service restaurants.

3 General industrial buildings may contain up to 15% related office space without applying a proportionate office density loading or flow rating to the space. If office space exceeds 15% of gross floor area, then a proportionate office density loading or flow rating must be applied to the entire office space.

4 Process waters require a separate permit and disposal facilities – Consult Department.

5 A grease trap shall be provided for this installation, which is sized at 20 gpd/bed.

6 A separate sewage disposal system shall be provided for wastewater generated from animal boarding, horse stalls, or kennel areas.

7 Food (kitchen) flow is added according to the type of food service in the establishment.

8 Motel/Hotel with Kitchenettes, Cottages, Apartments, Condominiums, Mobile Homes, Trailers, or Co-Ops.

9 Public storage density and/or design flow may be reduced if restrictive covenants are recorded on the parcel.

10 Winery/Brewery with 15% or less of the floor area used for tasting shall use the Winery/Brewery Tasting rates. Winery/Brewery with greater than 15% of the floor area used for tasting shall use the Bar rates.

Note: **The above table is subject to amendment from time to time as data becomes available to the Department. The table will be republished as an addendum to these standards if and when revised.**

X. DETERMINING TYPE AND REQUIREMENTS FOR SEWAGE DISPOSAL SYSTEM

1. Conventional Subsurface Sewage Disposal System or I/A OWTS

If the Density Load for a project, as calculated in Section VIII, is less than or equivalent to the Population Density Equivalent, calculated in Section VII, then a Conventional Subsurface Sewage Disposal System or I/A OWTS may be acceptable to serve the project, provided all other applicable requirements of these standards can be met. Where the total design flow for a parcel is greater than 30,000 gpd, the disposal system must be separated into individual outfalls not to exceed 30,000 gpd per outfall.

A parcel that is separately assessed, as shown on the 1981 tax maps, shall be allowed a minimum Design Sewage Flow (density load + kitchen/gray load) of 300 gpd regardless of lot area utilizing a subsurface system provided all other applicable requirements of these standards can be met. This exemption is based upon total lot area of the project and shall not be additive if a project seeks to combine several undersized lots.

2. Sewage Treatment Systems

a) Categories of Sewage Treatment Systems

If the Density Load for a project exceeds the Population Density Equivalent, then the installation of a sewage treatment system will be required. Sewage treatment systems are broken down into the following categories:

i. On-Site Sewage Treatment System

If the project consists of a single lot, an On-Site Sewage Treatment System, as applicable, will be required to serve the project.

An On-Site Sewage Treatment System includes a sewage treatment facility located on the same parcel as the building(s) it serves, which includes processes capable of meeting applicable discharge standards. These systems must serve all the buildings and facilities located on the site. This type of system may be approved for projects constructed on a single parcel, which is not part of a realty subdivision or development that is proposed or has already been approved by the Department. A community water supply system must be provided to serve these projects.

ii. Community Sewage Treatment System

If the project consists of Condominiums, Town Homes, Homeowner's Association, or will serve two or more separate tax parcels; then a Community Sewage Treatment System, as applicable, will be required to serve the entire project.

Community sewage treatment systems include a sewage collection system, treatment works and sewage disposal facilities. The community sewage treatment

facility must be capable of producing an effluent meeting applicable discharge standards. In addition, projects served with these types of systems require acceptance by the Suffolk County Sewer Agency (SCSA), and must be reviewed and approved by the Suffolk County Department of Public Works. Design of these systems is covered in the GLUMRB - Recommended Standards for Wastewater Facilities - 2014 Edition, or the latest revision. Additional standards for construction of these facilities can be obtained from the Suffolk County Department of Public Works.

iii. Municipal Sewage Treatment System.

If the project is located within the boundaries of a county, town, or village sewer district, then the project must be served by the appropriate Municipal Sewage Treatment System.

b) Types of Treatment Works

On-Site, Community and Municipal Sewage Treatment Systems shall contain treatment works of a type and design acceptable to the Department as well as to the NYSDEC and SCSA, when applicable. These can be classified into two types depending upon the design sewage flow:

i. Modified Subsurface Sewage Disposal Systems

A modified subsurface sewage disposal system may be permitted when the Design Sewage Flow (density load + kitchen/gray load) generated from the project is less than or equal to 15,000 gallons/day. These systems must be capable of producing an effluent meeting applicable discharge standards. However, when the project Design Sewage Flow exceeds 1,000 gallon/day, the NYSDEC may also review the proposed system design and issue a SPDES permit for the facility prior to the Department issuing a permit to construct. Applicable guidelines and/or standards covering these systems can be found in **Appendix A**.

ii. Sewage Treatment Plant (STP) or Treatment Works

A Sewage Treatment Plant or Treatment Works may be permitted when the Design Sewage Flow (density load + kitchen/gray load) generated from the project is greater than 15,000 gallons/day. These systems must be capable of producing an effluent meeting applicable discharge standards. Applicable design standards can be found in the GLUMRB - Recommended Standards for Wastewater Facilities - 2014 Edition, or the latest revision, and **Appendix B**.

XI. LOCATION / SITING OF SEWAGE DISPOSAL SYSTEMS

1. Priority Siting for Sewage Disposal Systems

   Because the failure of sewage disposal systems has the potential for significant public health impact, first priority during planning shall be given to the location of sewage disposal systems over the location of other improvements on the property.

   The design professional is responsible to consider the significance of the existing and proposed topography, soils, location of existing and proposed private and public water supply wells, surface waters, wetlands, and groundwater conditions. The design must take into consideration the planned locations of other improvements such as building locations, underground utilities, storm drainage structures, and construction on adjacent properties, property lines, and other limitations of a physical or legal nature.

2. Written approval of plans is required by the Department before the start of construction of all new I/A OWTS for proposed and existing buildings or modifications to existing I/A OWTS and components.

   a) Applicants applying for an OWTS Retrofit or OWTS Replacement of an existing sewage disposal system with an approved I/A OWTS shall meet the requirements of these Standards to the greatest extent possible. The Department may permit reduced sewage disposal system setbacks per **Table 2** or reduced minimum system capacity without the need for a variance or waiver in accordance with the Suffolk County Sanitary Code on a case-by-case basis provided the site complies with the density requirements as stated in Article 6 of the Suffolk County Sanitary Code. If necessary, certain requirements under these Standards may be relaxed at the discretion of the Department provided the following:

      i. Applications submitted to the Department shall be for sole objective to perform an OWTS Replacement or OWTS Retrofit where the permanent structure is existing, there is no increase in hydraulic load from the structure based on existing Department approvals, no increase in the gross floor area or change in the footprint of the structure based on existing Department approvals, and the new system will be an improvement in wastewater treatment for the site.
      ii. An application for OWTS Replacement or OWTS Retrofit shall not propose any change of use, building renovation or any increased flow to the OWTS.
      iii. The protection of public health and the environment is given priority over all other considerations.
      iv. The proposed system does not reduce the setbacks to neighboring private wells as compared to the current system being replaced or retrofitted.
      v. The Design Professional certifies that the OWTS Replacement or OWTS Retrofit application meets the Standards to the greatest extent possible and that other alternatives are not feasible.
      vi. The Design Professional certifies that the OWTS Replacement or OWTS Retrofit application represents an improvement to existing conditions.
      vii. For some applications, the Department may require a covenant to be filed against the property indicating the sewage disposal system does not comply

with Department standards for OWTS Replacements or OWTS Retrofits.

3. Site Conditions Prohibited

Sewage Disposal Systems shall not be located:

a) In any area subject to imminent erosion, which cannot be controlled so as to protect the sewage disposal system(s);

b) In areas where the highest recorded groundwater level is less than one foot below the original ground surface;

c) In areas with existing slopes greater than 15%, unless the site can be properly graded in accordance with these standards. Refer to Section XXII - Final Grading and Backfilling;

d) In areas where the existing sub-soils contain meadow mat, bog, silts, clays, or other impervious material extending below the groundwater table;

e) In areas where the groundwater conditions are not conducive to the proper functioning of subsurface sewage disposal systems;

f) Where topography concentrates runoff onto or into the area where the system is proposed;

g) In any area or under any part of a building, or other improvements that does or may prevent reasonable access for repair or maintenance of the system.

h) In any area which may reasonably be expected to create a public health risk.

4. Site Condition Requirements

Sewage Disposal Systems shall be located:

a) On land owned in fee by the applicant (except for Community or Municipal Sewage Treatment Systems);

b) On the same parcel as the building(s) to be serviced (except for Community or Municipal Sewage Treatment Systems);

c) In an area which is easily accessible for purposes of maintenance and/ or replacement of sewage disposal and treatment system components;

d) In accordance with the minimum separation distances presented in Table 2 of these standards;

e) In accordance with the minimum separation distances and other conditions listed in **Appendix A** and **Appendix B** as applicable.

5. Expansion Area Requirements

   a) Conventional or I/A OWTS Subsurface Sewage Disposal Systems

      A land area shall be set aside and shown on the plans adequate to allow for a minimum of fifty percent (50%) expansion and/or replacement of the leaching system. The area provided for expansion shall be contiguous to the location of the planned system. Deepening the basic system is not permitted in lieu of this expansion area.

   b) On-site or Community Sewage Treatment Systems

      An adequate area shall be set aside to allow for a minimum of one-hundred percent (100%) expansion and/or replacement of sewage treatment and disposal systems. The area provided for expansion shall be contiguous to the planned location of the treatment and disposal facilities. Deepening the leaching system is not permitted in lieu of this expansion area. Refer to **Appendix A or B,** of these standards, for additional information.

6. Other Site Specific Considerations

   To protect the public water supply and the benefits that freshwater wetlands, tidal wetlands, streams, and other surface waters provide, all projects may be subject to a separate site review by the Department. The following criteria apply to these sites:

   a) Sewage disposal systems shall be located to maximize distances to public water supply wells. If the Department determines that insufficient distance exists to protect the well, further treatment may be required.

   b) Sewage disposal systems shall be located to maximize distances to regulate freshwater wetlands, tidal wetlands, ponds, streams, and other surface waters. See **Table 2** of these standards for specific separation distance requirements.

   c) Boundaries of wetlands, surface waters and flood zones shall be shown accurately on surveys and site plans. Wetlands are not regulated directly by the Department, only through standards and regulations of the NYSDEC, NYSDOH, and various other government agencies.

TABLE 2 - MINIMUM HORIZONTAL SEPARATION DISTANCES

Table of Minimum Horizontal Separation Distances From:	Septic Tank, I/A OWTS, Pump Station, Grease Trap, or Manhole	Leaching Structure [3]	Sewer Line, Force Main
Building with Cellar	10 ft.	10 ft.	5 ft.
Building on Slab	5 ft.	10 ft.	5 ft.
Water Service Line/Laterals/Mains [5]	10 ft.	10 ft.	10 ft. [4]
Underground Utilities	5 ft.	5 ft.	5 ft.
Surface Water/Regulated Wetlands	75 ft.	100 ft.	50 ft.
Public Water Well [2]	200 ft.	200 ft.	50 ft.
Private Well [1]	100 ft.	150 ft.	50 ft.
Storm Drain/Stormwater Recharge Basin [5]	20 ft.	20 ft.	10 ft.
Catch Basins (non-leaching)/Drainage Pipe[6]	5 ft.	10 ft.	5 ft.
Leaching Structure[8]	8 ft.	8 ft.	10 ft. [7]
Septic Tank, Pump Station, Grease Trap, or Manhole[9]	5 ft.	8 ft.	5 ft.
Property Lines	5 ft.	10 ft.	5 ft.
Swimming Pool	20 ft.	20 ft.	5 ft.
Retaining Wall (water proof)	10 ft.	10 ft.	5 ft.
Fuel Storage Tanks (below ground)	20 ft.	20 ft.	10 ft.
Top of Embankment or Steep Slope (15 % slope or greater)	25 ft.	25 ft.	25 ft.
Bluffs	65 ft.	65 ft.	65 ft.

[1] Increased distance between leaching pools and private wells may be required based upon the depth of the well(s) involved and the direction of groundwater flow. Refer to **Standards For The Design Of Individual Water Supply Systems**. Discharges from treatment works shall be located down gradient of the well or out of the groundwater flow path towards the well. **Precise groundwater flow direction measurements may be required**.

[2] Significant discharges (generally greater than 5,000 gpd or those in proximity to wells) are subject to a separate site review by the Department.

[3] Leaching pools for treatment works have different distance requirements. See **Appendix A** and **Appendix B** for distance requirements for leaching pools or recharge beds associated with modified subsurface sewage disposal systems and treatment works, respectively.

[4] Water and sewer lines may be in the same trench if the water line is placed on an undisturbed bench or shelf so that the bottom of the water main is at least 18 inches higher than the top of the sewer and the sewer is not subject to settling, vibration, superimposed loads, or frost action.

[5] A minimum of 10-foot separation is required between water service line/laterals/mains and the edge of all stormwater drainage leaching structures.

[6] A minimum of 5-foot separation is required between water service line/laterals/mains and the edge of all stormwater drainage non-leaching structures and associated piping.

[7] Sewer piping between clusters of leaching pools may be installed at lesser separation distances.

[8] Distribution manholes or distribution boxes installed preceding gravelless absorption trench systems or other leaching structures (other than leaching pools or galleys) may be installed a minimum of 3ft to the leaching structures.

[9] Multiple unit septic tanks and grease traps shall be considered one structure and therefore individual components may be installed at lesser separation distances.

XII. SUBSOIL AND GROUNDWATER CONDITIONS

1. Subsoil conditions shall be shown on the plans. The nature of the soil shall be determined by excavation of one or more test holes at the site of the proposed subsurface sewage disposal system. The soil investigation shall be subject to the following conditions:

   a) Test Holes/Borings

   The soils in the test holes/borings shall be classified using the ASTM Unified Soil Classification System (ASTM D-2487) as a reference. The test holes/borings shall be carried to a depth of three feet in excess of the proposed leaching pool bottom or seventeen feet, whichever is greater. In the case where unacceptable soil is encountered, the test hole/boring must be carried until a stratum of six feet of clean sand is reached (defined as SP or SW by ASTM standards). If groundwater is encountered less than seventeen feet from grade, then the test hole/boring must be extended a minimum of six feet into groundwater.

   A test hole/boring log and grade elevation at the test hole shall be indicated on the plans. The log shall also indicate the date, time, and person responsible for the test hole. If groundwater is encountered, the groundwater elevation measured during the test hole/boring and the highest recorded groundwater elevation shall be shown.

   b) Responsibility of Design Professionals

   The design professional, by providing this information on the submitted plan, is considered to be certifying the results. Test holes/borings listed as "by others" are unacceptable unless independently certified by a design professional. Test holes/borings undocumented as to time and location of test are not acceptable.

   c) Witnessed Test Excavations

   Test excavations witnessed by a representative of the Department may be required prior to approval to construct in areas of unusually poor soils or high groundwater or where data on record with the Department indicates inconsistent conditions. Borings are not acceptable to be witnessed by the Department in lieu of open excavations.

   d) Interpretation of Soil Investigation

   In the event that there is a question over the classification of any soil and its suitability for sewage disposal, a sieve analysis performed by a qualified laboratory or design professional may be required. The Department may also require a technical report, submitted by a design professional, where unsuitable soil conditions exist at a site.

   e) Removal of Soils Unsuitable for Leaching Systems/Structures

   When installing leaching structures, unsuitable soils shall be removed and replaced with sand and gravel, acceptable to the Department, a three-foot collar extending down until a hydraulic connection is established with a minimum six-foot stratum of

acceptable material. In those areas where these criteria cannot be met, consult the Department.

2. SOIL PERCOLATION TESTS

a) For leaching structures/systems, other than leaching pools or leaching galleys, that are not to be installed in sand and gravel (defined as SP or SW by ASTM standards) acceptable to the Department, soil percolations tests may be used to design the system.

b) Unless otherwise stated, soil percolation tests must be performed in accordance with 10NYCR, Appendix 75-A and the NYSDOH "Residential Onsite Wastewater Treatment Systems Design Handbook."

c) Soil percolation test results must be certified by a Licensed Professional Engineer or Licensed Registered Architect and submitted to the Department for review.

d) At least two percolation tests for up to 1,000 sq. ft. of absorption area should be performed in holes spaced uniformly throughout the site. If soil conditions are highly variable, more tests may be required. An additional percolation test is required for each additional 500 sq. ft. of absorption area.

e) Percolation test shall be performed at the depth equivalent to the bottom of the proposed leaching structure.

f) Acceptable application rates based on percolation rates are stated in Table 3.

g) A maximum leaching rate of 1.20 gallons per day per square feet (0.95 gallons per day per square feet for an absorption bed) of leaching is permitted when using soil percolation test results to determine a leaching rate to calculate leaching area in lieu of installing leaching structures in sand and gravel (defined as SP or SW by ASTM standards).

h) Leaching structures, other than leaching pools or leaching galleys, can be installed in soil classified as sand and gravel (defined as SP or SW by ASTM standards), based on certified test hole/boring information obtained and designed using a maximum leaching rate of 1.20 gallons per day per square foot without the need for a soil percolation test (0.95 gallons per day per square feet for leaching absorption beds) provided one of the following criteria is met:

   i. The bottom of the leaching structure will be placed on virgin strata of 4ft of sand and gravel defined as SP or SWP by ASTM standards; or

   ii. Soils are excavated to a 4ft strata of virgin sand and gravel defined as SP or SW by ASTM standards and then backfilled with clean sand and gravel defined as SP or SW.

i) When percolation test exceeds 60 minutes per inch (30 minutes per inch for an absorption bed system) then 4ft of unsuitable soils shall be excavated below the

elevation of the proposed bottom of the leaching structure and properly disposed. The excavation shall be backfilled with sand and gravel defined as SP or SW by ASTM standards and the lowest application rate shall be utilized to design the system.

j) In some case, the Department may require reduced application rates based on an evaluation of leaching structure technology.

k) A percolation test is only an indicator of soil permeability and must be consistent with the soil classification of the site as determined from the test holes.

l) Percolation Test Procedures (See Figure 1 for a typical soil percolation test layout):

i. Make sure proper construction safety practices are followed.

ii. Dig a hole with vertical sides approximately 12 inches wide on all four (4) sides or 12 inches in diameter. The depth of the test holes should be equivalent to the bottom elevation of the leaching structure. It is necessary to place washed aggregate in the lower two (2) inches of each percolation test hole or to employ another method that will reduce scouring and silting action when water is poured into the hole. The sides of percolation holes should be scraped to avoid smearing.

iii. Pre-soak the test hole by periodically filling the hole with water and allowing the water to seep away. This procedure should be performed for at least four (4) hours and should begin one (1) day before the test, except in clean, coarse sand and gravel. After the water from the final pre- soaking has seeped away, remove any loose soil that has fallen from the sides of the hole. Pre- soaking saturates the surrounding soil and allows for clay in the soil to swell, simulating when a system is in operation and receiving wastewater effluent.

iv. Pour clean water into the hole, with as little splashing as possible, to a depth of six (6) inches above the bottom of the test hole.

v. Observe and record the time in minutes required for the water to drop from the six (6) inch depth to the five (5) inch depth.

vi. Repeat the test a minimum of three (3) times until the time for the water to drop from six (6) inches to five (5) inches for two (2) successive tests is approximately equal (i.e., $\leq$ 1 minutes for 1 – 30 min./inch; $\leq$ 2 minutes for 31-60 min./inch). The longest time interval to drop one (1) inch shall be taken as the stabilized rate of percolation and shall serve as the basis of design for the absorption system.

vii. A percolation test where results are inconsistent with the deep soil test pit evaluation should be disregarded, and the percolation test(s) performed again.

TABLE 3 – APPLICATION RATES FOR ABSORPTION BEDS OR TRENCH LEACHING SYSTEMS BASED ON PERCOLATION TEST RESULTS

Percolation Rate (MPI)	Application Rate Trench System (gal/day/sq.ft.)	Application Rate Absorption Bed (gal/day/sq.ft.)
0-5	1.20	0.95
6-7	1.00	0.80
8-10	0.90	0.70
11-15	0.80	0.60
16-20	0.70	0.55
21-30	0.60	0.45
31-45	0.50	Not Acceptable
46-60	0.45	Not Acceptable

XIII. CONSTRUCTION MATERIALS REQUIREMENTS

All components used in the sewage disposal system shall comply with the appropriate National Sanitation Foundation, the American Society of Testing and Materials, the American Association of Highway and Traffic Office, and/or the American Water Works Association requirements. Concrete used in the construction of sewage disposal system components shall conform to ASTM - C33 and ASTM - C150 standards. Concrete reinforcement shall conform to ASTM - A185 and ASTM - A615 as applicable.

All materials shall be identified as to manufacturer and have identification visible at the time of inspection.

XIV. SEPTIC TANK REQUIREMENTS

1. General Requirements

    a) All conventional subsurface and/or alternative sewage disposal systems shall contain a septic tank as part of the overall sanitary disposal system design. In cases where an I/A OWTS must have a septic tank installed prior to the I/A OWTS unit. The capacity of a septic tank for an I/A OWTS shall be determined in accordance with I/A OWTS manufacturer recommendations.

    b) Septic tanks shall be located below grade and outside the building in either paved or unpaved areas. Septic tanks shall be located in areas that are easily accessible for routine inspection and maintenance. Refer to Section XI for additional siting requirements.

    c) Septic tanks shall be designed to hold a volume of at least two days' Design Sewage Flow, and shall have a minimum capacity of 1200 gallons. The Design Sewage Flow for the project can be calculated from Section IX of these standards.

    d) Septic tanks shall be constructed of precast concrete, fiberglass or high-density polyethylene in accordance with this standard, 10NYCRR, Appendix 75-A, and the

NYS DEC "Design Standards For Intermediate Sized Wastewater Treatment Systems". The use of steel septic tanks shall be prohibited.

e) All septic tanks shall have (2) compartments meeting the following requirements:

i. The first compartment shall have a liquid volume of 50-75 percent of the required liquid volume.
ii. All single unit septic tanks shall be divided into two compartments divided by a traverse wall. The inlet compartment shall have 50-75 percent of the total capacity.
iii. The interior compartment wall (traverse wall) shall not extend to the interior roof without providing for venting equivalent to the area of a four (4) inch diameter pipe. Recommend providing four-inch air gap at the top of the wall.

f) Septic tanks shall be watertight and constructed of sound and durable materials that are not subject to excessive corrosion or decay.

i. All septic tanks must be watertight. Two methods of ensuring tanks are watertight shall be either vacuum testing or water pressure testing methods as follows:

a. Vacuum testing: Seal the empty tank and apply a vacuum to four (4) inches (100mm) of mercury. The tank is approved if 90% of vacuum is held for two (2) minutes.

b. Water testing: Seal tank; fill tank with water to outlet invert elevation, let stand for 24 hours. Refill the tank to outlet invert after 24-hour period is complete. Let the tank stand for 10 hours. The tank is approved if water level is held for 10-hour. Water pressure testing is recommended to be done onsite after installation.

g) Inlets and outlets shall be constructed to the following standards:

i. At least one inlet and one outlet shall be provided through the appropriate end or sidewall of each tank.

ii. The recommended minimum liquid depth of a septic tank shall be 4 feet. In no case shall the liquid depth of a septic tank be less than 3 feet. The liquid depth is measured from the outlet invert to the bottom of the tank.

iii. The outlet invert shall be a minimum of three inches below the inlet invert. However, the Department recommends the outlet invert be at least six inches below the inlet invert.

iv. All outlet inverts of the septic tank shall be set at the same invert elevation.

v. It is recommended that inlet and outlet pipes or penetrations be connected to the tank with a watertight sealed flexible joint and the pipe gasket be fastened to the

pipe with stainless steel retractable clamp or other means of sealing approved by the Department.

vi. Outlets shall be located at the maximum possible flow path from the inlet(s).

h) Unless otherwise stated, tanks shall be designed based upon 10NYCRR, Appendix 75-A or NYSDEC "Design Standards For Intermediate Sized Wastewater Treatment Systems".

2. Concrete Septic Tank

a) All precast septic tank components (i.e. slabs, domes, covers, etc.) shall be constructed of precast reinforced concrete and designed to be traffic bearing to meet the requirements of AASHTO H-20/HS-20 loading.

b) There shall be a minimum 1-foot air space measured from the outlet invert(s) to the bottom of the septic tank top slab or dome.

c) Precast concrete sections shall be sealed with one (1) - inch butyl rubber joint sealant, which conforms to ASTM C-990 (Latest Revision).

d) All sewer pipes shall penetrate the vertical sidewall of the tank and may be sealed with grout or other means acceptable to the Department such as watertight sealed flexible joint and the pipe gasket fastened to the pipe with stainless steel retractable clamp(s). There shall be no penetrations within domes.

e) The opening in the traverse wall shall be 8 inches in height and at least 24 inches wide. The center shall be 18 inches below the liquid level. There shall be a minimum of 4-inch air gap at the top of the traverse wall.

f) All joints shall be sealed so that the tank is watertight. Tanks that are cast in place must be certified by a licensed professional engineer and, as a minimum, have the floor and walls monolithically poured.

g) Whenever practical, concrete septic tanks shall not be located within groundwater. For installations that are placed within groundwater, the bottom and side portions, up to 18 inches above highest recorded groundwater elevation, of the septic tank shall be monolithically constructed. In cases where this is not practicable, the septic tank unit shall be waterproofed up to 18 inches above the highest recorded groundwater elevation and leak tested to ensure water tightness prior to operation.

h) In cases where concrete tanks are installed in groundwater, the design professional shall submit buoyancy calculations to prove the weight of the tank (with or without anchoring or the addition of ballast) will be at least 1.5 times more than the weight of the water displaced. The buoyancy calculations shall be done using highest expected groundwater elevation with the tank empty. Soil cover on top of the septic tank shall not be considered when determining the amount of anchoring or ballast weight required.

i) All concrete septic tanks shall be cylindrical and shall meet the following:

i. Pre-Cast Single Unit Septic Tank (Figure # 2)

a. The minimum outside diameter cylindrical septic tank shall be 8 feet and the maximum outside diameter shall be 12 feet.

b. The minimum recommended liquid depth of any cylindrical septic tank shall be 4 feet. Liquid depth is the effective depth of the tank below the outlet pipe.

c. Eight (8) foot diameter tanks shall have a maximum liquid depth of 5 feet.

d. Ten (10) foot diameter tanks shall have maximum liquid depth of 6 feet.

e. Twelve (12) foot diameter tanks shall have a maximum liquid depth of 7 feet.

f. There shall be a maximum number of three (3) outlet pipes from the septic tank. All outlet pipes shall be set at the same elevation.

ii. Concrete Two Unit Septic Tank (Figure #3)

In addition to the requirements listed for pre-cast single unit septic tanks, two unit septic tanks shall require the following:

a. Units shall be connected with three (3) - 8-inch diameter pipes placed such that the centerlines of the pipes are 18 inches below the liquid level of the tank. The three connecting pipes shall be spaced 20 inches on center. Each unit shall have the same diameter and liquid depth.

iii. Concrete Multiple Unit Septic Tank (Figures #4 and #5)

In addition to the requirements listed for pre-cast single unit septic tanks, multiple unit septic tanks shall require the following:

a. When three or more individual septic tanks are utilized within one system, they shall be placed on a common reinforced concrete slab at least 6 inches thick.

b. All units shall be connected with two (2) – 8-inch diameter pipes placed such that the centerlines of the pipes are 18 inches below the liquid level of the tank. Each connecting pipe set shall be spaced 20 inches on centers.

c. Each unit shall have the same diameter and liquid depth.

3. Non-Concrete Septic Tanks

a) All septic tank components (i.e. slabs, domes, covers, etc.) shall be designed and installed to be traffic bearing to meet the requirements of AASHTO H-20/HS-20 loading. Non-concrete septic tanks may be approved by the Department on a case-by-

case basis to be non-traffic bearing provided acceptable means are provided to prevent vehicular traffic over the septic tank.

b) At a minimum, non-traffic bearing non-concrete septic tanks must meet the loading of the International Association of Plumbing and Mechanical Officials (IAPMAO) "American National Standard for Prefabricated Septic Tanks" ANSI Z1000-2007 and any updates thereto. In addition, these tanks shall not be installed within three (3) feet of a driveway/roadway or parking area unless a permanent fence or other permanent traffic barrier is installed (such as curbs).

c) Non-Concrete septic tanks should be factory assembled or assembled in the field/distribution facility by a certified representative of the septic tank manufacture.

d) Each non-concrete septic tank shall be identified by the manufacturer with the following information permanently marked at the inlet end of the tank:

i. Manufacturer name or logo
ii. Capacity and number of openings
iii. The date manufactured

e) Precast concrete risers shall not be permitted to be used on non-concrete septic tanks unless otherwise approved by the manufacturer of the septic tank.

f) Whenever practical, non-concrete septic tanks shall not be located within groundwater or in areas where the groundwater level can rise to the level of the bottom of the tank(s) unless all of the following conditions are met:

i. The tank is manufactured to accommodate an anchoring system.

ii. The design professional submits buoyancy calculations.

iii. Calculations are submitted with highest expected/recorded ground water level.

iv. A safety factor of 1.5 must be provided. To provide a safety factor of 1.5 anchoring or additional ballast can be used. Soil cover on top of the septic tank shall not be considered when determining the amount of anchoring or ballast weight required.

v. Particular care must be taken during installation, bedding, and backfilling of these units to prevent damage to tank walls. The manufacturer's installation instructions shall be followed.

vi. All tanks should be sold by the manufacturer completely assembled. If, because of size, the tank is delivered to the site in sections, all joints shall be sealed with watertight gaskets.

vii. All tanks shall be tested for water tightness after installation using a method specified by the manufacturer and approved by the Department.

4. Septic Tank Installation Standards

a) All units shall be provided with two openings with a minimum diameter of 20 inches positioned over the inlet and outlet pipes.

b) All concrete septic tank covers shall be heavy-duty, watertight, insect-proof, adjustable and locking cast iron frame and cover shall be installed at grade over each opening.

c) Whenever possible all non-concrete tanks covers shall have heavy-duty, watertight, insect-proof, adjustable and locking cast iron frame and cover shall be installed at grade over each opening. In lieu of cast iron covers on non-concrete tanks, thermoplastic covers may be used provided that all of the following conditions are met:

i. Thermoplastic covers must be certified by a New York State Professional Engineer to meet AASHTO H-20/HS-20 loading requirements or the septic tank must be placed in a non-traffic area and be installed to prevent vehicular traffic/loads over the septic tank.

ii. Covers shall be set at finished grade, be locking, watertight, insect-proof, flat, skid proof, and be approved for sewage use.

iii. All thermoplastics covers must have UV protection.

iv. Covers shall have a non-skid finish. Self-lubricating plastics, such as polyethylene, shall not be considered non-skid without addition of non-skid coating.

v. Covers shall form a watertight seal with the top of the chimney/riser.

vi. At a minimum, covers shall be capable of withstanding a truck wheel load (36 square inches) of 2500 pounds for 60 minutes with a maximum vertical deflection of 1.5 inches.

vii. Covers to grade shall be locking or provided with tamper-resistant stainless steel fasteners and a tool for fastener removal. Tamper-resistant fasteners include recessed drives, such as hex, torx, and square. Fasteners that can be removed with common screwdrivers, such as slotted and Philips, or fasteners that can be removed with standard tools, such as pliers or crescent wrenches, are not considered tamper-resistant.

viii. To prevent tripping hazard, fasteners shall not extend above the surface of the lid.

ix. Covers shall not allow water to pond on them. Covers shall be flat, with no noticeable upward dome. A crown or dome of no more than 1/8th inch is allowable.

x. If using a non-traffic bearing cover that weighs less than 60lbs then a secondary safety lid or device shall be provided.

d) Extension Collars (chimneys/risers) may be used for the purpose of bringing the covers to grade provided that they are firmly affixed in place and are constructed of pre-cast concrete.

e) Extension collars (chimney/risers) shall be at least 24 inches in diameter and shall not exceed 2 feet in height.

f) Non-concrete septic tanks which cannot utilize pre-cast extension collars may be permitted to use non-precast extension collars provided all of the following conditions are met:

i. Non-precast chimneys must be certified by a New York State Professional Engineer to meet AASHTO H-20/HS-20 loading requirements or the septic tank must be placed in a non-traffic area and be installed to prevent vehicular traffic/loads over the septic tank.

ii. Risers shall be constructed of non-corrosive material and designed to be buried in soil.

iii. Risers shall have a minimum stiffness of 10 psi, when tested according to ASTM D2412. Risers shall be capable of withstanding a truck wheel load (36 square inches) of 2500 pounds for 60 minutes with a maximum vertical deflection of 0.5 inches.

iv. All attachment components shall be constructed of waterproof, non-corrosive materials, such as PVC, ABS, fiberglass, or stainless steel. Adhesives and sealants shall be waterproof, corrosion resistant and approved for the intended application.

v. The riser-to-tank connection shall be watertight and structurally sound. The riser-to-tank connection shall be capable of withstanding a vertical uplift to prevent riser separation due to tank settlement, frost heave, or accidental vehicle traffic over the tank.

g) The top of the septic tank shall be located a maximum of 2.5 feet below grade.

h) The outlet pipe(s) from the tank shall be provided with a drop tee extending eighteen inches into the liquid. The outlet(s) shall be located at the maximum flow path from the inlet(s).

i) Septic tanks shall be installed in accordance with the manufacturer's recommendation. All septic tanks shall be installed at level in all directions (with a maximum tolerance in any direction of ±¼ inch) on a minimum 3-inch bed of properly graded and compacted sand, which is free of rock, or pea gravel.

XV. GREASE TRAP REQUIREMENTS

1. General Requirements

a) All restaurants and/or food preparation establishments are required to install a grease trap for the kitchen or food preparation area. A grease trap is considered part of the equipment necessary to obtain a permit to operate a food establishment pursuant to Article 13 of the Suffolk County Sanitary Code. Grease traps should be cleaned and maintained on a regular basis in order to insure proper functioning and insect free performance.

b) Grease traps shall be located below grade and outside the building preceding the septic tank or sewer line. Only discharges from the kitchen or food preparation areas may be piped to grease traps. Grease traps shall be located in areas that are easily accessible for routine inspection and maintenance. Refer to Section XI for additional siting requirements.

c) The required capacity of grease traps shall be based on the kitchen design flow for a one-day period. The kitchen design flow can be calculated from Section IX of these standards. All grease traps shall be a minimum size of 1500 gallons.

d) When multiple grease traps are needed, they must be installed in series with each succeeding unit having a liquid depth of 6 inches less than the preceding unit.

e) Grease traps shall be constructed of concrete, fiberglass or high-density polyethylene in accordance with this standard, 10NYCRR, Appendix 75-A, and the NYS DEC "Design Standards For Intermediate Sized Wastewater Treatment Systems". The use of steel grease traps shall be prohibited.

f) Grease traps shall be watertight and constructed of sound and durable materials that are not subject to excessive corrosion or decay.

i. Grease traps must be watertight. Two methods of ensuring tanks are watertight shall be either vacuum testing or water pressure testing methods as follows:

a. Vacuum testing: Seal the empty tank and apply a vacuum to four (4) inches (100mm) of mercury. The tank is approved if 90% of vacuum is held for two (2) minutes.

b. Water testing: Seal tank; fill tank with water to outlet invert elevation, let stand for 24 hours. Refill the tank to the outlet invert after the 24-hour period is complete. Let the tank stand for an additional 10-hour period. The tank is approved if water level is held for the 10-hour period. Water pressure testing is recommended to be done onsite after installation.

g) Inlets and outlets shall be constructed to the following standards:

i. At least one inlet and one outlet shall be provided through the appropriate end

or sidewall of each tank.

ii. The recommended minimum liquid depth of a grease trap shall be 5-feet. In no case shall the liquid depth of a grease trap be less than 3- feet. The liquid depth is measured from the outlet invert to the bottom of the tank.

iii. The outlet invert shall be a minimum of 3-inches below the inlet invert. However, the Department recommends the outlet invert be at least 6-inches below the inlet invert.

iv. It is recommended that inlet and outlet pipes or penetrations be connected to the grease trap with a watertight sealed flexible joint and the pipe gasket be fastened to the pipe with stainless steel retractable clamp or other means of sealing approved by the Department.

v. Outlets shall be located at the maximum possible flow path from the inlet.

h) Unless otherwise stated, grease traps shall be designed based upon 10NYCRR, Appendix 75-A or NYS DEC "Design Standards for Intermediate Sized Wastewater Treatment Systems".

2. Concrete Grease Traps

a) All precast grease trap components (i.e. slabs, domes, covers, etc.) shall be constructed of precast reinforced concrete and designed to be traffic bearing to meet the requirements of AASHTO H-20/HS-20 loading.

b) There shall be a minimum 1-foot air space measured from the outlet invert(s) to the bottom of the grease trap top slab or dome.

c) Precast concrete sections shall be sealed with one (1) - inch butyl rubber joint sealant, which conforms to ASTM C-990.

d) All sewer pipes shall penetrate the vertical sidewall of the grease trap and may be sealed with grout or other means acceptable to the Department such as watertight sealed flexible joint and the pipe gasket fastened to the pipe with stainless steel retractable clamp(s). There shall be no penetrations within domes.

e) All joints shall be sealed so that the tank is watertight. Grease traps that are cast in place must be certified by a licensed professional engineer and, as a minimum, have the floor and walls monolithically poured.

f) The base section of all units (bottom slab and minimum of 1 foot of sidewall) shall be monolithically cast.

g) Whenever practical, concrete grease traps shall not be located within groundwater. For installations that are placed within groundwater, the bottom and side portions, up to 18 inches above highest recorded groundwater elevation, of the grease trap shall be

monolithically constructed. In cases where this is not practicable, the grease trap unit shall be waterproofed up to 18 inches above the highest recorded groundwater elevation and leak tested to ensure water tightness prior to operation.

h) In cases when concrete grease trap is installed in groundwater, the design professional shall submit buoyancy calculations to prove the weight of the tank (with or without anchoring or the addition of ballast) will be at least 1.5 times more than the weight of the water displaced. The buoyancy calculations shall be done using highest expected groundwater elevation with the tank empty. Soil cover on top of the septic tank shall not be considered when determining the amount of anchoring or ballast weight required.

i) All concrete grease traps shall be cylindrical and shall meet the following:

i. Single Unit Grease Trap (Figure #6)

a. The minimum outside diameter cylindrical grease trap shall be 8 feet and the maximum outside diameter shall be 12 feet.

b. The liquid depth shall be a minimum of 5 feet and shall not exceed 7 feet depending upon diameter.

ii. Multiple Unit Grease Trap (Figure #7)

a. The minimum outside diameter cylindrical grease trap shall be 10 feet and the maximum outside diameter shall be 12 feet.

b. The liquid depth shall be a minimum of 5 feet and shall not exceed 7 feet depending upon diameter.

c. Each unit shall have the same diameter.

d. Units shall be connected in series by utilizing one 6-inch diameter drop tee pipe.

e. There shall be a 6-inch drop between the inlet and outlet pipes of each unit. Each succeeding unit shall have a liquid depth of 6 inches less than the preceding unit.

3. Non-Concrete Grease Traps

a) All grease trap components (i.e. tanks, extension collars, covers, etc.) shall be designed and installed to be traffic bearing to meet the requirements of AASHTO H-20/HS-20 loading. Non-concrete grease traps may be approved by the Department on a case-by-case basis to be non-traffic bearing provided acceptable means are provided to prevent vehicular traffic over the grease trap.

b) At a minimum, non-traffic bearing non-concrete grease traps must conform to the loading requirements of the International Association of Plumbing and Mechanical

Officials (IAPMAO) "American National Standard for Prefabricated Septic Tanks" ANSI Z1000-2007 and any updates thereto. In addition, these tanks shall not be installed within three (3) feet of a driveway/roadway or parking area unless a permanent fence or other permanent traffic barrier is installed (such as curbs).

c) Non-Concrete grease traps should be factory assembled or assembled in the field/distribution facility by a certified representative of the septic tank manufacturer.

d) Each non-concrete grease trap shall be identified by the manufacturer with the following information permanently marked at the inlet end of the tank:

i. Manufacturer name or logo
ii. Capacity and number of openings
iii. The date manufactured

e) Precast concrete risers shall not be permitted to be used on non-concrete grease traps unless otherwise permitted by the manufacturer of the unit.

f) Whenever practical, non-concrete grease traps shall not be located within groundwater or in areas where the groundwater level can rise to the level of the bottom of the tank(s) unless all of the following conditions are met:

i. The grease trap is manufactured to accommodate an anchoring system.

ii. The design professional submits buoyancy calculations.

iii. Calculations are submitted with highest expected/recorded ground water level.

iv. A safety factor of 1.5 must be provided. To provide a safety factor of 1.5 anchoring or additional ballast can be used. Soil cover on top of the septic tank shall not be considered when determining the amount of anchoring or ballast weight required.

v. Particular care must be taken during installation, bedding, and backfilling of these units so as to prevent damage to tank walls. The manufacturer's installation instructions shall be followed.

vi. All tanks should be sold by the manufacturer completely assembled. If, because of size, the tank is delivered to the site in sections, all joints shall be sealed with watertight gaskets.

vii. All tanks shall be tested for water tightness after installation using a method specified by the manufacturer and approved by the Department.

4. Grease Trap Installation Requirements

a) All units shall be provided with two openings with a minimum diameter of 20 inches positioned over the inlet and outlet pipes.

b) All concrete grease traps covers shall be heavy-duty, watertight and insect-proof adjustable and locking cast iron frame and cover shall be installed at grade over each opening.

c) Whenever possible all non-concrete grease trap covers shall have heavy-duty, watertight and insect-proof adjustable and locking cast iron frame and cover shall be installed at grade over each opening. In lieu of cast iron covers on non-concrete grease traps, thermoplastic covers may be used provided all of the following conditions are met:

i. Thermoplastic covers must be certified by a New York State Professional Engineer to meet AASHTO H-20 loading requirements or the grease trap must be placed in a non-traffic area and be installed to prevent vehicular traffic/loads over the grease trap.

ii. Covers shall be set at finished grade, be locking, watertight, insect-proof, flat, skid proof, and be approved for sewage use.

iii. All thermoplastics covers must have UV protection.

iv. Covers shall have a non-skid finish. Self-lubricating plastics, such as polyethylene, shall not be considered non-skid without addition of non-skid coating.

v. Covers shall form a watertight seal with the top of the chimney/riser.

vi. At a minimum, covers shall be capable of withstanding a truck wheel load (36 square inches) of 2500 pounds for 60 minutes with a maximum vertical deflection of 1.5 inches.

vii. Covers to grade shall be locking or provided with tamper-resistant stainless steel fasteners and a tool for fastener removal. Tamper-resistant fasteners include recessed drives, such as hex, torx, and square. Fasteners that can be removed with common screwdrivers, such as slotted and Philips, or fasteners that can be removed with standard tools, such as pliers or crescent wrenches, are not considered tamper-resistant.

viii. To prevent tripping hazard, fasteners shall not extend above the surface of the lid.

ix. Covers shall not allow water to pond on them. Covers shall be flat, with no noticeable upward dome. A crown or dome of no more than 1/8th inch is allowable.

x. If using a non-traffic bearing cover that weighs less than 60lbs then a secondary safety lid or device shall be provided.

d) Extension Collars (chimneys/risers) may be used for the purpose of bringing the covers to grade provided that they are firmly affixed in place and be pre-cast concrete.

e) Extension collars (chimney/risers) shall be at least 24 inches in diameter and shall not exceed 2 feet in height.

f) Non-precast grease traps which cannot utilize pre-cast extension collars may be permitted to use non-precast extension collars provided all of the following conditions are met:

i. Non-precast chimneys must be certified by a New York State Professional Engineer to meet AASHTO H-20 loading requirements or the grease trap must be placed in a non-traffic area and be installed to prevent vehicular traffic/loads over the grease trap.

ii. Risers shall be constructed of non-corrosive material and designed to be buried in soil.

iii. Risers shall have a minimum stiffness of 10 psi, when tested according to ASTM D2412. Risers shall be capable of withstanding a truck wheel load (36 square inches) of 2500 pounds for 60 minutes with a maximum vertical deflection of 0.5 inches.

iv. All attachment components shall be constructed of waterproof, non-corrosive materials, such as PVC, ABS, fiberglass, or stainless steel. Adhesives and sealants shall be waterproof, corrosion resistant and approved for the intended application.

v. The riser-to-tank connection shall be watertight and structurally sound. The riser-to-tank connection shall be capable of withstanding a vertical uplift to prevent riser separation due to tank settlement, frost heave, or accidental vehicle traffic over the tank.

g) The top of the grease trap shall be located a maximum of 2.5 feet below grade.

h) Grease traps shall be installed in accordance with the manufacturer's recommendation. All grease traps shall be installed at level in all directions (with a maximum tolerance in any direction of ±¼ inch) on a minimum 3-inch bed of properly graded and compacted sand, which is free of rock or pea gravel.

i) The outlet pipe(s) from each grease trap unit shall be 6 inch in diameter to the inlet of the septic tank or sewer main. Each outlet shall be provided with a 6-inch diameter drop tee extending to 1 foot above the bottom of the tank. The outlet(s) shall be braced as required and located at the maximum practicable distance from the inlet.

5. Exceptions

While the requirement to install a grease trap at establishments served by community sewers shall not be waived, the design, location, capacity and construction details for the unit shall be determined by the appropriate sewer authority.

XVI. INNOVATIVE AND ALTERNATIVE ONSITE WASTEWATER TREATMENT SYSTEM (I/A OWTS)

1. General Requirements

a) Only I/A OWTS technologies approved for Experimental, Pilot, Provisional, or General Use in accordance with the Department's "Standards Promulgated Under Article 19 for Approval and Management of Innovative and Alternative Onsite Wastewater Treatment Systems" may be proposed for installation and use on parcels as a means of sewage disposal.

b) The installer must hold a current Liquid Waste License pursuant to Suffolk County Code Chapter 563, Article VII (Septic Industry Businesses) and the proper Liquid Waste License endorsement as an Innovative and Alternative Treatment System Installer through the Suffolk County Department of Labor, Licensing and Consumer Affairs. The Department of Labor, Licensing, and Consumer Affairs maintains a list of licensed I/A OWTS Maintenance Providers.

c) All I/A OWTS must be registered with the Department in accordance with Article 19 of the Suffolk County Sanitary Code prior to the Department granting certification of completed construction of "as built" plans.

d) An executed Operation and Maintenance Contract between a Maintenance Provider and Property Owner must be submitted to the Department prior to approval of the I/A OWTS registration by the Department in accordance with Article 19 of the Suffolk County Sanitary Code. For properties containing multiple structures such as a condominium complex, apartment complex, industrial complex, or office complex, a single entity must maintain the Operation and Maintenance Contract for the I/A OWTS, such as a homeowner's association or an individual property owner.

e) All installed I/A OWTS are required to have an initial 3-year warranty and operation and maintenance service contract. After the initial 3-year operation and maintenance service contract has expired, property owners are expected to maintain an operation and maintenance contract in accordance with Article 19 of the Suffolk County Sanitary Code.

f) All installed I/A OWTS are required to be sampled in accordance with the Department's "Standards Promulgated Under Article 19 for Approval and Management of Innovative and Alternative Onsite Wastewater Treatment Systems".

g) The I/A OWTS treatment unit consisting of the treatment tank, covers at grade, and chimneys/risers must be designed and installed to be traffic bearing meeting AASHTO

H-20 or HS-20 loading. In lieu of meeting the traffic bearing requirements, the I/A OWTS can be installed in an area not accessible to vehicular traffic with the installation of adequate protection demonstrated to the Department to prevent vehicles from being placed on top of the structure. Such protection can be in the form of a fence, bollards, etc.

h) When an I/A OWTS is installed to serve a multi-tenant building and/or complex the I/A OWTS shall be installed with an alarm dialer capable of calling the property owner and O&M provider in the event of an alarm or emergency.

i) When an I/A OWTS is installed to serve a multi-tenant building and/or complex the I/A OWTS must be designed to function during power outages (i.e. in-place generator with automatic transfer switch, portable generator with manual transfer switch, I/A OWTS can flow through by gravity during outages, etc.).

j) When an I/A OWTS requires a vent, the unit shall be vented to the roof of the building being served. Vent pipes shall extend a minimum of 6 inches above the roofline and the top of the vent shall have a minimum horizontal separation of 12 inches to the sloped portion of the roof. In cases where it is not practical to vent the system to the roof of the building, a vent pipe may be piped to the exterior side of the building and terminate a minimum of 18 inches above grade (Note that sites subject to FEMA regulations may have to extend the vent pipe more than 18 inches above grade). These vent pipes shall be located a minimum of 3 feet from any window or doorway and must terminate with a carbon filter device. All vent pipes must have a minimum diameter of 2 inches.

k) Installation and use of the I/A OWTS must conform to the Department's approved I/A OWTS guidance document prepared in accordance with the standards for "Approval and Management of Innovative and Alternative Onsite Wastewater Treatment Systems.", which may include alternate construction methods and installation requirements, which may differ from this standard.

2. I/A OWTS Minimum Design Requirements

a) The treatment capacity shall be based on the design sewage flow rates stated in Table 1. In some cases the Department may request that the I/A OWTS be designed based on the sewage flow rates and anticipated loading of nitrogen, BOD, and total suspended solids of the facilities to be served by the I/A OWTS.

b) I/A OWTS must meet the minimum separation distances stated in Table 2 or approved separation distances stated in the Department's approved I/A OWTS guidance document prepared in accordance with the Standards for "Approval and Management of Innovative and Alternative Onsite Wastewater Treatment Systems."

c) I/A OWTS tanks shall be constructed of precast concrete, fiberglass, polyethylene, polypropylene, thermoplastics, or other materials in accordance with Department standards, 10NYCRR, Appendix 75-A, or NYS DEC requirements. The use of steel tanks is prohibited.

d) When an I/A OWTS requires a septic tank for pretreatment the septic tank shall be designed in accordance with section XIV of this standard. The capacity of the septic tank shall be in accordance with the manufacturer or design professional recommendations.

e) When an I/A OWTS is installed to serve an establishment requiring a grease trap, grease traps shall be designed in accordance with section XV of this standard, and a redundant grease trap is recommended to be installed in series. In addition, all fryer oil being emptied from frying equipment should not be discharged into the sanitary and/or kitchen plumbing system.

f) Unless otherwise specified, the leaching structure/system that follows an I/A OWTS shall be designed in accordance with section XVII of this standard.

g) At a minimum, all I/A OWTS treatment tanks shall have 20-inch covered access openings to grade located over the inlet and outlet. At a minimum, covers shall be either 20-inch diameter watertight and insect-proof locking heavy-duty cast iron covers or thermoplastic covers at final grade (see paragraph 4 of this section for further requirements).

h) Garbage grinders shall not be permitted when an I/A OWTS is utilized as means of sewage disposal. In addition, water softeners shall not discharge into an I/A OWTS. The Department recommends water softener backwash should be connected to a separate onsite drywell acceptable to the Town or Village Building Department requirements.

i) I/A OWTS tanks shall be watertight and constructed of sound and durable materials that are not subject to excessive corrosion or decay.

i. All tanks must be watertight. Two methods of ensuring tanks are watertight shall be either vacuum testing or water pressure testing methods as follows:

a. Vacuum testing: Seal the empty tank and apply a vacuum to four (4) inches (100mm) of mercury. The tank is approved if 90% of vacuum is held for two (2) minutes.

b. Water testing: Seal tank; fill tank with water to outlet invert elevation, let stand for 24 hours. Refill the tank to the outlet invert after the 24-hour period is complete. Let the tank stand for an additional 10-hour period. The tank is approved if water level is held for the 10-hour period. Water pressure testing is recommended to be done onsite after installation.

3. I/A OWTS Tank Construction Material Requirements

a) Concrete Tanks

i. Pre-cast concrete sections shall be sealed with one (1) inch butyl rubber joint

sealant, which conforms to ASTM C-990.

ii. All sewer pipes shall penetrate the vertical sidewall of the tank and shall be sealed with grout or other means acceptable to the Department such as watertight sealed flexible joint and the pipe gasket fastened to the pipe with stainless steel retractable clamp(s).

iii. All joints shall be sealed so that the tank is watertight. See section XVI paragraph B.9. Tanks that are cast in place require prior approval from the Department and must be certified by a Licensed Professional Engineer. At a minimum, the floor and walls of a concrete tank must be monolithically poured.

iv. Whenever practical, concrete I/A OWTS shall not be located within groundwater. For installations that are placed within groundwater, the bottom and side portions, up to 18 inches above highest recorded/expected groundwater elevation, of the I/A OWTS unit shall be monolithically constructed. In cases where this is not practicable, the I/A OWTS unit shall be water-proofed up to 18 inches above the highest recorded /expected groundwater elevation and leak tested to ensure tightness prior to operation.

v. In cases when concrete tanks are installed in groundwater, the design professional shall submit buoyancy calculations to prove the weight of the tank (with or without anchoring or the addition of ballast) will be at least 1.5 times more than the weight of the water displaced. The buoyancy calculations shall be done using highest expected/recorded groundwater elevation with the tank empty. Soil cover on top of the septic tank shall not be considered when determining the amount of anchoring or ballast weight required.

b) Non-Concrete Tanks

i. At a minimum, non-traffic bearing non-concrete I/A OWTS tanks must meet the loading of the International Association of Plumbing and Mechanical Officials (IAPMAO) “American National Standard for Prefabricated Septic Tanks” ANSI Z1000-2007 material requirements and any updates thereto. In addition, these tanks shall not be installed within three (3) feet of a driveway/roadway or parking area unless a permanent fence or other permanent traffic barrier is installed (such as curbs).

ii. Whenever practical, non-concrete I/A OWTS shall not be located within groundwater or in areas where the groundwater level can rise to the level of the bottom of the tank(s) unless all of the following conditions are met:

a. The tank is manufactured to accommodate an anchoring system.

b. The design professional submits buoyancy calculations.

c. Calculations are done with highest expected/recorded ground water level.

d. A safety factor of 1.5 is included in the design. To provide a safety factor of 1.5 anchoring or additional ballast can be used. Soil cover on top of the septic tank shall not be considered when determining the amount of anchoring or ballast weight required.

e. Particular care must be taken during installation, bedding, and backfilling of these units to prevent damage to tank walls. The manufacturer's installation instructions shall be followed.

f. All tanks should be sold by the manufacturer completely assembled. If, because of size, the tank is delivered to the site in sections, all joints shall be sealed with watertight gaskets.

g. All tanks shall be tested for water tightness after installation using a method specified by the manufacturer and approved by the Department.

4. I/A OWTS Installation Standards

a) All I/A OWTS units shall be provided with a minimum of two openings with a minimum diameter of 20 inches positioned over the inlet and outlet pipes of the tank(s).

b) All concrete I/A OWTS unit covers shall be heavy-duty, watertight, insect-proof, adjustable, and locking cast iron frame and cover shall be installed at grade over each opening.

c) Whenever possible all non-concrete I/A OWTS covers shall have heavy-duty, watertight, insect-proof, adjustable and a locking cast iron frame and cover shall be installed at grade over each opening. In lieu of cast iron covers on non-concrete I/A OWTS, thermoplastic covers may be used provided all of the following conditions are met:

xi. Thermoplastic covers must be certified by a New York State Professional Engineer to meet AASHTO H-20 loading requirements or the I/A OWTS units must be placed in a non-traffic area and be installed to prevent vehicular traffic/loads over the I/A OWTS unit.

xii. Covers shall be set at finished grade, be locking, watertight, insect-proof, flat, skid proof, and be approved for sewage use.

xiii. All thermoplastics covers must have UV protection.

xiv. Covers shall have a non-skid finish. Self-lubricating plastics, such as polyethylene, shall not be considered non-skid without addition of non-skid coating.

xv. Covers shall form a watertight seal with the top of the chimney/riser.

xvi. At a minimum, covers shall be capable of withstanding a truck wheel load (36 square inches) of 2500 pounds for 60 minutes with a maximum vertical deflection of 1.5 inches.

xvii. Covers to grade shall be locking or provided with tamper-resistant stainless steel fasteners and a tool for fastener removal. Tamper-resistant fasteners include recessed drives, such as hex, torx, and square. Fasteners that can be removed

with common screwdrivers, such as slotted and Philips, or fasteners that can be removed with standard tools, such as pliers or crescent wrenches, are not considered tamper-resistant.

xviii. To prevent tripping hazard, fasteners shall not extend above the surface of the lid.

xix. Covers shall not allow water to pond on them. Covers shall be flat, with no noticeable upward dome. A crown or dome of no more than 1/8th inch is allowable.

xx. If using a non-traffic bearing cover that weighs less than 60lbs then a secondary safety lid or device shall be provided.

d) Extension Collars (chimneys/risers) may be used for the purpose of bringing the covers to grade provided that they are firmly affixed in place and be pre-cast concrete.

e) Extension collars (chimney/risers) shall be at least 24 inches in diameter and shall not exceed 2 feet in height.

f) Non-precast I/A OWTS which cannot utilize pre-cast extension collars may be permitted to use non-precast extension collars provided all of the following conditions are met:

i. Non-precast chimneys must be certified by a New York State Professional Engineer to meet AASHTO H-20 loading requirements or the grease trap must be placed in a non-traffic area and be installed to prevent vehicular traffic/loads over the grease trap.

ii. Risers shall be constructed of non-corrosive material and designed to be buried in soil.

iii. Risers shall have a minimum stiffness of 10 psi, when tested according to ASTM D2412. Risers shall be capable of withstanding a truck wheel load (36 square inches) of 2500 pounds for 60 minutes with a maximum vertical deflection of 0.5 inches.

iv. All attachment components shall be constructed of waterproof, non-corrosive materials, such as PVC, ABS, fiberglass, or stainless steel. Adhesives and sealants shall be waterproof, corrosion resistant and approved for the intended application.

v. The riser-to-tank connection shall be watertight and structurally sound. The riser-to-tank connection shall be capable of withstanding a vertical uplift to prevent riser separation due to tank settlement, frost heave, or accidental vehicle traffic over the tank.

g) Install I/A OWTS tanks according to manufacturer's recommendations. All applicable

recommendations provided by the manufacturer shall be implemented.

h) The I/A OWTS tank shall be installed at level in all directions (with a maximum tolerance in any direction of +/ one quarter inch) on a minimum 3-inch thick bed of properly leveled and compacted sand (free from rocks) or pea gravel.

i) I/A OWTS Tanks shall be provided with a single outlet. A distribution box/manhole or distribution leaching structure may be required for systems with multiple leaching structures unless an alternative design is approved by the Department.

j) The top of the I/A OWTS shall not be located greater than 2.5 feet or less than one foot below final grade.

5. Provisions for Sampling I/A OWTS

Each I/A OWTS must have a sampling point acceptable and accessible to the Department where composite and/or grab samples of the system effluent can be acquired by the Department, manufacturer, or third party that provide representative samples of the effluent discharge. In some cases, the Department may require the installation of a sampling manhole or other sampling structure. In those cases, sampling manholes or structures shall be designed according to the following:

a) General Requirements:

i. At a minimum, all sampling manholes shall have 20-inch covered access openings to grade located. Covers shall be 20-inch diameter, heavy-duty, watertight and insect-proof locking cast iron or thermoplastic covers at final grade. All covers shall have a non-skid finish. Self-lubricating plastics, such as polyethylene, shall not be considered non-skid without the addition of non-skid coating.

ii. Extension Collars (chimneys or risers) may be used for the purpose of bringing the covers to grade provided that they are firmly affixed in place. .

iii. When sampling manholes are approved to be installed in a driveway or parking area, the manhole shall be designed to be traffic bearing to meet the requirements of AASHTO H-20 or HS-20 loading.

iv. The outlet invert elevation shall be a minimum of 0.1 foot below the inlet invert elevation.

v. Sampling manholes shall have an inside diameter of 2 feet or an inside area of 2 foot by 2 foot.

vi. There shall be a maximum retention depth below the outlet invert elevation of six inches.

vii. All sewer pipes penetrating the sampling manhole shall be accomplished with a

flexible rubber sleeve and stainless steel tightening devices.

viii. Maximum depth for sampling manhole shall be 4 feet.

ix. All manholes must be certified as watertight by manufacturer and/or the design professional

b) Concrete Sampling Manholes

i. Pre-cast sampling manholes must conform to section XVIII of this standard.

c) Non-Concrete Sampling Manholes

i. Fiberglass sampling manholes shall be constructed in accordance with ASTM D3753 (latest revision).

ii. High Density Polyethylene (HDPE) sampling manholes shall be constructed in accordance with ASTM F1759 (latest revision).

iii. These manholes shall not be installed in areas where the groundwater level can rise to the level of the bottom of the manhole(s) unless all of the following conditions are met:

a. The manhole shall be manufactured to accommodate an anchoring system.

b. The design professional submits buoyancy calculations.

c. Calculations shall be done with highest expected ground water level.

d. A safety factor of 1.5 is required. To provide a safety factor of 1.5 anchoring or additional ballast can be used. Soil cover on top of the septic tank shall not be considered when determining the amount of anchoring or ballast weight required.

d) Other Sampling Structures

i. Plans may be submitted with an alternative sampling structure(s) (e.g. sampling traps, etc.).

ii. Plans for use of an alternative sampling structure must be prepared by a Licensed Professional Engineer or Licensed Registered Architect.

iii. The design professional must ensure the sampling structure provides adequate retention and access for collection of samples (composite and grab samples). In addition, the sampling structure shall permit adequate flushing of the retention area.

6. Electrical Requirements

a) Control Panels

i. The control panel box must be placed outside on a suitable pedestal near the

structure that it serves. Alternatively, the panel box may be mounted on an outside wall of the structure (preferably a utility room, and not a living space). Control panels must be located within a locking NEMA 4X rated enclosure. Other locations for mounting the panel box will be considered by the Department on a case-by-case basis and with I/A OWTS manufacturer approval.

ii. The panel box must be within view of the system location to help facilitate operation and maintenance.

iii. The control panel shall be placed at a comfortable height for access and in conformance with United States Federal Emergency Management Agency (FEMA) flood zone requirements

iv. The panel shall meet National Electrical Manufacturers Association (NEMA) 4X specifications.

v. The conduit must have appropriate seals to prevent gases and moisture from reaching the control panel or junction boxes. All underground electrical wiring for I/A OWTS shall be placed in conduit piping.

vi. Each system shall be equipped with a functioning warning system, which will activate audible and visual alarms that can be readily seen and heard by the occupants of the building served. The Department recommends a telemetry device be installed to provide immediate remote alarm notification to the O&M provider covered by the O&M agreement (Note per Paragraph 1.J. of this section, multi-tenant buildings and/or complexes are required to have a telemetry device/alarm dialer installed).

vii. Systems which are not designed to flow by gravity must be either equipped with a control panel with means of connecting a portable generator to operate the system during a power outage or connected to an in-place generator with automatic transfer switch.

b) Pumps, Blowers, Level Sensors, and Controls

i. The electrical junction box serving the pump motor and floats must be watertight and located outside the I/A OWTS tank chamber.

ii. Any blowers located outside of the I/A OWTS unit must be placed on a pad (concrete, plastic or fiberglass) and have a soundproof enclosure cover.

iii. All pumps and float trees must be accessible and serviceable from access openings.

iv. The floats shall be attached to a Schedule 40 PVC float tree that can be easily removed for service or adjustment. The floats shall not be attached to the force main.

v. The Department shall observe the pump system operate through a normal

operating cycle. Testing the system without water is not acceptable.

vi. Inspection for leakage of the force main fittings will be made during the pump test procedure.

XVII. LEACHING STRUCTURE/SYSTEM REQUIREMENTS

1. General

a) Leaching structures are used as part of conventional subsurface or alternative sewage disposal system, I/A OWTS and on-site and community sewage treatment systems to infiltrate effluent into the surrounding soil.

b) The bottom of any leaching structure shall be at least three feet above the highest expected/recorded groundwater elevation at the proposed system's location and at least two feet for shallow alternative systems (leaching pools, leaching galley, gravelless absorption trench systems and gravelless absorption bed systems) approved by the Department.

c) Leaching structures/systems must be installed in areas that are easily accessible for routine inspection, maintenance, replacement or expansion. Refer to Section XI for additional requirements concerning the location of leaching structures.

d) The bottom and sidewall area of the leaching structures shall be free of debris before backfilling.

e) The minimum required system leaching area for leaching pools and leaching galleys designed in accordance with paragraphs B and D of this section shall be 300 sq.ft. and shall be designed to receive one full day's hydraulic design flow. All other leaching structure designs shall have a minimum leaching area designed based on 440gpd.

f) Leaching pools or galleys installed in sand and gravel (defined by SP or SW by ASTM standards) shall be permitted to be designed with a maximum hydraulic leaching rate of 1.5 gal/sq.ft./day for Conventional Subsurface Sewage Disposal Systems or I/A OWTS.

g) Leaching pools or galleys installed in sand and gravel (defined by SP or SW by ASTM standards) shall be permitted to be designed with a maximum hydraulic leaching rate of 5 gal/sq.ft./day for On-Site and Community Sewage Treatment Systems without positive filtration processes.

h) Leaching pools or galleys installed in sand and gravel (defined by SP or SW by ASTM standards) shall be permitted to be designed with a maximum hydraulic leaching rate of 10 gal/sq.ft./day for On-Site and Community Sewage Treatment Systems with positive filtration processes.

i) Gravelless Absorption Trench Systems and Other leaching structures/systems (other than leaching pools and leaching galleys) shall be designed in accordance with Section

XVII Paragraph 4 and 5 of this standard.

j) Leaching structures designed in rows (e.g. leaching galleys, absorption trenches, etc.) shall be designed to be installed parallel with the ground contours to the greatest extent possible with the bottoms of the leaching structures installed as near level as possible. Abrupt changes in direction shall be avoided where possible.

k) Unless otherwise stated, leaching structures/systems shall be designed based upon 10NYCRR, Appendix 75-A or NYSDEC "Design Standards For Intermediate Sized Wastewater Treatment Systems".

2. Leaching Pool Design and Construction

a) Design Leaching Area

Leaching pool systems shall be designed on the basis of sidewall area to receive one full day's hydraulic design flow. The required sidewall leaching area is computed from the outside wall area below the inlet pipe for satellite pools and below the outlet pipe for distribution pools. The pool bottom area is not to be included in the leaching area computation.

b) Leaching Pool Design and Construction Details (**Figure #8**)

i. All leaching pools shall have an outside diameter of 8 feet or 10 feet.

ii. When more than one leaching pool is used, all pools shall be the same size and depth, except the distribution pool, which may differ.

iii. When a distribution pool is used, all outlet pipes shall be set at the same elevation and be at least 3 inches below the inlet pipe. All outlets shall be provided with an 18-inch drop tee.

iv. The maximum permissible depth of a precast concrete leaching pool is 25 feet from finished grade. The minimum permissible effective depth of any leaching pool shall be 3 feet.

v. All leaching pools (i.e. slabs, domes, covers, etc.) shall be constructed of precast reinforced concrete and designed to be traffic bearing to meet the requirements of AASHTO H-20 loading.

vi. All leaching pools shall be provided with one opening with a minimum diameter of 20 inches. A heavy-duty, watertight, insect-proof, adjustable and locking cast iron frame and cover shall be installed at grade over each opening.

vii. Extension Collars (chimneys) may be used for the purpose of bringing the cast iron covers to grade provided that they are firmly affixed in place. The extension collar (chimney) shall be of reinforced precast concrete at least 24 inches in diameter and shall not exceed 2 feet in height.

viii. The top slab or dome of the leaching pool shall be located a maximum of 2.5 feet below grade.

ix. All sewer pipes shall penetrate the vertical sidewall of the leaching pool and shall be sealed with grout. There shall be no penetrations within domes.

c) Leaching Pool Arrangement / Layout (**Figure #9**)

i. A maximum of three (3) leaching pools is permitted to be piped directly from the septic tank.

ii. When four or more leaching pools are required, a distribution leaching pool or a distribution manhole shall be used to apportion the flow to the satellite leaching pools.

iii. A maximum of four satellite-leaching pools shall be piped from a distribution pool or manhole to form one leaching pool cluster.

iv. When more than five leaching pools are required, multiple leaching pool clusters shall be provided. The leaching pool clusters may be piped directly from the septic tank or from distribution pools or manholes as required.

v. When multiple clusters are utilized, each cluster shall be equipped with a gate or ball valve to allow for isolation and resting. Each valve shall be outfitted with a traffic bearing cover that is accessible for operation from grade.

d) Installation Requirements

i. Leaching pools shall be installed in clean sand (defined as SP or SW by ASTM standards).

ii. Unsuitable soils shall be removed and replaced with clean sand for a diameter 6 feet greater than the leaching pool (3-foot collar) extending down until a hydraulic connection is established with a minimum 6-foot stratum of acceptable material.

iii. The bottom and sidewall area of the leaching pools shall be free of debris before backfilling.

3. Leaching Galley Design and Construction

a) Design Leaching Area

i. Leaching galley systems shall be designed on the basis of sidewall area to receive one full day's hydraulic design flow. The required sidewall leaching area is computed from the outside wall area the leaching galley bottom area is not to be included in the leaching area computation.

ii. The minimum effective depth of a leaching galley is 2ft. Leaching galleys with effective depths of less than 2ft but no less than 1ft may be designed in accordance with Section XVII Paragraph 4 of this standard.

b) Leaching Galley Design and Construction Details (**Figure #10**)

i. Leaching galleys shall have a length of 8.5 feet and width of 4.75.

ii. When more than one leaching galley is used, all leaching galleys shall be of nominally equal size.

iii. All leaching galleys (i.e. slabs, covers, etc.) shall be constructed of precast reinforced concrete and designed to be traffic bearing to meet the requirements of AASHTO H-20/HS-20 loading.

iv. All leaching galleys shall be provided with one opening with a minimum diameter of 20 inches. A heavy-duty, watertight, insect-proof, adjustable and locking cast iron frame and cover shall be installed at grade over each opening.

v. Extension Collars (chimneys) may be used for the purpose of bringing the cast iron covers to grade provided that they are firmly affixed in place. The extension collar (chimney) shall be of reinforced precast concrete at least 24 inches in diameter and shall not exceed 2 feet in height.

vi. The top slab or dome of the leaching galley shall be located a maximum of 2.5 feet below grade.

vii. All sewer pipes shall penetrate the vertical sidewall of the leaching galley and shall be sealed with grout.

c) Leaching Galley Arrangement / Layout (**Figure #10**)

i. Leaching galleys in the same row shall have a separation distance of 2 feet, and leaching galley rows shall have a separation distance of 4 feet between rows. Leaching galleys with an effective depth of greater than 4 feet shall be placed 8 feet apart.

ii. Rows shall not exceed 51 feet in length

iii. The leaching galleys shall be piped directly from the septic tank, I/A OWTS or a distribution structure.

iv. A maximum of four satellite leaching galley rows shall be piped from a distribution manhole.

v. When multiple rows are utilized, each row shall be equipped with a gate or ball valve to allow for isolation and resting. Each valve shall be outfitted with a traffic bearing cover that is accessible for operation from grade.

d) Installation Requirements

i. Leaching galleys shall be installed in clean sand (defined as SP or SW by ASTM standards).

ii. Unsuitable soils shall be removed and replaced with clean sand for a 3-foot collar around the leaching galley structure extending down until a hydraulic connection is established with a minimum 6-foot stratum of acceptable material.

iii. The bottom and sidewall area of the leaching galleys shall be free of debris before backfilling.

4. Gravelless Absorption Trench System Design and Construction

a) Open-bottom gravelless chambers and gravelless geotextile sand filter systems approved by the Department; or listed in the NYSDOH "Residential Onsite Wastewater Treatment Systems Design Handbook," Appendix C may be used for Other Construction Projects.

i. Open-bottom gravelless chambers and gravelless geotextile sand filter permitted under this section with direct discharge of septic tank effluent to the leaching structures/system under paved or otherwise compacted surfaces are not recommended. If these leaching structures/systems are required to be installed under a paved or otherwise compacted surface the Department recommends the use of an I/A OWTS prior to the leaching structures/system.

ii. All leaching structures/systems shall be designed to be traffic bearing to meet the requirements of AASHTO H-20 or HS-20 loading. If this cannot be provided, then the Department may permit these leaching structures to be installed in non-paved areas or areas with non-compacted surfaces if adequate means are provided to protect the leaching structure/system from any vehicular traffic.

iii. Trench leaching systems shall have a total minimum length based on percolation rate for the site and application rates stated in **Table 3.** The trench length required shall be based on 2ft wide trenches with 4ft between trenches. The maximum trench length shall be 60ft. Each trench should be the same length. A reduction in trench length may be granted based on the following:

a. A 33% reduction in total trench length when the leaching structures follow an I/A OWTS

b. A 25% reduction in total trench length when using gravelless chambers meeting all of the following criteria:

- Open-bottom infiltration area of 1.6 square feet per linear foot.
- Volumetric capacity of 7.5 gallons per linear foot.
- Open sidewall area for aeration and infiltration.

c. Use of 6 square feet per linear foot when using gravelless geotextile sand filter systems meeting all of the following criteria:

- Unit minimum width of 3 feet
- Unit minimum storage capacity of 12 gallons per linear foot
- A minimum 6 inches of sand must be installed below and on the sides of each unit (Sand that meets ASTM specification C33)

d. Note the reductions for 25% and 6 square feet per linear foot cannot be taken when taking the 33% reduction due to the use of an I/A OWTS.

iv. Trench leaching systems must be installed according to manufacturer's recommendations and adhering to this standard.

v. Effluent must be discharged to the trench system by gravity from a septic tank, I/A OWTS unit, or manhole/distribution box.

vi. Inspection ports with covers to grade must be installed at the mid-point of each trench, and clean-outs to grade should be installed at the end of each trench for maintenance purposes.

vii. An effluent filtering mechanism or effluent filter with a label indicating compliance with NSF Standard 46 or equivalent must be installed directly preceding the leaching structure in the septic tank discharge pipe to the leaching system. If an I/A OWTS is to be utilized, an effluent filtering mechanism or effluent filter may be required on the discharge pipe of the unit at the discretion of the Department.

A. Gravelless Absorption Bed Systems Design and Construction

a) Any open-bottom gravelless chamber and gravelless geotextile sand filter systems approved by the Department; or listed in the NYSDOH "Residential Onsite Wastewater Treatment Systems Design Handbook," Appendix C may be utilized to design the absorption bed system.

b) Absorption beds permitted under this section with direct discharge of septic tank effluent to the leaching structures/system under paved or otherwise compacted surfaces is not recommended. If these leaching structures/systems are required to be installed under a paved or otherwise compacted surface the Department recommends

the use of an I/A OWTS prior to the leaching structures/system.

c) All leaching structures/systems shall be designed to be traffic bearing to meet the requirements of AASHTO H-20 or HS-20 loading. If this cannot be provided, then the Department may permit these leaching structures to be installed in non-paved areas or areas with non-compacted surfaces if adequate means are provided to protect the leaching structure/system from any vehicular traffic.

d) The absorption bed systems shall have a total minimum area based on percolation rate for the site and application rates stated in **Table 3.** A maximum of 4ft spacing is permitted between the rows of leaching structure units (Note if using a gravelless geotextile sand filter product then the unit must have a width of 3ft, the unit must have a storage capacity of 12 gallons per linear foot, and the unit must have a minimum 6 inches of sand must be installed below and on the sides of each unit that meets ASTM specification C33). The maximum width of the trench shall be 20ft with a maximum length of 60ft.

e) Effluent must be discharged to the absorption beds by gravity from a septic tank, I/A OWTS unit, or manhole/distribution box.

f) Absorption bed systems must be installed according to manufacturer's recommendations and adhering to this standard.

g) Inspection ports with covers to grade must be installed at the mid-point of each row of leaching units, and clean-outs to grade should be installed at the end of each trench for maintenance purposes.

h) An effluent filtering mechanism or effluent filter with a label indicating compliance with NSF Standard 46 or equivalent must be installed directly preceding the leaching structure in the septic tank discharge pipe to the leaching system. If an I/A OWTS is to be utilized, an effluent filtering mechanism or effluent filter may be required on the discharge pipe of the unit at the discretion of the Department.

XVIII. MANHOLE REQUIREMENTS

1. General

Manholes are used as part of a sewage disposal and collection systems to distribute equal volumes of sewage, to allow for access, or to collect and re-distribute sewage.

2. Location

a) Manholes shall be provided on gravity sewer lines wherever there is a grade change or alignment change further than 10 feet from building foundations as measured along the pipe.

b) Manholes shall be provided on gravity sewer lines at intervals not exceeding 400 feet.

c) Manholes shall be provided at the junctions and at the ends of lateral or main sewer lines.

d) Building sewer connections shall not be piped directly to a collection system manhole, but shall be connected to the main line via a wye connection.

3. Design and Construction Details

a) All manholes (i.e. slabs, covers, etc.) shall be constructed of precast reinforced concrete and designed to be traffic bearing to meet the requirements of AASHTO H-20 loading.

b) All manholes shall be constructed in accordance with ASTM C-478 (latest revision).

c) All manholes shall be provided with an opening with a minimum diameter of 20 inches. A heavy-duty, watertight, insect-proof, adjustable and locking cast iron frame and cover shall be installed at grade over each opening.

d) Extension Collars (chimneys) may be used for the purpose of bringing the cast iron covers to grade if they are firmly affixed in place. The extension collar (chimney) shall be of reinforced precast concrete at least 24-inches in diameter and shall not exceed 2 feet in height.

e) The top slab of the manhole shall be located a maximum of 2.5 feet below grade.

f) The base section of all manholes (bottom slab and minimum of 1 foot of sidewall) shall be monolithically cast.

g) Precast concrete sections shall be sealed with one (1) - inch butyl rubber joint sealant, which conforms to ASTM C-990.

h) The bottom of all manholes shall be coved or benched. The bench shall be the same width as the diameter of the pipe and shall extend upward at least three-quarters of the diameter of the pipe.

i) All sewer pipes penetrating the manhole shall be accomplished with a cast- in place flexible rubber sleeve that conforms to ASTM C-923 and stainless steel tightening devices. For cases where a new penetration is being made into an existing manhole, a link seal may be substituted for the rubber boot.

j) If the manhole is more than four feet in depth, manhole steps shall be provided every twelve (12) inches. The steps shall be constructed of copolymer polypropylene coated 2-inch steel reinforcing bar. The access opening shall be provided over the manhole steps.

k) Whenever practical, manholes shall not be located in groundwater. For installations that are placed in groundwater, the bottom and side portion, up to 18 inches above the highest recorded groundwater elevation, of the manhole shall be monolithically

constructed. In cases where this is not practicable, the manhole shall be waterproofed up to 18 inches above the highest recorded groundwater elevation and leak tested to ensure tightness prior to operation. Maximum permissible leak rate is ¼ inch in 8 hours.

4. Types of Manholes

Manholes can be broken into four general categories. In addition to the items stated in paragraphs 1, 2, and 3 of this section above, each category shall conform to the following requirements:

a) Access/Junction Manhole (Figure #11)

i. Access/junction manholes shall have a minimum inside diameter of 4 feet.

ii. For pipe diameters of 24 inches or greater, the minimum inside diameter of the manhole shall be 5 feet.

iii. A minimum drop of 0.1 foot shall be provided between the inlet and lowest outlet invert elevation.

iv. The maximum change in elevation between the inlet and outlet invert shall be no greater than 2 feet.

b) Drop Manhole (**Figure #12**)

i. All drop manholes shall have a minimum inside diameter of 5 feet

ii. A drop manhole is required to be provided when the difference in elevation between the inflow and outflow sewer line is greater than 2 feet.

iii. The drop pipe shall be securely attached to the sidewall of the manhole with stainless steel straps.

c) Distribution Manhole (**Figure #13**)

i. All outlets from the distribution manhole shall be set at the same elevation.

ii. A minimum drop of 0.1 foot shall be provided between the inlet and outlet invert elevations.

d) Sampling Manhole (**Figure #14**)

i. Dimensions for sampling manholes shall be 2 foot by 2 foot.

ii. Maximum depth for sampling manhole shall be 4 feet.

iii. A minimum drop of 0.1 foot shall be provided between the inlet and outlet invert elevations.

iv. A 12-inch deep sample retention area shall be provided below the outlet invert elevation.

XIX. GRAVITY SEWER LINE REQUIREMENTS

1. General Sewer Line Requirements

a) Gravity sewer lines and fittings shall meet or exceed ASTM standard D-3034 for PVC sewer pipe with a minimum SDR 35 rating, unless otherwise indicated.

b) PVC pipe and fittings shall be provided with integral bells and spigots and rubber sealing rings. The sealing rings shall meet the requirements of ASTM standard F-477. All sewer lines shall be straight, and couplings shall be securely installed and be watertight.

c) All gravity sewer lines shall have a minimum diameter of four (4) inches and be buried below grade.

d) Where practical, gravity sewer lines shall not be installed in groundwater. For installations that are placed in groundwater, the sewer piping shall be constructed of pressure rated piping and tested to ensure tightness prior to operation. Maximum permissible leak rate is ¼ inch in 8 hours.

2. Internal Building Plumbing

a) Internal building plumbing shall be designed in accordance with applicable building codes and is outside the jurisdiction of the Department.

b) It is the preference of the Department that all individually owned buildings, residences, or premises be plumbed separately and serviced with an independent house connection to the exterior sanitary services.

c) The use of common house connections shall be permitted if the internal plumbing is designed to accommodate multiple sewer connections in accordance with good engineering practice and applicable building codes. In addition, restrictive covenants shall be placed upon the property notifying the owner and/or homeowners association of their responsibility for the operation and maintenance of the internal sewer appurtenances; including, but not limited to, the repair, replacement, and cleaning of the internal piping within the structure.

3. House Connections

a) A house connection is defined as the portion of the gravity sewer line, which extends from the face of the building to the sewage disposal or sewer system.

b) There shall be a minimum two-foot length of cast-iron sewer line extending through the foundation.

c) House connections shall have a minimum diameter of 4 inches, unless otherwise noted.

d) House connections serving two or more commercial or multiple residential units shall have a minimum diameter of 6 inches.

e) House connections shall have a minimum pitch of ¼ inch per foot.

f) Slip ring connectors of the proper type shall be used at the cast iron joint. If required, flexible PVC coupling with stainless steel bands may be used to connect cast iron pipe to PVC house Connections. The flexible coupling and bands shall conform to ASTM C1173. 4 inch by 4 inch flexible rubber couplings are not permitted. Consult the Department when attempting to couple to a pre-existing, non-conforming building house connection.

g) All house connections shall be provided with a clean-out at the exterior face of the building.

h) Cleanouts are required every 75 feet along the length the house connection. Refer to Figure #15.

i) House connections shall be straight. There shall be no bends in sewer lines to the septic tank, I/A OWTS, or grease trap. If bends are unavoidable, then the following additional criteria shall apply:

i. Cleanouts at each directional change are required.

ii. Use of a single 90-degree fitting with clean-out is prohibited.

iii. If a directional change greater than 45 degrees is required, a minimum of 5-foot length of pipe shall be installed between fittings.

iv. Directional changes should be limited to no more than 90-degrees and consisting of no more than two fittings located within 10 ft. of the building foundation unless proven absolutely necessary.

1. Manholes may be substituted for directional changes with clean-outs for bends located greater than 10 ft. from the building foundation.

4. Sewer Main / Lateral Sewer Requirements

a) Sewer main and lateral sewers shall have a uniform slope and be laid with a straight alignment, without bends. When required, approved manholes may be utilized where sewers change direction or slope.

b) House or building sewers shall be connected to main or lateral sewers with approved wye fittings.

c) Sewers shall be provided with manholes at intervals not to exceed 400 feet. See Section XVII for manhole location requirements.

d) Sewer main and lateral sewers shall have a minimum diameter of 8 inches, and shall have a minimum slope of 0.4%. 10-inch diameter sewers shall have a minimum slope of 0.28%.

e) Sewer main and lateral sewers that have less than 2 foot of cover or are not placed on virgin soil shall be constructed of ductile iron pipe.

f) Sewer main and lateral sewers that have between 2 foot and 4 foot of cover shall be constructed of DR18 or ductile iron pipe.

g) Sewer main and lateral sewers that have over 4 foot of cover may utilize SDR35 pipe.

5. Installation / Backfilling Requirements

a) The width of trenches shall be adequate to allow sewer pipe to be laid and joined properly and to allow bedding and haunching to be placed and compacted to adequately support the pipe.

b) The embedment material around the PVC pipe shall be installed in layers not exceeding six inches. The embedment material shall be Class I, Class II, or Class III. Class I material shall conform to the following standards: minimum particle size 3/4 inches, not less than 50% weight of material shall pass the 3/8-inch sieve. Class II material is defined as coarse sands and gravels with maximum particle size of 40 mm (1-1/2 inches), including variously graded sands and gravels containing small percentages of fines, generally granular and non-cohesive, either wet or dry. Unified Soil Classification types GW, CP, SW, SP are included in this Class. Class III material is defined as fine sand and clayey gravels, including fine sands, sand clay mixtures, and gravel - clay mixtures. All backfill material within one foot horizontally and one foot above the crown of the pipe shall be placed by hand and requires hand compaction.

c) Each layer of Class II and Class III material shall be compacted to a minimum density of ninety-five (95) percent of maximum density of the soil as determined by the Standard Procter Test AASHTO designation T-99.

d) For additional requirements concerning the installation of PVC sewer pipe, refer to ASTM standard D-2321 “Underground Installation of Thermoplastic Pipe for Sewers and Other Gravity- Flow Applications”.

6. Testing

Deflection testing of every section of sewer main or lateral sewers, constructed of PVC, is required by the Department. The total vertical wall deflection of the PVC pipe, as determined by testing not earlier than 30 days after placement and compaction of the final backfill, shall not exceed four (4) percent of the inside pipe diameter. The deflection shall be checked by manually pulling a "GO - NO GO" deflection testing mandrel through the pipe. The contractor shall conduct the tests under the observation of the certifying engineer / architect.

7. Certification

For projects that involve a sewage collection system, a licensed engineer / architect shall certify that all material, method of construction, installation, and testing of the sewer pipe meet the requirements of these standards as well as plans approved by the Department. Refer to **Appendix C** of these standards.

XX. SEPARATION OF SEWER AND WATER LINES

1. Parallel Installation

a) Sewers shall be laid at least 10 feet horizontally from any existing or proposed water main or lateral. The distance shall be measured edge to edge.

b) If it is not practical to maintain a horizontal separation of ten feet, the department may allow a deviation on a case-by-case basis. Such deviation may allow for the installation of the sewer to be a minimum of 5 feet to a water main or lateral, if the bottom of water main or lateral is at least 18 inches above the top of the sewer line.

c) If the vertical separation as described in item 2 above cannot be obtained, the department may allow a deviation on a case-by-case basis. Such deviation may allow for the installation of the sewer to be a minimum of 5 feet to a water main or lateral, if the bottom of the water main or lateral is at least 12 inches above the top of the sewer line and both are constructed of pressure rated pipe.

2. Crossings

a) The crossing of water and sewer lines should be avoided unless proven absolutely necessary.

b) Water Line over Sewer Line

In the event that the water line must cross over the sewer line, the following conditions shall be met:

i. sewer lines shall be laid below the water line and provide a separation of at least 18 inches between the bottom of the water line and the top of the sewer line; and
ii. sewer line joints shall be at least 10 feet from the point of crossing; and

iii. when it is not practical to obtain an 18-inch separation, both the water and sewer lines shall be constructed of pressure pipe and have a minimum separation of 12 inches between the bottom of the water line and the top of the sewer line.

c) Sewer Line over Water Line

In the event that the sewer line must cross over the water line, the following conditions shall be met:

i. adequate structural support shall be provided for the sewer to maintain line and grade; and

ii. water line and sewer line joints shall be at least ten feet from the point of crossing; and

iii. the entire length of sewer line between adjacent manholes or other sanitary structures shall be constructed of materials and joints that are equivalent to water main standards of construction; and

iv. a vertical separation of at least 18 inches shall be provided between the bottom of the sewer line and the top of the water line. In the event that this distance cannot be maintained, the department may allow a deviation on a case-by-case basis. In no case shall the separation distance be less than 12 inches between the bottom of the sewer line and the top of the water line.

XXI. SEPARATION OF SEWER AND DRAINAGE LINES

1. Sewers shall be laid at least 5 feet horizontally from any existing or proposed drainage line. The distance shall be measured edge to edge.

2. In the event that the drainage line must cross over the sewer line, the sewer line must be constructed of ductile iron pipe unless a separation distance of 18 or more inches is maintained.

3. In the event that the sewer line must cross over the drainage line, the sewer line shall be constructed of ductile iron pipe for a distance of 3 feet horizontally into virgin soil.

4. If perimeter roof drainage piping is installed near the face of the building, all house connections must be constructed of ductile iron pipe for 10 feet from the building.

XXII. BACKFILL AND FINAL GRADING

1. Backfill and Final Grading

The completed system shall be backfilled and covered with suitable soil following permission to do so by the Department. The property shall be graded to minimize surface drainage into the system. A maximum 5 percent slope downward shall be maintained for 20 feet horizontally from the nearest edge of the leaching portion of the structure(s) to the toe of the slope before

tapering off to prevent seepage of the leachate through the slope. Dummy rings that are utilized to bring the system to grade shall be permitted to be placed at a lesser horizontal distance. Steep grades further than twenty feet from the leaching structures shall be stabilized pursuant to local codes.

2. Retaining Walls

a) In cases where grading and slopes do not meet the requirements of paragraph 1. of this section, the utilization of retaining walls shall be required. In such cases, the retaining walls shall be designed by a licensed design professional in accordance with good engineering practice and applicable building codes. All retaining walls shall be shown as part of a grading and plot plan. Retaining walls designed to retain sewage are considered part of the sanitary system.

b) Retaining walls shall be constructed to meet the following requirements:

i. Retaining walls that are located within 20 feet of the sewage disposal system shall be constructed of reinforced concrete.

ii. No part of the sewage disposal system shall be placed closer than 10-feet from a retaining wall.

iii. If the leaching structures are located closer than 20 feet from the retaining wall, waterproofing will be required to prevent the seepage of leachate through the wall.

XXIII. SEWAGE PUMP STATIONS

1. General Requirements

Sewage disposal systems should be designed to flow by gravity. Only when absolutely necessary should pump stations be used. In such cases, the sewage pump station plans shall be prepared by a licensed design professional and must be reviewed and approved by the Department. In addition, construction and installation of sewage pump stations must be certified by a licensed professional engineer. For additional information concerning sewage pump stations refer to **GLUMRB - Recommended Standards for Wastewater Facilities -2014 edition (or latest revision)** and **NYSDEC - Design Standards for Intermediate Sized Wastewater Treatment Systems – March 5, 2014 edition (or latest revision).**

2. Location

a) Sewage pump stations and valve chambers must be located in an area that is easily accessible for proper operation and routine maintenance. Security fencing shall be provided around pump station installations. Refer to Section XI for additional requirements concerning the location of sewage pump stations.

b) Whenever practical, pumping stations that are utilized as lift stations within an on-site sewage disposal systems shall be located after the septic tank or I/A OWTS. In no instance shall the pump station be located prior to the grease trap.

c) Whenever practical, pump stations shall not be located in groundwater.

3. Design / Construction Requirements

a) All sewage pump station components are to be constructed of precast reinforced concrete or non-precast material such as fiberglass or plastic (except metal) and designed to be traffic bearing that meets the requirements of AASHTO H-20 unless proper protection is installed to prevent vehicular traffic from driving over the pump station. Concrete pumping stations shall have a minimum inside diameter of four (4) feet. Pump stations may be constructed of other materials if they are watertight, non-corrodible, and structurally sound.

b) The bottom and side portion, up to 18 inches above the inlet invert, of the station shall be monolithically constructed. In cases where this is not practicable, the pumping station shall be waterproofed up to 18 inches above the invert and leaked tested to ensure tightness prior to operation. Maximum permissible leak rate is ¼ inch in 8 hours.

c) Inlet sewer pipes penetrating the sidewall of the pump station shall be provided with cast-in-place rubber sleeves with stainless steel tightening devices or with a flexible rubber sleeve that conforms to ASTM C-923.

d) Pump station wet well volume shall be sized to prevent excessive retention of sewage while preventing frequent cycling of pumps. Minimum cycle times between 15 and 30 minutes are recommended. This requirement does not apply to pump stations installed after a septic tank or I/A OWTS.

e) The floor of the wet well shall be sloped toward the pump units to prevent the deposition of sewage solids.

f) Precast concrete sections shall be sealed with one (1) - inch butyl rubber joint sealant, which conforms to ASTM C-990.

g) The maximum permissible depth of a pump station from grade shall be 30 feet.

4. Mechanical Requirements

a) Duplex submersible sewage pumps that are automatically alternated shall be provided. A hand-off-automatic (HOA) switch shall also be provided for each pump. Each pump shall be capable of meeting the anticipated peak sewage design hydraulic flow rate.

b) In some cases, where the pump station is receiving raw sewage, grinder type sewage pumps may be required.

c) Pumps shall be readily removable and replaceable without dewatering the wet well or disconnecting any piping in the wet well. Stainless steel guide rails together with slide away flanges, or quick disconnect couplings shall be provided for this purpose.

d) Pump discharge piping within the pumps station shall be constructed of ductile iron or stainless steel piping.

e) Pump stations shall have adequate ventilation, by providing an intake fan that forces fresh air into the bottom of the lift station. The intake fan shall be capable of providing 12 air changes per hour for continuous operation or 30 air changes per hour for intermittent operation. An exhaust vent shall also be provided to remove sewer gases. Odor control equipment may be required for the exhaust vent.

f) A hinged and lockable (non-skid) aluminum or stainless steel door shall be provided to allow accessibility to the pumps.

g) A non-corrodible ladder with safety climb device shall be provided for access to the pumping station.

h) A hinged and lockable (non-skid) aluminum or stainless steel door shall be provided to allow access to the ladder.

i) Each pump shall be equipped with a stainless steel chain or cable. In addition, a pump-lifting device shall be provided on-site to facilitate the removal of the pumps.

j) There shall be no physical interconnection between any potable water supply and a sewage pumping station or any of its components.

5. Electrical Requirements

a) All electrical components, including pumps, fans, and wiring, shall be explosion proof and conform to the requirements for Class I, Division 1, Group D of the National Electrical Code.

b) There shall be no electrical splices, junction boxes, or connections of any kind in the sewage wet well. Junction boxes shall be located within a NEMA 4X enclosure outside of the pump station wet well.

c) The pump station shall be provided with a minimum of five pump control switches. These include: a) “Low Level Alarm”, b) “Pumps Off”, c) “Lead Pump On”, d) “Lag Pump On”, and e) “High Water Alarm”. Encapsulated mercury filled float switches shall be used for this purpose. A hand-off-automatic (HOA) switch shall also be provided.

d) Pump stations shall be provided with a dialer alarm that is activated by the low level and high-level alarms.

e) Alternative pump control devices, such as, a multitrode or bubbler system may be accepted in lieu of float controls. If an alternative device is utilized, a redundant high-level float and low-level float must be provided. The high-level alarm shall activate the dialer alarm and operate the pumps throughout the throw of the float. The low-level alarm shall activate the dialer alarm.

f) Pump station control panels should be located within a building or other enclosure when possible. If required, control panels may be located outside of buildings, if the controls are located within a NEMA 4X rated enclosure that is placed within another NEMA 3R box.

g) If pump control panel(s) are not within line of sight of the pumping station, then the pumps shall be outfitted with local disconnect switches at the pump station in lieu of a junction box.

h) When pump stations are serving Multiple Residential Type projects, a permanent emergency power generator set with an automatic transfer switch shall be provided at the site. For other types of projects, consult the Department. All equipment and installation shall conform to the requirements of the National Electrical Code.

i) A permanent light fixture shall be provided in the pump station wet well.

6. Valve Chamber

a) The valve chamber shall be constructed of precast reinforced concrete and designed to be traffic bearing that meets the requirements of AASHTO H-20.

b) Each pump shall be provided with a check and shut-off or isolation valve located within a separate chamber, outside of the pump station.

c) The piping within the valve vault shall be constructed of ductile iron or stainless steel piping.

d) A hinged and lockable aluminum or stainless-steel door with a non-skid surface shall be provided over the valve chamber to allow accessibility to all valves.

e) If necessary, access steps, constructed of polypropylene coated 2-inch steel bar shall be provided to access all valves from finished grade.

f) A permanent light fixture shall be provided in the valve chamber.

7. Certification

For projects that involve a sewage pumping station, a licensed design professional shall certify that all materials, method of construction, installation, and testing of the sewer pipe and equipment meet the requirements of these standards as well as plans approved by the Department. Refer to **Appendix C** of these standards.

8. Exceptions

The Department may accept pump station designs, which vary from the standards in cases of small sewage flows if the licensed design professional submits engineering justification acceptable to the Department. Examples of such variations include low-pressure pump stations, septic tank effluent pumping systems (STEP system), or pump stations/lift stations installed after a septic tank or I/A OWTS.

XXIV. SEWAGE FORCE MAINS

1. Materials

Force mains may be constructed of either, HDPE, PVC and/or ductile iron in accordance with the following criteria:

a) Plastic (PVC) sewer pipe used for force mains that have a diameter less than 4 inches shall be constructed of schedule 40 or 80 PVC pipe and meet the requirements of ASTM standard D-1785. Fittings shall have bell push-on joints and rubber-sealing rings constructed of ductile iron, grade 65-45-12, in accordance with ASTM standard A-536. The rubber sealing rings shall meet the requirements of ASTM standard F-477.

b) Plastic (PVC) sewer pipe and fittings used for force mains that have a diameter of four (4) inches or greater shall have a minimum rating of SDR-18 and meet or exceed the requirements of the AWWA C-900 series standards. Rubber sealing rings shall meet ASTM F-477.

c) HDPE sewer pipe used for force mains that have a diameter of four (4) inches or greater shall have a minimum rating of SDR-9 and meet or exceed the requirements of the AWWA C-900 series standards.

d) Ductile iron pipe shall conform to AWWA C-150 and C-151 standards and have a minimum class 52 designation. Ductile iron push-on-joints used with this pipe shall conform to AWWA C-111; fittings shall meet AWWA C-110 and C-153 standards.

2. Design

a) Force mains shall be designed to provide a minimum flow velocity of 2 feet per second and a maximum velocity of 8 feet per second. No force main shall have an inside diameter of less than two (2) inches.

b) Force mains used to pump raw sewage shall have a minimum diameter of 4 inches, unless grinder pumps are used.

c) Thrust blocks or restraints shall be provided where applicable throughout the length of a force main and shall be designed to contain the resultant thrust forces. Thrust blocks and restraints shall conform to AWWA C-600 standards.

d) Force mains shall be located a minimum of 4.5 feet below finished grade to protect against freezing. In certain cases, force mains may have less soil cover, provided the line is pitched so that sewage is not retained in the line between pump cycles.

3. Installation Requirements

a) The width of trenches shall be adequate to allow sewer pipe to be laid and joined properly and to allow bedding and haunching to be placed and compacted to adequately support the pipe. Refer to Section XIX, paragraph E concerning the material used for embedment around PVC pressure pipe.

b) For additional requirements concerning the installation of PVC pressure pipe, refer to ASTM standard D-2774 "Practice for Underground installation of Thermoplastic Pressure Piping".

c) Force mains constructed of ductile iron pipe shall be installed in accordance with AWWA C-600 standard.

d) Provide drain manholes at low points and air relief chambers/manholes at high points.

e) Provide a cleanout assembly at 400’ max. intervals and at bends equal to 45-degree and greater.

f) Concrete thrust blocks shall be provided at all bends.

4. Testing

Force mains shall be pressure tested at 200 psi for a minimum of 30 minutes to ensure water tightness prior to backfilling. The contractor shall conduct the test in the presence of the certifying design professional.

5. Certification

A licensed design professional shall certify that all material, methods of construction, installation and testing meet the requirements of these standards as well as plans approved by the Department. Refer to **Appendix C** of these standards.

6. Exceptions

The Department may accept force main designs, which vary from the standards in cases of small sewage flows if the licensed design professional submits engineering justification acceptable to the Department. . Examples of such variations include low-pressure pump stations, septic tank effluent pumping systems (STEP system), or pump stations/lift stations installed after a septic tank or I/A OWTS.

XXV. PUMP-OUT FACILITIES

1. General

When required, pump-out facilities for the purpose of emptying marine vessel, bus, or RV holding tank wastes shall be located in areas that are easily accessible for proper operation, maintenance, or replacement. The construction of such facilities shall meet the requirements of the NYSDEC and all other applicable authorities where required. Provisions for pump-out facilities should be based upon the following guidelines:

2. Design Considerations

a) Pump-out units may be portable or permanent, and should include a vacuum pump or a positive displacement type of pump to empty marine vessel and boat holding tank wastes. Pump-out units may be electrically or manually operated. If pump-out units are electrically operated, then all electrical components must be explosion proof, and meet NEC requirements.

b) All pump-out units shall be provided with a flexible suction hose and dripless nozzle.

c) All mechanical and electrical components must be adequately protected from freezing.

d) Pump-discharge piping or force mains must be constructed of materials and joints that meet water main standards. The force main may be constructed of Type 1, Grade 1, schedule 80 PVC sewer pipe, or PVC pressure rated SDR 18 pipe.

e) All pump-out units should be provided with a non-potable water service and an approved backflow prevention device for rinsing the onboard holding tanks.

f) Holding tanks shall be located in accordance with **Table 2** Section XI.

g) The minimum capacity of any holding tank shall be 1000 gallons, but a greater volume may be required, as determined by the Department.

h) Holding tanks shall be made watertight and leak tested to ensure tightness prior to operation. Maximum permissible leak rate is ¼ inch in 8 hours.

i) Holding tanks shall not have an outlet pipe but shall be provided with a hinged and locking access port. A locking cast iron frame and cover shall be provided at finished grade over the access port. Both the access port and access cover shall be watertight and insect proof.

j) Holding tanks shall be properly vented, and shall be equipped with a liquid level float switch, high water level alarm and auto dialer or other acceptable automatic notification system.

k) All mechanical and electrical equipment shall meet the requirements of the NEC.

3. Disposal of Holding Tank Wastes

    a) Holding tank wastes must be pumped out on a routine basis by a licensed scavenger vehicle and discharged to an acceptable treatment facility.

    b) Discharge of holding tanks wastes to an on-site sewage disposal system is prohibited.

4. Certification Required

    A design professional shall supervise the installation of pump-out facilities and certify that the systems are constructed in accordance with the approved plans and applicable codes.

5. Exceptions

    a) For cases where a municipal sewer is available, the marine vessel, bus, or RV waste can be pumped directly to the sewer system in lieu of providing an on-site holding tank.

    b) For cases where NYSDEC approval is required, the Department may consider alternative designs for pump-out facilities.

XXVI. ALTERNATIVE SEWAGE DISPOSAL SYSTEMS

1. General

    The sewage disposal systems addressed thus far in these Standards are considered typical systems and may be used on sites with adequate soil percolation and vertical/horizontal separation distances unless otherwise prohibited. For sites that are not suitable for such systems, the use of alternative systems may be permitted by the Department without need for a variance if the design meets the conditions listed in section XXVI.2 and is acceptable to the Department. The Department reserves the right to require a variance to utilize an alternative system in accordance with Article 2 and Article 6 of the Suffolk County Sanitary Code at any time in conformance with section XXIX.

2. Design Considerations

    In addition to the typical plan requirements, applications for alternative designs shall include the following:

    a) The system shall be designed by a licensed professional engineer.

    b) It is clearly demonstrated that the proposed system is physically equivalent or better than the conventional systems or I/A OWTS, in respect to storage capacity, leaching area, land area utilization, grading, accessibility, maintainability, reparability, life expectancy, effluent quality and reliability.

    c) An engineering report shall be submitted that defines the disposal system and determines that the proposed design is most suitable for the building site and that the

proposed sanitary system will function properly without causing any health hazard and will minimize the impact on the surrounding environment.

d) The design engineer shall supervise the installation of the system and certify that the system was constructed in accordance with the approved plans. An inspection log shall be maintained and a copy submitted to the Department if requested.

3. Examples of Alternative Systems

a) *Clustered Leaching Systems* - a leaching system that consists of shallow pools that are clustered to minimize the space requirement. Maximum effective depth of leaching rings shall not exceed 3 feet and can be located a minimum of 2 feet above the highest recorded groundwater elevation. Refer to Figure #16.

b) *Chamber Leaching System - a leaching system that consists of plastic chambers in lieu* of concrete leaching pools and can be located a minimum of 2 feet above the highest recorded groundwater elevation.

c) *Diffusion Well Systems* - a leaching system that utilizes wicks and other appurtenances to minimize the effects of poor soils.

XXVII. ABANDONMENT OF EXISTING SEWAGE DISPOSAL SYSTEMS

Existing disposal systems that are proposed to be abandoned as part of a project may require sampling and remediation prior to abandonment. Once the Department has issued approval for the closure, the existing sanitary system shall be abandoned in accordance with the following requirements:

1. *Abandonment In-Plac*e - existing systems shall be abandoned by removing all residual sewage wastes by a licensed waste hauler, removing the top of the structure(s), backfilling with suitable sand and gravel material, and properly compacting.

2. *Abandonment by Removal* - existing systems may also be abandoned by removing all residual sewage wastes by a licensed waste hauler, removing the entire structure(s), backfilling with suitable sand and gravel material, and properly compacting.

3. *Abandonment of Sewer Piping* - the associated sewer piping shall be cut and capped as a means of abandonment. The Department should be contacted for further abandonment requirements, if future construction is contemplated in the area of the abandoned septic system.

4. *Certification Required* - the abandonment of existing sewage disposal systems, either in-place, or by removal, must be certified by either a licensed design professional or licensed contractor as indicated by the Department on the Permit to Construct. For projects served by municipal sewer districts, the appropriate municipal agency with jurisdiction should also be contacted.

XXVIII. COVENANTS AND RESTRICTIONS

Restrictive covenants may be required when submitting an application to the Department. Covenant restrictions are applied on lots located in deep recharge or water supply sensitive areas and serve as notice regarding storage restrictions for toxic or hazardous materials or changes in use or occupancy. Other covenants restricting sanitary waste flows may be required where the Department determines that change in use could result in violation of approval conditions or when approval is contingent upon the applicant performing a future action. For further information, refer to Articles 6, 7, 12, 18, and 19 of the Suffolk County Sanitary Code.

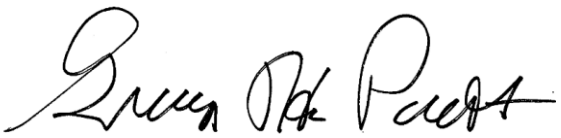
XXIX. VARIANCES

1. The Commissioner of the Department of Health Services, on written application, may grant a variance, in accordance with Section 220 of Article 2 of the Suffolk County Sanitary Code, from a specific provision of these Standards in a particular case, subject to appropriate conditions, where such variance is in harmony with the general purpose and intent of the Standards, and when such application for a variance has been considered by the Department in accordance with the requirements of Section 220 of Article 2 and Article 6 of the Suffolk County Sanitary Code.

2. The Commissioner may impose more stringent requirements in a specific case when necessary to ensure an adequate and satisfactory sewage and waste disposal system or to protect a sensitive habitat.

XXX. APPROVAL BY THE COMMISSIONER OF HEALTH SERVICES

In accordance with Section 221, Article 2, of the Suffolk County Sanitary Code, the foregoing are **Standards for Approval of Plans And Construction For Sewage Disposal Systems for Other Than Single-Family Residences** approved by the Suffolk County Commissioner of Health Services and include the required details for submission of plans and other information to the Suffolk County Department of Health Services to assure conformity to the approved Standards. These Standards are adopted July 21, 2020 and are effective immediately.



Gregson H. Pigott, MD, MPH
Commissioner of Health Services
Suffolk County

(Adopted 6/15/82; Amended 3/5/84, 2/5/88, 7/15/08, 11/20/08, 12/1/09, 12/29/17, 7/21/20)

FIGURE 1
TYPICAL SOIL PERCOLATION TEST ARRANGEMENT

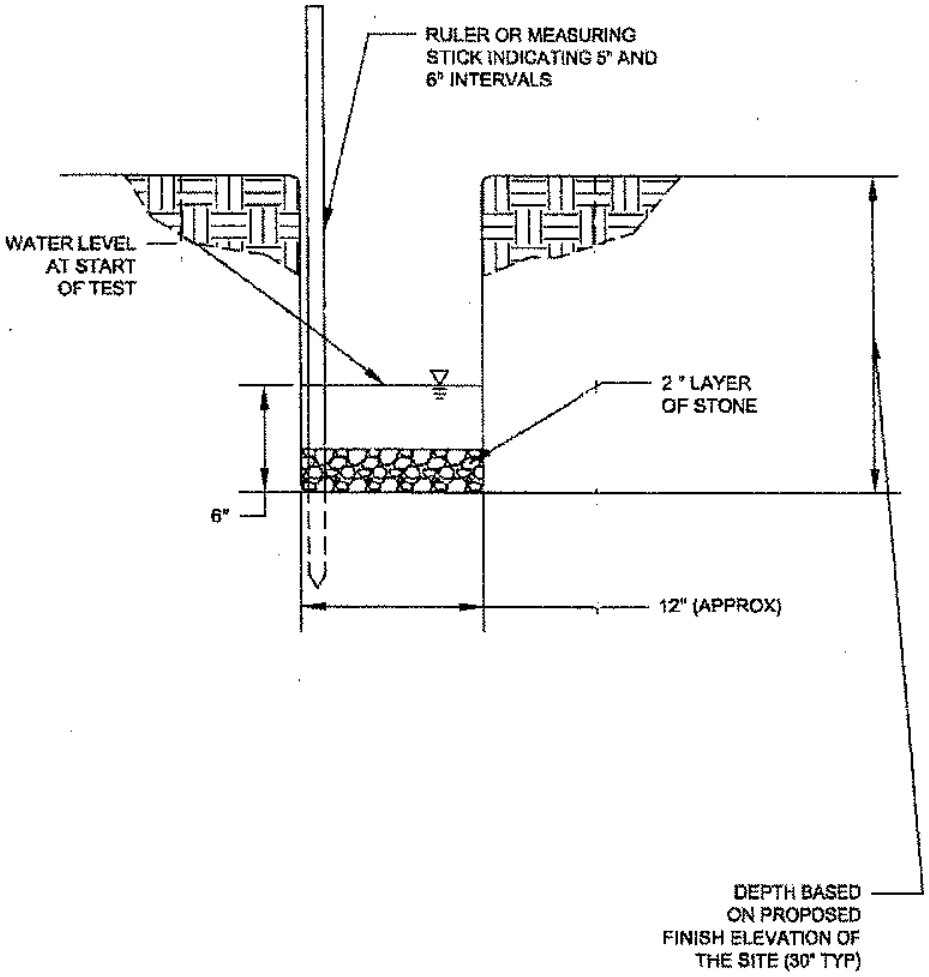


FIGURE 2
SINGLE UNIT CONCRETE SEPTIC TANK

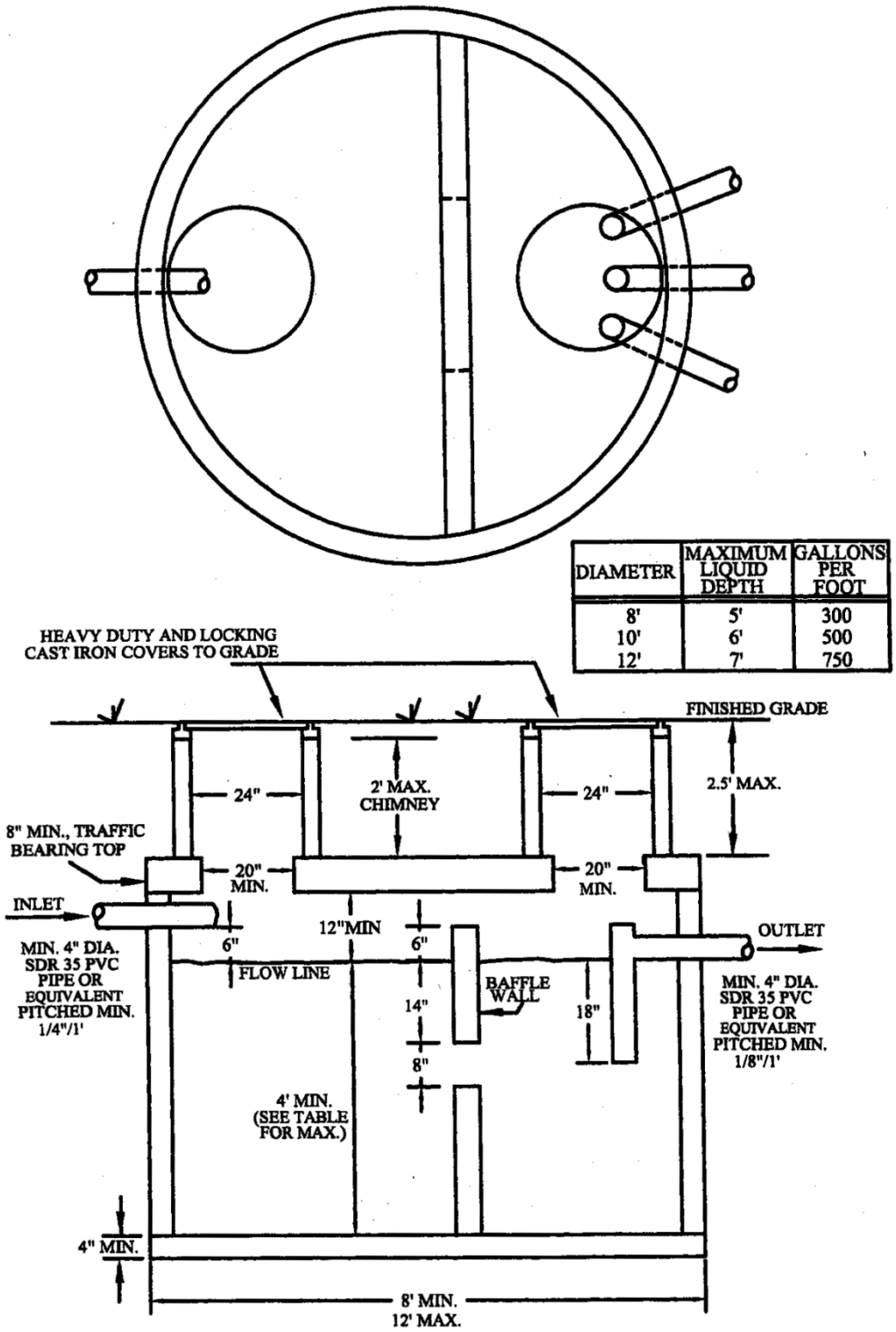
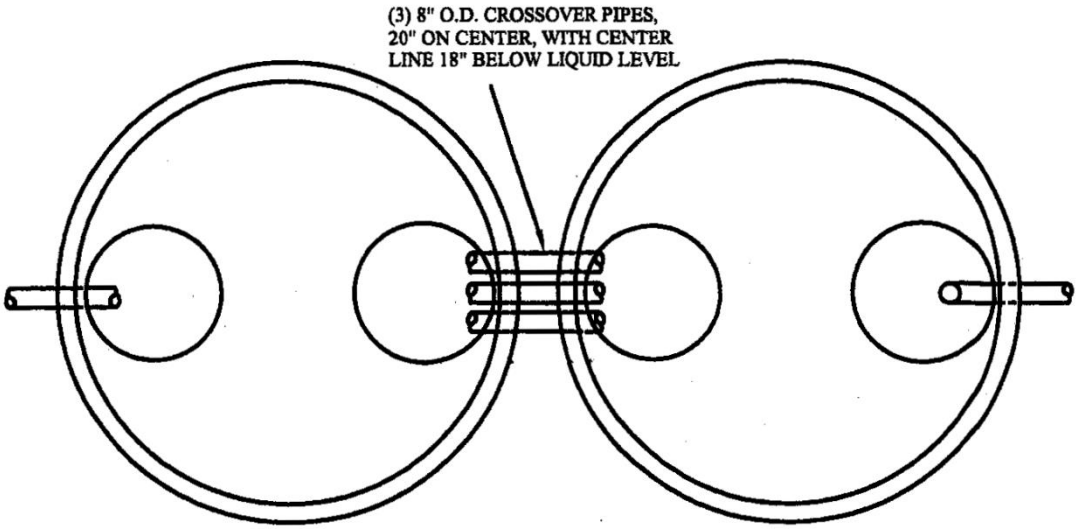


FIGURE 3
TWO UNIT CONCRETE SEPTIC TANK



DIAMETER	MAXIMUM LIQUID DEPTH	GALLONS PER VERTICAL FOOT IN EACH TANK
8'	5'	300
10'	6'	500
12'	7'	750

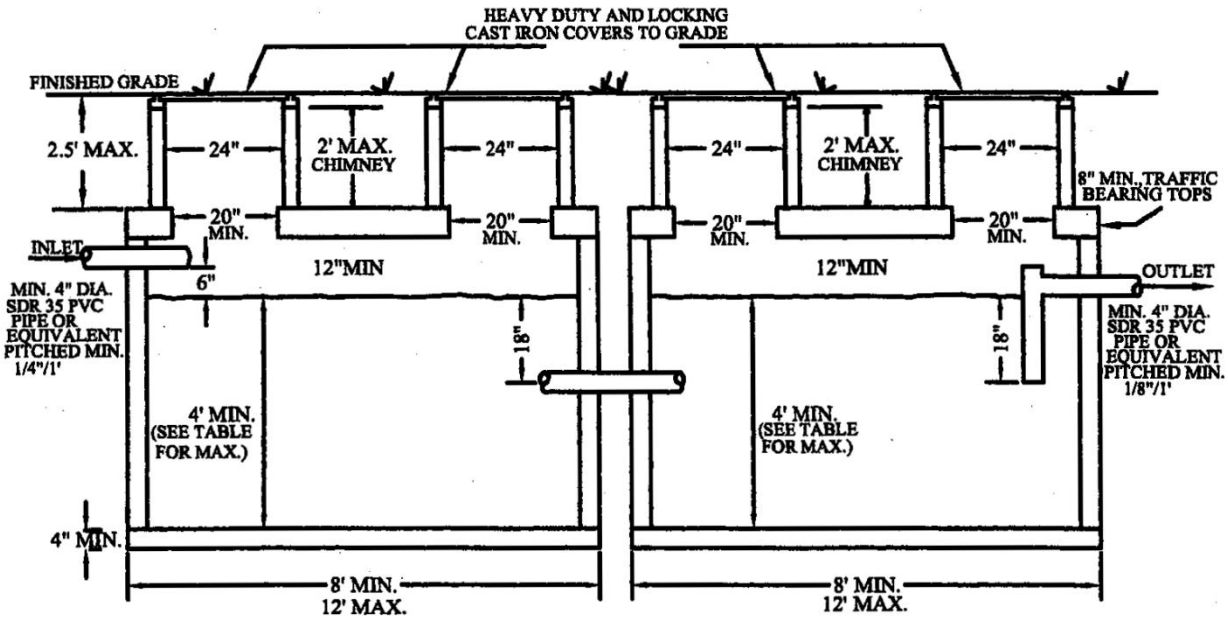
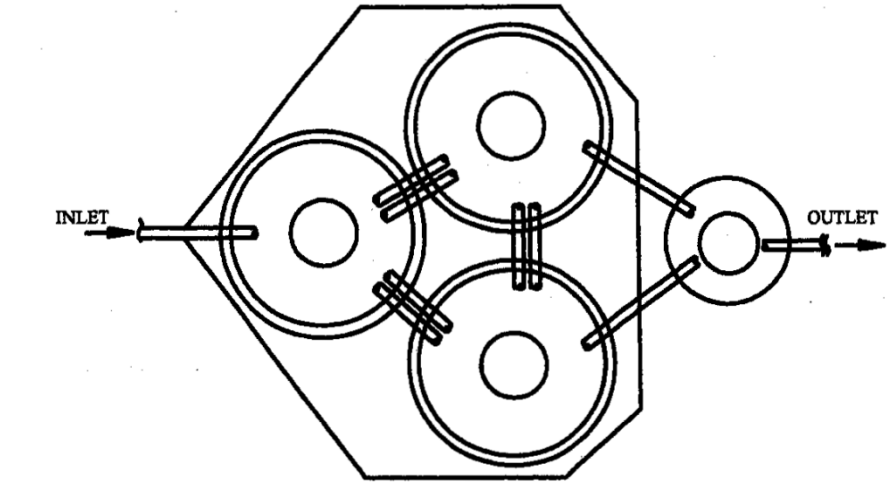
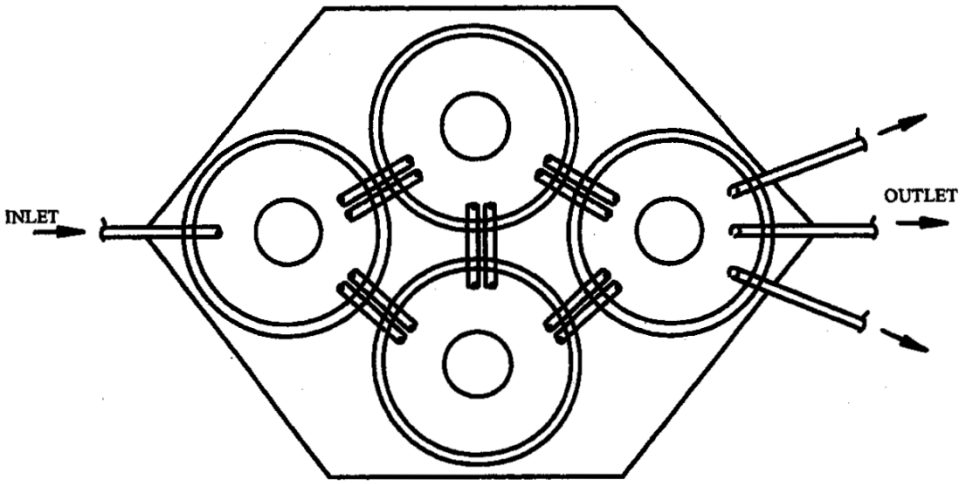


FIGURE 4
MULTIPLE UNIT CONCRETE SEPTIC TANK (3 & 4 UNITS)





(1) SEPTIC TANKS MUST BE CONSTRUCTED ON A COMMON REINFORCED CONCRETE SLAB AT LEAST 6" THICK.

(2) EACH COMPARTMENT SHALL BE CONSTRUCTED OF REINFORCED PRECAST CONCRETE SOLID RINGS, SOLID DOMES OR TOP SLABS.

(3) CROSSOVER PIPES MUST BE OF 8" O.D. PIPE, 20" ON CENTER, WITH CENTER LINE 18" BELOW LIQUID LEVEL.

(4) COVERS MUST BE PLACED OVER INLET AND OUTLET FOR SLAB TOPS OR IN CENTER FOR DOME TOPS.

FIGURE 5
MULTIPLE UNIT CONCRETE SEPTIC TANK (5 & 6 Units)

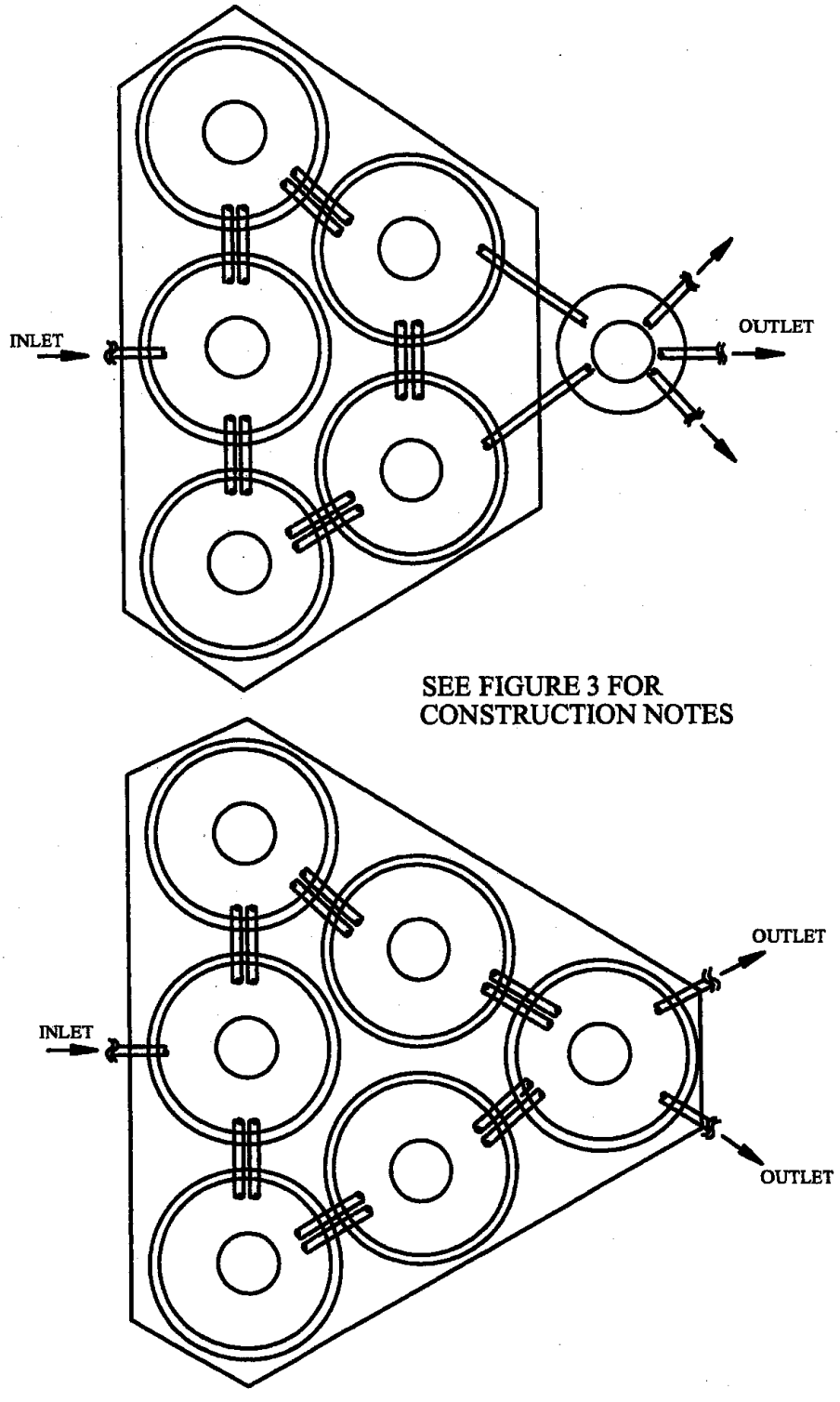
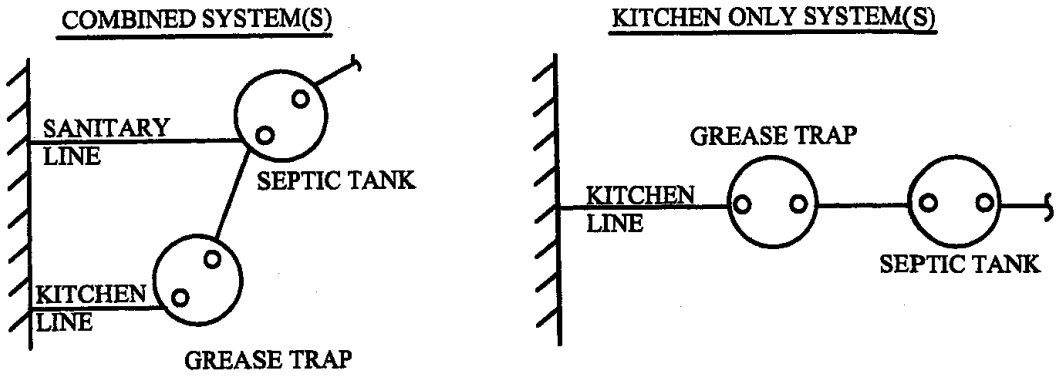


FIGURE 6
SINGLE UNIT CONCRETE GREASE TRAP



DIAMETER	MAX. DEPTH	GAL/FT
8'	5'	300
10'	6'	500
12'	7'	750

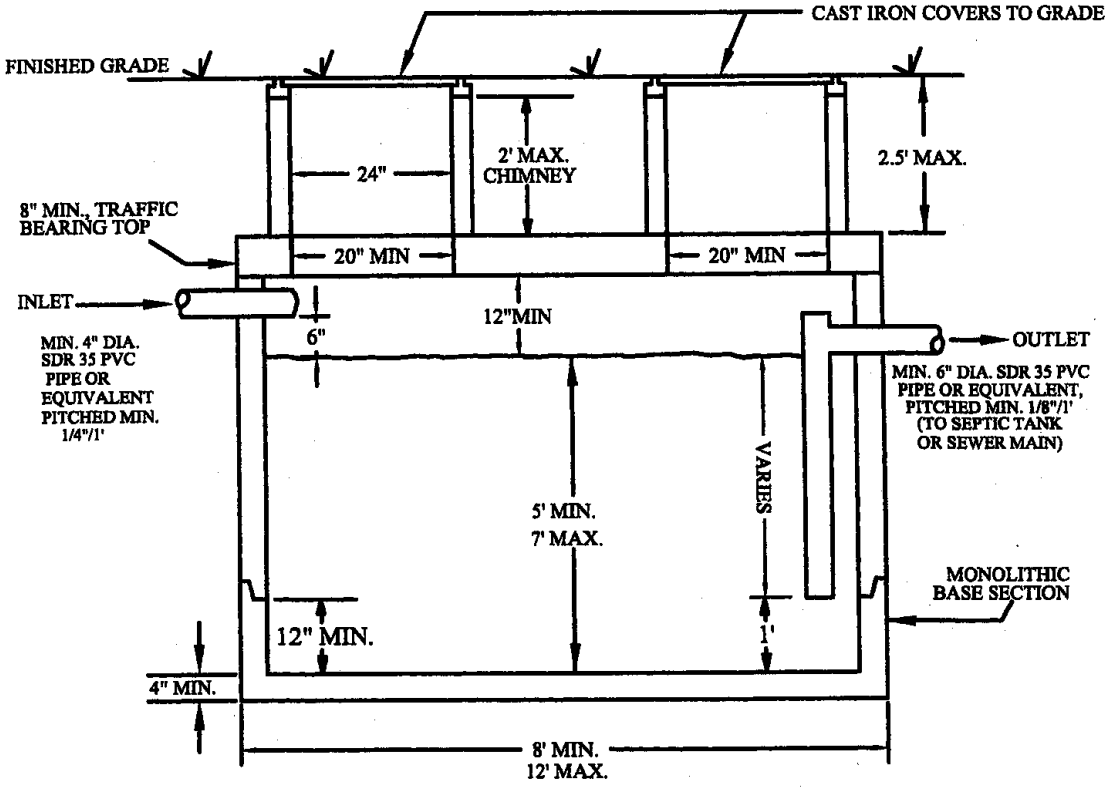
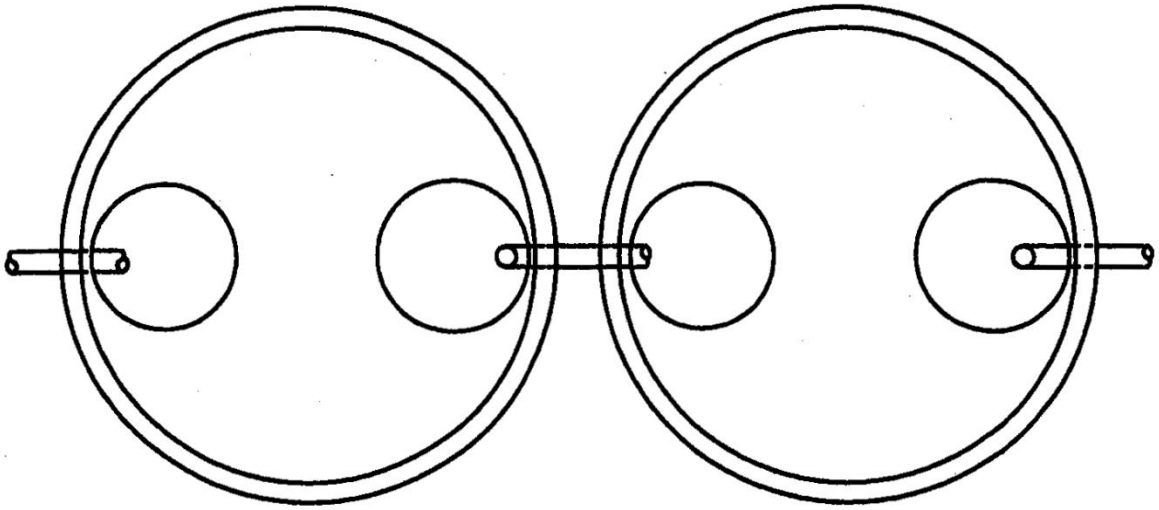


FIGURE 7
MULTIPLE UNIT CONCRETE GREASE TRAP
(2 Tank Example)



DIAMETER	MAXIMUM DEPTH	MINIMUM DEPTH		GAL/FT.
		INLET TANK	OUTLET TANK	
10'	6'	5.5'	5'	500
12'	7'	5.5'	5'	750

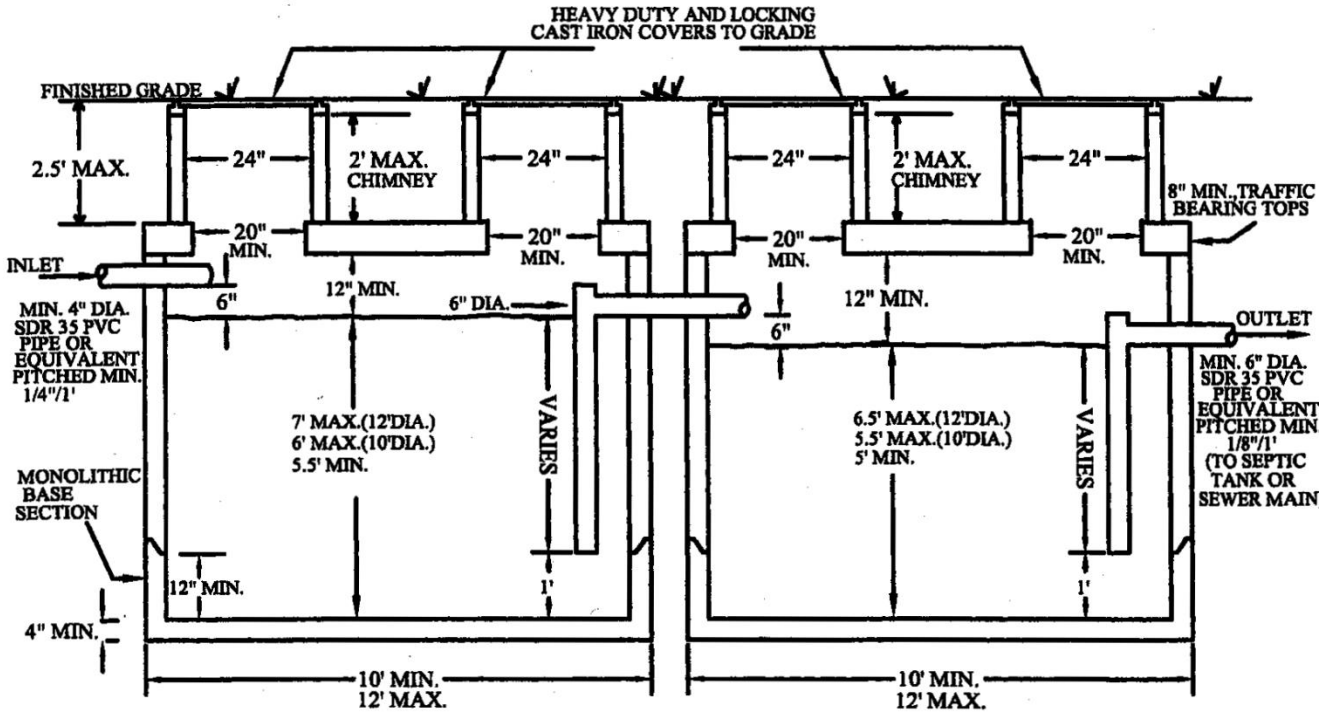


FIGURE 8
CONCRETE LEACHING POOL DESIGN AND CONSTRUCTION DETAILS

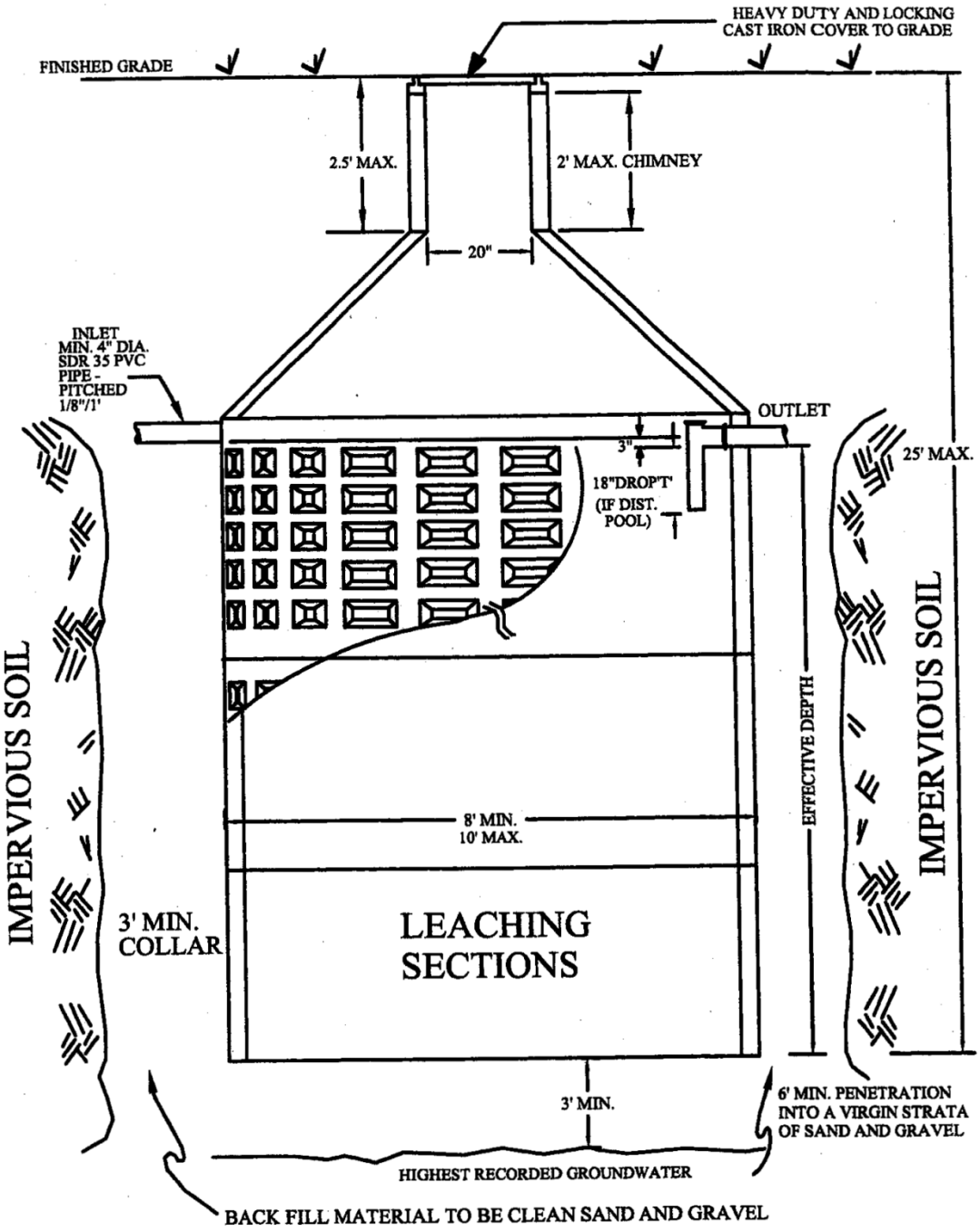


FIGURE 9
CONCRETE LEACHING POOL ARRANGEMENT/LAYOUT

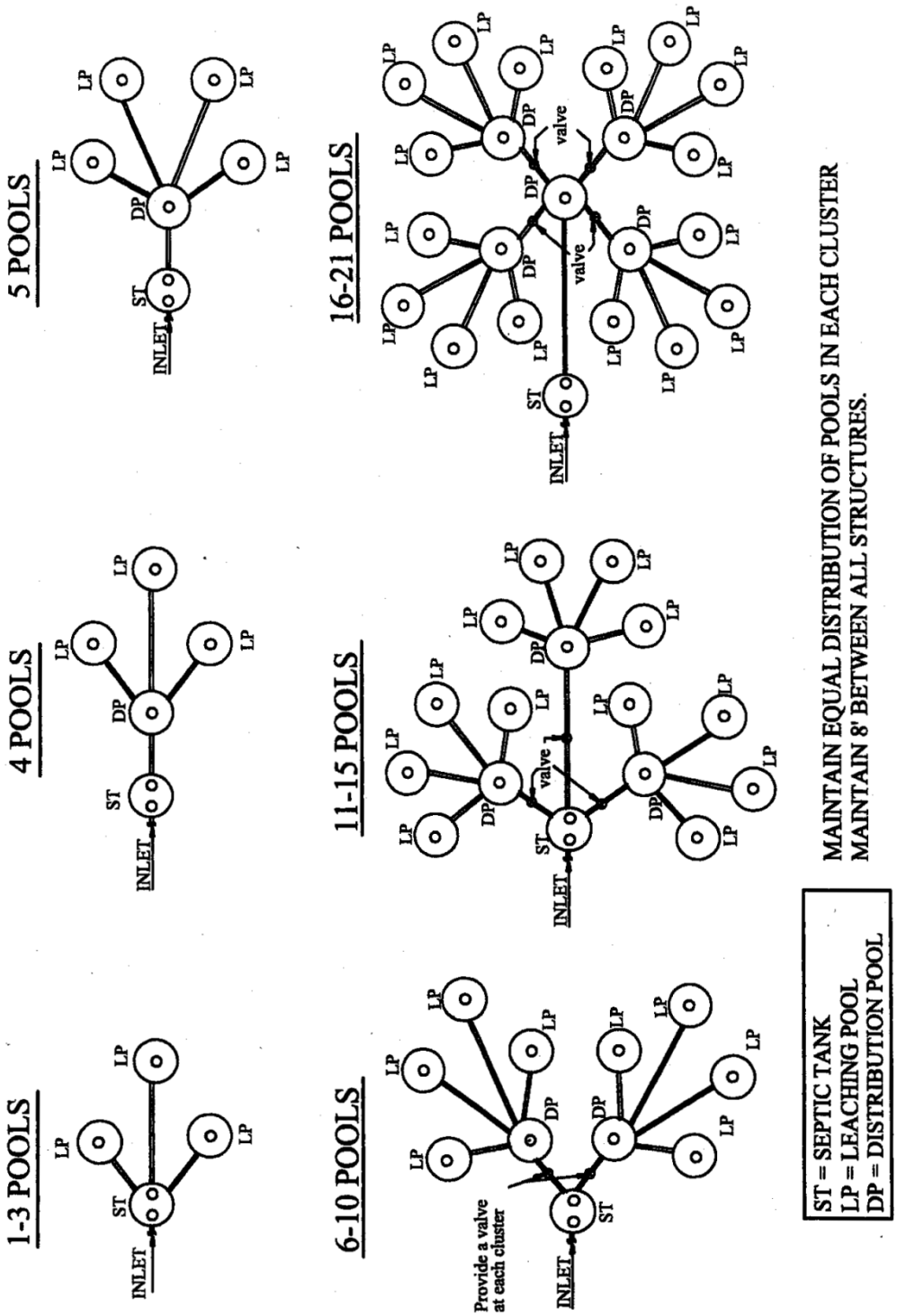
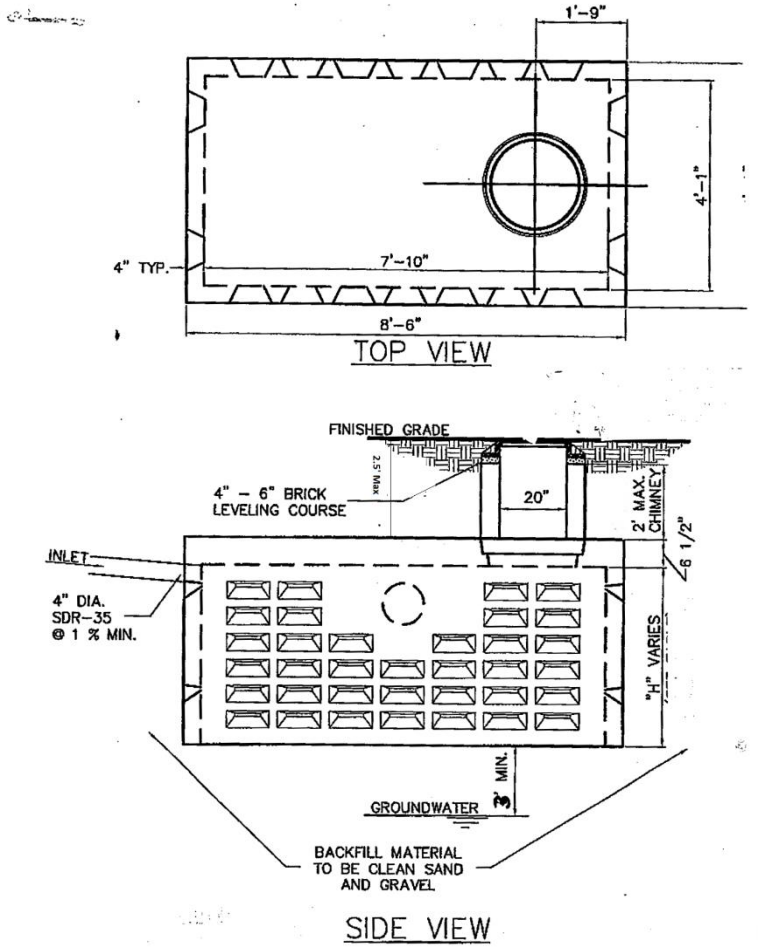
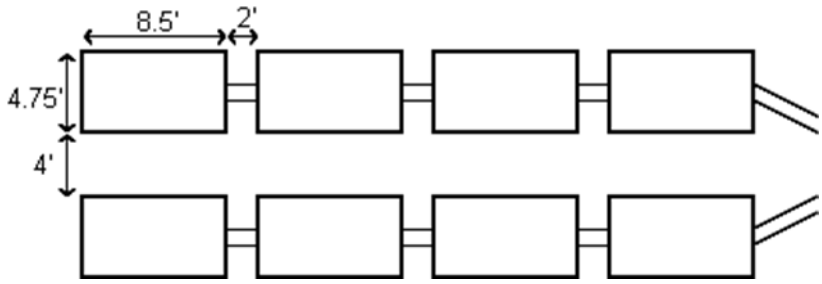


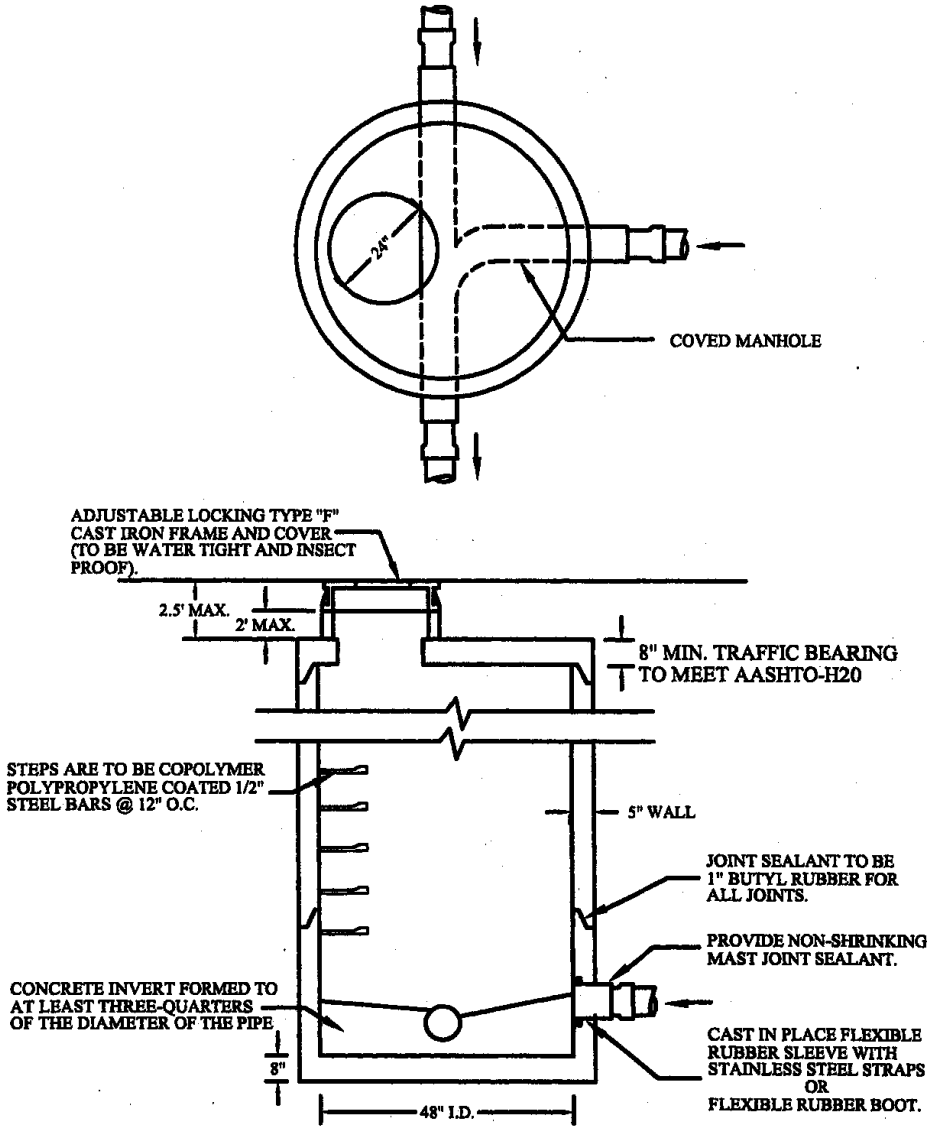
FIGURE 10
TYPICAL CONCRETE LEACHING GALLEY AND LAYOUT





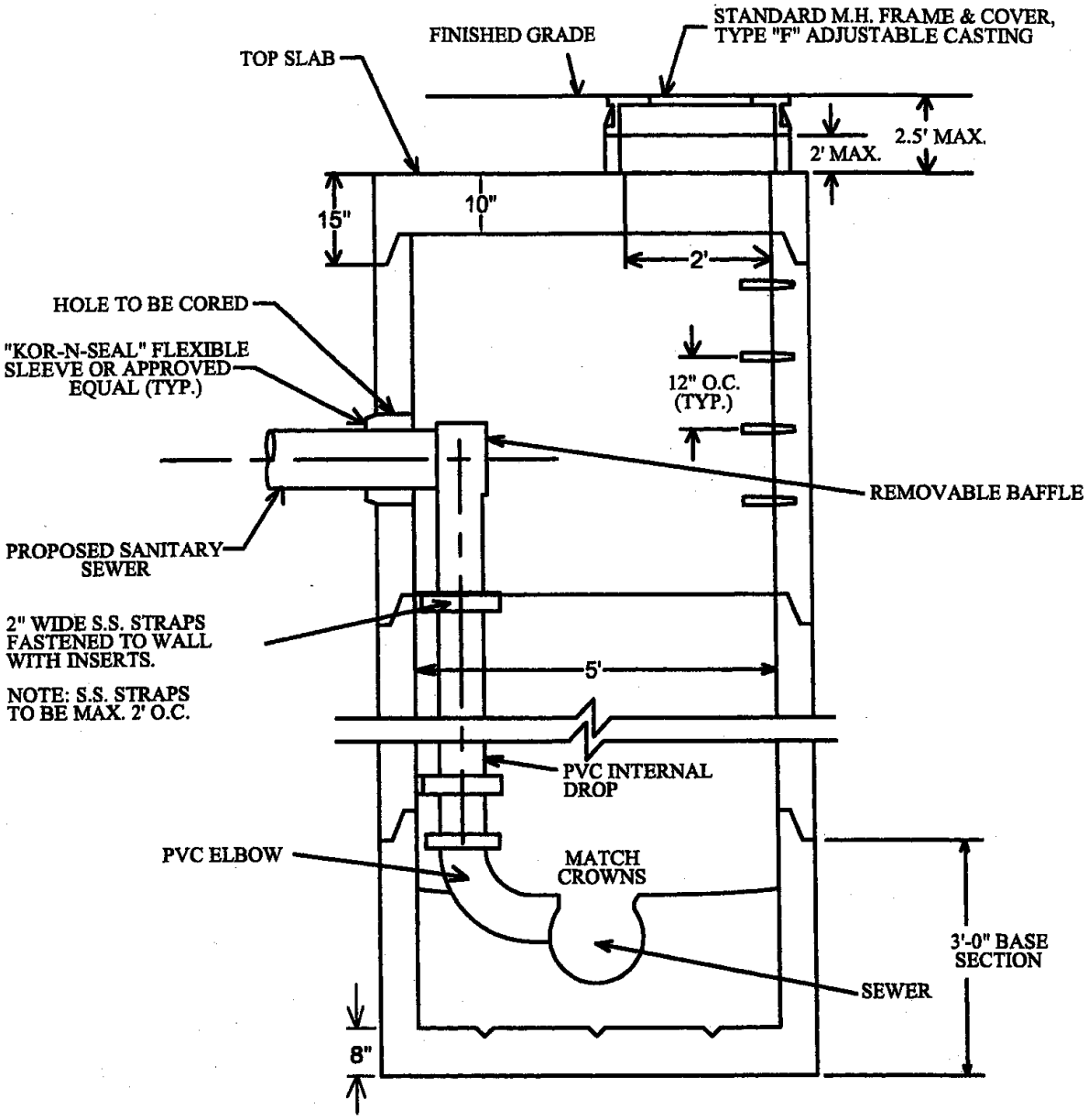
Dimensions (ft)			Area
Height	**Width**	**Length**	**SF/Unit**
2	4.75	8.5	53
2.5	4.75	8.5	66.25
3	4.75	8.5	79.5
3.5	4.75	8.5	92.75
4	4.75	8.5	106

FIGURE 11
CONCRETE ACCESS/JUNCTION MANHOLE



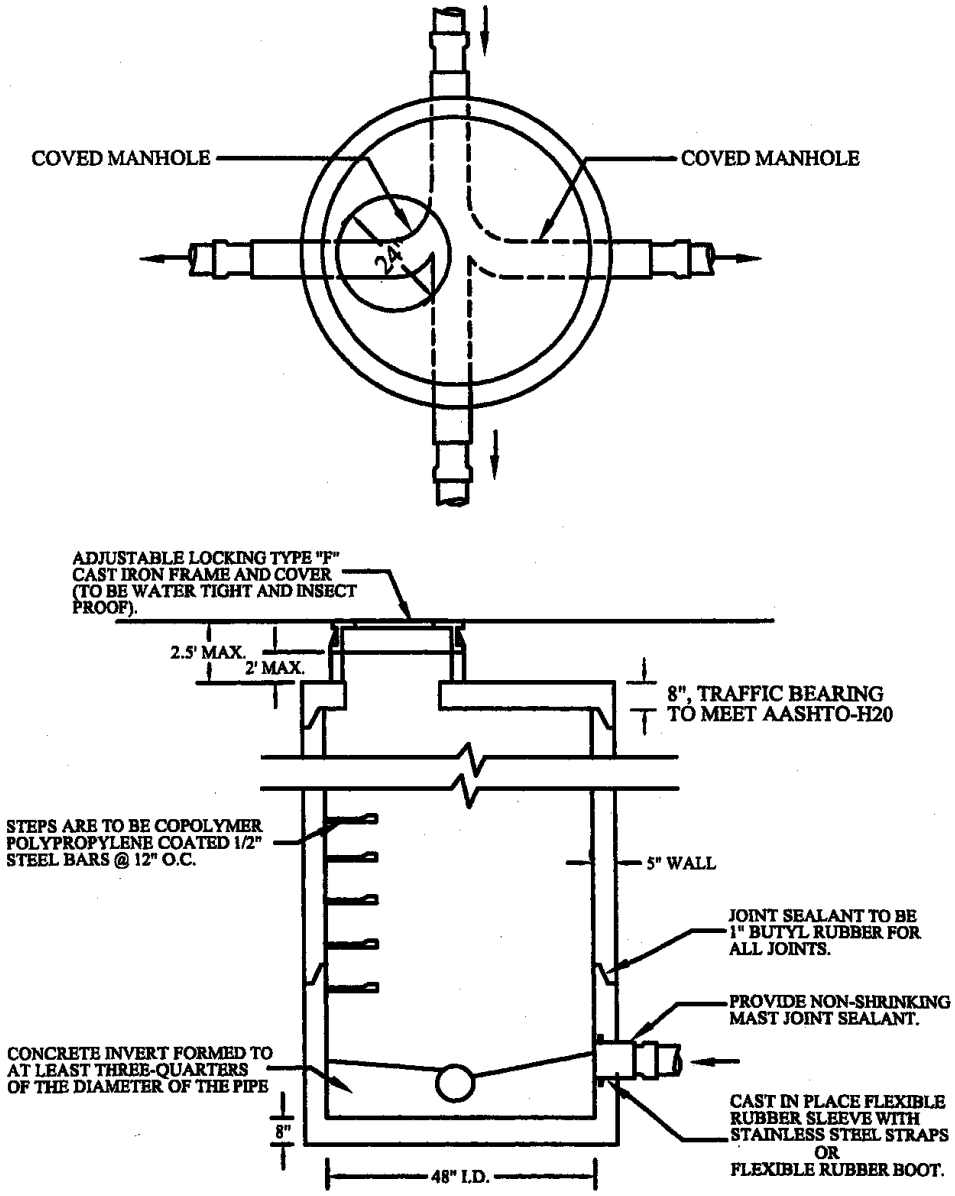
1. ALL MANHOLE SECTIONS SHALL CONFORM TO A.S.T.M. C-478, LATEST REVISION STANDARD SPECIFICATIONS FOR PRECAST REINFORCED CONCRETE M.H. SECTIONS.
2. MANHOLE RISER SECTION TO BE FURNISHED IN 1,2,3, OR 4' HEIGHTS, AS REQUIRED.
3. LOADING TO CONFORM TO AASHTO H-20 LOADING.
4. ALL CONCRETE IS TO MEET 4000 PSI AT 28 DAY SET.
5. OUTLET PIPE TO BE SET 0.1' MINIMUM BELOW INLET PIPES.
6. THE MAXIMUM CHANGE IN ELEVATION BETWEEN INLET AND OUTLET INVERT(S) SHALL BE NO GREATER THAN 2 FEET.

FIGURE 12
CONCRETE DROP MANHOLE



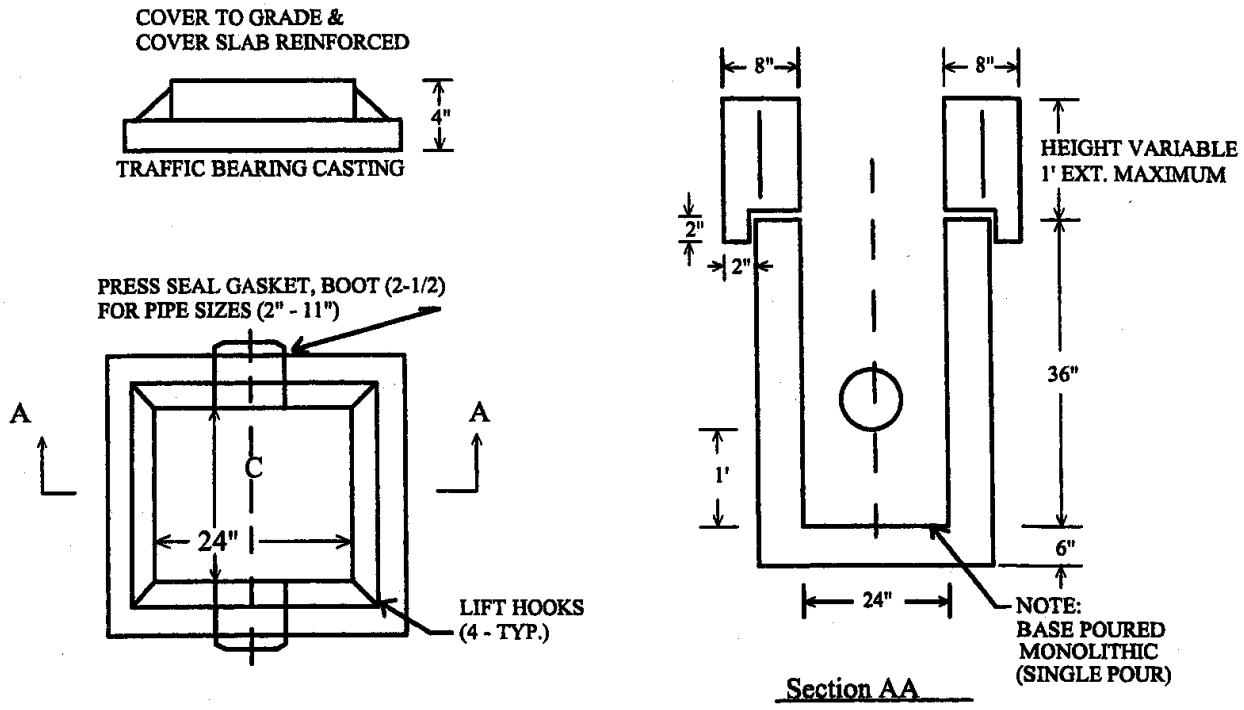
1. AN INTERNAL DROP ASSEMBLY SHALL BE USED AT ALL LOCATIONS WHERE THE INVERT ELEVATIONS DIFFER BY MORE THAN 2 FEET.
2. A 5' DIAMETER MANHOLE SHALL BE USED WHERE INTERNAL DROP MANHOLES ARE REQUIRED.

FIGURE 13
CONCRETE DISTRIBUTION MANHOLE



1. ALL MANHOLES SECTIONS SHALL CONFORM TO A.S.T.M. C-478, LATEST REVISION STANDARD SPECIFICATIONS FOR PRECAST REINFORCED CONCRETE M.H. SECTIONS.
2. MANHOLE RISER SECTION TO BE FURNISHED IN 1,2,3, OR 4' HEIGHTS, AS REQUIRED.
3. LOADING TO CONFORM TO AASHTO H-20 LOADING.
4. ALL CONCRETE IS TO MEET 4000 PSI AT 28 DAY SET.
5. ALL OUTLETS ARE TO BE SET AT THE SAME ELEVATION, 0.1' MINUMUM BELOW INLET(S).

FIGURE 14
CONCRETE SAMPLING MANHOLE



1. 2'X2' SEWER ACCESS PORT TO 4' MAXIMUM WORKING DEPTH
2. WORKING DEPTH = TOP OF MANHOLE COVER TO LOWEST PIPE INVERT

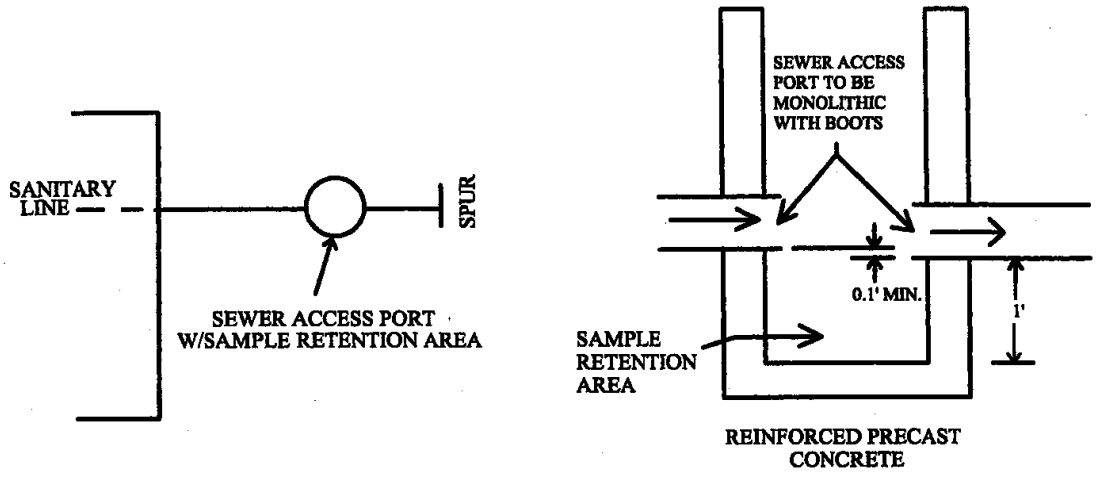
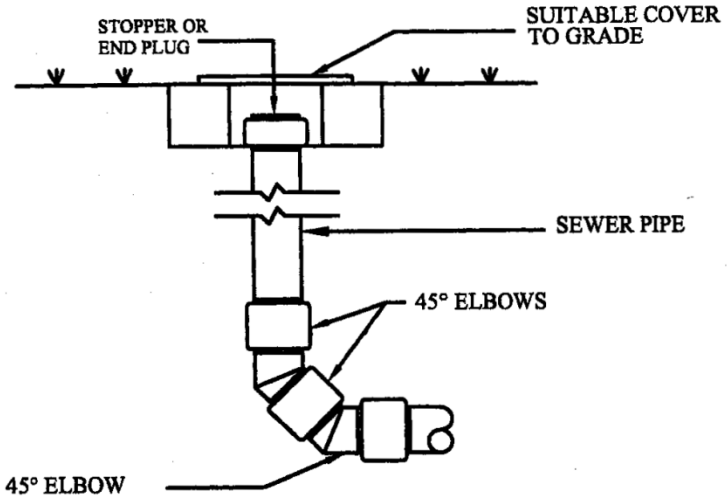
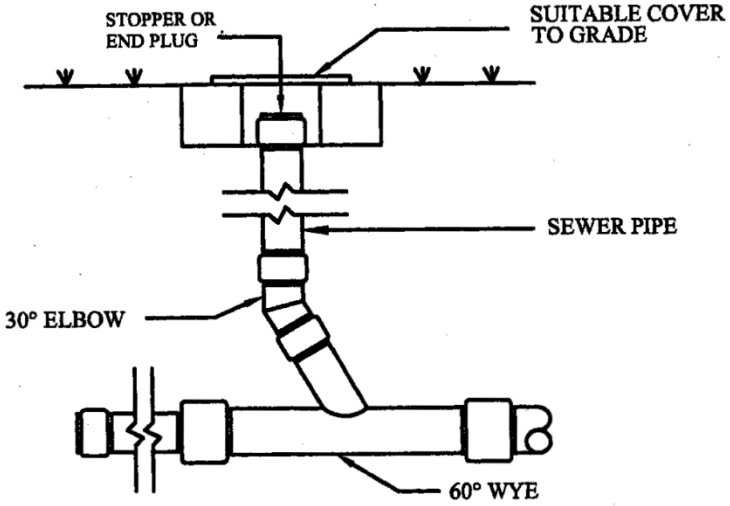


FIGURE 15
TYPICAL CLEAN-OUT DETAIL



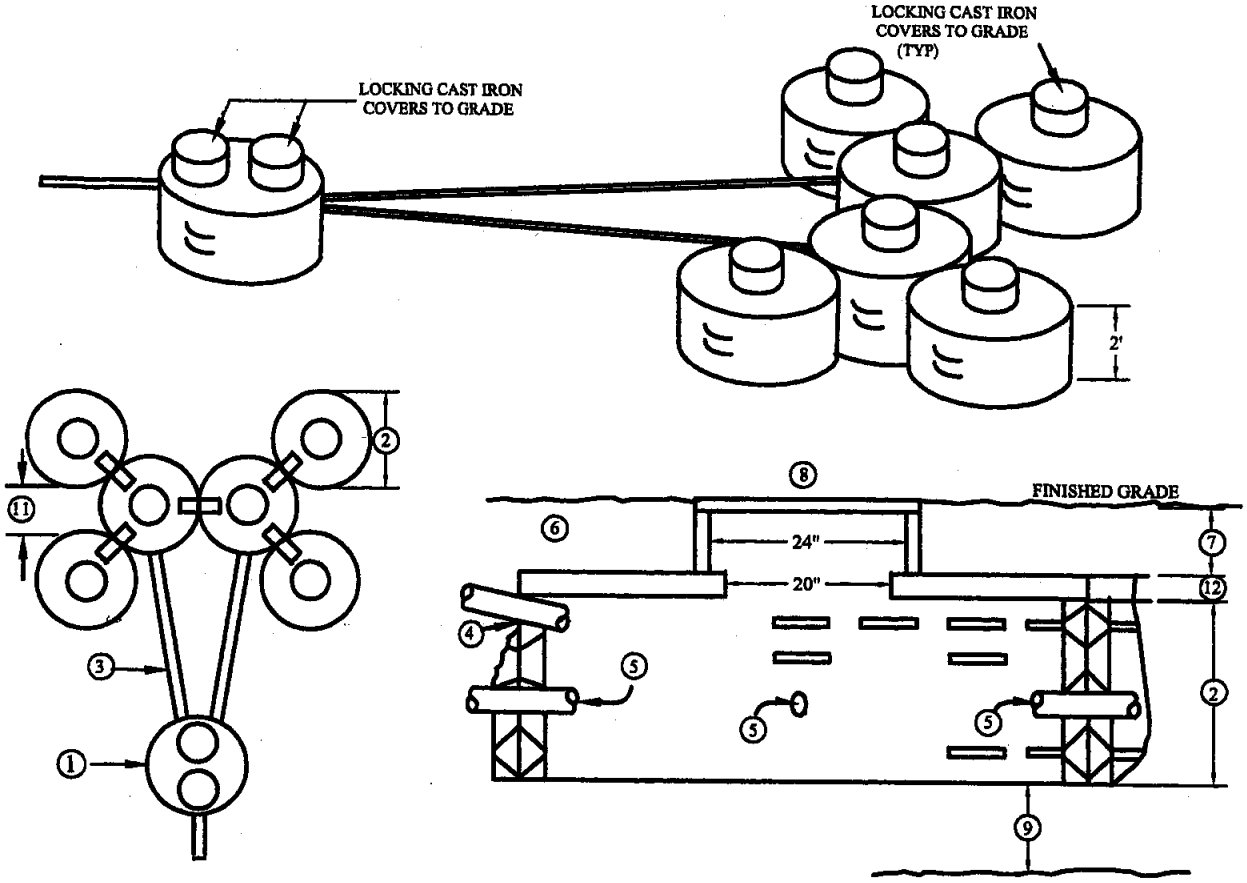
ALTERNATE "A"



ALTERNATE "B"

1. CLEANOUT(S) LOCATED IN TRAFFIC AREAS SHALL BE PROVIDED WITH TRAFFIC BEARING FRAME AND COVER.
2. IN ALL VIEWS, ALTERNATE "A" IS FOR BENDS, ALTERNATE "B" IS FOR USE WITH BUILDING EXTENSION/CONNECTION.

FIGURE 16
PRE-CAST CLUSTERED DISPOSAL SYSTEM FOR HIGH GROUNDWATER



DETAILS OF CONSTRUCTION

1. REINFORCED PRECAST CONCRETE SEPTIC TANK (1,200 GALLON MINIMUM).
2. USE SIX (6) 10 FT. DIAMETER, 2 FT. HIGH PRECAST CONCRETE LEACHING RINGS.
3. USE 4 INCH DIAMETER, APPROVED SEWER PIPE THROUGHOUT.
4. THE WASTE LINES FROM THE SEPTIC TANK SHOULD ENTER THE MIDDLE RINGS AS HIGH AS POSSIBLE.
5. USE A CROSS-OVER PIPE BETWEEN THE MIDDLE RINGS AND THE FOUR OUTSIDE RINGS, EIGHT (8) INCHES ABOVE THE BOTTOM.
6. BACKFILL MATERIAL SHALL BE COARSE SAND AND GRAVEL.
7. SLABS SHALL BE 2.5' MAXIMUM BELOW GRADE WITH A 2' MAXIMUM COLLAR.
8. SOLID HEAVY DUTY AND LOCKING CAST IRON COVERS TO GRADE ON ALL POOLS.
9. BOTTOM OF POOL SHALL BE A MINIMUM OF 2 FEET ABOVE HIGH RECORDED GROUNDWATER.
10. SHOW AREA FOR 50% EXPANSION OF THE LEACHING POOLS WHICH MAXIMIZES SIDEWALL AREA.
11. MAXIMIZE THE DISTANCE BETWEEN THE FOUR (OUTER) SATELLITE POOLS.
12. TOP SLAB SHALL BE 8" MINIMUM (THICKNESS) AND TRAFFIC BEARING.
13. EACH (6) POOL CLUSTER AS SHOWN, PROVIDES THE EQUIVALENT OF 300 SF OF SIDEWALL LEACHING AREA (DUE TO SIDEWALL MASKING). ADDITIONAL LEACHING CLUSTERS MAY BE ADDED AS NEEDED.
14. THIS DISPOSAL SYSTEM IS FOR AREAS WITH HIGH GROUNDWATER CONDITIONS.

COUNTY OF SUFFOLK

STEVEN BELLONE
SUFFOLK COUNTY EXECUTIVE

SUFFOLK COUNTY
DEPARTMENT OF HEALTH SERVICES
DIVISION OF ENVIRONMENTAL QUALITY

STANDARDS FOR APPROVAL OF PLANS
AND CONSTRUCTION FOR
SEWAGE DISPOSAL SYSTEMS FOR
OTHER THAN SINGLE-FAMILY RESIDENCES

APPENDIX A

STANDARDS FOR CONSTRUCTION OF MODIFIED SUBSURFACE SEWAGE DISPOSAL SYSTEMS AND SMALL COMMUNITY SEWERAGE SYSTEMS

December 1, 2009

Gregson H. Pigott, MD, MPH
Commissioner of Health Services

Walter Dawydiak, PE, JD.
Director of Environmental Quality

TABLE OF CONTENTS

Section **Page**

A1. GENERAL/APPLICABILITY 1

A2. SUBMISSION REQUIREMENTS 1

A3. LOCATION OF MODIFIED SUBSURFACE SEWAGE DISPOSAL SYSTEMS AND SMALL COMMUNITY SEWAGE SYSTEMS 2

A4. SPECIAL DESIGN CONSIDERATIONS THAT MAY WARRANT REDUCED SEPARATION DISTANCES 3

A5. FINAL RECHARGE 5

A6. EXPANSION AREA REQUIREMENTS 5

A7. LABORATORY REQUIREMENTS 6

A8. ODOR REQUIREMENTS 6

A9. SPDES PERMIT REQUIREMENTS 6

A10. MONITORING WELLS 6

A11. FINAL APPROVAL REQUIREMENTS 7

A12. APPROVAL BY THE COMMISSIONER OF HEALTH SERVICES 9

LIST OF TABLES

TABLE A1 – MINIMUM SEPARATION DISTANCES 3

TABLE A2 – MODIFIED SEPARATION DISTANCES 5

LIST OF FIGURES

FIGURE A1 – TYPICAL MONITORING WELL 10

APPENDIX A

STANDARDS FOR CONSTRUCTION OF MODIFIED SUBSURFACE SEWAGE DISPOSAL SYSTEMS AND SMALL COMMUNITY SEWERAGE SYSTEMS

A1. GENERAL / APPLICABILITY

This appendix sets forth standards for both modified subsurface sewage disposal systems (MSSDS), also known as denitrification systems, and for small community sewerage systems (SCSS) that do not exceed 15,000-gpd total design flow. Standards for collection systems (sewer mains) and for larger sewage treatment plants are not included herein. Refer to latest edition of Recommended Standards For Wastewater Facilities – GLUMRB, to Suffolk County Department of Public Works, and to **Appendix B** of these standards for sewer main and treatment plant requirements. These standards are applicable only for technologies that have received prior approval by New York State Department of Environmental Conservation for use within Suffolk County. The standards do not address the method of obtaining such approval.

These standards serve as a supplement to **Standards For Approval Of Plans And Construction For Sewage Disposal Systems For Other Than Single Family Residences** (the STANDARDS) and include minimum separation distances from process tanks and leaching pools to buildings, property lines, and surface water. The statutory authority for this appendix can be found in Article 6 Section 760-603 and 607 of the Suffolk County Sanitary Code.

Definitions of terms used herein can be found in the STANDARDS and in Article 6. When used in this appendix, a "small" community sewerage system is defined as a community sewerage system with a total design sewage flow of less than or equal to 15,000 gpd. The standards in this appendix apply to both MSSDS and SCSS. All plans for construction of new MSSDS and SCSS as well as plans to upgrade or expand existing systems must meet these requirements.

An MSSDS may be approved as a method of sewage disposal for a single parcel provided the construction project is not located in a realty subdivision or development as defined by Article 6 of the Suffolk County Sanitary Code where such subdivision or development was approved by the Department after January 1, 1981. The total design flow must be at least 450-gpd and cannot exceed 15,000-gpd and the total nitrogen in the effluent stream cannot exceed 10 mg/l. Projects with a modified subsurface sewage disposal system must also connect to a community water supply.

A2. SUBMISSION REQUIREMENTS

Refer to **Application Requirements For Sewage Disposal Facilities & Water Supply Systems For Other Than Single Family Residences**, (WWM-003) for application procedures.

A3. LOCATION OF MODIFIED SUBSURFACE SEWAGE DISPOSAL SYSTEMS AND SMALL COMMUNITY SEWAGE SYSTEMS

Modified subsurface sewage disposal systems and small community sewage systems shall be located to ensure that they do not cause contamination of drinking water supply wells. They shall be located to prevent airborne spread of pathogens and minimize nuisance odors and noise. Refer to the STANDARDS for additional information concerning the location and siting of sewage treatment facilities.

The following criteria also apply to these sites:

1. Modified subsurface sewage disposal systems and small community sewerage systems shall be located to maximize distances to drinking water supply wells. To protect the drinking water supply, all projects will undergo a separate site review within the Suffolk County Department of Health Services (SCDHS). If the SCDHS determines that insufficient distance exists to protect wells, or there is a preferred placement because of groundwater flow direction, further measures, including but not limited to relocation, effluent disinfection or additional sewage treatment may be required.

2. Modified subsurface sewage disposal systems and small community sewerage systems shall be located so as to maximize distances to freshwater wetlands, tidal wetlands, ponds, streams, and other surface waters, provided the minimum separation distances in Tables A1 and A2, are met.

3. Modified subsurface sewage disposal systems and small community sewerage systems shall be located in an area that is easily accessible for purposes of maintenance and / or replacement of sewage treatment or disposal facilities. Additionally, treatment and disposal facilities shall not be located within areas used for parking, easements or rights-of-way. Adequate security fencing shall be provided around all sewage treatment components.

4. A buffer area of one hundred (100) feet shall be provided surrounding the area of the facilities including the expansion area. The buffer area shall be measured as a radius from the outermost dimensions of the tanks and expansion area. There shall be no substantial human use of the buffer area. Swimming pools, tennis courts or other recreational enhancements, parking lots, mailboxes or other building amenities shall not be located within the buffer area. This area shall be used exclusively for plantings that serve to screen the facilities from view. Effluent leaching pools may be placed in the buffer area.

5. Modified subsurface sewage disposal systems and small community sewerage systems shall be located as far as possible from human habitation, surface water, and areas of substantial use by the public. Separation distances, as listed in Table A1 below, are considered to be the **minimum** allowable and are based upon a typical system that is properly designed, constructed, well operated and judiciously maintained. Reasonable efforts should be made to ensure maintenance of these minimum separation distances, including evaluating alternative site layouts and changing density load.

TABLE A1 - MINIMUM SEPARATION DISTANCES[**]

Separation Distances From The Nearest Part Of:	To HABITABLE[*] Building	To NON-HABITABLE Building	To Area of Substantial Human Use (Buffer Area)	To Property Lines	To Surface Water
Enclosed Process Tanks and Expansion Area	200 ft.	100 ft.	100 ft.	150 ft.	100 ft. or as set by NYSDEC or local wetlands permit.
Leaching Pools and L.P. Expansion Area	25 ft.	25 ft.	May Be Included	25 ft.	100 ft. or as set by NYSDEC or local wetlands permit.

[*] For purposes of this appendix, **HABITABLE** buildings include those buildings intended for permanent or transient residency or recreational use, and commercial buildings in substantial use by the public (i.e., condos, apartments, co-ops, PRC, assisted living, townhouses, hotels, motels, community clubhouses, office buildings, retail stores, restaurants, etc.).

[**] The minimum separation distances found in TABLE 2 of the (main body of the) STANDARDS also apply to modified subsurface sewage disposal systems and small community sewerage systems.

6. In accordance with the New York State Department of Environmental Conservation publication, **Design Standards for Wastewater Treatment Works, Intermediate Sized Sewerage Facilities**, the minimum separation distances to on-site buildings or property lines listed in **Table A1** may be reduced if special designs or considerations warrant reduced distances. Special designs and considerations that may warrant reduced distances can be found in the following section of this document.

A4. SPECIAL DESIGN CONSIDERATIONS THAT MAY WARRANT REDUCED SEPARATION DISTANCES.

The separation distances as defined in **Section A3** above can be reduced when special site conditions exist or when the design of the modified subsurface sewage disposal system or small community sewerage system is enhanced beyond the level otherwise required by these standards, as defined in paragraph A4.2 below.

1. Special Site Conditions

   When a modified subsurface sewage disposal system or small community sewerage system is located near a property line that abuts a recharge basin, a major divided highway, limited access roadway, railroad right-of-way, utility easement, or areas designated as permanent open space, the separation distance to that property line can be reduced. Such abutting property may be included when determining separation distances cited as applicable in either Table A1 or Table A2. However, denitrification facilities (including leaching pools) shall not be placed closer than twenty-five (25) feet from the project property line.

2. Air Quality and Noise Abatement Enhancements

   Designs that provide for the adequate removal of aerosol emissions and the attenuation of odor and noise qualify for reduced separation distances.

   a) Aerosol Emissions and Odor Control

      Aerosol emissions and odors shall be removed by venting all exhaust air from process equipment and pumping stations through a carbon filter designed for that purpose or through the use of other type of removal devices acceptable to the SCDHS. The carbon filter shall be designed for ease of replacement of carbon. General ventilation equipment shall be capable of providing at least six (6) air changes per hour. Odor control equipment shall be capable of operating when power to the treatment units has failed. Designs and equipment specifications shall be submitted to the review engineer for evaluation.

   b) Venting

      Location and height of exhaust air ventilation shall be designed to minimize impacts to habitable areas.

   c) Noise Attenuation

      Noise attenuation is required when reduced separation distances are requested. Blowers and exhaust fans shall be placed in an enclosure designed with a rating sufficient to attenuate noise levels from the equipment to a maximum of 50 dbA as measured at a distance of twenty-five (25) feet from the equipment.

3. Addition of all of the above enhancements shall allow the separation distance from enclosed process tanks, expansion area, and/or exhaust air discharge location to be reduced to a minimum of seventy-five (75) feet to habitable buildings, as previously defined, and fifty (50) feet to non-habitable buildings, such as separate garages or maintenance type buildings. A buffer area of fifty (50) feet minimum is required. Swimming pools, parking areas, mailboxes, playgrounds, tennis courts, or any other amenities shall not be placed within the fifty foot buffer area. This buffer area may be reduced when special site conditions are present as described in paragraph A4.1 above.

This area shall be used for plantings that serve to screen the facilities from view. Effluent leaching pools may be placed in the buffer area. Modified distance requirements are summarized in Table A2 below.

TABLE A2 - MODIFIED SEPARATION DISTANCES**

Separation Distances From The Nearest Part Of:	To HABITABLE* Building	To NON-HABITABLE Building	To Area of Substantial Human Use (Buffer Area)	To Property Lines	To Surface Water
Enclosed Process Tanks and Expansion Area	75 ft.	50 ft.	50 ft.	75 ft.***	100 ft. or as set by NYSDEC or local wetlands permit.
Leaching Pools and L.P. Expansion Area	25 ft.	25 ft.	May Be Included	25 ft.	100 ft. or as set by NYSDEC or local wetlands permit.

* For purposes of this appendix, **HABITABLE** buildings include those buildings intended for permanent or transient residency or recreational use, and commercial buildings in substantial use by the public (i.e., condos, apartments, co-ops, PRC, assisted living, townhouses, hotels, motels, community clubhouses, office buildings, retail stores, restaurants, etc.).

** The minimum separation distances found in TABLE 2 of the (main body of the) STANDARDS also apply to modified subsurface sewage disposal systems and small community sewerage systems.

*** May be reduced to twenty-five (25) feet when special site conditions as noted in paragraph A4.1 are present and when reduced distance does not interfere with future building setbacks for off-site vacant parcels.

When a distance reduction is made for a multiple ownership project such as a condominium, the offering plan shall contain language indicating that special risks are present due to the reduction in distance.

Any reduction in the distances prescribed in Table A2, will require a variance from the SCDHS Board of Review.

A5. FINAL RECHARGE

Effluent from the treatment facility shall be piped to subsurface pre-cast concrete leaching pools in accordance with provisions in the STANDARDS. The maximum hydraulic leaching rate of 5 gal./sq.ft./day shall be used without positive filtration. Alternative designs for effluent disposal may be submitted for review by the SCDHS.

A6. EXPANSION AREA REQUIREMENTS

An adequate area shall be available to allow for a minimum of one hundred percent (100%) expansion/replacement of the modified subsurface sewage disposal systems and small community sewerage treatment and disposal facilities. The area provided for expansion/replacement shall be contiguous to the planned location of treatment and disposal facilities. Required buffer area shall be located outside of the expansion/replacement area for processes. Leaching pools and required expansion/replacement area for

leaching may be placed within the buffer area provided that applicable separation distances listed in the tables are maintained. Deepening of leaching pools is not permitted in lieu of providing expansion/replacement area.

A7. LABORATORY REQUIREMENTS

All modified subsurface sewage disposal systems and small community sewerage systems shall provide the means necessary for proper process control and operation. An area for laboratory facilities shall be provided in a building on the plant site. The laboratory shall be equipped with bathroom facilities and shall be heated and ventilated to provide an indoor temperature of at least 70 degrees F when the outside temperature is 0 degrees F.

A8. ODOR CONTROL REQUIREMENTS

The SCDHS reserves the right to require all remedial actions necessary; including but not limited to enclosing of odor and noise causing facilities and the installation of odor and emissions control equipment should nuisance conditions arise during actual plant operation. Approval of sewage treatment facility site location and design shall not be interpreted as relieving the owners from responsibility for remedial action should nuisance conditions arise in the future.

A9. SPDES PERMIT REQUIRED

A State Pollutant Discharge Elimination System (SPDES) permit, issued by the New York State Department of Environmental Conservation (NYSDEC), or its agent, is required prior to the issuance of a permit to construct. A SPDES permit is necessary when the project design sewage flow (total hydraulic load) is 1,000 gpd or greater. These permits require monitoring of the system influent, and effluent for flow and total nitrogen. Other parameters and sampling requirements may be imposed.

A10. MONITORING WELLS

1. Applicability

   Monitoring wells are designed to provide a means of obtaining shallow groundwater quality samples in proximity to sewage treatment plant effluent discharges to assure that SPDES permit conditions are being met, to determine whether such conditions are adequate to protect groundwater, and other purposes determined by the commissioner of the SCDHS.

2. Siting / Location

   The applicant's engineer shall include the location of all proposed and /or existing monitoring wells on the site plans together with the direction of groundwater flow. The required array of monitoring wells must provide a means of determining plant discharges on a continuous basis, and shall include the following:

a) One (1) well up gradient of the effluent disposal facilities to monitor ambient groundwater quality. This well should be located at least 50 feet up gradient of any such facilities, beyond the influence of mounding at the water table caused by the recharged effluent.

b) One (1) well down gradient of the effluent disposal facilities to monitor the impact of recharged effluent. These wells should be located no more than twenty-five (25) feet down gradient of disposal facilities.

The adequacy of proposed monitoring well arrays will be determined by the SCDHS based upon information contained in the plan submission, and on groundwater flow direction. The SCDHS reserves the right to require the installation of additional monitoring wells at any time. Access to all wells by the SCDHS and by the NYSDEC during normal working hours shall be assured.

3. Specifications / Construction

Monitoring wells shall conform to the following standards:

a) Casings: 2" inside diameter Schedule 40 or 80 PVC; flush threaded.

b) Screens: 2" inside diameter Schedule 40 or 80 PVC; 0.20" slots.

c) Screen Length: 15 feet minimum; may be greater depending upon the fluctuation in the local groundwater elevation.

d) Filter Pack: Silica sand, uniformity coefficient < 1.7, effective size > 0.35", 2 feet above the top of the screen.

e) Grouting: Grouting of the annular space above the filter pack is desirable, but not required; when included, a seal of fine silica sand - 2 inches thick- must be placed between the filter pack and grouting.

f) Caps: Wells finished above grade must be protected by a 4-inch inside diameter steel casing secured with concrete collars and unthreaded, lockable caps. Wells finished below grade must be protected by suitable roadway, service or meter boxes (minimum 6 inches inside diameter).

g) For a typical monitoring well detail, please refer to **Figure A-1**.

A11. FINAL APPROVAL REQUIREMENTS

1. Inspection

All sewage treatment and disposal system components must be inspected by the SCDHS to ensure conformance with the approved plans, reports and specifications. No portion of the system shall be backfilled until such time as the SCDHS has accepted the installation. A schedule for constructing the various components of the project shall be submitted to the SCDHS prior to the start of construction. A revised schedule will be required if anticipated construction is delayed more than two (2) weeks.

2. Testing

   The project engineer, and /or contractor shall perform tests of the sewage treatment system in accordance with the following criteria:

   a) Force mains shall be pressure tested for a minimum of 30 minutes @ 200 psi, or as recommended by the pipe manufacturer.

   b) Operation of all system components, including pumps, process equipment and electrical components.

   c) Leak testing of all tanks and pumping stations.

3. Engineer's Certification

   The project engineer shall certify that all sewage treatment system components have been constructed in accordance with approved plans, reports, specifications, and standards issued by the SCDHS. Refer to **Appendix C** of these standards for further information.

4. Manufacturer's Certification

   The project engineer shall submit Manufacturer(s) Start-Up Reports (MSR) for all major components. For example: pump station, generator set, process equipment, and flow meters.

5. As - Built Plans

   "As – Built" plans shall be submitted to the SCDHS for review and approval. These plans shall include all of the items listed in **Instructions For Obtaining Final Health Department Approval Of Constructed Projects For Other Than Single Family Residences**, (WWM-019)

6. Shop Drawings

   Shop drawings of the major mechanical and electrical components shall be submitted to the SCDHS. For example, pumps, process equipment, and generator set.

7. Operation and Maintenance Manual

   Modified subsurface sewage disposal systems and small community sewerage systems must be operated and maintained by a person or persons acceptable to the commissioner. To assist in this task, an operation and maintenance manual shall be submitted to and accepted by the SCDHS. The O & M manual shall conform to the requirements specified in the SCDHS **Sewage or Industrial Waste Treatment Facilities Operation and Maintenance Standards.**

A12. APPROVAL BY THE COMMISSIONER OF HEALTH SERVICES

In accordance with Article 2 and Article 6 of the Suffolk County Sanitary Code, the foregoing are the standards of the Suffolk County Department of Health Services for Appendix A of the Standards For Approval Of Plans And Construction For Sewage Disposal Systems For Other Than Single-family Residences. These Standards are adopted December 1, 2009 and are effective for applications received after January 1, 2010.

Signature on File

James L. Tomarken, MD, MPH, MBA, MSW
Commissioner of Health Services
Suffolk County

(Adopted 6/15/82; Amended 3/5/84, 2/5/88, 3/15/05, 7/15/08, 11/20/08, 12/1/09, 12/29/17)

Figure A1

STP Well Shop Drawing Form

Date: _____
Project Name: _____
_____
Well Site #: _____
Driller: _____
Drilling Method: _____

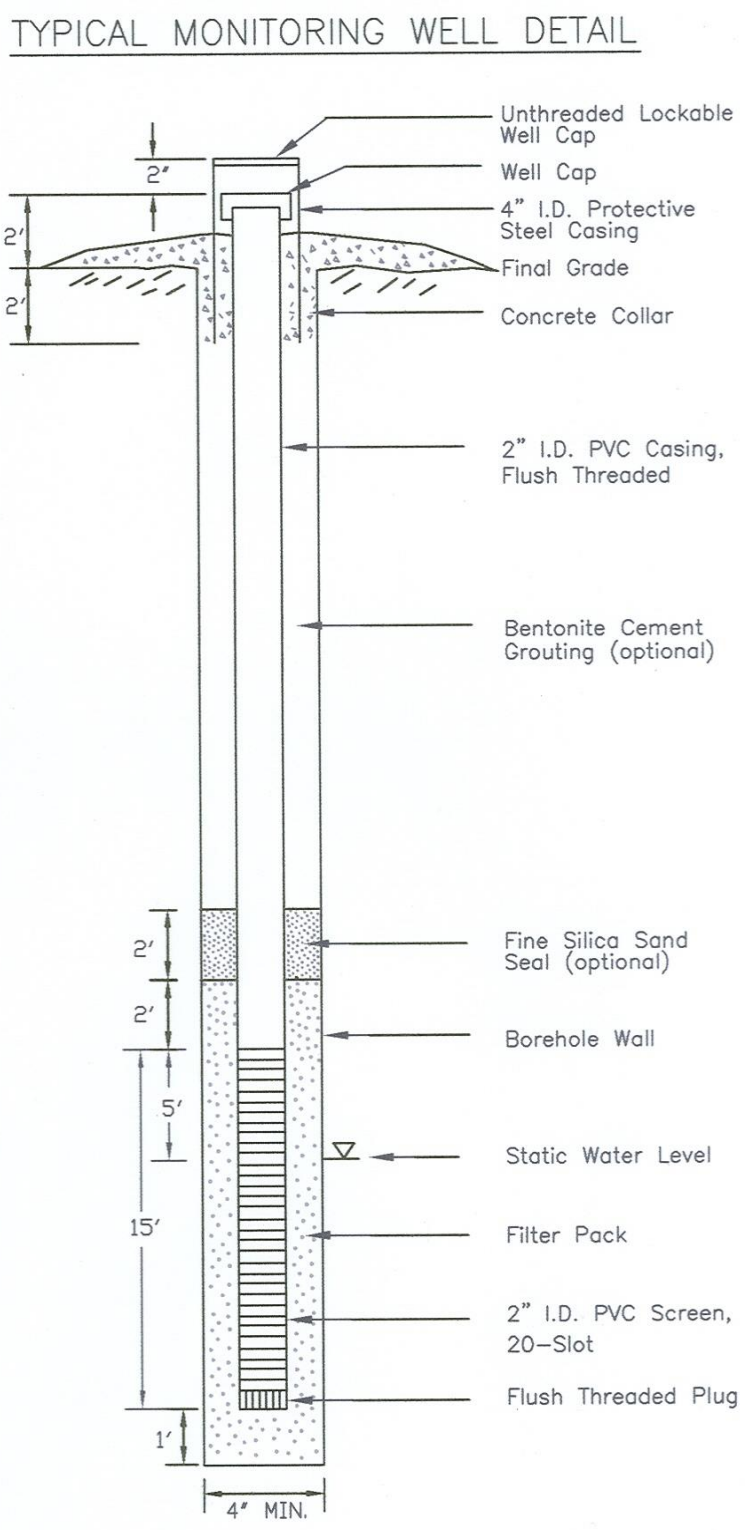
Casing:
Manufacturer: _____
Type: ___ Sched. 40 __ Sched. 80

Screen:
Manufacturer: _____
Type: ___ Sched. 40 __ Sched. 80
Type: ___ Wire-Wound __ Slotted

Filter Pack:
Manufacturer: _____
Uniformity Coefficient: _____
Effective Size:_____

Note 1: Screen setting and/or length may be modified to meet local conditions.

Note 2: Attach separate sheet for wells to be finished below grade showing construction details.



COUNTY OF SUFFOLK



STEVEN BELLONE
SUFFOLK COUNTY EXECUTIVE

SUFFOLK COUNTY
DEPARTMENT OF HEALTH SERVICES
DIVISION OF ENVIRONMENTAL QUALITY

STANDARDS FOR APPROVAL OF PLANS
AND CONSTRUCTION FOR
SEWAGE DISPOSAL SYSTEMS FOR
OTHER THAN SINGLE-FAMILY RESIDENCES

APPENDIX B

STANDARDS FOR APPROVAL AND CONSTRUCTION OF SEWAGE COLLECTION SYSTEMS AND TREATMENT WORKS

December 1, 2009

Gregson H. Pigott, MD, MPH
Commissioner of Health Services

Walter Dawydiak, PE, JD.
Director of Environmental Quality

TABLE OF CONTENTS

Section **Page**

B1. ENGINEERING REPORTS 1

B2. TREATMENT UNITS 3

B3. LOCATION OF WASTE WATER TREATMENT FACILITIES 4

B4. PROCESS PIPING COLOR CODING 6

B5. LABORATORY REQUIREMENTS 7

B6. MONITORING WELLS 8

B7. RECHARGE DESIGN 9

B8. TESTING REQUIREMENTS.....10

B9. SPDES PERMIT REQUIREMENTS 12

B10. FINAL APPROVAL REQUIREMENTS 12

B11. APPROVAL BY THE COMMISSIONER OF HEALTH SERVICES 14

LIST OF TABLES

TABLE B1 – REQUIRED MINIMUM SEPARATION DISTANCES 6

TABLE B2 – PIPE COLOR CODING 6

TABLE B3 – REQUIRED TEST EQUIPMENT 8

LIST OF FIGURES

FIGURE B1 – TYPICAL MONITORING WELL 15

APPENDIX B

STANDARDS FOR APPROVAL AND CONSTRUCTION OF SEWAGE COLLECTION SYSTEMS AND TREATMENT WORKS

B1. ENGINEERING REPORTS

Construction projects which include treatment works and/or large collection systems for sanitary wastes require supplemental design review and approval by the department prior to approval to construct being issued on the remainder of the project.

Design information is submitted to the department in the form of engineer's reports and plans and specifications. The department's review is conducted in two phases. The first phase is the submission of the engineering report. Following approval of this report, the second phase begins with submissions of plans and specifications. A copy of the final plans and specifications will be stamped with an approval stamp and returned to the authorized engineer. Projects with Suffolk County Sewer Agency contracts require review and approval by Suffolk County Department of Public Works in addition to Health Department review and approval.

All submitted documents shall bear the original seal and signature of an engineer licensed and registered to practice in New York State. Documents submitted shall be accompanied with a letter from the applicant authorizing the engineer to submit documents. Documents shall include a project application per WWM-003, SCDHS submission instructions.

Designs shall conform to the GLUMRB "Recommended Standards for Sewage Works" (Ten State Standards) except where the requirements following allow differences. The project engineering report shall conform to the outline presented in Chapter 10 of the aforementioned standards. For small non-municipal type sewage treatment plants, a less elaborate report is usually acceptable. However, as a minimum, the information outlined below shall be included in the report.

The engineering report is reviewed to evaluate whether: a proper basis for design has been established; the design criteria of the GLUMRB (Ten States) standards and Suffolk County Department of Health Services standards have been utilized; and the design has a reasonable expectation of meeting its objective.

The engineering report shall include:

1. Project name and description, including location, size and type of development and/or service area and future additions.

2. The following site plans and information:

    a) A detailed site plan drawn accurately to scale of the planned development showing all property lines, topography, existing and proposed structures, rights-of-way, easements and proposed treatment plant site location. Scale shall not exceed 1 inch = 100 feet.

b) A town zoning map delineating the area under study.

c) A tabulation of setback requirements for zoning classifications.

d) A detailed sewage treatment plant site plan of a scale no greater than 1 inch = 50 feet containing all information necessary to judge the suitability of the site location proposed. Typically, the plan must clearly detail an area of at least 500 feet surrounding the proposed plant site and must show all property lines, property ownership, property zoning, existing and future structures, rights-of- way, easements, water supply wells, surface water bodies, wetlands areas, storm water recharge facilities and utilities. Site plans shall bear the original seal and signature of a licensed professional engineer or architect registered for practice in the State of New York. The proposed STP shall not be located underneath the surface of the ground, such as under a parking lot, etc.

3. Soil information on at least two soil borings or test holes:

   a) In the recharge area.

   b) At STP construction site.
   The boring or test hole location and log shall be placed on the site plan. Refer to Section 10 of the general standards "Subsoil and Groundwater Conditions" for detailed information on depth of boring or test hole.

4. A flow schematic of the proposed STP including piping and pumps, chemical additions, sludge system, recycle and return lines, etc.

5. A hydraulic profile through the STP from the influent sewer invert to the end of the effluent discharge pipe.

6. A statement of the effluent requirements to be met by the proposed treatment plant. In the case of discharge to groundwater, standards require that a Total Nitrogen (as N) concentration of 10 mg/l not be exceeded. Refer to NYSDEC Effluent Standards and/or Limitations for Discharges to Class GA Waters (6NYCRR 703.6).

7. Present and future population to be served and corresponding average daily and maximum hourly flows to the treatment plant.

8. Influent sewage characteristics, including BOD5, SS, TKN, etc.

9. A description of the treatment process:

   a) Indicate the design criteria used for sizing of the treatment units.

   b) Show detailed calculations for the actual units being proposed.

10. A detailed discussion of the total air requirements at the STP. Indicate the size and number of blowers to be provided. In the case of the activated sludge process, the report shall show that sufficient air will be available for BOD reduction and conversion of the influent nitrogen to nitrate. Additional air shall be provided for the surge tank, digester, airlift pumps, sand filter backwash air scour, etc.

11. Detailed calculations for sizing of chemical storage tanks and feed equipment. The chemicals usually provided are sodium hypochlorite, methanol and caustic soda. Storage of chemicals shall conform to Article 12 of the Suffolk County Sanitary Code.

12. A narrative and design covering the following required items:

    a) Potable water to the treatment plant and pump station, protected by an approved reduced pressure backflow prevention device.

    b) Emergency standby power to maintain flow throughout the plant and for operation of other critical equipment.

    c) An observation well in the vicinity of the leaching pools for monitoring groundwater.

    d) A totalizer, indicator, recorder to monitor plant flow.

    e) Laboratory facilities, including a lab bench with sink and test equipment to perform the required daily tests.

    f) A control building to house the laboratory facility and the chemical feeders.

    g) An enclosure for the blowers and electrical panel.

    h) Color coding for process piping.

13. Further information if necessary or required by the Department.

B2. TREATMENT UNITS

Typical biological nitrification - denitrification treatment processes used in Suffolk County are Extended Aeration Activated Sludge or Rotating Biological Contactors followed by Deep Bed Filters but other processes may be approved. The Deep Bed Filter accomplishes denitrification and solids removal and is equipped with an automatic backwash system. The influent to the filter is inoculated with a carbon source (methanol).

The total required clarifier and filter areas shall be divided among two or more units. Multiples of other treatment units may also be required.

Preliminary treatment devices shall be designed to remove or reduce in size large suspended or floating solids; to remove heavy inorganic solids; and to remove excess amounts of oils and grease.

Flow equalization shall be provided to dampen the diurnal flow variation, and thus achieve a constant or nearly constant flow rate through the downstream treatment processes. Separate equalization basins are required.

Facilities for disinfection of the sewage effluent shall be provided and designed in accordance with Ten State Standards.

Facilities for waste sludge handling and storage shall be provided and designed in accordance with Ten State Standards. For small size plants, an aerobic digester is usually provided. The report must also address final sludge disposal.

A control building shall be provided to house the laboratory facility and the chemical feeders. In addition, an enclosure shall also be provided for the blowers and electrical panel to protect the equipment from adverse weather and to reduce noise impact on the environment.

In the case of effluent recharge to groundwater, final disposal facilities may consist of subsurface leaching pools or a minimum of 4 recharge beds. The maximum allowable design rate for tertiary filtered effluent is 10 gpd per sf of pool sidewall area or bed bottom area (5 gpd per sf for unfiltered effluent). This rate is conditioned on acceptable soil conditions being encountered.

A minimum of 100 percent expansion/replacement area shall be provided for the sewage treatment plant and for future leaching facilities. This plant expansion area may be modified for small private plants if the property is fully developed.

B3. LOCATION OF WASTE WATER TREATMENT FACILITIES

The site location for wastewater treatment facilities shall be selected to insure that public health hazards are not caused by airborne spread of pathogens and contamination of water supply wells. Care shall also be exercised to insure that neighboring resources are not degraded and that usage of neighboring properties are not impaired.

To protect the public water supply and the benefits that freshwater wetlands, tidal wetlands, ponds, streams and other surface waters provided, all projects within 1500 feet of a public water supply well or projects containing wetlands or surface waters will undergo a separate site review. The following criteria apply to these sites:

1. Wastewater treatment facilities shall be located to maximize distances to public water supply wells. If the department determines that insufficient distance exists to protect the well, further measures may be required.

2. Wastewater treatment facilities shall be located so as to maximize distances to freshwater wetlands, tidal wetlands, ponds, streams, and other surface waters, provided that the criteria in 1. above are satisfied. In no case may any portion of the facilities be placed closer than 100 feet from the boundaries of regulated freshwater wetlands, regulated tidal wetlands, ponds, streams, or other surface waters; or as set by NYSDEC or local wetlands permit.

3. A buffer area of one hundred (100) feet shall be provided surrounding the area of the facilities including the expansion area. The buffer area shall be measured as a radius from the outermost dimensions of the tanks and expansion area. There shall be no substantial human use of the buffer area. Swimming pools, tennis courts or other recreational enhancements, parking lots, mailboxes or other building amenities shall not be located within the buffer area. This area shall be used exclusively for plantings that serve to screen the facilities from view. Effluent leaching pools may be placed in the buffer area.

Separation distances, as hereinafter listed in Table 1, are considered to be the minimum allowable and are based upon a typical system being well operated and judiciously maintained. Every reasonable effort should be expended to provide separation distances in excess of those tabulated. The Department reserves the right to require all remedial actions necessary; including but not limited to, enclosing of odor causing facilities and the installation of adequate ventilation and odor destruction equipment should objectionable conditions arise during actual plant operation. Approval of water pollution control plant site location and design shall not be interpreted as relieving the owner from responsibility for remedial action should objectionable conditions arise in the future.

Below are separation distances which shall be maintained between water pollution control plant units and tenantable structures, and between water pollution control plant units and property lines of developed or buildable property. Where neighboring properties are currently vacant, separation distances shall be measured to the pertinent setback distance required by present zoning.

Where the tabulated separation distances are shown for enclosed facilities, those reduced distances are based upon inclusion within the enclosure of noise control, proper ventilation and positive odor removal devices. Ventilation systems shall be designed to maintain a negative pressure inside the enclosure with respect to the outside ambient environment of sufficient magnitude to prevent the inadvertent escape of noxious odors. Special emphasis should be placed on architectural detail to insure a “tight” enclosure.

Positive odor removal shall be taken to include ozonation, thermal incineration, oxidation by chemical oxidants, adsorption on sorptive media, or any like process which removes and/or destroys the odorous constituents of the ventilated gases. Use of masking agents shall not be permitted.

TABLE B1 - REQUIRED MINIMUM SEPARATION DISTANCES

	DISTANCE TO STRUCTURE OR BUILDING SETBACK	DISTANCE TO PROPERTY LINES
Sewage Treatment Processes Open To The Atmosphere	400' [3]	350' [3]
Sewage Treatment Processes Enclosed In a Building[1]	200' [2,3]	150' [3]
Effluent Recharge Beds	400' [3]	300' [3]
Leaching Pools	25'	25'
Chemical Storage	All chemical storage, whether in dry bulk form and/or liquid stored in tanks shall meet the provisions of Article 12 of the Suffolk County Sanitary Code.	

1 Enclosed building designation requires ventilation, odor and noise control devices in accordance with good engineering practice.

2 Non-residential structures located on the same parcel may qualify for lesser distances.

3 100 foot buffer to areas of substantial human use is to be included in this distance.

B4. PROCESS PIPING COLOR CODING

It shall be a requirement for all sewage treatment plants that process piping be color coded and identified with stenciled markings. Identification markings shall be stenciled at suitable locations on the piping and lettering shall be of such size to allow easy identification.

Unless otherwise approved, lettering shall be 2 inches high and spaced at no greater than 10'-0" between identifying markings. Color coding and identification markings shall be as follows:

TABLE B2 – PIPE COLOR CODING

SERVICE	COLOR	MARKING
Sludge	Brown	SL
Gas	Yellow with Red Bands 30 - inch intervals	G
Potable Water	Blue	C.W.
Sewage	Gray	S

SERVICE	COLOR	MARKING
Chlorine or Hypochlorite	Yellow	CL
Compressed Air	Green	A
Chemical	Orange	L - Lime F – Ferric M – Methanol Na - Caustic P – Polymer
Non-Potable Water (Recycled Effluent)	Orange with Red Band	X at 12 inch intervals
Fire Protection	Red	

B5. LABORATORY REQUIREMENTS

All wastewater treatment facilities shall provide the means necessary for proper process control and operation. An area for laboratory facilities shall be provided in a building on the plant site. The building may also house process equipment, lavatory facilities, storage rooms, etc; however, the laboratory shall be isolated from other equipment and housed in an enclosure by means of partition walls and doors. The laboratory shall be heated and ventilated to provide an indoor temperature of at least 70 degrees F when the outside temperature is 0 degrees F. At least two duplex GFI 120V electric outlets shall be located in close proximity to laboratory benches. Outlets shall be located to allow operation of all electrical laboratory equipment on laboratory benches and tables. Lighting shall be provided to produce a light intensity of at least 50 foot-candles over the entire laboratory area and at least 100 foot-candles over laboratory benches.

Laboratories shall be equipped with ample bench and storage space to allow safe storage of equipment and reagents. The following storage and work space shall be supplied:

1. 1 - 60"L x 30"D x 36"H bench with at least 3 storage drawers and cupboard. The bench top shall be of corrosion resistant material;

2. 1 - 60"L x 12"H x 12"D shelf.

3. 1 adjustable lab stool.

4. 1 - 18"W x 29"D X 12"H steel file cabinet.

5. 1 lab sink manufactured of corrosion resistant material, equipped with 2 goose neck faucets suitable for heavy duty laboratory service, and serviced with hot and cold running water.

6. Suitable drainboards and drying racks.

7. Emergency eyewash and/or shower.

Facilities and an ample supply of test equipment shall be provided to perform the following tests at the STP for day to day operational control:

TABLE B3 - REQUIRED TEST EQUIPMENT

	TEST	EQUIPMENT REQUIRED
1.	Settleable solids	Imhoff cones
2.	Dissolved oxygen	Portable D.O. meter
3.	Ammonia nitrogen	Color comparitor
4.	Nitrite nitrogen	Color comparitor
5.	Nitrate nitrogen	Color comparitor
6.	TKN	Color comparitor
7.	pH	pH meter
8.	SVI	1000 ml graduated cylinders, centrifuge
9.	Total residual chlorine	Color comparitor
10.	Free residual chlorine	Color comparitor
11.	Temperature	Laboratory thermometer

Other tests on STP effluent parameters as listed in the discharge permit (SPDES permit) are to be performed by an approved outside laboratory and submitted monthly to authorities listed in the permit.

B6. MONITORING WELLS

1. Applicability

   Monitoring wells are designed to provide a means of obtaining shallow groundwater quality samples in proximity to sewage treatment plant effluent discharges to assure that SPDES permit conditions are being met, to determine whether such conditions are adequate to protect groundwater, and other purposes determined by the commissioner of the SCDHS.

2. Siting / Location

   The applicant's engineer shall include the location of all proposed and /or existing monitoring wells on the site plans together with the direction of groundwater flow. The required array of monitoring wells must provide a means of determining plant discharges on a continuous basis, and shall include the following:

a) One (1) well up gradient of the effluent disposal facilities to monitor ambient groundwater quality. This well should be located at least 50 feet up gradient of any such facilities, beyond the influence of mounding at the water table caused by the recharged effluent.

b) Two (2) wells down gradient of the effluent disposal facilities to monitor the impact of recharged effluent. These wells should be located no more than twenty-five (25) feet down gradient of disposal facilities.

The adequacy of proposed monitoring well arrays will be determined by the SCDHS based upon information contained in the plan submission, and on groundwater flow direction. The SCDHS reserves the right to require the installation of additional monitoring wells at any time. Access to all wells by the SCDHS and by the NYSDEC during normal working hours shall be assured.

3. Specifications / Construction

Monitoring wells shall conform to the following standards:

a) Casings: 2" inside diameter Schedule 40 or 80 PVC; flush threaded.

b) Screens: 2" inside diameter Schedule 40 or 80 PVC; 0.20" slots.

c) Screen Length: 15 feet minimum; may be greater depending upon the fluctuation in the local groundwater elevation.

d) Filter Pack: Silica sand, uniformity coefficient < 1.7, effective size > 0.35", 2 feet above the top of the screen.

e) Grouting: Grouting of the annular space above the filter pack is desirable, but not required; when included, a seal of fine silica sand - 2 inches thick- must be placed between the filter pack and grouting.

f) Caps: Wells finished above grade must be protected by a 4-inch inside diameter steel casing secured with concrete collars and unthreaded, lockable caps. Wells finished below grade must be protected by suitable roadway, service or meter boxes (minimum 6 inches inside diameter).

g) For a typical monitoring well detail, please refer to **Figure B-1**.

B7. RECHARGE DESIGN

Effluent from the treatment facility shall be piped to subsurface pre-cast concrete leaching pools in accordance with provisions in the STANDARDS or to recharge beds. Alternative designs for effluent disposal may be submitted for review by the SCDHS.

Recharge pools shall be designed on the basis of 10 gallons per day per square foot of sidewall area for filtered effluent or 5 gallons per day per square foot of sidewall area for unfiltered effluent. An area shall be set aside for future 100% expansion/replacement of the pools.

Recharge beds shall be designed on the basis of 10 gallons per day per square foot of bottom area for filtered effluent or 5 gallons per day per square foot of bottom area for unfiltered effluent. An area shall be set aside for future 100% expansion/replacement of the beds.

Beds shall be a maximum of four (4) feet in depth including freeboard, shall be equipped with access ramps for ease of cleaning and shall be equipped with splash pads at the ends of influent piping.

Beds shall be separated into four independent areas valved to allow alternate dosing.

For further information regarding recharge bed design consult the Department.

B8. TESTING REQUIREMENTS

All testing shall be scheduled and conducted by the contractor prior to the operation of the plant. The Department of Health Services shall be given at least 48 hours notice prior to the start of any phase of the testing procedure. All testing shall be witnessed and reported by the engineer certifying construction.

Prior to testing, during the entire testing procedure, and prior to putting the plant into operation, all tanks, piping and appurtenances shall be cleaned and flushed of all debris, grease, oil, water and other deleterious materials. At no time shall the discharge from the flushing operation be allowed to pass through any equipment.

Prior to approval of any sewage treatment plant or pump station, all tanks, piping and appurtenances shall pass the following tests.

1. Exfiltration and Stability Test

   All tanks shall be subject to an exfiltration and stability test.

   Prior to testing any tank or tank complex, the tank(s) shall be backfilled to finished grade and all piping and/or equipment within the tank which might affect the watertightness of the tank shall be completely installed and operable. A minimum of 8 elevations shall be obtained around the periphery of the outer walls of each tank or tank complex.

   Each individual tank shall be isolated from other tanks by plugs, etc., and filled with clean water to the maximum operating level. After a suitable stabilization period, the maximum operating level shall be reestablished and an 8 hour leakage test shall be performed. During the test, no water shall be added to or taken from the tank. The change in water level shall be recorded at the end of the 8 hour period. Allowable loss is 1/4 inch in 8 hours. Any leaks shall be repaired by methods and materials approved by the engineer and the Department prior to the start of the corrective action, and all leakage shall be corrected prior to the performance of equipment testing. During the testing of each individual tank, all adjacent tanks shall be empty of all water.

After each individual tank has passed the 8 hour leakage test, all tanks within each complex shall be filled with water to the normal operating level. Elevations shall be obtained around the periphery at the same locations as prior to the leak test. Before and after elevations shall be reported to the department.

2. Wet Wells

Wet wells shall be filled to the maximum operating level or one foot above the crown of the influent pipe whichever is higher and tested as outlined above.

3. Infiltration Tests - Tanks and Wet Wells

In addition to the exfiltration tests outlined above, all tanks and wet wells which are constructed with the lowest elevation of the structure below normal groundwater shall be subject to an infiltration test. Each tank complex or wet well shall be completely backfilled, emptied of all water, and an infiltration test shall be conducted. It is intended that the test will be made after the groundwater has stabilized to normal elevation. A 48 hour continuous test period is required with the maximum allowable infiltration being 1/4 inch. Normal groundwater level shall mean the elevation to which groundwater stabilizes when unaffected by any dewatering operations within the area of influence.

4. Piping

In addition to flushing all pipe lines, the following requirements apply:

a) Air system - prior to connection of diffusers and air lifts to the main piping, the system shall be run at maximum obtainable air flow to insure that all dust, dirt, scale, debris, etc., are scoured from the system. Piping shall be tested according to manufacturer's specifications.

b) Other - Prior to operation, a piping system shall be tested and leaks repaired according to manufacturer's specification.

5. Equipment

All wiring and installation of appurtenances shall be completed prior to the testing of a piece of equipment. All machinery and equipment shall be put in service and tested under the supervision and direction of a representative of its manufacturer who has complete knowledge and responsibility for the equipment and is capable of making any adjustments and/or replacements required. All miscellaneous systems (alarm, remote telemetry, etc.) shall be tested from all access points. All required testing equipment shall be furnished by the contractor.

All blowers, pumps, generators, etc. shall be tested in place to insure that they do indeed conform to the requirements of the contract specifications. All motors shall be tested to insure that they do not exceed their name plate rating over the range of normal operation.

Engine generator sets shall be tested at full load conditions by simulating a utility power failure. All equipment which might normally be at load under power failure shall be in operation during this test.

After testing is completed to the satisfaction of the engineer and the Department, the manufacturers shall certify to:

a) The proper installation of the equipment.

b) The satisfactory compliance with testing requirements in accordance with design and approved specifications.

c) The validation of equipment guarantees.

One copy of the above noted certification(s) on the manufacturer's letterhead shall be supplied to the Department by the certifying engineer.

B9. SPDES PERMIT REQUIRED

A State Pollutant Discharge Elimination System (SPDES) permit, issued by the New York State Department of Environmental Conservation (NYSDEC), or its agent, is required prior to the issuance of a permit to construct. A SPDES permit is necessary when the project design sewage flow is 1,000 gpd or greater. These permits require monitoring of the system influent, and effluent for flow and total nitrogen. Other parameters and sampling requirements may be imposed.

B10. FINAL APPROVAL REQUIREMENTS

1. Inspection

   All sewage treatment and disposal system components must be inspected by the SCDHS to ensure conformance with the approved plans, reports and specifications. No portion of the system shall be backfilled until such time as the SCDHS has accepted the installation. A schedule for constructing the various components of the project shall be submitted to the SCDHS prior to the start of construction. A revised schedule will be required if anticipated construction is delayed more than two (2) weeks.

2. Engineer's Certification

   The project engineer shall certify that all sewage treatment system components have been constructed in accordance with approved plans, reports, specifications, and standards issued by the SCDHS. Refer to **Appendix C** of these standards for further information.

3. Manufacturer's Certification

   The project engineer shall submit Manufacturer(s) Start-Up Reports (MSR) for all major components. For example: pump station, generator set, process equipment, and flow meters.

4. As - Built Plans

   "As – Built" plans shall be submitted to the SCDHS for review and approval. These plans shall include all of the items listed in **Instructions For Obtaining Final Health Department Approval Of Constructed Projects For Other Than Single Family Residences**, (OWM-019)

5. Shop Drawings

   Shop drawings of the major mechanical and electrical components shall be submitted to the SCDHS. For example, pumps, process equipment, and generator set.

6. Operation and Maintenance Manual

   Modified subsurface sewage disposal systems and small community sewerage systems must be operated and maintained by a person or persons acceptable to the commissioner. To assist in this task, an operation and maintenance manual shall be submitted to and accepted by the SCDHS. The O & M manual shall conform to the requirements specified in the SCDHS **Sewage or Industrial Waste Treatment Facilities Operation and Maintenance Standards.**

B11. APPROVAL BY THE COMMISSIONER OF HEALTH SERVICES

In accordance with Article 2 and Article 6 of the Suffolk County Sanitary Code, the foregoing are the standards of the Suffolk County Department of Health Services for Appendix B of the Standards For Approval of Plans And Construction For Sewage Disposal Systems For Other Than Single-family Residences. These Standards are adopted December 1, 2009 and are effective for applications received after January 1, 2010.

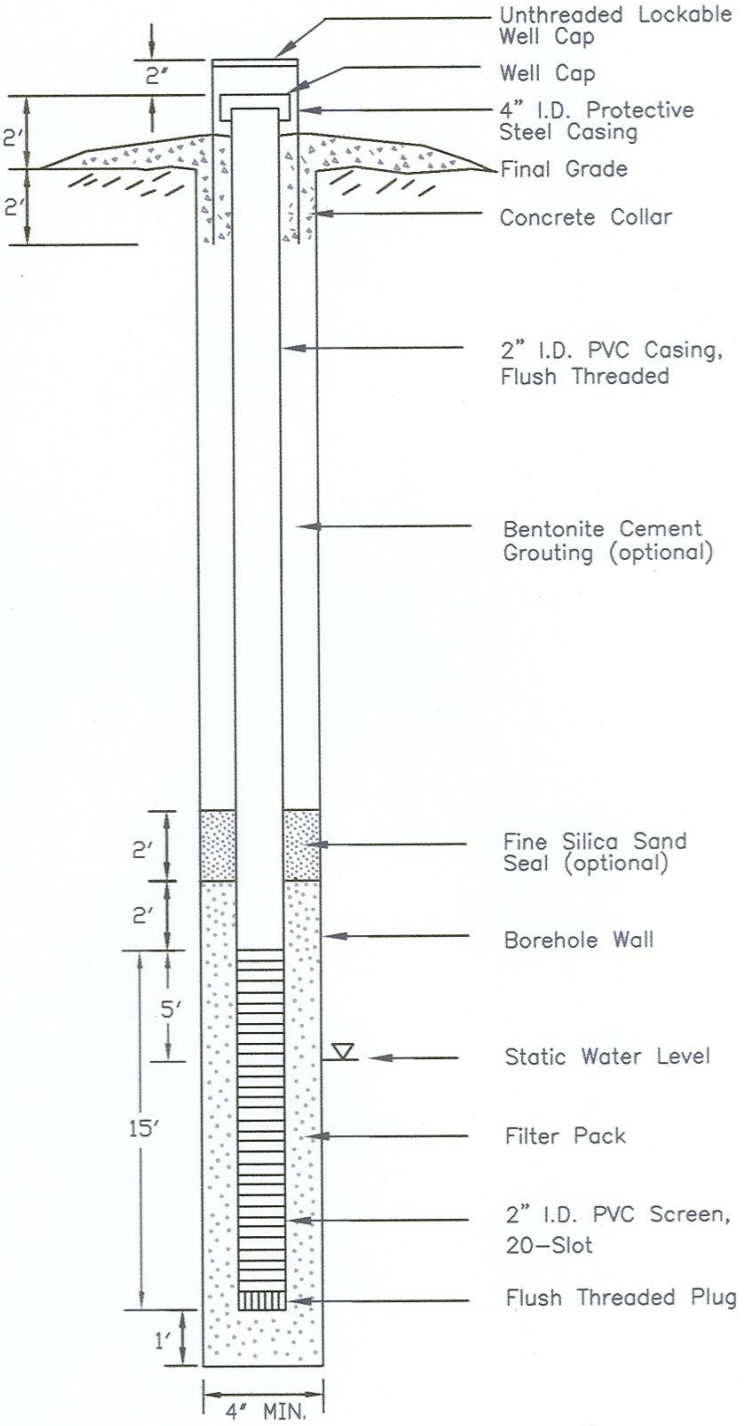
Signature on File

James L. Tomarken, MD, MPH, MBA, MSW
Commissioner of Health Services
Suffolk County

(Adopted 6/15/82; Amended 3/5/84, 2/5/88, 7/15/08, 11/20/08, 12/1/09, 12/29/17)

Figure B1

TYPICAL MONITORING WELL DETAIL



STP Well Shop Drawing Form

Date: _____
Project Name: _____
_____
Well Site #: _____
Driller: _____
Drilling Method: _____

Casing:
Manufacturer: _____
Type: ___ Sched. 40 __ Sched. 80

Screen:
Manufacturer: _____
Type: ___ Sched. 40 __ Sched. 80
Type: ___ Wire-Wound __ Slotted

Filter Pack:
Manufacturer: _____
Uniformity Coefficient: _____
Effective Size:_____

Note 1: Screen setting and/or length may be modified to meet local conditions.

Note 2: Attach separate sheet for wells to be finished below grade showing construction details.

COUNTY OF SUFFOLK

STEVEN BELLONE
SUFFOLK COUNTY EXECUTIVE

SUFFOLK COUNTY
DEPARTMENT OF HEALTH SERVICES
DIVISION OF ENVIRONMENTAL QUALITY

STANDARDS FOR APPROVAL OF PLANS
AND CONSTRUCTION FOR
SEWAGE DISPOSAL SYSTEMS FOR
OTHER THAN SINGLE-FAMILY RESIDENCES

APPENDIX C

REQUIREMENTS OF DEPARTMENT OF HEALTH SERVICES AND RESPONSIBILITIES OF LICENSED DESIGN PROFESSIONALS IN INSPECTING SEWAGE TREATMENT WORKS OR COLLECTION SYSTEMS

December 1, 2009

Gregson H. Pigott, MD, MPH
Commissioner of Health Services

Walter Dawydiak, PE, JD
Director of Environmental Quality

TABLE OF CONTENTS

Section **Page**

C1. GENERAL 1

C2. SCHEDULE OF INSPECTIONS OF COMPLETED SEGMENTS OF SEWAGE TREATMENT WORKS 4

C3. SCHEDULE OF INSPECTIONS OF COMPLETED SEGMENTS OF COLLECTION SYTEMS 5

C4. APPROVAL BY THE COMMISSIONER OF HEALTH SERVICES 6

LIST OF FORMS

FORM C1 – AUTHORIZATION OF LICENSED PROFESSIONAL ENGINEER OR REGISTERED ARCHITECT.....2

FORM C2 – CERTIFICATION OF CONSTRUCTED WORKS BY DESIGN PROFESSIONAL 3

APPENDIX C

REQUIREMENTS OF DEPARTMENT OF HEALTH SERVICES AND RESPONSIBILITIES OF LICENSED DESIGN PROFESSIONALS IN INSPECTING SEWAGE TREATMENT WORKS OR COLLECTION SYSTEMS

C1. GENERAL

The Suffolk County Department of Health Services requires that installation of sewage treatment works and collection systems be certified by a licensed professional engineer or registered architect as compliance of construction with Department standards.

The Suffolk County Department of Health Services prefers that the duties of construction inspection be carried out by the architect or engineer responsible for designing the project. However, an independent licensed professional engineer or registered architect is acceptable to the Department provided that the design professional and the owner authorize the choice. In order to assure impartiality, the inspecting personnel must have no financial or other vested interest in the construction contractor or installer. In cases where the design professional acts as contractor, the inspecting personnel must be independent.

This appendix contains samples of certificates and log sheets to be used in the certification procedure. All are to be submitted to the Department at time of application for final approval except for Authorization of Design Professional which must be submitted prior to commencing construction. Certain larger projects require pre-job meetings prior to commencing construction. Authorization may be submitted to the Department at this meeting.

Suffolk County Department of Health Services - Form C1

AUTHORIZATION OF LICENSED PROFESSIONAL ENGINEER OR
REGISTERED ARCHITECT FOR THE INSPECTION OF INSTALLATION OF

☐ modified subsurface sewage disposal system

☐ sewage treatment plant ☐ collection system

HEALTH DEPARTMENT REFERENCE NUMBER _____

Suffolk Tax Map #:

DIST. _____ SECT. _____ BLOCK _____ LOT _____

Statement of Owner: I hereby state that I have (check one): ☐ employed ☐ authorized ☐ retained

Name _____

Name of Firm _____

☐ a licensed Professional Engineer ☐ a registered Architect
to perform controlled inspection work for the above specified installation.

Signature _____
(owner or officer of corporation)

Print Name _____

Title _____

Date _____

Address _____

Statement of L.P.E. or R.A. preparing plans (if inspecting engineer is different):

Name of licensed P.E. or R.A. preparing plans _____

Address _____

I hereby certify that _____ ☐ the L.P.E . ☐ the R.A.
(name)
engaged by the owner to perform the controlled inspection of the above specified installation is acceptable to me.

Signature _____ Date _____
(Affix seal)

Statement of L.P.E. or R.A. performing inspections:

I,_____, have assumed responsibility for the inspection of the work designated above. I personally, or qualified personnel under my direct supervision in accordance with New York State Education Law, will be present during the installation and will perform the required inspections and tests, and all required inspection and test reports shall be signed by me and filed with the Suffolk County Department of Health Services.

I certify that I have no financial or other vested interest in the construction company(ies) or contractor(s) performing work on the systems I have inspected.

Signature _____ Date _____
(Affix seal)

Suffolk County Department of Health Services
Office of Wastewater Management
360 Yaphank Avenue, Suite 2C
Yaphank, New York 11980
(631) 852-5700

CERTIFICATION OF CONSTRUCTED WORKS BY DESIGN PROFESSIONAL – Form C2

HEALTH DEPARTMENT REFERENCE NUMBER _____

Suffolk Tax Map #:

DIST. _____ SECT. _____ BLOCK _____ LOT _____

Project Name _____

Applicant's Name _____

ITEMS BEING CERTIFIED (Check all that apply)

- ☐ Sewer Lines and Sewage Collection System Components
- ☐ Retaining Walls (approved as part of the sewage disposal system)
- ☐ Sewage Pump Station / Valve Chamber
- ☐ Subsurface Sewage Disposal System
- ☐ Sewage Treatment Plant
- ☐ Water Supply System
- ☐ Abandonment of Preexisting Sewage Disposal System and /or Water Supply
- ☐ Other

As the Licensed Professional Engineer or Architect I, or qualified personnel under my direct supervision, have inspected the work specified above in accordance with the New York State Education Law, and (check one)

☐ I hereby certify that all material and work conforms to approved plans and permit conditions, and with guidelines issued pursuant to the Suffolk County Sanitary Code. (Attach any inspection or test reports required by the Department.)

☐ I hereby certify that all material and work conforms to approved plans and permit conditions, and with guidelines issued pursuant to the Suffolk County Sanitary Code, except as described in my attached addendum. (Also attach any inspection or test reports required by the Department.)

Engineer's / Architect's signature _____

Print Name _____ Date _____

(Affix seal)

License Number _____

This certification shall not be used in lieu of inspections required by personnel of the Department

C2. SCHEDULE OF INSPECTIONS OF COMPLETED SEGMENTS OF SEWAGE TREATMENT WORKS

The inspecting personnel are responsible to complete inspection of all aspects of a sewage treatment plant and or pump stations. The following schedule outlines the major components to be inspected. The inspector shall submit a log with his certification indicating that each component or segment was satisfactorily completed, date, time and length of each inspection, and initials of the person performing the inspection.

1. Concrete forms and reinforcing steel shall be inspected for proper placement.

2. All placement of concrete shall be inspected. Six test cylinders shall be taken for each 50 cu. yds. of concrete required. Weather conditions and temperature shall be recorded during placement of concrete. [1, 4] Detention time of concrete in each truck shall be recorded as well.

3. Treatment plant equipment installation(s) and checkout by manufacturer's service representative. This includes but not limited to the following items:

    a) Effluent Filter System

    b) Odor Control System

    c) Emergency Generator

    d) Flow Meter and Chart Recorder.

4. Exfiltration and stability tests.

    a) Inspection and leak testing of all tanks to assure that tanks are installed and sealed in accordance with manufacturer's specifications.[1, 3]

    b) Inspection and leak testing of pump stations.[1, 3]

5. Infiltration tests for tanks and wet well situated below groundwater level.

6. Construction of the Control Building and installation of the proposed appurtenances in accordance with approved plans and specifications.

7. Piping test in accordance with manufacturer's specifications.

8. Final leaching pools or recharge basins. [4]

9. Cast iron covers.

10. Proper backfilling.[1, 2]

11. Final grading.

12. Proper fencing.

13. Construction of bollards as necessary.

14. Installation of groundwater monitoring well. [4]

15. Proper lighting in the area of treatment facility and/or pump stations.

Should any unforeseen field conditions necessitate changes on the plans and/or specifications, the inspecting personnel shall notify the Department immediately.

---

[1] Requires full time presence of inspecting design professional or qualified personnel under a design professional's supervision during installation.

[2] Sieve analysis to assure that sand and gravel is clean and conforms to specifications.

[3] Leak testing of all watertight chambers. See Appendix B for leak test requirements for watertight chambers.

[4] Requires call-in to Department 48 hr. prior to commencement of installation.

C3. SCHEDULE OF INSPECTIONS OF COMPLETED SEGMENTS OF COLLECTION SYSTEMS

The inspecting personnel are responsible to complete inspection of all aspects of a collection system. The following schedule outlines the major components to be inspected. The inspector shall submit a log with his certification indicating that each component or segment was satisfactorily completed, date, time and length of each inspection, and initials of the person performing the inspection.

1. All sewer piping (installation and grade). Inspection of piping shall assure that all pipe is of proper size, type and class; that construction is according to specifications and installed properly; that pipe is run at proper slope and alignment; and that all joints are properly constructed; that the invert elevations of pipes at all crossings (sewer-water, sewer-drainage and water-drainage) are maintained in accordance with plans approved for construction.

2. Lift station(s) construction and equipment installation.

3. Pipe to manhole connections.

4. Manhole flow channel and bench.

5. House connections.

6. Pipe exfiltration, infiltration, deflection, leakage and pressure tests. [1, 2]

Should any unforeseen field conditions necessitate changes on the plans and/or specifications, the inspecting personnel shall notify the Department immediately.

---

[1] Requires full time presence of inspecting design professional or qualified personnel under a design professional's supervision during installation.

[2] Requires call-in to Department 48 hr. prior to commencement of installation.

C4. APPROVAL BY THE COMMISSIONER OF HEALTH SERVICES

In accordance with Article 2 and Article 6 of the Suffolk County Sanitary Code, the foregoing are the standards of the Suffolk County Department of Health Services for Appendix C of the Standards for Approval of Plans and Construction for Sewage Disposal Systems for Other Than Single-family Residences. These Standards are adopted December 1, 2009 and are effective for applications received after January 1, 2010.

Signature on File

James L. Tomarken, MD, MPH, MBA, MSW
Commissioner of Health Services
Suffolk County

(Adopted 6/15/82; Amended 3/5/84, 2/5/88, 7/15/08, 11/20/08, 12/1/09, 12/29/17)

Reference 1.2:

New York State Department of Environmental Conservation Full Environmental Assessment Form Workbook

NEW YORK STATE OF OPPORTUNITY | Department of Environmental Conservation

Full Environmental Assessment Form (FEAF) Workbook

SEQR Environmental Assessment Form Guidance Documents

The Full Environmental Assessment Form (FEAF) is designed specifically for Type I Actions. It has three parts. The first part (Part 1) is filled out by the applicant, or project sponsor. Part 2 and Part 3 are the responsibility of the lead agency. Throughout the workbook, the term 'lead agency' is also referred to as the 'reviewing agency'.

Part 1 of the FEAF provides details that will help the reviewing agency understand the location, size, type, and characteristics of the proposed project. Part 1 can be completed by the applicant using information prepared as part of the approval submission along with maps, plats, or other studies that may have been conducted and by exploring the information and maps available through the links in this guide.

The lead agency should also review the information provided by the applicant in Part 1 for basic accuracy and completeness. Sometimes, the lead agency is also the project sponsor and there are no other agencies involved. An example of this is when a municipality adopts a local law. In such circumstances, the lead agency would also be required to complete Part 1 as the project sponsor.

Part 2 is used to help the reviewing agency identify potential impacts that may result from the project. In order to do this, the reviewing agency will evaluate information from Part 1, but may also ask the applicant for clarification of information provided in Part 1, or additional information.

Part 3 is used by the reviewing agency to determine if the potential adverse impacts identified in Part 2 are significant or not, and whether a draft environmental impact statement (DEIS) will be prepared. If the reviewing agency determines that a DEIS shall be required, Part 3 is also used to identify the scope (topics to be considered in more detail) for that evaluation. Part 3 is also used to help the reviewing agency identify whether the applicant has addressed the potential adverse impacts as part of the project design.

When to Use the Full Environmental Assessment Form

The Full Environmental Assessment Form (FEAF) is used when a state or local agency has determined that a SEQR review is necessary, and they have identified the project as being a Type I Action. Type I Actions are listed in SEQR (617.4) and described there as *"...those actions and projects that are more*

likely to require the preparation of an EIS than Unlisted actions". It goes on to state *"...the fact that an action or project has been listed as a Type I action carries with it the presumption that it is likely to have a significant adverse impact on the environment and may require an EIS."*

Type I Actions are typically larger, and more complicated than Unlisted Actions. However, some Unlisted Actions may fall just under the Type I criteria. In that case, the agency should strongly consider using the FEAF so that additional information can be obtained and used in the environmental review.

Agencies can adopt their own list of additional Type I actions, and can adjust the thresholds to make their Type I list more inclusive. However, they cannot designate any action identified as a Type II Action in Section 617.5 as a Type I Action. The FEAF would be used for any locally adopted list of Type I actions.

For more information on how to decide what type of action a project is and what form to use, see the SEQR Handbook.

How to Complete and Use the Full Environmental Assessment Form

The introductory pages to Part 1, Part 2, and Part 3 of the FEAF workbook provide additional information and instructions on how to fill out the form. When you view these introductory pages, the navigation panel on the left will expand, showing links to the individual questions within that section.

Part 1 - Is completed by the applicant or project sponsor. If the municipality is sponsoring an action considered a Type I, then the municipality would complete Part 1. Part 1 provides details that will help the reviewing agency understand the location, size, type, and environmental characteristics of the proposed project. The information in Part 1 is used by the reviewing agency to complete Parts 2 and 3.

The questions in Part 1 are grouped in sections A-G:

- Section A gathers information that identifies the project sponsor, the proposed action, and the proposed action's location.
- Section B requests information about government approvals or funding.
- Section C.1. requests information about planning and zoning actions.
- Section C.2. requests information about adopted land use plans.
- Section C.3. requests information about zoning.
- Section C.4. requests information about existing community services.
- Section D.1. requests information about the proposed and potential development.
- Section D.2. requests information about project operations
- Section E.1. requests information about land uses on and surrounding the project site.
- Section E.2. requests information about natural resources on or near the project site.
- Section E.3. requests information about designated public resources on or near the project site.

- Section F provides the project sponsor the opportunity for supplying additional information including project elements that may avoid or reduce impacts.
- Section G is where the certifying signature of the preparer is provided.

Part 2 - Is completed by the reviewing agency. Part 2 is designed to help the reviewing agency understand all potential resources that could be affected by a proposed action. It is designed to help a reviewer identify any element of a proposed project that may have a potentially significant adverse impact on the environment. It is also used to determine the potential size of the impact by providing a series of questions that can be answered by the reviewing agency with information found in Part 1. In some cases, the reviewing agency may require additional information from the applicant in order to answer the Part 2 questions.

Part 3 - Is also completed by the reviewing agency. Part 3 generally addresses those impacts that have been identified as potentially moderate to large in Part 2. However, Part 3 can also be used to explain why a particular element of the proposed action will not, or may, result in a significant adverse environmental impact. The rationale used in decision-making should be presented in a series of written, well reasoned statements in Part 3. This discussion of impacts will serve as the supporting documentation for the determination of significance and if a DEIS is to be prepared, can outline a draft scope of issues to be explored.

Part 1 - Project and Setting (FEAF)

Full Environmental Assessment Form (FEAF) Workbook

Part 1 is to be completed by the applicant or project sponsor. Responses become part of the application for approval or funding, are subject to public review, and may be subject to further verification.

Complete Part 1 based on information currently available. If additional research or investigation would be needed to fully respond to any item, please answer as thoroughly as possible based on current information; indicate whether missing information does not exist, or is not reasonably available to the sponsor; and, when possible, generally describe work or studies which would be necessary to update or fully develop that information.

Applicants/sponsors must complete all items in Sections A & B. In Sections C, D & E, most items contain an initial question that must be answered either "Yes" or "No". If the answer to the initial question is "Yes", complete the sub-questions that follow. If the answer to the initial question is "No", proceed to the next question. Section F allows the project sponsor to identify and attach any additional information. Section G requires the name and signature of the project sponsor to verify that the information contained in Part 1is accurate and complete.

How to Complete and Use the Full Environmental Assessment Form

The Applicant

- Read over all questions in Part I and gather all current information available on both the proposed project and its location. Having this information on hand will help you complete the questions.
- If the action is a municipally sponsored project such as adoption of a local law, comprehensive plan, or the construction of a public building or structure, the municipality becomes the project sponsor. In this case the municipality completes the appropriate sections of Part 1.
- Use the FEAF workbook to help you find background information, definitions, illustrations, maps, and other data that can be used to help answer each question. In addition to the application materials that may be required for the project and sources of information identified in this workbook, use other existing information that may be available locally. Good sources of information include: site plans or subdivision plats that have been completed on the parcel or nearby parcels, local comprehensive or strategic plans, and other application materials already submitted to the reviewing agency. Many municipalities have completed open space or environmental inventories or plans, and these can be excellent sources of local information. If the municipality has an appointed conservation advisory council (CAC), consider contacting them for additional information on local environmental resources. In the case of a municipal action such as adoption of a local law or plan, the municipality can use the information contained within a comprehensive plan or other inventory information as it may exist. For some sections, additional studies or inventory information may need to be completed in order to thoroughly provide the information. Note that the reviewing agency, in Part 2 may also need additional information in order to determine if there are any potential adverse impacts. It is advisable to review all information needs the reviewing agency may have for Part 2 and consider providing that information with Part 1 as well.
- Offer as much detail as possible to answer each question thoroughly. This will make the SEQR process more efficient by providing the reviewing agency with the necessary information to evaluate the project.
- Sign Part I. Remember that responses to questions in Part I become part of your application for approval or funding, and therefore are subject to both verification and public review.

The Reviewing Agency

- It is the reviewing agency's role to evaluate the information provided by the applicant in Part 1, and ensure it is complete and accurate enough to make a reasonable decision. In some cases, additional information from the applicant may be necessary to complete Part 2.
- Review any maps and other documentation submitted with the application to cross-check and verify the information supplied in the FEAF. Verification can also be done by using the links provided in this workbook for each question.
- A visit to the project site can be very helpful to familiarize the reviewing agency with characteristics about the location, neighborhood, and project.

The Workbooks have been prepared to assist applicants, project sponsors and reviewing agencies in the completion of the EAF. **Note that nothing in this workbook, particularly the guidance offered in Part 2 and 3 is found in regulation**. While the EAF's need to be completed according to the Part 617 regulations, determination of impacts, or interpretation on the size or significance of an impact is at the discretion of the reviewing agency. The Workbooks are not required to be used during a SEQR process. They should be considered as helpful guidance documents that contain background information, links to data and maps, and answers to questions that a reviewing agency may have. They should be considered source books to assist and guide applicants and reviewers involved in a SEQR review.

Question A - Project and Sponsor Information - Full EAF (Part 1)

Full Environmental Assessment Form (FEAF) Workbook

Name of Action or Project:
Project Location (describe, and attach a general location map):
Brief Description of Proposed Action (include purpose or need):

Name of Applicant/Sponsor:
Telephone: E-mail:
Address: City/PO: State: Zip Code:

Project Contact (if not same as sponsor; give name and title/role):
Telephone: E-mail:
Address: City/PO: State: Zip Code:

Property Owner (if not same as sponsor):
Telephone: E-mail:
Address: City/PO: State: Zip Code:

This Question asks for basic information about the applicant and the action. The purpose is to provide a common description of the project and contact information for easy communication between the various involved agencies, the public, and the applicant.

Name of Action or Project

Insert the common name or title of the project. Examples include:

- "Spaulding Subdivision"
- "Pine Hills Office Park"
- "Acme Plaza"
- "Adoption of the City of Buffalo Comprehensive Plan"
- "Adoption of Local Law #3 of 2012 (A Local Law Regulating Telecommunication Towers)"

Project Location

Describe the location of the project. Include the actual address of the project site and add the county it is in. If the site does not have a street address, you can describe the location of the site using identifiable features found nearby (such as "200 feet south of the intersection of Maple Street and Main Street").

If required by the local municipality, also include the tax parcel identification number(s). Tax parcel ID numbers can be found on the official tax map of the community or the annual tax bill, and can be viewed at the local tax assessor's office. These ID numbers are generally in the form of section, block, and lot (SBL) numbers.

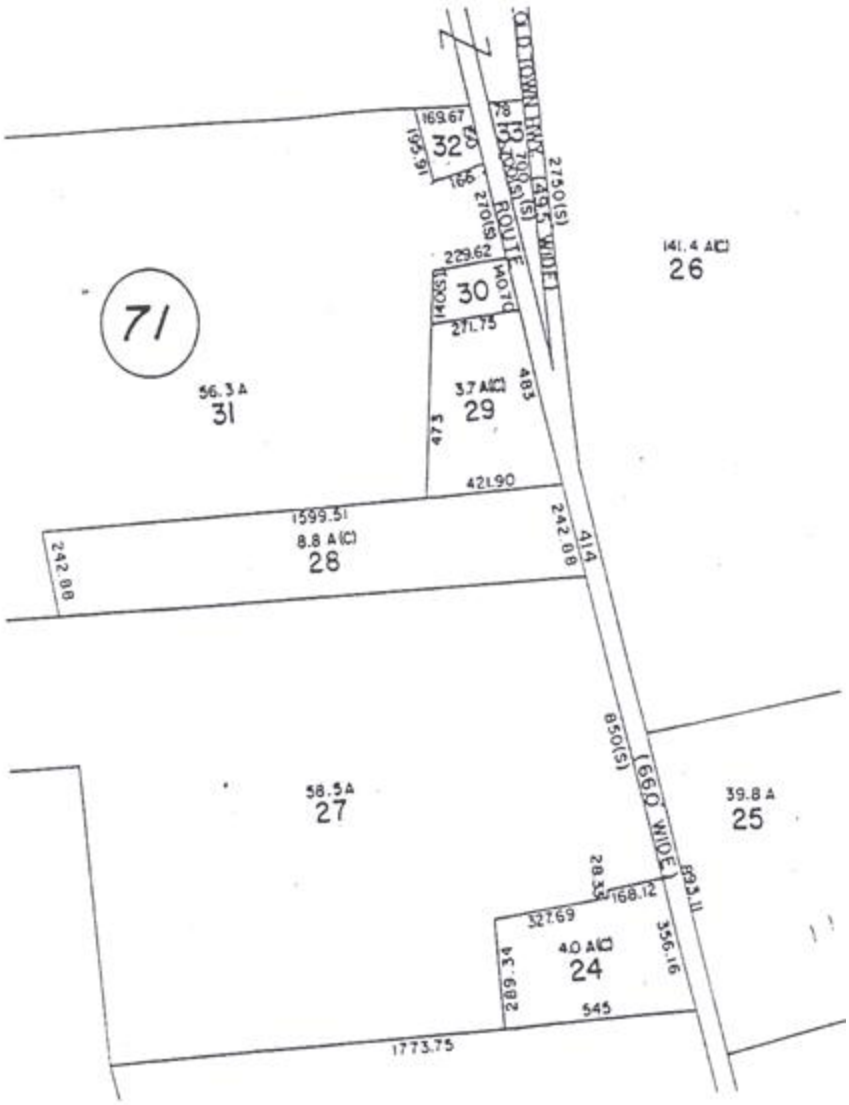


Image from the NYS Department of Taxation and Finance (link leaves DEC's website)

Attach a map showing the location of the project. Many site plan, special use, or subdivision applications also require a location map for the submission, and one map can serve both purposes. This map should be of sufficient size so the reviewing agency knows where the parcel is. This map can be from a tax map, a topographic map, an image from Google maps, or Bing maps, or another similar online mapping program. The map should show the project site boundaries at a scale large enough to display the relevant information about the site. A scale of 1 inch equals 24,000 feet is generally adequate. A small project site may need a more detailed map at a scale of 1 inch equals 40 or 100 feet. Select the scale that provides the reviewing agency with a good overview of the project site and the immediate surrounding area.

A sample map useful for identifying the location of a project site:



Image from NYS DEC website

If the project requires subdivision, site plan, or special use permit approvals, a more detailed map of the parcel and proposed uses and structures will likely be required as part of the permit and review process. Check with the town, village or city clerk, building inspector, or code enforcement officer for information on permit and mapping requirements. The location map may be required as part of a more detailed site map, and the municipality may have other requirements that need to be incorporated into the location map.

A sample map showing more detail, required by DEC when applying for a wetland permit:

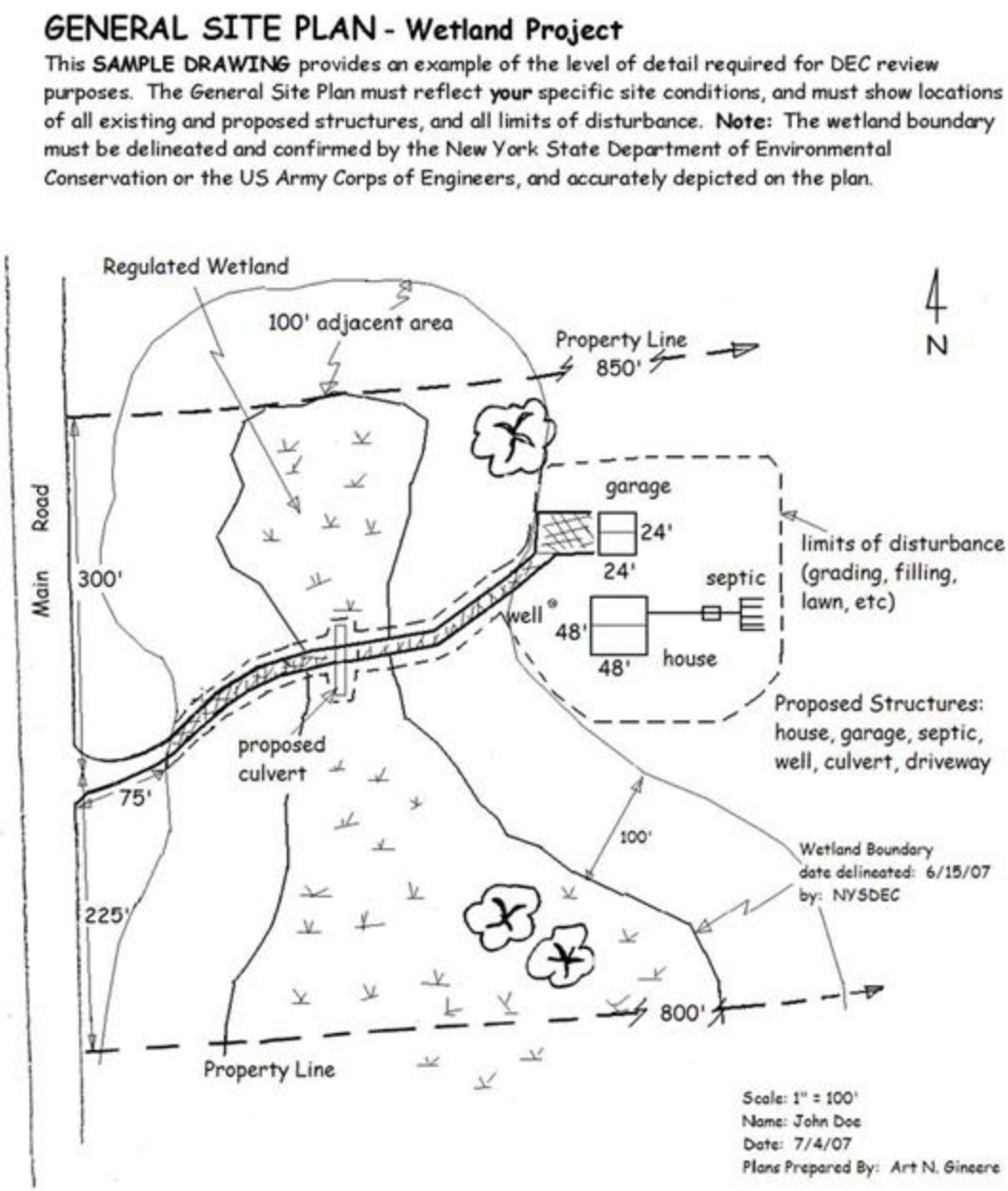


Image from NYS DEC Wetland Permit Page

If the action is adoption of a local law or plan, the project location is that which is affected by that law or plan. For example, adoption of a city-wide comprehensive plan means that the project location includes all lands within the city. Or, if the project is a local law that affects one location of a municipality, that location can be described.

Brief Description of Proposed Action

Describe and identify the major elements of the project. The applicant or project sponsor should attach additional information if applicable such as a site plan or subdivision plat map or refer to other application submittals that may have additional information. The type of information that should be part of this brief description includes:

- The type of activity - such as: residential subdivision, commercial or industrial site plan or special use application, adoption of a local law, adoption of a local plan, or land acquisition.
- Whether the project is a new structure, a modification of an existing structure or facility, an expansion, or not a site specific project but one that affects the entire municipality.
- A brief description of the size and intensity of the project such as the acreage of the parcel, the number of residential units planned, the average size of lots to be created, the types of land uses planned, the square footage of the structure, the height of the structure, the number and size of lots being subdivided, the number of floors, the number of structures, the number of employees, the number of parking spaces planned, the zoning district it is within, whether it is in any special zoning or other district (such as a New York Certified Agricultural District) the water, sewer, and stormwater infrastructure that will be expanded or provided for, or curb cuts or new roads planned for.
- If residential, whether the project includes attached, detached, condominium, townhouse, or single family units.
- The purpose, or need for the project such as "to expand light industrial facilities for expansion of the manufacture of furniture products on a larger scale."
- For adoption or amendment of a plan, local law, or ordinance, describe the basic elements of the law, ordinance, or plan and its general purpose. For example, "The project is adoption of a local law to amend the zoning regulations to create a new mixed-use, high density business district (B-1) at the intersection of First and Park Street."

Examples

- **Description of a residential project:** "The project is a subdivision of a 250-acre parcel into 75 residential parcels ranging from .5 to 5 acres in size in a community that has not adopted zoning, but does have a subdivision law. The subdivision will be designed with a conservation design and 125 acres containing wetlands, floodplains, stream corridors, and unique habitats will be permanently preserved as open space through use of a conservation easement. Five miles of new roads will be built and the project will have four new access points entering onto existing Cooks Hill Road. The project will include a 20,000 square foot facility to be used by subdivision residents for recreation. 40 of the lots will be clustered onto 35 acres at the corner of Cooks Hill Road and Evergreen Street and the remaining 35 lots will be located on the remaining buildable portion of the parcel. All lots will be sold for single family residential use, and a home-owners association will be formed to develop and manage a community wide water, sewer and stormwater management system. The applicant will form a

Transportation Corporation for approval by the Town for the water and treatment facilities. No sidewalks are planned but the interior roads will be connected by 1 mile of bike/hike trail. All roads will be built according to Town Highway Specifications and we will seek Town approval to accept the roads as part of the public road system. The project will convert 150 acres of former agricultural land to residential use.

- **Description of a commercial project:** "Site plan and special use approval for a 150,000 square foot and 45 foot high warehouse on 11.25 acres of a 25 acre parcel of land. The warehouse will serve as a regional hub for stocking merchandise for our eastern New York stores. The project will include 5 acres of paved parking and loading areas, 10 loading docks, building and parking lot lighting, two additional curb cuts off of Route 5a, placement of a 35 foot high landscaped sign, and construction of a 8' x 8' gate house at the entrance. The warehouse will employ 50 to 100 workers depending on the season and operate from 6 am to 9 pm daily. Traffic on the site will consist of employee passenger vehicles and approximately 40 tractor trailer trips (deliveries into and re-loading of trucks to go out of the facility) per day. There will be no overnight parking of the trailers onsite. The project will hook into existing water and sewer lines but will require a ¾ mile extension of the public infrastructure to reach the site (to be developed and paid for by the developer). The project will require approval of the municipality to extend the water and sewer districts. Approximately 45% of the parcel will contain impervious surfaces and stormwater will be managed with onsite detention and retention ponds and grassed swales.
- **Description of adoption of a comprehensive plan:** "The Town has undertaken a comprehensive process to update an older version of a municipal comprehensive plan for the Town. The planning process included an evaluation of existing conditions (demographic, housing, income, environmental, land use, economic, recreation, transportation, etc.), involvement of the public to determine issues and future desired direction, and development of strategies and actions that can be implemented over the next decade to help the Town reach their community goals. The process included a residential survey, multiple planning workshops, a public hearing hosted by the Comprehensive Plan Steering Committee, regular meetings of an ad-hoc committee (Steering Committee) appointed to draft the plan for the Town, and other qualitative and quantitative studies assisted by a planning consultant. The plan includes extensive background information, vision and goals, strategies and actions, and a series of maps depicting various resources in the Town. Public hearings were held by both the Comprehensive Plan Committee and the Town Board. The Plan covers the entire portion of the Town. Adoption of such a plan is a Type I action under SEQR.

Name of Applicant/Sponsor

Provide the name of the applicant or the project sponsor and accurate contact information so the agency can efficiently communicate with the applicant. If this is a municipal action such as adoption of a comprehensive plan or local law, provide the name of the municipality and the responsible board (such as the Town or Village Board).

Project Contact and/or Property Owner

If the contact person and/or the owner of the property are different than the project sponsor, include the additional information in the space provided on the form. If this is a municipal action such as adoption of a comprehensive plan, provide the address and contact information for the municipal offices.

Question B - Government Approvals, Funding, or Sponsorship - Full EAF (Part 1)

Full Environmental Assessment Form (FEAF) Workbook

("Funding includes grants, loans, tax relief, and any other forms of financial assistance.)

Government Entity

a. City Council, Town Board, or Village Board of Trustees
b. City, Town or Village Planning Board or Commission
c. City Council, Town or Village Zoning Board of Appeals
d. Other local agencies
e. County agencies
f. Regional agencies
g. State agencies
h. Federal agencies
- - - - - - - - - - - - - - - - - - -

Government Entities (questions B.a.-B.h.)

(For question B.i. Coastal Resources, scroll down the page)

This question asks the applicant or project sponsor to identify all the different agencies that have a role in permitting, approving, or funding their project. Identification of all agencies that must approve of, or fund a project is very important because it will:

- Help the reviewing agency determine which other agencies need to be contacted to establish a lead agency, and to conduct a coordinated review.
- Help make the approval process more efficient and consistent.
- Help ensure that applicants do not miss any important steps in the review and approval process.
- Help the reviewing agency know what other permits may be required prior to final approval at the municipal level.
- Help the reviewing agency understand all the public funding commitments possible or needed for the project.

Many Type I actions will need approvals such as subdivision, site plan, or special use permits from the local municipality. Town Highway, County, and NYS Departments of Transportation (DOT) may require road access and design approval before a new road or driveway is built. Other communities may also require approval from a historic preservation board, architectural review board, or a conservation advisory board. Some regional agencies such as the Susquehanna River Basin Commission, Adirondack Park Agency, or New York City Department of Environmental Protection, may also have permits required for your project. Counties, through the General Municipal Law 239-m review referral requirements, can have a role in the review, but usually make only advisory recommendations on a proposed project. Some however, such as Nassau County's planning commission, may have jurisdiction over subdivision approvals and would be an involved agency. State and federal entities such as the NYS DEC, Department of State, US Army Corp of Engineers or US Environmental Protection Agency may also have permitting requirements. County planning agencies are a good source of information for what is required in a particular area.

Answering Questions B.a. through B.h.

Check the Yes box next to each government entity that will require or supply approval, funding, or sponsorship of the proposed project. List the names of each, and the approval, funding and/or sponsorship required or supplied. Also enter the date by which the application for such approval, funding, or sponsorship will occur in the space provided.

If you do not know what other approvals, permits or funding your project will require, you will need to do some research. This information can be found out by contacting one or more of the following:

- Local building inspector or code enforcement officer

- Local town, village or city planning office
- Local Planning Board or Zoning Board of Appeals Chair, Clerk, or Secretary
- County planning office
- Regional planning office
- Metropolitan Planning Agencies
- DEC Regional Office
- NYS DOT Regional Office

Review the following list to see if any of the following permits may be needed for your project.

This outline is provided only as a partial list to assist you in identifying possible permits that may be needed. It is organized by general government entity similar to Question B. on the FEAF, with subheadings showing specific agencies that may require permits or approval.

City Council, Town Board, or Village Board of Trustees

- Building permit or other local permits
- Floodplain Construction Requirements, Federal National Flood Insurance Program
  - Construction in Floodways and Flood Plains
- Historic District Permit or Certificate of Appropriateness
  - For construction in or alteration of a historic structure in a locally designated historic district
- Water or Sewer District
  - Expansion or creation of a water or sewer district

City, Town, or Village Planning Board or Commission

- Subdivision Approval
- Site Plan Approval
- Special Use Permit
- Historic District Permit or Certificate of Appropriateness
- Any activity as required in a local zoning law, subdivision law, or site plan review law

City, Town, or Village Zoning Board of Appeals

- Area Variance
- Use Variance
- Special Use Permit

Other Local Agencies

Local Highway Department

- Construction or reconstruction within the right-of-way of a local road
  - Including construction and repair of driveways, side roads, utility lines, drainage facilities

County Agencies

County Planning Agency

- County Approval or recommendation for a referred application
  - Any project that requires a County review pursuant to 239-m or 239-n

County Highway Department

- Construction within the right-of-way of a County Road

County Health Department

- Siting and construction of residential and commercial onsite septic systems
- Realty subdivisions

Regional Agencies

Adirondack Park Agency

- Development in the Adirondack Park

New York City Department of Environmental Protection (DEP)

- Crossing, Piping or Diversion Permit, in the New York City Watershed
  - Crossing a stream, diverting water from a stream, or piping water from a stream
- Stormwater Pollution Prevention Permit, in the New York City Watershed
  - Whenever 2 or more acres located at least in part within the limiting distance of 100 feet of a watercourse or wetland or 300 feet from a reservoir or reservoir stem or on a slope exceeding 15% are disturbed
- Siting and construction of onsite septic systems within the New York City Watershed

Other Regional Planning Agencies

- Lake George Park Commission
- Long Island Pine Barrens Commission
- Tug Hill Commission
- Watershed or lake protection agencies
- Delaware River Basin Commission
- Susquehanna River Basin Commission

State Agencies

NYS DOT

- Construction in a State Highway Right-of-Way, including driveways

- NYS DOT Non-Utility Highway Work Permit
- NYS DOT Utility Highway Work Permit

NYS DEC

- Air Pollution Control
- Coastal Erosion Control
- Freshwater Wetlands
  - Draining, dredging, excavating, building a structure or road, placing fill or introducing any kind of pollution in a designated wetland
- Mined Land Reclamation
- Protection of Waters, including Dams and Docks
- Public Water Supply and Long Island Wells
- Solid and Hazardous Waste Management
- State Pollutant Discharge and Elimination Systems (SPDES), including Stormwater permits
- Tidal Wetlands
- Wild, Scenic and Recreational Rivers
  - For more information on the above permits, see Wild, Scenic and Recreational Rivers page.
- Article 15, Stream bank or Bed Disturbance
  - Any activity that would disturb the bank or bed of a regulated stream, including crossings, bridges, diversions, bank stabilization, etc.
- Notice of Intent (NOI) and Preparation of a Stormwater Pollution Prevention Plan (SWPPP)
  - Whenever 1 acre or more of land is disturbed, the activity is controlled by the NY State Pollution Discharge Elimination System (SPDES)
- Mining Permit
  - For all mining and gravel excavation of over 1,000 tons per year
- Water Supply
  - Installation, acquisition, construction, or extension of water systems if the activity involves five or more service connections, regardless of the amount of water used

NYS Department of State (DOS)

- Local Waterfront Revitalization Plan (LWRP) Consistency Review
  - Any activity in a community with an adopted Local Waterfront Revitalization Plan

NYS Department of Health (DOH)

- See the Department of Health Permits, Licenses & Certification page.

NYS Office of Parks, Recreation, and Historic Preservation (OPRHP) / State Historic Preservation Office (SHPO)

- Environmental Review program

Federal Agencies

Army Corps of Engineers (New York District, Regulatory Branch)

- Army Corps of Engineer Permit or Water Quality Certification
  - Any activity that places greater than 25 cubic yards of fill below the ordinary high water mark
  - Any work in navigable waters, tributaries, adjacent wetlands, impoundments

Public funding sources that may apply to proposed projects

- Clean Water Act State Revolving Funds
  - Low interest loans available from the Environmental Facilities Corporation for water quality protection
- The Green Building Tax Credit
- Empire Zone Tax Benefits
- Industrial Development Agency
- Consolidated Funding Application (CFA) through Empire State Development

- - - - - - - - - - - - - - - - - - -
i. Coastal Resources.
i. Is the project site within a Coastal Area, or the waterfront area of a Designated Inland Waterway?
If Yes,
ii. Is the project site located in a community with an approved Local Waterfront Revitalization Plan?
iii. Is the project site within a Coastal Erosion Hazard Area?

Coastal Resources (question B.i.)

The NYS Coastal Management Program is composed of a variety of programs and initiatives designed to help revitalize, promote, and protect New York's waterfronts and their communities. The Coastal Program works with local governments to prepare Local Waterfront Revitalization Programs, defining a local vision for the waterfront. The Coastal Program also provides technical assistance to communities, helping them to expand public access, restore habitats, protect water quality, reinvigorate urban waterfronts, strengthen local economies, reduce coastal hazards, and protect historic resources.

Coastal Area and Designated Inland Waterways

The NYS Department of State (DOS) is responsible for identifying, delineating, and mapping the state's coastal area and designated inland waterways in accordance with the Federal Coastal Zone Management Act (1972). The specific waterbodies included in the Coastal Area, and designated inland waterways, are

listed in NYS Executive Law Article 42, §911.(*find this law click on the link, click on EXC, click on Article 42, then click on 911*) DOS maintains an online Coastal Atlas that identifies the state's coastal area boundaries. Clicking on the map will lead to successively more detailed maps of the viewers' interest.

Local Waterfront Revitalization Plan (LWRP)

A Local Waterfront Revitalization Plan/Program (LWRP) is a locally prepared, comprehensive land and water use plan for a community's natural, public, working and developed waterfront. The legal basis for development of an LWRP is explained in NYS Executive Law Article 42, §915. (*find this law click on the link, click on EXC, click on Article 42, then click on 915*)

DOS maintains a list of all NYS communities with an approved LWRP on their website.

Coastal Erosion Hazard Area

New York State DEC has created the Coastal Erosion Control Permit Program to ensure construction and other activities in coastal areas meet specific standards. The goal of these standards is to ensure a project:

- is reasonable and necessary, considering reasonable alternatives to the proposed activity, and the extent which the proposed activity requires a shoreline location
- will not be likely to cause a measurable increase in erosion at the proposed site or other locations
- prevents, if possible, or minimizes adverse effects on: natural protective features, existing erosion protection structures, and natural resources

DEC has identified areas within the coastal area that are particularly susceptible to erosion. Current maps are in paper form only and each community that has a Coastal Erosion Hazard Area (CEHA) should have a copy of these maps available. Municipalities with adopted LWRPs are likely to include these maps in their plan. If maps are not available at the municipality, The DEC regional office will have copies of the CEHA maps that fall within their jurisdiction.

Answering Question B.i.



The answer to parts B.i.i and B.i.ii for this question will be automatically inserted on the pdf generated by the EAF Mapper and a report generated. If the project site is within a coastal area or waterfront area on a Designated Inland Waterway, the EAF Mapper will check "yes" on the FEAF Part I pdf. If there is no coastal or waterfront area of a Designated Inland Waterway located within the project boundaries, the EAF Mapper will check "no" on the form. If a 'yes' answer is returned, the EAF Mapper will also identify if the project is in a community with an approved Local Waterfront Revitalization Program and will automatically check 'yes or 'no'. If the applicant or project sponsor believes the answer filled out by the EAF Mapper is incorrect, supplemental information should be provided that explains that discrepancy.

The EAF Mapper will not populate information for the Coastal Erosion Hazard Areas (CEHAs) (part B.i.iii). DEC is in the process of updating this information and when it is available it will be added to the EAF Mapper program. Information on CEHAs should be gathered from the DEC (see below).

If the EAF Mapper is not used to answer this question, you may search for data manually. Hot links provided below will provide the information needed to address these questions.

i. If the project site is within a Coastal Area or the waterfront area of a Designated Inland Waterway check yes, and then answer yes or no the next two parts of this question:

ii. Is the project site located in a community with an approved Local Waterfront Revitalization Plan?

iii. Is the project site within a Coastal Erosion Hazard Area?

- New York State's Coastal Areas and Inland Waterways are defined in NYS Executive Law, Article 42, Section 911. (*find this law click on the link, click on EXC, click on Article 42, then click on 915)* Maps showing the Coastal Area Boundary can be viewed in the NYS Coastal Atlas. Click on the map in the center of the page to open successively more detailed coastal maps of the area you are interested in.
- A list of approved Local Waterfront Revitalization Plans can be found on the NYS Department of State's website.
- More information on Coastal Erosion Hazard Areas can be found on DEC's Coastal Erosion Control Permit Program page.

Question C 1 - Planning and Zoning Actions - Full EAF (Part 1)

Full Environmental Assessment Form (FEAF) Workbook

Will administrative or legislative adoption, or amendment of a plan, local law, ordinance, rule or regulation be the only approval(s) which must be granted to enable the proposed action to proceed?

If Yes, complete sections C, F and G.

If No, proceed to question C.2 and complete all remaining sections and questions in Part 1

Adoption of local laws, ordinances, regulations, administrative rules, and plans are common legislative actions taken by the State or local municipalities. All are considered discretionary actions and therefore, all require an environmental review prior to their adoption according to SEQR.

The following administrative actions are listed as Type 1 in SEQR §617.4 (link leaves DEC website,) and will require using the Full EAF:

- The adoption of a municipality's land use plan
- The adoption by any agency of a comprehensive resource management plan
- The initial adoption of a municipality's comprehensive zoning regulations
- The adoption of changes in the allowable uses within any zoning district affecting 25 or more acres of the district

Answering the Question

If the project involves an action of this type and nothing more, then check Yes under question C.1., and proceed to answer questions C.2, C.3, C.4, F, and G. You do not have to answer questions D.1.-D.2., nor questions E.1.-E.3.

If the proposed project includes anything more than this, then all of the remaining questions must be completed. For example, some projects may need a change in zoning before the rest of the project can proceed. Questions in sections D and E will need to be completed for the remainder of the project.

Question C 2 - Adopted Land Use Plans - Full EAF (Part 1)

Full Environmental Assessment Form (FEAF) Workbook

C2 a. Do any municipally- adopted (city, town, village or county) comprehensive land use plan(s) include the site where the proposed action would be located?

If Yes, does the comprehensive plan include specific recommendations for the site where the proposed action would be located?

Comprehensive Plans

General City Law § 28-a, Town Law § 272-a, Village Law § 7-722, and (for counties) General Municipal Law § 239d define and describe the legal aspects of comprehensive planning in NYS. These laws allow and encourage the adoption of comprehensive plans for all NYS municipalities, but do not require it. To determine if the municipality your project is located in has a comprehensive plan, check their website, or contact the municipal clerk, code enforcement officer (or building inspector), or planning board clerk. Local resources can best help you determine if a municipality has an adopted comprehensive plan.

The municipality's comprehensive plan will provide a context for determining if the proposed activity is compatible with the community's overall plans for development. Activities that are consistent with a

comprehensive plan are much less likely to result in impacts to community character or to the environment.

Answering Question C.2.a.

If the municipality in which the project site is located has an adopted comprehensive land use plan, check yes.

If you check yes, you should, as good practice, research the plan and any accompanying maps, studies, or other information in order to determine the goals and planning strategies that apply to your project site, and if there are any specific recommendations applicable to it. Some plans are general in nature and do not make specific recommendations for individual locations in a community. Others are very specific and include text or maps indicating exactly what is planned for a particular location. In order to answer this question, applicants should become familiar with what, if any plans exist for the parcel, as well as what the vision, goals, recommendations, and general mapped land use plans may be included. If there are site specific recommendations in the plan, check yes to the second part of C.2.a. If not, check no.

C2 b. Is the site of the proposed action within any local or regional special planning district (for example: Greenway Brownfield Opportunity Area (BOA); designated State or Federal heritage area; watershed management plan; or other?)
If Yes, identify the plan(s): _____

Background - Special Planning Districts

Special Planning Districts are areas identified by a local municipality, county, region or the state that encompass and plan for a specific resource or location. They are often adopted by the municipality, but may not be part of a comprehensive plan. Some special plans are regional, or targeted to a specific topic or location in the municipality so they may or may not strictly follow the boundaries of the municipality. Special Planning Districts are used to protect unique environmental, historic, architectural, and other features that require special consideration. Special Planning Districts usually have a limited focus, and often provide specific standards designed to address that unique resource or location.

Special planning districts may be designated for a targeted resource or area, or for one or more municipalities. The scope of a special planning district can vary widely. The planning area might be a small but oriented toward an important resource such as a viewshed within a single municipality, or it might span multiple municipalities as might be the case with a watershed plan. A Greenway plan or transportation corridor plan might encompass multiple municipalities, but be limited to a specific area along a river or highway corridor.

It's important to note that a Special Planning District is not the same thing as a zoning overlay district. A zoning overlay district is part of an adopted zoning law. However, the overlay district may have been

identified and defined in a separate and distinct Special Planning District process, so there may be some overlap between the two documents.

Some examples of Special Planning Districts:

- Brownfield redevelopment plan
- Habitat protection plan
  - This could be limited to a single parcel, protection of a particular endangered species, or may include a large wetland or forest area spanning multiple municipalities
  - For example, the Long Island Pine Barrens, or Albany Pine Bush Preserve
- Transportation Corridor Plan
- Local Waterfront Revitalization Plan (LWRP)
- Harbor Management Plan
- Regional or Local Coastal Management Plan
- Watershed Protection Plan
  - These can vary in size from a small subdivision surrounding a small pond, up to a regional watershed encompassing the Hudson River Valley, the Mohawk River Valley, Delaware River Basin, Susquehanna River Basin, or the Great Lakes
- Statewide Area of Scenic Significance
- Historic District
  - For example, the Hudson River National Historic Landmark District
- Aquifer Protection Area
- Critical Environmental Area
  - These may be designated pursuant to Part 617 and have a planning process associated with their study and designation. Some communities identify their own critical environmental areas that are not pursuant to Part 617 but are designated through a local planning process.

Answering Question C.2.b.



The answer to this question will be automatically inserted on the pdf generated by the EAF Mapper and a report generated. For this question, the EAF Mapper evaluates remediation sites, federal recreation lands, the New York City watershed boundary and NYS Heritage Areas. If the project site is within a state-identified special planning district the EAF Mapper will check "yes" on the FEAF Part I pdf. If a 'yes' answer is returned, the EAF Mapper will also name the district. If there is no special planning district identified within the project boundaries, the EAF Mapper will NOT check 'no' but instead will return 'insufficient data to answer this question." There may be other special planning districts designated locally

and applicants should be sure to research local plans and records to answer this question. If the applicant or project sponsor believes the answer filled out by the EAF Mapper is incorrect, supplemental information should be provided that explains that discrepancy.

If the proposed project is located in a local or regional special planning district (as described above), check yes and identify the plan in the space provided.

C2 c. Is the proposed action located wholly or partially within an area listed in an adopted municipal open space plan, or an adopted municipal farmland protection plan?
If Yes, identify the plan(s): _____

Open Space Plans and Farmland Protection Plans

In NYS, municipalities (including counties) have the authority to develop either a separate open space plan, or can include the elements of an open space plan in their comprehensive plan. NYS municipalities (including counties) also have the authority to develop Agriculture and Farmland Protection Plans. These plans may identify specific areas of importance to the community, and establish policies or specific recommendations pertaining to development of those areas.

The scope of these plans typically covers an entire municipality, although they can focus on a particular area within a single municipality, or span multiple municipalities during a joint planning effort. The difference between these plans and a comprehensive plan is their focus on particular physical elements. Open Space plans will examine and analyze a community's undeveloped areas and its natural features, connections between these features, and connections to them from developed areas. Farmland Protection Plans will examine and analyze the agricultural economy of a municipality, its physical resources that support farming, and the regulatory environment. Since farmland is often seen as undeveloped open space, these plans can overlap and contain similar goals and strategies.

For help in determining if a municipality has an open space plan or farmland protection plan, check their website, and contact the municipal clerk, code enforcement officer (building inspector), or planning board clerk. Local resources are the best way to help you determine if a municipality has adopted one or both of these plans.

Answering Question C.2.c.

If the proposed project is partially or completely located in an area listed in an adopted municipal open space plan or an adopted municipal farmland protection plan, check yes and identify the plan(s) in the space provided.

Question C 3 - Zoning - Full EAF (Part 1)

Full Environmental Assessment Form (FEAF) Workbook

C3 a. Is the site of the proposed action located in a municipality with an adopted zoning law or ordinance. If Yes, what is the zoning classification(s) including any applicable overlay district?

Zoning

Understanding whether or not a proposed activity is permitted under current zoning provides a context for determining if the activity is compatible with the community's plans for development. Some projects are allowed by right, needing no planning board review. However, most Type I actions will require site plan or special use permit approval, or both. Others may need a use variance or an area variance from the Zoning Board of Appeals in the municipality. Some municipalities do not have zoning laws in place.

For help in determining if the municipality has zoning or a comprehensive plan, check their website, or contact the code enforcement officer (building inspector), municipal clerk, or planning board clerk. Local resources are the best way to help you determine if your project is consistent with the local zoning or plan.

If zoning exists, review the schedule of uses, density, and dimension requirements (sometimes called 'area and bulk regulations'), zoning map, and any supplemental regulations that may be required. Some communities also have overlay districts. These are special districts that are designed to protect specific resource such as historic buildings, viewsheds, open spaces, or aquifers. If a zoning law exists, be sure to evaluate all parts of it to determine the district requirements that may pertain to the project location.

Answering Question C.3.a.

Check 'Yes' if a zoning law or ordinance is in effect in the municipality where the proposed action is to take place. If there is no adopted zoning, check no and move on to Question C4. If you answered yes, describe the zoning classification(s). Zoning classification refers to the name and type of zoning district that regulates the project location. An example statement for this could be: "The proposed activity is located within an R-2 district, which requires a 2 acre minimum lot size. The proposed activity is a use permitted with site plan and a special use permit. Part of the parcel is also within the designated Aquifer Protection Overlay District and will comply with those additional requirements."

C3 b. Is the use permitted or allowed by a special or conditional use permit?

Special or Conditional Uses

A special use permit is a permitted use in the municipality but is one that has characteristics that may make it more difficult to co-exist in a particular area or neighborhood. A special use permit evaluates the proposed use. It is often required along with site plan review which evaluates the function of structures on the parcel. Special uses often are allowed with certain conditions to ensure it fits in with the surrounding land uses. Some communities refer to their special use category as a 'conditional use'. These should be considered the same for this question.

Answering Question C.3.b.

Check 'Yes' if the proposed activity requires obtaining a special use permit or conditional use permit.

C3 c. Is a zoning change requested as part of the proposed action?
If Yes,
i. What is the proposed new zoning for the site?

Question C 4 - Existing Community Services - Full EAF (Part 1)

Full Environmental Assessment Form (FEAF) Workbook

C4 a. In what school district is the project site located?
C4 b. What police or other public protection forces serve the project site?
C4 c. Which fire protection and emergency medical services serve the project site?
C4 d. What parks serve the project site?

Background Information

This question asks the applicant or project sponsor for information about existing community services. It is important that the reviewing agency understand the current capacity of those services and understand if or how the proposed action may affect it.

If the proposed project is the adoption of a municipal plan or local law, then list the community services in the district or municipality affected by the plan or law.

Answering Questions C.4.a-d.

For this question, start with local municipal sources. There may be lists, tables, and maps included in the municipal comprehensive plan, or other plans that you have already gathered and evaluated for SEQR. If there are no maps available, the property tax bills and records for the project's parcel will include the school district, fire protection district, and possibly the emergency medical services area the parcel is located in.

Use this space to identify the school district(s) that the proposed project is located in, as well as police, fire protection, and emergency medical services that exist for the project site. Also, identify local parks that serve the project site.

Zoning Change

Some applicants request a zoning change in order to allow their proposed project in a specific district, or a change in density, dimension, or other development requirements of an already allowed use. Zoning change requests are made to the legislative board of the municipality.

Answering Question C.3.c.

If the proposed use is allowed in the municipality as-of-right, or with site plan or special use permits, and no zoning change is requested, check 'no'. If the proposed action is the adoption of a municipal plan or local law, and it recommends enacting new zoning, or changing the existing zoning in the community, check 'yes' and identify the proposed new zoning. If the proposed project includes a zoning change component, also check 'yes' and identify the requested zoning change.

Question D 1 - Proposed and Potential Development - Full EAF (Part 1)

Full Environmental Assessment Form (FEAF) Workbook

Background Information for all D.1. Questions

This set of questions provides information on the general characteristics of the proposed project. They will help the reviewing agency understand the scale and extent of the proposed project by detailing the acreage and nature of the proposed use, and the time frame for project completion. Other Part 1 questions will explore more specifics about the project and its operation.

All of the answers to Section D1 questions may be taken directly from a proposed site plan, plat, and other application materials that are, or will be submitted to the reviewing agency. Applicants should provide as much detail, and be as precise as possible in answering these questions. In this way, it will help the reviewing agency have on hand all the information needed to adequately and efficiently conduct Part 2 of the environmental review. It may also be advisable to review Part 2 sections to identify other information that could be provided in Part 1 or other application materials that would assist the reviewing agency complete Part 2.

This part of the workbook includes background information, potential data sources, and examples to help you complete Section D1:

D1 a. What is the general nature of the proposed action (e.g., residential, industrial, commercial, recreational; if mixed, include all components)?

_____

Answering Question D.1.a.

If this is a project that involves physical changes to a site, describe the principal nature of the action. A project that includes more than one type of use would be considered a 'mixed' use and each element should be stated here.

D1 b.

a. Total acreage of the site of the proposed action?
   _____ acres
b. Total acreage to be physically disturbed?
   _____ acres
c. Total acreage (project site and any contiguous properties) owned or controlled by the applicant or project sponsor?
   _____ acres

Answering Question D.1.b.

Use data from a survey, plat, or site plan to calculate the specific acreage of the project and the site.

a. Total acreage of the site refers to all parcels and land areas that are part of the project. Include all lands in this calculation, even if they are not all to be disturbed.

b. Calculate, in acres, the total amount of land to be graded, filled, changed, excavated, or disturbed in some way.

c. Calculate the total acreage of the project site and contiguous properties the project sponsor or applicant controls, even if some are not part of this current proposed project.

The total acreage calculated for question D.1.b.(a), and the total acreage owned or controlled by the applicant or project sponsor may be the same number. The purpose of this part of question D.1.b. is to determine if there are additional lands controlled by the project sponsor not part of this proposed action. If so, the reviewing agency may need to explore whether there are multiple phases to be considered or if future development should be considered now as part of the environmental review.

D1 c. Is the proposed action an expansion of an existing project or use?
i. If Yes, what is the approximate percentage of the proposed expansion and identify the units (e.g., acres, miles, housing units, square feet)?
% _____
Units: _____

Answering Question D.1.c.

If the proposed project is an expansion of an existing project or use, check "yes". If no, check the box and move onto question D.1.d.

If the proposed project involves expansion of an existing land use, then calculate how much that expansion will be, measured as a percentage increase. For example, if a 20 acre commercial property already has 10 acres used for retail uses and the proposed project will add five more acres of new retail buildings and parking, then the percent increase would be 50% measured in acres. Another example is an expansion of a 100-unit multi-family development by 100 more units. This would then be a 100% expansion, measured in housing units. The unit of measurement you use should offer the most relevant information to help the reviewing agency understand the scale and extent of the expansion.

D1 d. Is the proposed action a subdivision, or does it include a subdivision?
If Yes,

i. Purpose or type of subdivision? (e.g., residential, industrial, commercial; if mixed, specify types)
ii. Is a cluster/conservation layout proposed?
iii. Number of lots proposed? _____
iv. Minimum and maximum proposed lot sizes?
Minimum _____
Maximum _____

Answering Question D.1.d

If the proposed project is, or includes a subdivision, check 'yes'. If it does not, check 'no' and move on to question D.1.e.

i. If a subdivision is proposed, identify the type of subdivision that is being proposed.

ii. A cluster/conservation subdivision layout is one where part of the parcel is preserved as dedicated open space. A clustered subdivision results in housing units or structures placed in one or more groups on the parcel, usually with small individual lot sizes. A conservation subdivision is also designed to preserve

open space, but housing units or structures are not necessarily clustered; units may also be strategically located to preserve critical open space lands. See the pictures below which illustrate the differences:

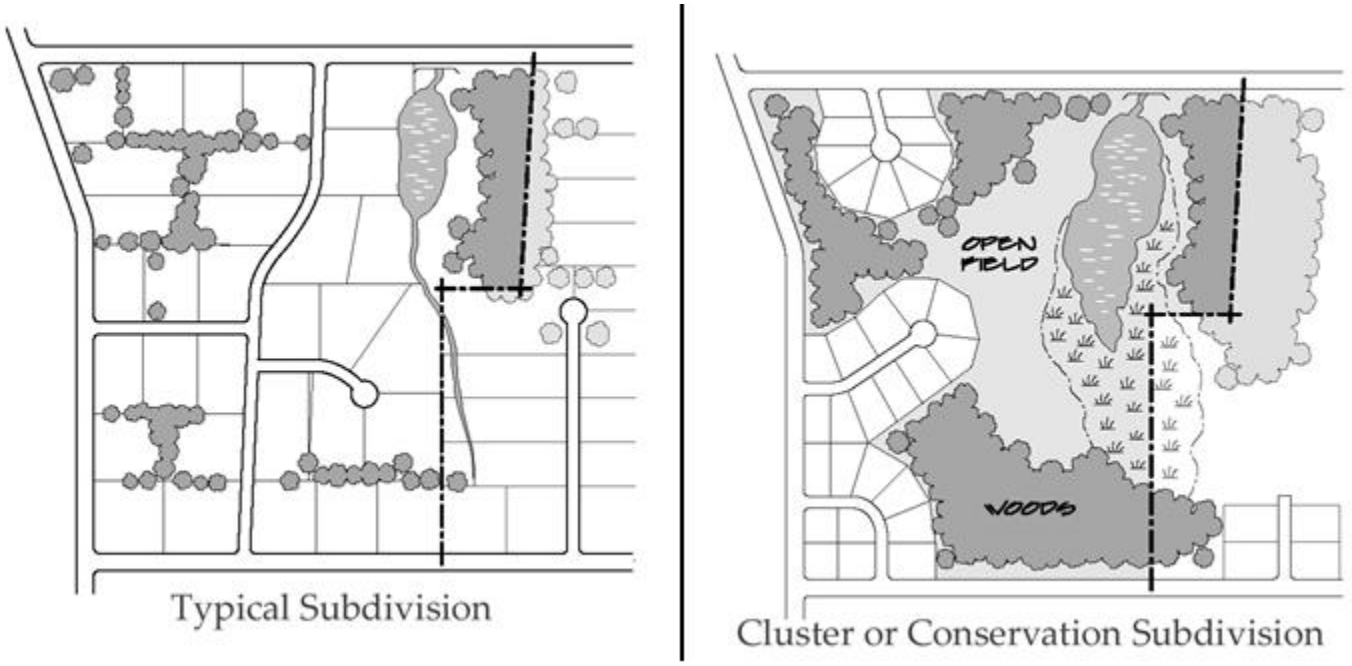


Image Courtesy NYS DEC in the following document (PDF, 450 KB)

iii. If a subdivision is proposed, enter the total number of lots proposed.

iv. If a subdivision is proposed, enter the minimum and maximum proposed lot sizes.

D1 e. Will proposed action be constructed in multiple phases?

i. If No, anticipated period of construction:
_____ months

ii.

If Yes:

- Total number of phases anticipated _____
- Anticipated commencement date of phase 1 (including demolition)
_____ month _____ year
- Anticipated completion date of final phase
_____ month _____year
- Generally describe connections or relationships among phases, including any contingencies where progress of one phase may determine timing or duration of future phases:
_____

Answering Question D.1.e.

It is important for the reviewing agency to understand how long a project may take. The project time frame will be important information used by the reviewing agency to help determine the duration of potential environmental impacts.

i. If a project is to be started and completed in one phase, check 'no' and indicate the number of months anticipated for completion.

ii. If there are to be multiple phases, then the reviewing agency must evaluate the potential environmental impacts of each phase as well as the total impact of all phases together. If this is a multi-phased project, check 'yes' and indicate how many phases, how long each phase will last, and what the anticipated final completion date is. Also, describe what the different phases are and how they relate to each other.

For example, the applicant for a residential subdivision proposed with three phases would check 'yes' for a phased project, indicate three phases, add in the anticipated start of the project month and year, and the anticipated date of completion of the final phase. They could further describe the phasing as "Phase one is construction of the road, water and sewer infrastructure. Phase two is construction of two-family and multi-family units in an area closest to that infrastructure, and phase three is construction of single-family dwellings on lots located on other portions of the parcel. Phase 3 will start only when all two-family and multi-family dwelling units from phase 2 have been sold."

D1 f. Does the project include new residential uses?
If Yes, show numbers of units proposed.

	One Family	Two Family	Three Family	Multiple Family (four or more)
Initial Phase	_____	_____	_____	_____
At completion of all phases	_____	_____	_____	_____

Answering Question D.1.f.

Indicate if the proposed project includes residential uses. If so, then add in the numbers of each type of residential unit proposed. If there is only one phase, then add in the numbers proposed for each unit on the 'at completion of all phases' line.

D1 g. Does the proposed action include new non-residential construction (including expansions)?
If Yes,

i. Total number of structures

ii. Dimensions (in feet) of largest proposed structure:
_____height; _____width; and _____ length

iii. Approximate extent of building space to be heated or cooled:
_____ square feet

Answering Question D.1.g.

This question will help the reviewing agency better understand the type, extent and scale of the proposal. If the proposed project includes some amount of non-residential construction, including expansions, check 'yes'. If not, then move to question D.1.h. If yes, indicate the total number of structures, the size of the largest structure proposed, and the extent of the space to be heated or cooled - (Use the outside faces of the walls containing heated and cooled spaces).

D1 h. Does the proposed action include construction or other activities that will result in the impoundment of any liquids, such as creation of a water supply, reservoir, pond, lake, waste lagoon or other storage?
If Yes,

i. Purpose of the impoundment:
_____

ii. If a water impoundment, the principal source of the water:
Ground water, Surface water streams, Other specify:
_____

iii. If other than water, identify the type of impounded/contained liquids and their source.
_____

iv. Approximate size of the proposed impoundment.
Volume: _____ million gallons;
surface area: _____ acres

v. Dimensions of the proposed dam or impounding structure:
_____ height; _____ length

vi. Construction method/materials for the proposed dam or impounding structure (e.g., earth fill, rock, wood, concrete):
_____

Answering Question D.1.h.

If the proposed project creates or expands any impoundment for water or any other liquid, then check 'yes' and answer this question. If the proposal does not include creation of any liquid impoundment, then check 'no' and move to Question D.2. (Project Operations).

Water supply reservoirs, ponds, lakes, waste lagoons, and other storage impoundments including stormwater detention ponds are all to be considered as an impoundment.

i. Describe the purpose of the impoundment such as for irrigation, stormwater runoff control, drinking water, recreational, visual, or waste storage. It would be helpful to include details about whether the impoundment is subject to a permit from DEC or another regulatory agency as well. A review of requirements such as Environmental Conservation Law (ECL) Subpart 360-6: Liquid Storage for surface impoundment requirements, (link leave DEC's website) Part 673: Dam Safety Regulations, (link leaves DEC's website) or Protection of Waters Permit information will help identify specific requirements and permit standards that would need to be met when designing the proposed impoundment. Other DEC permits under other sections of the Protection of Waters Permit Program or under other Articles of the Environmental Conservation Law may be required.

ii. If the liquid being impounded is water, identify the source of that water. Groundwater sources would include wells, seeps or springs. Surface water sources include streams, rivers, lakes, or surface water runoff. Check 'surface water' even if the water is channeled to the impoundment via pipes or drainage ditches.

iii. If the impoundment is designed to store liquids other than water, check 'other'' and describe the liquid and where that liquid originates from. For example, the source may be from a commercial or manufacturing operation.

iv. Work with the project designer or engineer to calculate the specific volume and surface area. Volume measures how much liquid will be impounded, and surface area measures how much land the impoundment will cover. Describe the dimensions of the dam being used to create the impoundment in terms of its height and length.

iv. and vi. Finally, describe the general design of the impoundment and materials used to construct it. Be as specific as possible so that the reviewing agency has enough information to understand the extent and scale of the proposed impoundment.

Question D 2 - Project Operations - Full EAF (Part 1)

Full Environmental Assessment Form (FEAF) Workbook

Part 1, Section D.2. is designed to elicit specific information about the proposed project's operation. If the proposed project is solely a municipal action for the legislative adoption of amendment of a plan, local law, ordinance, rule or regulation, then all Section D questions may be skipped. Otherwise, this section is where the applicant needs to describe, in as much detail as possible, the proposed project's operations and components.

Answers to these questions are important because the reviewing agency needs to understand the project and its components before any analysis of impacts can be conducted. This section is also important because the answers will be critical in defining the scale and context of the proposal. Answers to D.2. questions will highlight the relevant environmental topics and help identify what will need to be evaluated in Part 2 of the EAF by the reviewing agency.

D.2. questions explore fifteen major environmental topics. As proposed project plats, site plans, and permit application materials are being prepared, it may be helpful for applicants to use the table below as a checklist so that you can gather the necessary information and calculations. It will help you screen answers to focus on. If the proposed project or its components do not address a particular topic, then that set of questions is not relevant and may be skipped.

Be sure that you have maps, plans, calculations, and details on each environmental topic that the proposed project may influence. A more efficient review can take place when there is a complete set of Part 1 information. Keep in mind that space is limited on the Full Environmental Assessment Form to provide additional detail. Applicants should feel free to attach additional sheets, maps, data or illustrations as needed, to provide an appropriate level of detail.

Exploring Part 1, Section D.2. Questions

The following table is provided as a possible method to screen which questions need to be answered.

Question 2 D		
Part 1 Question 2 D	**Environmental Topic**	**When to Answer the Question (for Project Construction, Operation, or Both)**
a.	Excavation, mining, dredging activities will take place	Answer if the project includes excavation, mining or dredging activities. This does not include grading and site preparation work.
b.	Wetland, waterbody, shoreline, or beach areas will be altered or encroached upon	Answer if the project is changing or encroaching on any one of these existing water features. This would include regulated and non-regulated wetlands, lakes, ponds, streams, reservoirs, shorelines and beaches AND areas adjacent to any of these features

c.	New or expanded demand for water	Answer if the project will use or create a demand for water, will use water from an existing public water supply, will require new lines or extensions to water lines, or will obtain water from wells
d.	Liquid waste will be generated and there is need for wastewater treatment	Answer if some sort of liquid waste will be generated. This includes sanitary or industrial wastewater that needs either private or public wastewater treatment facilities
e.	Stormwater runoff will be created	Answer if more than one acre of land is to be disturbed (meets the SWPPP criteria) and creates stormwater runoff
f, g, h, i.	Air emissions will occur	Answer if any air emissions will occur. Subsequent questions need to be answered related to whether the project requires any kind of air permit or registration, emit methane, or release air pollutants from open-air process.
j.	Substantial traffic will be generated	Answer if substantial increases in traffic will occur or if there will be a substantial new demand for transportation facilities or services. (See LINK for a discussion of 'substantial' traffic increases).
k.	Generate new or additional demand for energy	Answer if there will be new demands for energy or additional demands on energy
l	Hours of operation	Answer to designate the hours of operation
m.	Ambient noise levels will be exceeded	Answer if the project will cause ambient noise levels to be exceeded
n.	Outdoor lighting is necessary	Answer if any type of outdoor lighting is to be provided for
o.	Odors will be produced	Answer if odors will be produced for more than one hour per day
p.	Storage of petroleum or chemicals is needed	Answer if there is any bulk storage over 1,100 gallons of petroleum or over 550 gallon of chemical products
q.	Pesticides or herbicides will be used	For commercial, recreational and industrial projects, answer if there will be any use of pesticides
r, s.	Solid waste will need to be managed or disposed (for commercial or industrial uses)	For commercial and industrial projects, answer if there is to be any management or disposal of solid waste.
t.	Hazardous waste will need to be generated, treated, stored, or disposed of (for commercial uses)	Answer if there is to be any generation, treatment, storage, or disposal of hazardous wastes.

D2 a. Does the proposed action include any excavation, mining, or dredging, during construction, operations, or both? (Not including general site preparation, grading or installation of utilities or foundations where all excavated materials will remain onsite)
If Yes:
i. What is the purpose of the excavation or dredging?

_____
ii. How much material (including rock, earth, sediments, etc.) is proposed to be removed from the site?
• Volume (specify tons or cubic yards): _____
• Over what duration of time? _____
iii. Describe nature and characteristics of materials to be excavated or dredged, and plans to use, manage or dispose of them.

_____
iv. Will there be onsite dewatering or processing of excavated materials?
If yes, describe. _____
v. What is the total area to be dredged or excavated? _____ acres
vi. What is the maximum area to be worked at any one time? _____ acres
vii. What would be the maximum depth of excavation or dredging? _____ feet
viii. Will the excavation require blasting?
ix. Summarize site reclamation goals and plan:

_____

Excavation, Mining, Dredging

Excavation is the removal of soil and rock materials, and includes placement of fill in one location that was excavated from a different location. Mining is defined by DEC in Article 23, Title 27-Environmental Conservation Law Implementing Regulations-6NYCRR Part 420-425 as "the extraction of overburden and minerals from the earth; the preparation and processing of minerals, including any activities or processes or parts thereof for the extraction or removal of minerals from their original location and the preparation, washing, cleaning, crushing, stockpiling or other processing of minerals at the mine location so as to make them suitable for commercial, industrial, or construction use; exclusive of manufacturing processes, at the mine location; the removal of such materials through sale or exchange, or for commercial, industrial or municipal use; and the disposition of overburden, tailings and waste at the mine location. Mining shall not include the excavation, removal and disposition of minerals from construction projects, exclusive of the creation of water bodies, or excavations in aid of agricultural activities." Dredging includes all in-water activities that are designed to move or remove sediment. Examples of dredging activities include but are not limited to mechanical and hydraulic dredging, mechanical plowing, trenching and jetting.

Filling in navigable waters, excavating contaminated soils, mining and mine reclamation activities, dredging in streams or wetlands, or similar actions that may need a Protection of Waters permit are examples of activities that would be considered excavation, mining or dredging.

Answering Question D.2.a.

If any excavation, mining or dredging is included in the proposed project, check 'yes' and answer sub-questions (i) to (ix). If these activities are not part of the proposed project, check 'no' and move to Question D.2.b. As per Article 23, Title 27-Environmental Conservation Law Implementing Regulations-6NYCRR Part 420.1 (k), do not consider any grading, cut and fill, installation of utilities or foundations, or other site preparation work where the excavated material will stay on site as "excavation, mining or dredging".

i. and ii. If these activities are part of the proposed action, applicants should clearly state the purpose of the project, calculate the volume or materials to be removed, and indicate how long the process will take. Applicants should work with their engineering or design professionals to help calculate the total area to be dredged or excavated over the entire time of the project, identify how much area is to be disturbed at any one time, and determine the maximum depth for dredging or excavation.

iii. through ix. Describe what is to be excavated or dredged, and how these materials will be used, managed or disposed of. An example statement of purpose could be "this is a project that involves dredging lake bottom sediments with a transportable, self-propelled dredging system to control invasive species as well as to restore an area of the shoreline that has been silted in." Similarly, the nature and characteristics of the materials to be dredged could be described as "viscous mud, silt and bottom sediments will be transported 3 miles away to be spread on a 5 acre vacant field, allowed to passively dewater, and then subsequently, be seeded over. The dewatering location will be authorized under a SPDES Permit for stormwater associated with Construction Activities." An example statement that summarizes site reclamation goals and plans could be "the disposal and dewatering location will be graded and seeded over with a grass/alfalfa mix and will be maintained with annual mowing to keep it in grass."

Other Useful Links

DEC Technical and Operational Guidance 5.1.9, In-Water and Riparian Management of Sediment and Dredged Material, 2004.

Mineral Resources (Mined Land Reclamation) Part 420

Mining Reclamation Laws

D2 b. Would the proposed action cause or result in alteration of, increase or decrease in size of, or encroachment into any existing wetland, waterbody, shoreline, beach or adjacent area?

If Yes:
i. Identify the wetland or waterbody which would be affected (by name, water index number, wetland map number or geographic description):

_____

ii. Describe how the proposed action would affect that waterbody or wetland, e.g. excavation, fill, placement of structures, or alteration of channels, banks and shorelines. Indicate extent of activities, alterations and additions in square feet or acres:

_____

iii. Will proposed action cause or result in disturbance to bottom sediments?
If Yes, describe:

_____

iv. Will proposed action cause or result in the destruction or removal of aquatic vegetation?
If Yes:
• acres of aquatic vegetation proposed to be removed

_____

• expected acreage of aquatic vegetation remaining after project completion

_____

• purpose of proposed removal (e.g. beach clearing, invasive species control, boat access):

_____

• proposed method of plant removal:

_____

• if chemical/herbicide treatment will be used, specify product(s):

_____

v. Describe any proposed reclamation/mitigation following disturbance:

_____

Wetlands and Waterbodies

This question concerns all the waterbodies that may be located in or near the project site, whether they are regulated or not. Wetlands, streams, lakes, reservoirs, shorelines, and beaches are examples of waterbodies and areas that may be impacted by an action and that are explored here. For purposes of this Part 1 question, if specific buffer areas do not exist, consider 'adjacent' to be 100 feet from the shoreline or waterline of any of these waterbodies. Note that buffer areas or other zones, and some definitions, are legally established for some waterbodies in certain regulations and may differ from this 100 feet. For example, Tidal Wetland buffers are 300 feet landward of said most landward boundary except for the City of New York where this distance is 150 feet.

New York's waterbodies include rivers, streams, lakes, ponds and wetlands and are necessary for drinking and bathing; agricultural, commercial and industrial uses; and fish and wildlife habitat. In addition, New York's waterways provide opportunities for recreation; education and research; and aesthetic

appreciation. The State has established policies to preserve and protect these important environmental features (Title 5 of Article 15 of the ECL). This question provides information about if, and how a proposed activity could adversely affect the uses of these waters.

Note: Question E.2.h. also asks about the existence of water features on the proposed project site, and stream classifications.

Answering Question D.2.b.

Use DEC's Environmental Resource Mapper, or check maps in the DEC regional office to determine if protected streams and waterbodies, wetlands, ponds, lakes or shoreline areas are contained within or adjacent to your proposed project site. For areas within the Adirondack Park, use the Adirondack Regional Geographic Information System (ARGIS) map application. To find out if there are any mapped wetlands on your proposed project site that are outside of any NYS agency jurisdiction, you can use the National Wetlands Inventory Wetlands Mapper. Most of the mapping systems described here are done at a scale that does not include wetlands smaller than about 1/4 acre.

If the proposed project alters, changes the size of, or encroaches on any existing wetland, waterbody, shoreline, beach or areas adjacent to these features, check 'yes' to Question D.2.b. If there are no wetlands or other waterbodies that will be altered or encroached upon, check 'no' and move to Part 1 Question D.2 c.

In addition to these online mapping sites, your local municipal office should have paper copies of the DEC and APA regulatory maps. They may also have local plans, studies, or natural resource inventories that include mapped wetlands and locally designated wetlands. Maps, plats, or site plans prepared for the proposed project should include information about locations having any waterbody or obviously wet areas. Plans should have sufficient detail on existing and proposed contours, grades, topographic features and profiles at a scale sufficient to assess project impacts on the waterbody.

i. Some waterbodies may be identified by name, wetland map number, or other identification. Include any water body classification that may be designated at question D.2.b.(i). These classifications will show in the pop-up window when using the 'identify' tool in the Environmental Resource Mapper, or they can be found on DEC's NY stream classifications maps.

ii. through iv. Once you have identified that wetlands or other waterbodies are present on or adjacent to the project site, describe how they may be affected by the proposed action. An example of such a statement would be "one acre of shoreline soil material, along with cattails, grass and trees will be removed and the shallow area of the lake will be dredged five feet to enhance access for boats. Project will include a 100 foot concrete retaining wall, and construction of a dock with 20 marina slips. In this example, sub-question (iii) and (iv) would be answered 'yes' due to the disturbance of bottom sediments and removal of aquatic vegetation. Aquatic vegetation would include emergent plants (those that grow

primarily above the water), floating plants (may or may not be rooted underwater but have a floating leaf), and submergent plants (those that grow primarily underwater).

v. Be sure to describe construction methods and any proposed reclamation or mitigation measures. Reclamation/mitigation should include methods for addressing erosion and sediment control, re-vegetation, or restoration of habitats. Further, the description of the proposed reclamation/mitigation plans should outline whether restoration, creation or enhancement of the water body will be conducted, whether mitigation or reclamation will take place on or off site, and how it will be monitored.

Other Useful Links

The NYS Freshwater Wetlands Act

Environmental Conservation Law, Article 25, Tidal Wetland Act

APA Freshwater Wetlands Flyer

The U.S. Army Corps of Engineers (ACOE)

The National Wetlands Inventory

Shoreline Protection Guidance

Protection of Waters Information

Aquatic Plant Management

D2 c. Will the proposed action use, or create a new demand for water?
If Yes:
i. Total anticipated water usage/demand per day: _____ gallons/day
ii. Will the proposed action obtain water from an existing public water supply?
If Yes:
• Name of district or service area: _____
• Does the existing public water supply have capacity to serve the proposal?
• Is the project site in the existing district?
• Is expansion of the district needed?
• Do existing lines serve the project site?
iii. Will line extension within an existing district be necessary to supply the project?
If Yes:
• Describe extensions or capacity expansions proposed to serve this project: _____
• Source(s) of supply for the district: _____
iv. Is a new water supply district or service area proposed to be formed to serve the project site?
If, Yes:

• Applicant/sponsor for new district: _____
• Date application submitted or anticipated: _____
• Proposed source(s) of supply for new district: _____
v. If a public water supply will not be used, describe plans to provide water supply for the project:
_____
vi. If water supply will be from wells (public or private), maximum pumping capacity: _____ gallons/minute.

Answering Question D.2.c.

New York State's waters are an important natural resource used for industry, agriculture, power supply, mining, domestic consumption, recreation, and for fish and wildlife species. Managing the use of this resource is important for the State's economic growth and the health of its citizens and the environment. Water is not an inexhaustible resource, and any proposed action that will impact a water supply needs to be evaluated.

Some proposed projects will not need a water supply. If not, check 'no' to question D.2.c., and move on to D.2.d. For those that do need water, you will need to know if you are going to connect to an existing public or private water supply, whether an extension of those services will be necessary, or if a new water supply will be developed.

All public water supplies (systems) in NYS are regulated through the NYS Department of Health Drinking Water Protection Program. The Department of Health defines a public water system as: "...any entity which provides water to the public for human consumption through pipes or other constructed conveyances. In New York, any system with at least five service connections or that regularly serves an average of at least 25 people daily for at least 60 days out of the year is considered a public water system."

For the purposes of SEQR, a private water supply is defined as a water supply that falls outside of the Department of Health's definition of a public water system. Private water supplies may come from a drilled well. Dug well and surface water bodies such as a lake may also appear as water sources. However, it should be noted that the NYS DOH prefers drilled wells and does not recommend dug wells for individual water supplies. If water is required for the project but there is no existing supply, you will need to describe the method to be used for supplying potable water.

i. Work with your design professional or engineer to determine the anticipated usage or demand for water per day. This is usually determined by the number of bedrooms, for residential projects; or persons employed or square footage for commercial uses, or by comparing the project to nearby similar uses.

ii. If the proposed action will obtain water from an existing public water supply, answer 'yes' to question D.2.c.(ii), and identify the district or service area. Review water district maps, identify where water lines

are and what capacity the system has to serve the proposed project. In order to determine the public water systems current capacity, contact the system operator.

The operator of the system will be your best point of contact for information regarding the capacity of the water supply. The operator may be an employee of the local municipality, the county, a homeowners association, or a private company hired to maintain the system. The local municipal office, website, or government pages of the phone book may be helpful in locating the operators. Another source for contact information can be found on the New York State Department of Health's Annual Water Quality Report, if the system is a Community Water System, or you can ask your local health department or state district office for the operator's contact information.

iii. If there is an existing public water supply system and the proposed project is within an existing water district but an extension of water lines or increases in capacity are required, answer 'yes' to question D.2.c.(iii). Describe what the proposed expansion will require including size and length of pipe to be added, the number of potential laterals or new hookups that may be created, and the number of gallons per day that is proposed. Identify the source of water supply. If additional capacity is required for an existing water district, also describe how much additional capacity is needed and provide information indicating the water supplies capacity for expansion.

iv. Some projects may require water but an existing system does not exist so a new one needs to be formed to serve the site. In that case, identify where this will be, how large an area it will cover, how many lots, homes or businesses would be included, source of water supply, and the role the municipality will have in forming that district.

v. and vi. Private water supplies are typically drilled wells. These drilled wells usually supply a single use, such as a single family home, or a small commercial use. However, there are instances where multiple homes or uses are supplied by a single well. Some properties may have older dug wells on them, or be supplied by surface water such as a lake.

If you are connecting to an existing private water supply, you may have to do some investigation to learn what the capacity is. There may or may not be adequate records available describing the capacity of the water supply, and its existing level of use. Some newer wells may have well log data filed with the municipality or DEC that will help give information on its water capacity. You can see if data on a well is available by searching through the Water Well Information Search Wizard (search by coordinate or county).

D2 d. Will the proposed action generate liquid wastes?
If Yes:
i. Total anticipated liquid waste generation per day: _____ gallons/day
ii. Nature of liquid wastes to be generated (e.g., sanitary wastewater, industrial; if combination, describe

all components and approximate volumes or proportions of each):

_____

iii. Will the proposed action use any existing public wastewater treatment facilities?

If Yes:

• Name of wastewater treatment plant to be used: _____

• Name of district: _____

• Does the existing wastewater treatment plant have capacity to serve the project?

• Is the project site in the existing district?

• Is expansion of the district needed?

• Do existing sewer lines serve the project site?

• Will line extension within an existing district be necessary to serve the project?

If Yes:

• Describe extensions or capacity expansions proposed to serve this project:

_____

iv. Will a new wastewater (sewage) treatment district be formed to serve the project site?

If Yes:

• Applicant/sponsor for new district: _____

• Date application submitted or anticipated: _____

• What is the receiving water for the wastewater discharge? _____

v. If public facilities will not be used, describe plans to provide wastewater treatment for the project, including specifying proposed receiving water (name and classification if surface discharge, or describe subsurface disposal plans):

_____

vi. Describe any plans or designs to capture, recycle or reuse liquid waste:

_____

Wastewater and other liquid wastes

This question explores any liquid wastes and wastewater treatment facilities that may be associated with the proposed project. Liquid wastes include both sanitary wastewater (sewage) and liquid industrial waste. However, if the liquid generated by the proposed project is considered to be hazardous waste, provide those details in question D.2.t. Liquid wastes do not include stormwater runoff - that will be explored in Question D.2.e. Add information for all sanitary and non-hazardous liquid waste generated by the proposed project in this question.

Wastewater treatment is the process of removing physical, chemical, and biological contaminants from sewage and non-hazardous liquid waste. It is essentially a way to speed up the natural purification processes to return the treated water back to the environment with as little impact as possible.

Some projects may need a SPDES permit from DEC. SPDES is the NY State Pollutant Discharge Elimination System (SPDES) that controls wastewater discharges. Wastewater treatment utilities meeting the following criteria will need a SPDES permit from DEC:

- Constructing or connecting to an outlet or pipe that discharges more than 1,000 gallons per day of sewage-only wastes to ground water
- Constructing or connecting to an outlet or pipe that discharges industrial or other non-sewage wastes to ground water
- Constructing or connecting to an outlet or pipe that discharges wastewater into any surface water
- Constructing or operating a disposal system such as a sewage treatment plant

Wastewater treatment systems that discharges less than 1,000 gallons per day to groundwater, and that have no industrial or other non-sewage wastes will require approval from the appropriate city or county health department, or the appropriate district office of the New York State Department of Health.

Wastewater treatment systems requiring a SPDES permit will have an operator that is responsible for maintaining the system. The operator may be an employee of the local municipality, the county, a homeowners association, or a private company hired to maintain the system. The operator of the system will be your best point of contact for information regarding the system's capacity.

For existing wastewater treatment systems that do not require a SPDES permit, the city or county health department, or the Department of Health District Office may have records that describe the system's capacity when it was built. Contact the municipal office, website, or government listings in a local phone book to search for additional contacts. If no records can be found, you might have to hire an engineer to examine the wastewater treatment system to determine its operating capacity.

Answering Question D.2.d.

If there are any sanitary or non-hazardous industrial liquid wastes to be generated by the proposed project, check 'yes' and answer sub-questions (i) through (vi). If there are to be no liquid wastes generated, move onto Question D.2.e.

i. and ii. If liquid wastes will be generated, work with the design professional or engineer to calculate the total anticipated amount of liquids to be generated in gallons per day. This should account for all uses associated with the project, all users, and all phases. Describe the nature of the liquid waste, for example "There will be 950 total gallons per day of wastewater generated. 90% of that will be sanitary wastewater and 10% of that will be wastewater used to cool equipment. There will be no hazardous waste included in the cooling water."

iii. If liquid wastes will be generated and the proposed action will use an existing public treatment facility, provide information about that existing system and its capacity to handle the proposed amount of

wastewater. Identify the name of the system (Such as the Village of ____ Wastewater Treatment facility); add the name and location of the waste water treatment district that covers the proposed project location. You could also include a map showing the name, extent and location of the district.

You will need to determine whether or not the existing system has enough capacity to provide adequate service for your project. For this, you will need to contact the system operator and compare the available capacity to the needs of the proposed project. Indicate in sub-question D.2.d.(iii) if there is enough capacity to handle the proposed project. If there is an existing system that does not have enough capacity to accommodate your proposed project and you will be proposing extension of a sewage district, extension of existing lines, placement of sewer lines, or other system upgrades, describe in this sub-question.

iv. Some projects may propose establishment of a new public wastewater treatment facility because one does not currently exist, or does not exist to serve that location. This usually involves formation of a new sewer district to serve the proposed project location. In this case, project sponsors will need to work with the municipal engineer, waste treatment operator and municipal officials to make that request. Indicate in this sub-question when an application to create a new district was or has been made. Identify the water body planned to receive the wastewater after treatment. This likely will be a nearby lake, stream, or river. The reviewing agency will need to evaluate the impacts of creating a new facility and/or district.

v. If wastewater is to be generated, but no existing or new public treatment facility is planned to be used, you will need to describe how wastewater will be treated. Work with your design professional or engineer to describe any planned surface discharge or subsurface disposal. Include the type and size of the facility, location on the property, and name and DEC classification of the water body that wastewater will be discharged into, if any.

vi. Regardless of whether a public or private wastewater treatment facility will be used, expanded, or created, describe in sub-question D.2.d.(vi) any plans to recycle or reuse liquid waste.

Useful Links

Information on wastewater treatment is available on the WWT web page.

NYS DEC provides municipalities information on local sewer use, sewer overflow plans, and a Model Sewer Use Law. Visit the Sewer web page for more information.

Combined Sewer Overflows (CSOs) collect runoff, domestic and industrial wastewater in the same pipe. During rainfall, the CSO capacity may be exceeded causing the excess to overflow directly into the receiving waterbody. More information is available on the CSO web page.

Wastewater Treatment Plant Operation - Links to contacts, training, certification, regulatory updates and more.

Sewers - Information on sewers and sewer use.

Other resources related to water

D2 e. Will the proposed action disturb more than one acre and create stormwater runoff, either from new point sources (i.e. ditches, pipes, swales, curbs, gutters or other concentrated flows of stormwater) or non-point source (i.e. sheet flow) during construction or post construction?
If Yes:
i. How much impervious surface will the project create in relation to total size of project parcel?
_____ Square feet or _____ acres (impervious surface)
_____ Square feet or _____ acres (parcel size)
ii. Describe types of new point sources. _____
iii. Where will the stormwater runoff be directed (i.e. on-site stormwater management facility/structures, adjacent properties, groundwater, on-site surface water or off-site surface waters)?
_____
• If to surface waters, identify receiving water bodies or wetlands: _____
• Will stormwater runoff flow to adjacent properties?
iv. Does proposed plan minimize impervious surfaces, use pervious materials or collect and re-use stormwater?

Stormwater

This question explores what, if any, stormwater discharge will occur as a result of your proposed activity.

Stormwater runoff comes from rain and snowmelt that flows over land or constructed surfaces such as paved streets, sidewalks, parking lots and rooftops and that does not seep into the ground. When this happens, the water picks up and moves chemicals, nutrients, sediments or other pollutants and debris along with it. If this stormwater runoff is not slowed and captured before it flows into lakes, rivers, and wetlands, it can negatively impact water quality. For additional information see the Stormwater and Urban Stormwater Runoff Facts.

The New York SPDES General Permit for Stormwater Discharges from Construction Activities requires that all development projects causing 1 acre of soil disturbance or more, or those in certain watersheds incorporate practices that reduce the impacts of stormwater from the site. Land disturbance would include any grading, land clearing, construction activities, or expansion of a current land use or creation of impervious surfaces that will result in stormwater runoff. Some stormwater discharge will likely occur from any of these activities.

A project may create stormwater that is discharged at a specific location such as a ditch, pipe, or channel (point sources). Or, a project may result in stormwater that comes from many diffuse sources (nonpoint

sources). Answer this question regardless of whether the runoff comes from point or non-point sources. Include stormwater runoff from both construction and post construction phases.

Go to the Stormwater Interactive Map for more information related to the New York State Stormwater General Permit program. This interactive map will help you locate your project site in relation to stormwater related requirements and regulated areas such as regulated MS4 areas, and Watershed Improvement Strategy Areas.

Answering Question D.2.e.

If the project disturbs less than one acre of land then the project will not be required to meet the NYS Stormwater requirements, answer 'no' to this question, and move to D.2.f. If more than one acre of land is to be disturbed then NYS stormwater requirements will likely need to be met and check 'yes' to D.2.e.

i. Work with your design professional or engineer to calculate how much impervious surface is included in the proposed project. An important consideration is the percent of the total parcel converted to impervious surfaces. To determine that, calculate the size (in either square feet or acres) of impervious surface (roof, pavement, sidewalks, etc) in relation to the entire parcel size. For example, a 40,000 square foot building with 40,000 square foot parking area would create 80,000 square feet of impervious surface. If located on a five acre parcel, the project would result in about 40% impervious surfaces. That is 80,000 square feet, or about two acres of impervious surface over the full five acre parcel.

ii. and iii. Describe all point sources of runoff created by the proposed project and describe where all stormwater runoff will be directed. Identify if a treatment facility, groundwater, or surface water body will receive the stormwater, and if it will be contained on-site or conveyed off-site to another property. An example of a suitable statement here would be "stormwater discharges from small storms will be directed to green infrastructure practices that distribute the flow and infiltrate it into the ground. Larger storms are directed to on-site retention ponds that control the rate of runoff to pre-developed conditions."

If a surface water body (lake, stream, river or wetland) will receive stormwater, identify and name it and include the DEC waterbody classification of that waterbody. Identify if stormwater will flow off site to adjacent properties through ditches, swales, pipes, or sheet flow overland. Some projects direct stormwater runoff to a surface water body either directly or indirectly. If that surface water body extends beyond the project parcel boundary, consider this flowing to adjacent properties, and answer 'yes' to the D2e (iii) question about whether runoff will flow to adjacent properties. If stormwater will be conveyed to a combined sewage overflow (CSO), this should be identified, although the actual eventual receiving water need not be identified. Conveyance via municipal storm sewers to a stream or river, as well as discharges directly to a stream on or adjacent to the parcel should also be considered and receiving waters identified.

iv. If the proposed action includes use of pervious materials, low impact development (LID) methods, re-use of stormwater, or other methods to reduce stormwater impacts, check 'yes' to D.2.e.(iv). This part of

the EAF is an opportunity for the project applicant to discuss ways they can maximize green infrastructure practices to minimize stormwater impacts.

LID employs principles such as preserving and recreating natural landscape features, minimizing effective imperviousness to create functional and appealing site drainage that treat stormwater as a resource rather than a waste product or methods such as bioretention facilities, rain gardens, vegetated rooftops, rain barrels, and permeable pavements. Be sure to check local development regulations as some New York Communities require use of LID methods.

Additional information

Although not included specifically in question D.2.e., information about the long term maintenance of stormwater management facilities that are proposed may be important. The reviewing agency will likely want to evaluate the long-term effectiveness of stormwater controls, and applicants should consider providing this.

Depending on the proposed project, it may also be appropriate for the reviewing agency to request additional information to characterize stormwater runoff in more detail. Estimated pre-development runoff volume, estimated post development runoff volume, and estimated on-site runoff stormwater detention volume are other data often included as part of a permit application. Data such as this are provided by an engineer and allow the reviewing agency to determine changes to stormwater resulting from a proposed project.

Other Useful Links

- NYS DEC's Stormwater page
- NYS DEC's Construction Stormwater Toolbox page
- New York Standards and Specifications for Erosion and Sediment Control
- New York State Stormwater Management Design Manual
- Better Site Design Program for the Hudson River Estuary Program
- EPA's Low Impact Development

D2 f. Does the proposed action include, or will it use on-site, one or more sources of air emissions, including fuel combustion, waste incineration, or other processes or operations?
If Yes, identify:
i. Mobile sources during project operations (e.g., heavy equipment, fleet or delivery vehicles)
_____
ii. Stationary sources during construction (e.g., power generation, structural heating, batch plant, crushers)

_____

iii. Stationary sources during operations (e.g., process emissions, large boilers, electric generation)

_____

Air Emissions

Air pollution can harm human health, and damage all the elements of the ecosystem. Air pollutants originate from many human activities but most pollutants come from industries that manufacture chemicals and other goods, from on- and off-road vehicles and power equipment, and from energy facilities that burn oil, gas, or coal.

Among the many pollutants emitted into the air each year are sulfur dioxide, nitrogen dioxides, carbon monoxide, benzene, mercury, methane, and dioxin. Others include particulates (a mixture of very small particles and liquid droplets including nitrates and sulfates, organic chemicals, metals, and soil or dust particles), ground-level ozone, and lead.

An air emission consultant can provide the information in this and the following air-related questions. Applicants can also begin their research by visiting the DEC's Division of Air Resources (DAR) and reviewing regulations, permit requirements, and application forms.

Answering Questions D.2.f. through D.2.i.

If the proposed activity is one that generates or uses one or more sources of air emissions, requires a state or federal air emission registration or permit, generates or emits methane, or results in the release of air pollutants, answer 'yes' to questions D.2.f., g., h., and i. If no air emissions of any kind will occur, check 'no' to D.2.f., g., h. and i., and then move to Question D.2.j.

Answering Question D.2.f.

Answer 'yes' to this question if there are any air pollutants that will be generated or used in either construction or post-construction phases of the proposed project. Consider both minor and major sources of air emission including vehicles and equipment that use gas or diesel fuels.

If you answer yes, then:

i. List sources of mobile air pollutants such as from vehicles or non-permanent equipment.

ii. Stationary sources of air pollution can come from large facilities, such as petroleum refineries and chemical plants. Other stationary pollution sources are smaller such as gasoline filling stations, dry cleaning operations, and paint spray booths. See DEC's website on stationary sources for more information. List all sources of air emissions from stationary sources that may occur during construction.

iii. After construction, operations of the proposed activity can also generate or use air pollutants. Here, list all post-construction stationary sources of air emissions that may occur during operations.

D2 g. Will any air emission sources named in D.2.f (above), require a NY State Air Registration, Air Facility Permit, or Federal Clean Air Act Title IV or Title V Permit?
If Yes:
i. Is the project site located in an Air quality non-attainment area? (Area routinely or periodically fails to meet ambient air quality standards for all or some parts of the year)
ii. In addition to emissions as calculated in the application, the project will generate:
• _____Tons/year (short tons) of Carbon Dioxide (CO2)
• _____Tons/year (short tons) of Nitrogen Dioxide (N02)
• _____Tons/year (short tons) of Perfluorocarbons (PFCs)
• _____Tons/year (short tons) of Sulfur Hexafluoride (SF6)
• _____Tons/year (short tons) of Carbon Dioxide equivalent of Hydroflourocarbons (HFCs)
• _____Tons/year (short tons) of Hazardous Air Pollutants (HAPs)

Air Permits

The air permitting program is required by the Clean Air Act and under New York State law (6 NYCRR Part 201). The program is administered by DEC's Division of Air Resources (DAR). The two most common types of permits for air contamination sources are described in 6 NYCRR Part 201. These are:

- State Facility Permit for facilities that are not considered major but meet criteria of Part 201-5

or

- Title V Facilities that are judged to be major under the department's regulations that:
  - are subject to New Source Performance Standards (NSPSs) or;
  - are subject to one or more standards or requirements regulating hazardous air pollutants or;
  - need to meet federal acid rain program requirements.

Non-major facilities that meet the criteria of Subpart 201-4 must register under the department's permitting program, rather than obtain a permit. Registrations are ministerial in nature and have no formal notice requirements. If a proposed action includes use or generation of air emissions, contact the Department of Air Resources and work with your engineer to calculate the specific amount of emissions planned during both construction and operation. Because there may be more significant impacts associated with projects that require air permitting, the reviewing agency may require additional information to assess potential impacts.

Also see thresholds and requirements for emission sources subject to regulation at Subpart 231-1.

If a project involves air permits as described above, it is strongly suggested that the sponsor seek assistance from a consultant experienced in the preparation of applications for air permits.

Answering Question D.2.g.

i. Federal law designates six air pollutants as criteria contaminants that require special measures to limit their presence in the nation's air. The six criteria contaminants are sulfur dioxide, nitrogen dioxide, ozone, carbon monoxide, particulate matter less than 2.5 microns (micrometers) in size, and lead.

The federal Environmental Protection Agency (US EPA) designates as nonattainment areas those parts of the country where the air exceeds the National Ambient Air Quality Standards (NAAQS) for one of the six criteria contaminants. DEC has developed State Implementation Plans (SIPs) to reduce air pollution in nonattainment areas. Listing of nonattainment areas can be found on the EPA website.

ii. Calculate the tons per year of each of the listed air pollutants. In order to determine impacts of proposed air emissions, the reviewing agency may require additional information. Data included on a DEC Air Permit Application including the number of emission points, facility description, plans for monitoring, specifics on emission points, and air quality compliance plans, including air pollution modeling, may be necessary for the reviewing agency to determine whether any potential adverse environmental impacts may occur.

D2 h. Will the proposed action generate or emit methane (including, but not limited to, sewage treatment plants, landfills, composting facilities)?
If Yes:
i. Estimate methane generation in tons/year (metric): _____
ii. Describe any methane capture, control or elimination measures included in project design (e.g., combustion to generate heat or electricity, flaring):
_____

Methane

The main source of methane comes from fossil fuel mining and distribution, livestock, landfills, and composting. Agricultural operations, such as Concentrated Animal Feed Operations (CAFO) are Type II actions and are exempt from SEQR. For actions that are not Type II, identify the amount of methane to be generated or emitted.

Answering Question D.2.h.

i. Calculate the tons per year of methane.

ii. Describe methods to control or eliminate methane emissions.

D2 i. Will the proposed action result in the release of air pollutants from open-air operations or processes, such as quarry or landfill operations?
If Yes:

Describe operations and nature of emissions (e.g., diesel exhaust, rock particulates/dust):

_____

Open Air Operations

Open sources of air pollution are those that emit particulate or gaseous air pollutants directly to the atmosphere. Quarry's, landfills, and composting operations are examples of uses that emit air pollutant directly.

Answering Question D.2.i.

If the proposed project is an open-air operation, check 'yes" to D2i and describe the operation and nature of the emissions.

Useful Links for all air emission questions (D.2.f. - D.2.i.)

Division of Air Resources

About Clean Air Act's New Source Review program and Part 231

Air Program Forms and Instructions

Is the Project Major or Minor

Section 200 General Provisions (link leaves DEC's website)

Air Pollution Control Permit Program

D2 j. Will the proposed action result in a substantial increase in traffic above present levels or generate substantial new demand for transportation facilities or services?
If Yes:
i. When is the peak traffic expected (Check all that apply):
?? Morning ?? Evening ?? Weekend ?? Randomly between hours of _____ to _____
ii. For commercial activities only, projected number of semi-trailer truck trips/day: _____
iii. Parking spaces: Existing _____ Proposed _____ Net increase/decrease _____
iv. Does the proposed action include any shared use parking?
v. If the proposed action includes any modification of existing roads, creation of new roads or change in existing access, describe:

_____

vi. Are public/private transportation service(s) or facilities available within ½ mile of the proposed site?
vii Will the proposed action include access to public transportation or accommodations for use of hybrid, electric or other alternative fueled vehicles?
viii. Will the proposed action include plans for pedestrian or bicycle accommodations for connections to existing pedestrian or bicycle routes?

Traffic

Understanding the demands new development places on a community's street and road network and transportation services is an important part of evaluating the overall impacts of that development. New development can generate or change traffic, or create a new demand for public transportation. For example, enough traffic may be generated by a new land use to create congestion, to change community character, or to require the community to invest in additional roads. Traffic congestion itself results in a number of problems, including economic costs due to delayed travel times, air pollution and accidents. As one roadway becomes congested, drivers might use others not necessarily intended or designed for through-traffic. Additionally, increased traffic levels resulting from a proposed project may also require parking lots or garages.

Answering Question D.2.j.

As a starting place, use the table below to determine if your project is likely to have significant increases in traffic. This table uses the number of new vehicle trips made during peak traffic hours (early morning and late afternoon) to help you determine if a substantial increase in traffic is likely to occur as a result of your proposed activity. This table assumes that a project generating fewer than 100 peak hour vehicle trips per day will not result in any significant increases in traffic.

1. In the table below, match your project as closely as possible to the LAND USES identified in the table
2. Look at column 2 (THRESHOLDS). If your proposed project is less than this number of units or square feet, then it will generate less than 100 peak hour trips. For some of the questions, a definition of gross floor area has been discussed in the DEC Handbook
3. If your project is below the threshold shown in column two, your project will not result in a substantial increase to traffic and you should check 'no'

If your project is at or exceeds the threshold in column 2, then your project should be considered to result in a substantial increase in traffic and you should answer 'yes'. In this case, it is likely a traffic impact analysis will be needed to fully evaluate potential traffic impacts.

Land Use	
Land Use	**> Greater than or = equal to 100 Peak Hour Trip Thresholds**
Single Family Home	95 units
Apartment	150 units
Condominium/Townhouse	190 units
Mobile Home Park	170 units

Shopping Center	6,000 square feet (gross floor area)
Fast Food Restaurant with Drive-in	3,000 square feet (gross floor area)
Gas Station with Convenience Store (Fueling Positions)	7 fueling positions
Bank with Drive-in	3,000 square feet (gross floor area)
General Office	67,000 square feet (gross floor area)
Medical/Dental Office	31,000 square feet (gross floor area)
Research and Development Facility	73,000 square feet (gross floor area)
Light Industrial/Warehousing	180,000 square feet (gross floor area)
Manufacturing Plant	149,000 square feet (gross floor area)
Park-and-Ride Lot with Bus Service	170 parking spaces
Hotel/Motel	250 rooms

(From: Michael Spack, Nov. 3, 2010 "Review of ITE's New Recommended Practice - Transportation Impact Analysis for Site Development" and Institute of Transportation Engineers "Transportation Impact Analyses for Site Development", Washington DC, 2010.)

Even if the development does not generate the threshold level of trips presented in this workbook, a traffic analysis may still be necessary under the following conditions:

- High traffic volumes on surrounding roads may affect movement to and from the proposed development
- Lack of existing left turn lanes on the adjacent roadway at the proposed access drive may cause a problem.
- Inadequate sight distance at access points
- The proximity of the proposed access points to other existing drives or intersections may be a problem.
- A development that includes a drive-through operation may cause other traffic related issues.

Traffic Impact Analysis

In the event the applicant or reviewing agency decides a traffic impact analysis is needed to adequately answer this question,
the following information is generally included in such a study:

- Identification of peak hours and whether weekends will be used in the impact analysis
- Location of proposed Access points

- Description of road network and intersections adjacent to site and at access points
- Counts during peak-impact hours
- Trip generation rates used and the source of these rates
- Traffic generated during peak impact hours
- Method used to distribute traffic
- Table showing estimated traffic movements by direction
- Discussion of method used for traffic assignment and assumptions for assignment of traffic to network
- Identification of development in study area whose traffic is to be included in calculations
- Adjustments of off-site through traffic volumes
- Assembling of off-site traffic forecast for design year
- Assignment of peak-period traffic to intersections and access points
- Figures for existing peak impact traffic hours, site traffic and total traffic
- Recommended access design improvements
- Internal Reservoir at access points
- Parking layout and loading dock locations and access, including design truck used
- Other developments in area

If the answer to the initial D.2.j. question is yes:

i. Check the category that best describes when peak traffic will result from the proposed project. Understanding when peak traffic is expected for the proposed project is important and the reviewing agency will consider that in relation to existing traffic patterns and timing.

ii. Identify the number of semi-trailer truck trips per day. This should include trips made entering and exiting the project site.

iii. Identify the number of existing parking spaces that are potentially accessible to the project needs. There may be existing on-site parking spaces or others off-site, located either on the street or in other parking facilities. Keep in mind that some municipalities do not allow off-site parking spaces to be considered. Be sure you research local parking regulations to determine if counting street or off-site parking spaces is allowed.

Identify the number of new on-site parking spaces proposed and if allowed by the municipality, include proposed new off-site spaces. With that information, calculate the net increase or decrease in parking.

For example, if there are no existing parking spaces available and the proposed project will require 50, then there will be a 50 space net increase. If a site contains 100 spaces, and the proposed project plans

to add 50 new spots and re-do 50 of the existing spaces, then the net increase will still be 50. A net decrease could occur when a project removes available parking spaces.

The reviewing agency will evaluate plans for parking, both on-site, and if appropriate, off-site. Parking lots can impact the environment by increasing stormwater runoff, changing the aesthetic character of an area, and introducing or expanding glare and lighting.

iv. Shared parking is when adjacent property owners share their parking lots to reduce the number of parking spaces that each would provide on their individual properties. Parking is one of the largest uses of land and often parking occupies more land area than the building itself. Often, sites with large parking lots are located next door to other sites with equally large lots. If adjacent sites serve different purposes, each parking lot may lie empty for long periods of time. When parking lots are somehow connected and shared, there is less space given over to parking. This reduces environmental impacts and creates opportunities for more compact development, more space for pedestrian circulation, or more open space and landscaping. Check 'yes' if shared parking lots are part of the proposed project.

v. Describe any modifications planned to existing roads, streets, and access patterns, or creation of new roads. Items to describe in this sub-question include widening, straightening, changes to grade, or other modifications of existing roads. Also describe the size, location, length, and type of new road proposed to be built, and changes to intersections, traffic signaling, access (ingress and egress) patterns to the parcel or that affects nearby parcels. Referencing site plans or other application materials that describe these changes in more detail or adding additional maps or sheets to describe these changes will help the reviewing agency understand the scope of road and access modifications.

vi. Public/private transportation services or facilities include bus, taxi, train, park-n-ride lots, parking lots, and subways. The ½ mile distance reflects the typical walking distance pedestrians would use. Also consider bike paths, sidewalks, and other multi-use pedestrian facilities in this question as they are part of a comprehensive transportation system. Placement of public and private transportation services or facilities outside that ½ mile distance means that pedestrians will be less likely to use those facilities. The ½ mile distances should consider routing and features that may block direct transportation routes such as railroad tracks, fencing, etc. Answer 'yes' if such facilities are available within ½ mile of the proposed site. If yes, the reviewing agency may seek additional information about what those facilities are, routing to the facilities, and how much capacity they have to accommodate new users. This information could be supplied in the permit application package.

vii. Similar to above question D.2.j.(vi), this question provides information to help the reviewing agency understand if the project includes built-in mitigation to potential impacts on traffic and energy. If there is access (preferably within ½ mile), to public transportation, then there is a potential to reduce traffic volumes, air pollutant emissions, the amount of land needed for parking, and energy use. Accommodation

for hybrid, electric or other alternative fueled vehicles would encourage their use and could serve to reduce air pollutant emissions and energy uses. For example, some developments accommodate hybrid, electric or other alternative fueled vehicles by creating dedicated parking spots in choice locations for those vehicles.

viii. Check 'yes' if the project proposes to add to or link to existing pedestrian accommodations (sidewalks, paths, pedestrian benches and bus shelters), or bicycle routes and accommodations (trails, paths, sidewalks, bike lanes, and bicycle parking). Provision of these facilities can work towards improving health and reducing impacts on the environment by offering alternative transportation routes to the proposed site. This could reduce traffic volumes and air emissions. It may be helpful to provide a more detailed description or map of these facilities, if included in the proposal.

D2 k. Will the proposed action (for commercial or industrial projects only) generate new or additional demand for energy?
If Yes:
i. Estimate annual electricity demand during operation of the proposed action:

_____

ii. Anticipated sources/suppliers of electricity for the project (e.g., on-site combustion, on-site renewable, via grid/local utility, or other):

_____

iii. Will the proposed action require a new, or an upgrade to, an existing substation?

Energy

This question provides information to help the reviewing agency determine if new demands for electrical energy will be required for the proposed project, and if so, where will that energy come from and how will that energy be supplied. In Part 2, the reviewing agency will evaluate whether current capacity is adequate, if additional facilities are needed, and potential impacts related to provision of new electrical facilities (substations, extensions of electrical lines, or power generation).

Answering Question D.2.k.

If the proposed project is a commercial or industrial project and will generate or create a demand for new energy, check 'yes'.

i. Work with your design professional or engineer to calculate the total annual electricity demand. This should include all interior and exterior energy needs such as lights, heating, and equipment, including office uses and appliances. Demand is calculated by multiplying the wattage consumed by each electrical use by the number of hours/day and by the total number of days it is to be used. As part of the description, include the square footage of the proposed building to be heated or cooled.

ii. There are many ways energy can be supplied. Some projects may provide their own energy generation through use of on-site combustion of fuel, solar, wind turbine, hydroelectric, geothermal, or use of the existing electrical grid. Identify and describe the anticipated source of electricity for the project. If accessory structures (buildings or wind towers, for example) are to be used, describe this also including the location and dimensions of that facility. Add that information on a site plan or other map.

iii. If electricity will be supplied through the grid or local utility, contact them about your electrical needs and identify and describe here if current capacity is adequate or upgrades will be necessary. Check 'yes' if a new facility or upgrade to an existing substation will be necessary. If the current capacity is adequate to accommodate the proposed project, check 'no'. If an upgrade is necessary, the reviewing agency may require additional information related to the size, location, and scale of the upgrade.

D2 l. Hours of operation. Answer all items which apply.
i. During Construction ii. During Operations:
• Monday - Friday: _____ • Monday - Friday: _____
• Saturday: _____ • Saturday: _____
• Sunday: _____ • Sunday: _____
• Holidays: _____ • Holidays: _____

Hours of Operation

The time of operation can be an important consideration as the reviewing agency determines the context of a proposed use. Projects that are likely to produce noise, odors, lighting, traffic or other adverse impacts during the night time may be more impacting than those that operate during regular business hours. Information from this question will help the reviewing agency understand the significance of certain impacts.

Answering Question D.2.l.

Identify all hours of operation both during construction and operation phases. Be sure to check local zoning to see if there are any restrictions related to hours of operation.

D2 m. Will the proposed action produce noise that will exceed existing ambient noise levels during construction, operation, or both?
If yes:
i. Provide details including sources, time of day and duration:

_____
ii. Will proposed action remove existing natural barriers that could act as a noise barrier or screen?
Describe: _____

Noise

"Noise is defined as any loud, discordant or disagreeable sound or sounds. More commonly, in an environmental context, noise is defined simply as unwanted sound. Certain activities inherently produce sound levels or sound characteristics that have the potential to create noise. The sound generated by proposed or existing facilities may become noise due to land use surrounding the facility. When lands adjoining an existing or proposed facility contain residential, commercial, institutional or recreational uses that are proximal to the facility, noise is likely to be a matter of concern to residents or users of adjacent lands."

Sources of noise can come from fixed or mobile equipment, process operations, or in the transportation of products, materials, or wastes. Noise generating equipment can include " a very wide range of equipment including: generators; pumps; compressors; crushers of plastics, stone or metal; grinders; screens; conveyers; storage bins; or electrical equipment. Mobile operations may include: drilling; haulage; pug mills; mobile treatment units; and service operations. Transport movements may include truck traffic within the operation, loading and unloading trucks and movement in and out of the facility. Any or all of these activities may be in operation at any one time. Singular or multiple effects of sound generation from these operations may constitute a potential source of noise."

Projects that do not involve construction or land use activities may not affect the ambient noise levels. (Ambient noise level is the total background noise in an area.) If physical disturbances to a property are part of the proposed project then it is possible that construction activities will, at least temporarily, result in noise levels that exceed ambient conditions. After construction, some projects will no longer affect ambient noise levels, while others may significantly alter those levels.

DEC has developed a guidance document on assessing and mitigating noise impacts. Applicants are encouraged to review this document when planning their project, and when answering this question.

Answering Question D.2.m.

To answer this question, applicants will need to determine the noise levels that will be produced from the proposed project as well as know what ambient noise levels are. If the project produces noise that does not change the ambient level, then check 'no' to this question and move on to D.2.n. However, if noises will be produced that exceed ambient levels, then check 'yes' to this question and answer sub-questions (i) and (ii) to provide additional detail.

i. Provide as much detail as possible about the source (what specifically is creating the noise), timing (day or night and the amount of time the noise will be produced), and duration of noises associated with the proposed project. Duration refers to whether the sound is intermittent or continuous. An example of a description would be "two 7,000 horsepower compressors will be operating 24 hours per day. The noise generated will not fluctuate and will be steady throughout all operating times."

The reviewing agency may require additional information about the noise sources and characteristics. Review the DEC guidance document for information on conducting a noise analysis. Applicants may need to calculate sound pressure levels, characterize sound frequency (or pitch) characterize duration of the noise (is it continuous or intermittent, for example), calculate the equivalent sound level, measure cumulative noise exposure, or calculate other measurements to describe the environmental setting and effects the project will have on noise levels.

ii. Natural barriers include trees and other vegetation, and hills. When grading or land clearing takes place, these natural barriers are often removed. Removal of hills, vegetation, or existing large structures can result in exposing neighbors to increased sound pressure levels, causing noise problems where none had previously existed. Describe any existing natural barrier that will be removed as part of the proposed project. Include grading, land clearing, and changes to topography and how that would likely affect sound levels. Describe other mitigation techniques or best management practices that are included in the project such as, but not limited to using mufflers, modifying or moving machinery, limiting hours of operation or construction, increasing setback distances, enclosing noise generating equipment, erecting screens, walls, tree-lines, or berms, or preserving natural barriers.

D2 n. Will the proposed action have outdoor lighting?
If yes:
i. Describe source(s), location(s), height of fixture(s), direction/aim, and proximity to nearest occupied structures:

_____

ii. Will proposed action remove existing natural barriers that could act as a light barrier or screen?
Describe: _____

Lighting

Outdoor lights have the potential to cause light pollution and glare. Light pollution is excessive and inappropriate artificial light. Problems associated with excessive or inappropriate outdoor lighting include sky glow (a brightening of the night sky over inhabited areas), light trespass (light falling where it is not intended, wanted, or needed), glare (excessive brightness which causes visual discomfort or decrease visibility) and clutter (bright, confusing, and excessive groupings of light sources). Adverse effects of light pollution include disruption of biological rhythms, impact on nocturnal wildlife, lowered visibility, and wasted money and energy. This question explores the outdoor lighting proposed. If no outdoor lighting is included in the proposed project, move to D2o.

If outdoor lighting is proposed, provide information about the source, location, height, direction and aim, and proximity to nearest occupied structure. Identify if the lights are to be building mounted, pole mounted, or ground mounted. Indicate if they are to provide general lighting or safety lighting. General

lighting would be that typically found on buildings and in parking lots. Safety lighting may also be small, ground mounted lights along sidewalks. Mention if lights will be provided for signs, landscaping, security cameras, or flagpoles.

Answering Question D.2.n.

i. Specify the height of all fixtures. The direction and aim of lighting is an important consideration to plan for not only to understand the potential for adverse impacts, but for the most effective use of lighting. Fixtures that are shielded (see illustration) and that direct light down reduce glare and light trespass. Specify the distance between the planned lighting fixtures and the nearest occupied structure. An example statement for this question would be "20 pole lights using fully shielded box style lights, each 18 feet high, will be placed in the proposed parking lot every 20 feet. Shielded, building mounted lights will be placed on all four sides of the building every 10 feet. All sidewalks will have ground-mounted safety lights every five feet. Ground mounted lights directed upwards to a flag pole and on both sides of the sign will be provided. One ground mounted light will be directed to the company name on the front side of the building to illuminate the sign and front entrance. There is 100 feet to the nearest occupied structure."

The reviewing agency may require additional lighting information to fully determine potential impacts. Other information that may be needed include the type and wattage of the bulb, color of light, hours lights will be illuminated, and whether automatic timers will be used to control lights. Applicants should review local zoning or lighting regulations as many municipalities have specific standards for lighting. These may include restrictions on pole height, wattage, color and type of bulb, spacing, and hours of use. Some communities require lighting plans laid out on a grid. In some cases, lighting specialists may be needed to assist in creating a lighting plan.

ii. Vegetation, hills, and other natural topography can act as light barriers and screens. Describe if these features exist and if the proposed action will remove them due to land clearing and grading. An example statement would be "Grading and land clearing will remove 50 feet of trees and shrubs that are located between the project site and the nearest structure. A 5 foot buffer of trees and shrubs will be left at the property boundary to screen the structure and parking lot". The reviewing agency will evaluate, in Part 2, whether this screening is adequate to mitigate adverse affects from the lighting.

Useful Links

The Illuminating Engineering Society (IES) is in partnership with the US Department of Engineering and is the recognized technical authority on illumination, and communicates information on all aspects of good lighting practice to its members, the lighting community, and consumers. Visit the IES website for more information.

D2 o. Does the proposed action have the potential to produce odors for more than one hour per day? If Yes, describe possible sources, potential frequency and duration of odor emissions, and proximity to

nearest occupied structures:

_____

Odors

An odor is a chemical in the air that is "smelled" or sensed by our nose (olfactory system). Odor can be a significant environmental concern related to manufacturing, food processing, composting, landfills, and institutional or municipal facilities such as water and wastewater treatment plants.

Certain groups of chemicals that produce odors are potentially harmful and can cause health problems. Some of these harmful chemicals are regulated by the Department of Environmental Conservation (See Air Resources), New York State Department of Health, and the US Environmental Protection Agency under the Clean Air Act.

Odor can be controlled by chemical or mechanical methods, or a combination of both. Chemical applications, atomizing and liquid application systems, bioengineering programs, sheltering the activity or constructing containment structures equipped with appropriate air venting/filtering systems are all used as odor control methods.

Answering Question D.2.o.

Check 'yes' if the proposed action has the potential to produce odors for more than one hour per day and provide details as to the source, frequency, duration, and distance to nearest occupied structure. If no odors are to be produced, move to question D.2.p.

Useful Links

Chapter III (Air Resources)

D2 p. Will the proposed action include any bulk storage of petroleum (combined capacity of over 1,100 gallons) or chemical products (185 gallons in above ground storage or any amount in underground storage)?

If Yes:

i. Product(s) to be stored _____

ii. Volume(s) _____ per unit time _____ (e.g., month, year)

iii. Generally describe proposed storage facilities

_____

Petroleum and Chemical Storage

Improper handling and storage of petroleum and hazardous chemicals can result in leaks and spills and pose a serious threat to the quality of the environment in New York State. Petroleum, additives and a variety of industrial chemicals can impact groundwater supplies. Mismanagement of some substances

may pose occupational hazards, present a fire or explosion risk or result in a release of odors or fumes with serious public health and environmental consequences to the neighboring community.

Tanks larger than 1,100 gallons (petroleum) or 550 gallons (chemical products) must meet minimum standards established by the United States Environmental Protection Agency (EPA) and the New York State Department of Environmental Conservation (DEC). New York's Hazardous Substances Bulk Storage Program (http://www.dec.ny.gov/chemical/2650.html) provides guidelines and controls for the storage of many different hazardous chemicals.

Answering Question D.2.p.

If the proposed project includes bulk storage of petroleum or chemical products that meet or exceed these sizes, check 'yes to this question. If no bulk storage is included or storage is less than 1,100 or 550 gallons, check 'no' and move to question D.2.q.

If yes, list all products to be stored, the volume of materials to be stored and the length of time it is planned to be stored, and describe the proposed storage facility. Describe the size of the storage facility, whether it is above ground or underground, any secondary containment, type of tank, and impermeable barriers to be installed.

Useful Links

Petroleum Bulk Storage

Chemical Bulk Storage

Major Oil Storage Facility

Federal Underground Tank Regulations

D2 q. Will the proposed action (commercial, industrial and recreational projects only) use pesticides (i.e., herbicides, insecticides) during construction or operation?
If Yes:
i. Describe proposed treatment(s): _____
ii. Will the proposed action use Integrated Pest Management Practices?

Pesticides

According to Part 325: Application of Pesticides, Pesticide means:

1. Any substance or mixture of substances intended for preventing, destroying, repelling, or mitigating any insects, rodents, fungi, weeds, or other forms of plant or animal life or viruses, except viruses on or in living humans /or other animals, which the department shall declare to be a pest; and

2. Any substance or mixture of substances intended as a plant regulator, defoliant or desiccant. And, Pesticide use means performance of the following pesticide-related activities: application; mixing; loading; transport, storage or handling after manufacturer's seal is broken; cleaning of pesticide application equipment; and any required preparation for container disposal.

Integrated pest management (IPM) is a systematic approach to managing pests that focuses on long-term prevention or suppression with minimal impact on human health, the environment, and non-target organisms. IPM incorporates all reasonable measures to prevent pest problems by properly identifying pests, monitoring population dynamics, and utilizing cultural, physical, biological, or chemical pest population control methods to reduce pests to acceptable levels. IPM seeks to reduce the amount of pesticides that are used and is not a single pest control method but, rather, a series of pest management evaluations, decisions and controls.

Answering Question D.2.q.

i. For commercial, industrial and recreational uses, if pesticides are planned to be used as part of construction or operation, check 'yes' and describe what and when the treatment will be. Include the type of pesticide to be used, its purpose, and the timing and frequency of application. Recreational uses include, but are not limited to, golf courses, ball parks, driving ranges, and similar uses.

ii. If IPM is to be included in pest management of the proposed project, check 'yes'. The reviewing agency may request additional information about the IPM plan as they work on Part 2.

Useful Links

Pest Management

Pesticide Control Regulations

Questions and Answers Regarding New York State Pest Management Program

Pesticide Statutes, Regulations, and Policies

Integrated Pest Management Practices

D2 r. Will the proposed action (commercial or industrial projects only) involve or require the management or disposal of solid waste (excluding hazardous materials)?
If Yes:
i. Describe any solid waste(s) to be generated during construction or operation of the facility:
• Construction: _____ tons per _____ (unit of time)
• Operation : _____ tons per _____ (unit of time)
ii. Describe any proposals for on-site minimization, recycling or reuse of materials to avoid disposal as solid waste:
• Construction: _____

• Operation: _____

iii. Proposed disposal methods/facilities for solid waste generated on-site:

• Construction: _____

• Operation: _____

Solid Waste

Solid Wastes are managed in solid waste management facilities. There are many different kinds of solid waste management facilities in New York. They range from construction and demolition processing facilities to solid waste landfills.

All solid waste management facilities are regulated through 6NYCRR Part 360. The general operational requirements for all solid waste management facilities are contained in the Part 360 regulations, Subpart 360-1. Each DEC Region has staff that is responsible for permitting, facility inspection and assessment of facility compliance. You can contact them for information on solid waste management facilities.

This question provides information about whether solid waste will be generated or if there is a need for management of that waste. If so, the reviewing agency will need to know how much waste is anticipated to be generated, and what disposal methods or facilities will be used to deal with it. Applicants will want to determine if existing solid waste facilities to be used have enough capacity to handle the waste proposed to be generated. Reviewing agencies will evaluate whether there will be an increase in the rate of solid waste disposal or processing.

Answering Question D.2.r.

i. Include the weight of solid waste to be generated during construction and operation phases. Specify whether that amount of waste will be generated per day, per week, per month, or per year. Note what type of waste will be generated or managed. For example, construction debris, office wastes such as paper, or organic waste from food processing.

ii. Describe any on-site methods proposed to minimize or avoid disposal of solid wastes. For example, projects could include on-site composting, mandatory paper recycling, paperless offices, or using china and glassware instead of paper and plastic.

iii. Identify what disposal methods will be used to manage solid waste generated and name the solid waste management facility to be used. Landfills, composting facility, construction and debris processing facility, materials exchanges, salvage yards, sludge processing facility, waste combustion, recycling and recovery facility, waste tire facility, and transfer stations are all potential facilities that could be used.

D2 s. Does the proposed action include construction or modification of a solid waste management facility?

If Yes:

i. Type of management or handling of waste proposed for the site (e.g., recycling or transfer station,

composting, landfill, or other disposal activities):

_____

ii. Anticipated rate of disposal/processing:

- _____ Tons/month, if transfer or other non-combustion/thermal treatment, or
- _____ Tons/hour, if combustion or thermal treatment

iii. If landfill, anticipated site life: _____ years

Answering Question D.2.s.

If the proposed action includes the construction or modification of a solid waste management facility, check 'yes'. If no new construction or modification of a solid waste facility is required, check 'no'.

i. Identify the type of waste management that is being proposed for the facility. Landfills, composting facility, construction and debris processing facility, materials exchanges, salvage yards, sludge processing facility, waste combustion, recycling and recovery facility, waste tire facility, and transfer stations are all potential solid waste management facilities that could be used.

ii. Specify the rate of disposal that is planned in tons/month for transfer or non-combustion facilities, or in tons/hour for combustion treatments.

iii. Calculate the number of years the landfill could be expected to operate before its full capacity is reached.

Useful Links

You can find more information on waste management on DEC's Chemical and Pollution Control/Waste Management page.

There are also many resources on the DEC website where you can find information about types and locations of active solid waste management sites in New York.

Minimizing Solid Waste

D2 t. Will proposed action at the site involve the commercial generation, treatment, storage, or disposal of hazardous waste?
If Yes:
i. Name(s) of all hazardous wastes or constituents to be generated, handled or managed at facility:
_____
ii. Generally describe processes or activities involving hazardous wastes or constituents:
_____
iii. Specify amount to be handled or generated _____ tons/month
iv. Describe any proposals for on-site minimization, recycling or reuse of hazardous constituents:
_____
v. Will any hazardous wastes be disposed at an existing offsite hazardous waste facility?
If Yes: provide name and location of facility: _____
If No: describe proposed management of any hazardous wastes which will not be sent to a hazardous waste facility:
_____

Hazardous Waste

Hazardous waste is a waste with properties that make it potentially dangerous or harmful to human health or the environment. There are many different kinds of hazardous wastes. Hazardous wastes can be liquids, solids, or contained gases. They can be the by-products of manufacturing processes, discarded used materials, or discarded unused commercial products such as cleaning fluids (solvents) or pesticides. If a site has been part of a remediation (clean-up) in the past, or presently, then there is a higher likelihood of significant adverse environmental impacts resulting from development of that site.

The New York State Department of Environmental Conservation Division of Environmental Remediation is in charge of all hazardous waste management programs, including remediation. Their web pages include definitions, regulations, databases, and other information about hazardous waste. Through Part 373 permits, the DEC ensures that environmentally protective design and operational standards are maintained at treatment, storage and disposal facilities (TSDFs). As a part of this permit program, DEC reviews permit applications and prepares permits for all facilities. A facility involved in the storage or

treatment of hazardous waste receives an operating permit. See additional information on hazardous waste treatment, storage and disposal facilities (TSDFs).

Answering Question D.2.t.

If hazardous wastes are generated, treated, stored or disposed of as part of the proposed project, check 'yes' and provide additional information as requested. Check yes or otherwise indicate if the proposed action will result in the unearthing of previously buried hazardous wastes. In that case, the project may result in the release of contaminated leachate.

To confirm or find hazardous waste remediation information about your project site, you can do a search of the DEC's environmental site remediation database. This database contains records of the sites which have been remediated or are being managed under a remedial program (e.g., State Superfund, or Brownfield Cleanup). All sites listed on the "Registry of Inactive Hazardous Waste Disposal Sites in New York State" are included in this database. You can search this database by zip code or by exact address.

You can also get information by searching maps using the DEC Environmental Navigator (Environmental Facilities). Information about whether a site has already been remediated can be found from the Environmental Site Remedial Database Search Results page, by clicking on the "site code".

i. through v. Specify the information requested in sub-questions (i) through (v). These answers will provide details about the types of hazardous wastes to be generated, handled or used, what the activity or process is that involves those wastes, how much waste will be generated, if and where an existing offsite facility will be used, and any programs to minimize or reuse the wastes will take place.

Useful Links

Hazardous Waste Management

All regulation links leave DEC website.

Question E 1 - Land Uses On and Surrounding the Project Site - Full EAF (Part 1)

Full Environmental Assessment Form (FEAF) Workbook

Background Information

Question E.1. provides information to help the reviewing agency understand if the proposed action is consistent with the surrounding area. Actions that are in conflict with the current uses in, or character of, the existing community or surrounding lands may have more potential for an adverse environmental impact.

The terms "on" and "surrounding", "near", and "adjoining" are all used in this question. "On" means physically within the boundaries of the proposed project, and "adjoining" means directly next to and contiguous with the proposed project site. However, the term "near" and "surrounding" will mean different things depending on the setting and type of action being considered. For example, when evaluating a 10-lot subdivision in a suburban residential district, "near" might include a radius of 1,000 feet. However, a new commercial use in an urban setting might include areas within 500 feet. Or, a new industrial use in a rural setting might include an area up to 2,500 feet (1/2 mile) from the proposed project site. Some communities may have "near" defined in local laws or ordinances and in those cases, that should guide what 'near' is in the context of the project. In other places where "near" or "surrounding" is not defined, applicants should use their local understanding of the on-the-ground conditions, and use their best estimation of what nearby or adjacent uses are. Or, generally use 500 feet as a minimum distance in urban settings, 1,000 feet in suburban neighborhoods, and 2,500 feet in rural areas. Remember, the goal of the EAF is to identify potential adverse impacts, so the term "near" should be interpreted in a way that helps identify land uses that might be impacted by the proposed project.

E1 a. Existing land uses.
i. Check all uses that occur on, adjoining and near the project site.
__ Urban __ Industrial __ Commercial __ Residential (suburban) __ Rural (non-farm)
__ Forest __ Agriculture __ Aquatic __ Other (specify): _____
ii. If mix of uses, generally describe:

_____

General Land Uses

Answering Question E.1.a.

Check off all land uses that occur on, adjoining, or near the project site. Local land use maps showing this information may be available from the local town, village, city, or county planning or municipal clerk offices. Some communities may also have comprehensive plans that include helpful maps showing this information. Many comprehensive plans are on municipal web sites. You can also use your knowledge of the site and surrounding area. Check with the municipal clerk to find out if any land use maps of the area exist. Online mapping sites, such as Google or Bing may be also helpful when looking at nearby or adjacent lands.

E1 b. Land uses and cover types on the project site.

Land use or Cover type / Current Acreage / Acreage After Project Completion / Change (Acres +/-)

- Roads, buildings, and other paved or impervious surfaces
- Forested
- Meadows, grasslands or brushlands (nonagricultural, including abandoned agricultural)
- Agricultural (includes active orchards, field, greenhouse etc.)
- Surface water features (lakes, ponds, streams, rivers, etc.)
- Wetlands (freshwater or tidal)
- Non-vegetated (bare rock, earth or fill)
- Other Describe: _____

Land Cover Change

Answering Question E.1.b.

This question asks the applicant to identify any changes in land uses or land cover proposed for the project site. The answers should apply only to the project site itself. Land use refers to how the land is used (for example, as agriculture) and cover type refers to the vegetation found on the parcel. Answering this question will require taking measurements from a map or aerial photo with a known scale. Calculate the current acreage, acreage after full completion of the project, and the change. These measurements are very important and will be used by the reviewing agency frequently in Part 2 as they evaluate the impact of potential changes to land uses and cover types. If a detailed site plan map is required with the application, measurements can be taken from that. Viewing a recent aerial photograph of the site, or overlaying the site plan on an aerial photo will help with this calculation. The downloadable program Google Earth includes a measuring tool that can be used to estimate lengths and areas.

A description of terms used in this question are:

Impervious surfaces include buildings and roads along with paved parking lots, driveways, sidewalks, patios, pools, and anything else that will keep surface water from penetrating into the soil.

Forested areas are those that have mature trees growing.

Agricultural uses and land covers include cultivated fields, actively grazed or harvested grasslands, orchards, nurseries, barnyards, and animal pens. Agricultural uses also include any associated buildings such as barns, greenhouses, and silage storage systems. Note that some of these agricultural uses will overlap with the impervious surface cover type. Area measurements for these should be included in both categories. Abandoned agricultural cover types include former farm fields that have been allowed to grow to brush and shrubs, and overgrown orchards.

Surface waters include streams, ponds, lakes, rivers, creeks, and reservoirs, whether man-made or natural.

Wetlands are known by many names such as swamps, marshes, bogs, and wet meadows. One thing all have in common is that they are areas saturated by surface or ground water to the point that they support distinctive vegetation that is adapted for life in wet soil conditions. Identifying wetlands and wetland boundaries may need a professional to inventory and delineate wetlands on the site. If known temporary pools of water or wetlands (vernal pools) are on the site, count these in the wetland acreage.

Some examples of non-vegetated land cover are beaches, sand dunes, mines, heavily eroded areas, rock outcroppings, or any other areas devoid of any vegetation.

E1 c. Is the project site presently used by members of the community for public recreation?
i. If Yes: explain: _____

Public Recreation

Answering Question E.1.c.

Public recreation can take many forms. Active recreation areas, such as ball fields and tennis courts are obvious public recreational uses. Passive recreational uses include public parks, conservation areas, and nature observation areas. Less obvious uses might include agricultural or forest lands where the owner allows friends and neighbors to hunt. Some land owners also have easement agreements that allow hikers to cross their property, or snowmobile clubs to maintain trails during the winter months.

E1 d. Are there any facilities serving children, the elderly, people with disabilities (e.g., schools, hospitals, licensed day care centers, or group homes) within 1500 feet of the project site?
If Yes,
i. Identify Facilities: _____

Public Facilities

The purpose of this question is to identify special facilities where children, the elderly, and people with disabilities are likely to be found on a daily basis for multiple hours per day. It is not meant to identify facilities like parks, where a diverse portion of the population may use them.

Answering Question E.1.d.

Some facilities, such as hospitals and schools, can be identified using online mapping sites such as Google or Bing. However, the most efficient way to identify these facilities is to simply perform a field survey. A windshield survey done by driving around the neighborhood within 1,500 feet (slightly more than a 1/4 mile radius which is 1,320 feet) should suffice to identify these facilities.

E1 e. Does the project site contain an existing dam?
If Yes:
i. Dimensions of the dam and impoundment:
• Dam height: _____ feet
• Dam length: _____ feet
• Surface area: _____ acres
• Volume impounded: _____ gallons OR acre-feet
ii. Dam's existing hazard classification: _____
iii. Provide date and summarize results of last inspection:
_____

Dams

Presence of a dam on a project site poses different and potentially significant issues. Changes to the land cover or uses surrounding a dam can influence the hydrologic characteristics of the water sources supplying the impoundment. Changes to the waterbody or surrounding lands could affect the stability of the dam, or its hazard potential. It also may mean additional permits or inspections are needed. Depending on the size of the dam or impoundment, a Protection of Waters permit may be required for new construction or repair of an existing dam. Some other permits that may be required are a Freshwater Wetland Permit, a Mined Land Reclamation Permit, or other approvals. For a list of possible permits required by DEC, visit Permits, Licenses and Registrations page. For a list of application forms for these permits, visit the application forms page.

Answering Question E.1.e.

If the proposed project site currently contains a dam, supply the requested information. DEC has a Google Earth (KML) dataset that depicts the location of dams in the New York State Inventory of Dams. You can download the KML file and open it using Google Earth. (Note: This will require installing software on your computer. Once the KML file is opened in Google Earth, zoom in to the project site location and click on the dam in question.) The information included in the information box that opens up will provide most of

the information needed to answer this question. This dataset may not include newer dams that have been built since the data was last updated. It also may not include smaller dams that did not require a DEC permit for construction. If there is missing information, or if the dam in question is not in the database, you might have to look for and refer to any available permitting documents that were submitted, or contact the DEC Regional Permit Administrator responsible for the area in which the pond or impoundment is located.

Useful Links

- DEC Google Maps and Earth files
- DEC Guidelines for Design of Dams (PDF)
- DEC Dam Safety
- DEC Constructing Recreational and Farm Ponds
- DEC Pond Brochure (Creating a Pond) (PDF)

E1 f. Has the project site ever been used as a municipal, commercial or industrial solid waste management facility, or does the project site adjoin property which is now, or was at one time, used as a solid waste management facility?
If Yes:
i. Has the facility been formally closed?
• If yes, cite sources/documentation: _____
ii. Describe the location of the project site relative to the boundaries of the solid waste management facility:

_____
iii. Describe any development constraints due to the prior solid waste activities:

_____

Solid Waste

Solid Wastes are managed in solid waste management facilities. There are many different kinds of solid waste management facilities in New York. They range from construction and demolition processing facilities to solid waste landfills. Some are closed and not used any more, while others are still active. All solid waste management facilities are regulated through 6NYCRR Subchapter B: Part 360. The general operational requirements for all solid waste management facilities are contained in the Part 360 regulations, Subpart 360-1. Solid Waste Management facilities are permitted, registered and controlled at the regional level. Each DEC Region has staff that is responsible for permitting, facility inspection and assessment of facility compliance. You can contact them for information on solid waste management facilities.

Answering Question E.1.f.

This question asks about previous uses on the proposed project site that may have involved solid wastes. Using the links below, or your knowledge of the project site, answer yes or no to the question regarding past use of the site or an adjoining site as a solid waste facility. If the answer is yes, continue with the next three parts of this question:

i. If the facility has been formally closed under the supervision of DEC pursuant to Part 360, there will be documentation confirming that. The owner of the property or the operator should be able to supply this information.

ii. If the project location is on the same parcel as a closed facility, describe the relative locations of the proposed project and the former facility. If the project is adjoining a current or former use, you can provide a description here, or refer to the location on a site plan or map.

iii. If there are any constraints placed on the proposed site or adjoining properties, describe those here. These should be included in any closure documentation.

There are many resources on the DEC website where you can find information about types and locations of active solid waste management sites in New York. The following links will help you find information or maps showing solid waste management facility locations:

- Active municipal solid waste facilities
- Active Construction and Demolition Debris Landfills (PDF)
- Active Land Clearing Debris Landfills (PDF)
- Active Ash Monofill Landfills (PDF)
- Active Industrial/Commercial Landfills (PDF)
- Active Long Island Landfills (PDF)
- Active Landfill Gas-to-Energy Facilities (PDF)
- Active Municipal Waste Combustion Facilities (PDF)
- Active Recyclables Handling & Recovery Facilities (PDF)
- Vehicle Dismantling Information
- Active Regulated Transfer Stations (PDF)
- Active Registered Transfer Stations (PDF)
- Inactive Solid Waste Facilities (FTP - Excel file)

Useful Links

You can find more information on waste management on DEC's Chemical and Pollution Control/Waste Management page.

E1 g. Have hazardous wastes been generated, treated and/or disposed of at the site, or does the project site adjoin property which is now or was at one time used to commercially treat, store and/or dispose of hazardous waste?
If Yes:
i. Describe waste(s) handled and waste management activities, including approximate time when activities occurred:

_____

Hazardous Waste

Hazardous waste is a waste with properties that make it potentially dangerous or harmful to human health or the environment. There are many different kinds of hazardous wastes. Hazardous wastes can be liquids, solids, or contained gases. They can be the by-products of manufacturing processes, discarded used materials, or discarded unused commercial products such as cleaning fluids (solvents) or pesticides. If a site has been part of a remediation (clean-up) in the past, or presently, then there is a higher likelihood of significant adverse environmental impacts resulting from development of that site.

The New York State Department of Environmental Conservation Division of Environmental Remediation is in charge of all hazardous waste management programs, including remediation. Their web pages include definitions, regulations, databases, and other information about hazardous waste. Through Part 373 permits, the DEC ensures that environmentally protective design and operational standards are maintained at treatment, storage and disposal facilities (TSDFs). As a part of this permit program, DEC reviews permit applications and prepares permits for all facilities. A facility involved in the storage or treatment of hazardous waste receives an operating permit. See additional information on hazardous waste treatment, storage and disposal facilities (TSDFs).

Answering Question E.1.g.

This question asks about previous uses on the proposed project site that may have involved hazardous wastes. You may be able to answer this question based on your own knowledge of the site and its history.

To confirm or find hazardous waste remediation information about your project site, you can do a search of the DEC's environmental site remediation database. This database contains records of the sites which have been remediated or are being managed under a remedial program (e.g., State Superfund, or Brownfield Cleanup). All sites listed on the "Registry of Inactive Hazardous Waste Disposal Sites in New York State" are included in this database. You can search this database by zip code or by exact address.

You can also get information by searching maps using the DEC Environmental Navigator (Environmental Facilities).

E1 h. Potential contamination history. Has there been a reported spill at the proposed project site, or have any remedial actions been conducted at or adjacent to the proposed site?
If Yes:
i. Is any portion of the site listed on the NYSDEC Spills Incidents database or Environmental Site Remediation database?
Check all that apply:
__ Yes - Spills Incidents database Provide DEC ID number(s): _____
__ Yes - Environmental Site Remediation database Provide DEC ID number(s): _____
__ Neither database

ii. If site has been subject of RCRA corrective activities, describe control measures:

_____

iii. Is the project within 2000 feet of any site in the NYSDEC Environmental Site Remediation database?
If yes, provide DEC ID number(s): _____

iv. If yes to (i), (ii) or (iii) above, describe current status of site(s):

_____
v. Is the project site subject to an institutional control limiting property uses?
• If yes, DEC site ID number: _____
• Describe the type of institutional control (e.g., deed restriction or easement): _____
• Describe any use limitations: _____
• Describe any engineering controls: _____
• Will the project affect the institutional or engineering controls in place?
• Explain: _____

Contamination

When a new or expanded use is proposed for a site that has a history of contamination, this may lead to an increase in potential human contact with that contamination, or potential disturbance of any controls put in place to contain that contamination.

A spill is any accidental release of petroleum, toxic chemicals, gases, and other hazardous materials. Remediation is the act or process of removing contamination from the soil, groundwater, or other medium.

Answering Question E.1.h.



You can access and search for both spills and remediation efforts through the NYS DEC Environmental Remediation Databases page. Use that site to provide information for Question E.1.h. Most if not all of the information needed to answer these questions can be provided by these search results.

To search the Spill Incidents Database for all years from 1978 to the present, use search method #2. You will have to enter a complete address that includes the county, city (town or village), and street name. Make sure you change the date range to include 1978 to the present date. To get a complete picture of the area surrounding the project site, you should do multiple searches that include surrounding street names in the search criteria.

To search the Environmental Site Remediation Database for any remedial actions on or adjacent to the proposed project site, use search method #2. Entering the county and city (town or village) will limit the search results to your area of interest. Leave the rest of the search criteria at the defaults to get a complete list of all programs and control types.

The search results will include sites that are subject to RCRA (Resource Conservation and Recovery Act) corrective actions and any control measures in place and that can be included in sub-question E.1.h (ii).

The EAF Mapper will partially answer this question. The partial answers to this question will be automatically inserted on the pdf generated by the EAF Mapper and a report generated. If any portion of the project site is listed in the Environmental Site Remediation Database, the EAF Mapper will check "yes" on the FEAF Part I pdf. If there are none within the project boundaries, the EAF Mapper will check "no" on the form for this resource topic. . If a 'yes' answer is returned for either E.2.h.i or E.2.h.iii, applicants should consider this as a screening of the Site Remediation Data Base. In that case additional research of the this database should be done to completely fill out the answers to this question. If the applicant or project sponsor believes the answer filled out by the EAF Mapper is incorrect, supplemental information should be provided that explains that discrepancy.

For more information on the EAF Mapper application, see the EAF Mapper section of the How to Use The EAF Workbooks page.

In order for the applicant to answering the portion of the question that deals with spill incidents, they should consult the Spills Database identified above.

If the EAF Mapper is not used to complete part of this question in Part 1, the applicant should use both the Spills incident Database and the Environmental Site Remediation Database described above.

When these two searches are complete, you can enter the appropriate information in the spaces provided on the EAF. If the project site is not on either Spills Incident or Environmental Site Remediation database, check 'neither database".

Note that while question E.1.h. pertains to both the site and adjacent properties, certain elements of the question are site specific, and others pertain to both the site and adjacent properties. Section i, ii, and v pertain to only the project site. The initial E.1.h. question and section iv pertain to both the project site and adjacent properties.

Please note: The Hudson River is in remediation. The site's name is The Hudson River PCB Sediments. The Site Code is 546031. The site is also a State Superfund Program with a classification of 2. This site includes the nearly 200 mile stretch of the Hudson River that extends from Hudson Falls in Washington County to the Battery in New York City. Dredging has been completed in 2015, however habitat reconstruction is ongoing. Because the EAF Mapper uses a 2000 foot buffer zone for remediation and hazardous waste sites, the EAF Mapper will display a positive hit or a "YES" return value on your application for sites within 2000 feet of the shore or banks of the Hudson River from Hudson Falls to New York City's Battery and reference the above Site Code. If other remediation sites are within 2000 feet of your project, additional site codes will be displayed.

The environmental site remediation database offers detailed information regarding the Hudson River and remediation. When using the search, at the top of the search page, enter code 546031 and you will receive a return value of the Hudson River PCB Sediments in detail.

Useful Links

Glossary of hazardous waste terms:

- Site Remediation Terms
- Types of Institutional Controls
- Bulk Storage Terms

Environmental Remediation Databases

Part 371 - Identification and Listing of Hazardous Waste in NY

Part 375 - Environmental Remediation Programs (sub-parts 1-6):

- Subpart 375-1: General Remedial Program Requirements
- Subpart 375-2: Inactive Hazardous Waste Disposal Site Remedial Program
- Subpart 375-3: Brownfield Cleanup Program
- Subpart 375-4: Environmental Restoration Program
- Subpart 375-6: Remedial Program Soil Cleanup Objectives

Hazardous Waste Management Programs

All regulation links leave DEC website.

Question E 2 - Natural Resources On or Near Project Site - Full EAF (Part 1)

Full Environmental Assessment Form (FEAF) Workbook

The E.2. questions can be separated into three broad categories.

- Questions E.2.a through E.2.g. deal with geology, topography, and soils
- Questions E.2.h. through E.2.l. deal with water resources
- Questions E.2.m through E.2.q. focus on wildlife resources

Geology, Topography, and Soils Questions

Geology in the context of SEQR refers to the examination of the structure of a specific region of the earth's crust. The geology of any site can be divided into three broad categories; bedrock, surficial geology, and soils. Bedrock geology is the miles thick solid layer that is the main component of the earth's crust. Surficial geology includes all of the loose material that is found on top of this solid rock layer. Soil is the very top layer of loose material that includes organic matter, and supports plant and animal life. Both the surficial layer and the soils layer can vary widely in thickness. All three of these layers can have an influence on the natural resources found on a site as well as on the siting of, and impacts of development. Ground water availability, infrastructure installation, building construction, aquifer protection, and ground stability are all affected by the type of bedrock, and the type and thickness of the surficial and soil layers found on a site.

Geology also has an influence on the topography of an area. The topography of a site will have an effect on erosion, ground stability, building and road placement, and infrastructure installation. Topography can also affect the extent of viewsheds, location of wetlands, types of land cover, and drainage patterns. Answering the questions in this section will help the reviewing agency evaluate what impacts a project may have on these natural resources.

Most of the geology and soils related questions in Question E.2. can be answered by using a county soil survey. Soil surveys are available free of charge from the local County Soil and Water Conservation District (SWCD) office. These soil surveys list and describe the various soil types (soil map units) found throughout the county, along with their characteristics, and a map showing their location. The map is usually overlaid on an aerial photo, helping the applicant find their specific project site location.

Web Soil Survey

The Web Soil Survey (WSS) is an online tool operated by the USDA Natural Resources Conservation Service (NRCS). It provides digital versions of all soil survey data, and allows the user to specify a specific

Area of Interest (AOI), producing a customized summary report of the soils just within that AOI. Information on how to use the Web Soil Survey, including a link to a Getting Started (PDF) document, is available on the Web Soil Survey home page.

Begin using the Web Soil Survey by clicking the "Start WSS" button on the home page. This will open the map interface. Zoom and pan in to the general location of your project site using the tools along the top edge of the map. When you are at an appropriate scale, you can then use one of the "Define AOI" tools to draw a shape directly on the map that closely matches you project area or tax parcel. Once the AOI is created, clicking on the "Soil Data Explorer" tab will open another set of tabs, which will allow you to access many specific reports that describe detailed attributes of the soils found within the AOI. You can use this information to answer most of the soils related question in this section.

If the requested information is not included in the soil survey or Web Soil Survey, you may have to do some site investigation to complete the answers. If you have completed any engineering work as part of your application, or if required by the municipality, this detailed information should also be used to answer these questions.

Note: There are portions of Franklin, Lewis and Herkimer Counties where soil survey information is not available.

E2 a. What is the average depth to bedrock on the project site? _____ feet

Answering Question E.2.a.

The depth to bedrock attribute can be found in the WSS on the Soil Properties and Qualities tab. Under Soil Qualities and Features > Depth to a Selected Soil Restrictive Layer, choose the "lithic bedrock" option and run the report by clicking the View Rating button.

The report will show the depth to bedrock for the various soil types measured in inches or centimeters. If in centimeters, divide the number by 30.48 to convert to feet. If there are multiple soil types with different depths to bedrock, the applicant will have to do some math.

Depth to bedrock is usually only listed in the soil survey for soil types that are fairly shallow. If no depths are listed, information from any drilled wells on the site or neighboring parcels may be used. Depending on the type of project being proposed, the reviewing agency may request more detailed engineering studies be used to answer this question.

E2 b. Are there bedrock outcroppings on the project site?
If Yes, what proportion of the site is comprised of bedrock outcroppings? _____ %

Answering Question E.2.b.

Bedrock outcroppings are areas where all of the loose material has been removed, exposing the underlying bedrock layer. The soil map unit name or description might indicate that it is composed completely or partially of bedrock outcroppings. Bedrock outcroppings might also be represented by points on the map without any area dimensions. If this is the case, field observations should be used to estimate the proportion of exposed bedrock the site is comprised of.

E2 c. Predominant soil type(s) present on project site:
_____ ____ %
_____ ____ %
_____ ____ %

Answering Question E.2.c.



Applicants should use the Web Soil Survey to answer this question. Once an Area of Interest (AOI) has been identified as discussed previously, many reports will be available which will include information such as the total area of the AOI, a list of all soil types (map units) within the AOI, and the percentage of each type within the AOI. To identify predominant soil types, click on the main "Soil Map" tab which will create a map and legend with a list of soils types and percentages within the AOI. There may be many different soil types on the site. The question asks only for predominant soil types, so reply to this question by using the soil types that cover the largest areas. You can omit those types that only cover a small fraction of the project site.

E2 d. What is the average depth to the water table on the project site? Average: _____ feet

Answering Question E.2.d.

The "Water table" refers to that part of the soil that is saturated with water during some, or all of the year. However, a saturated zone that lasts for less than a month is not considered a water table.

Under the Soil Properties and Qualities tab, click on Water Features > Depth to Water Table, and then the View Rating button to run the report. Measurements will be in either inches or centimeters. If in centimeters, multiply the number by 30.48 to convert to feet.

Similar to the depth to bedrock attribute, if there are multiple soil types on the site, there may be different depths listed for each. The applicant can use the soil type covering the largest area, or make an estimate based on the area covered by each type. Depth to water table is usually only listed in the soil survey for soil types that have fairly shallow measurements. If no depths are listed, information from any drilled wells on the site or neighboring parcels may be used. Depending on the type of project being proposed, the reviewing agency may request more detailed engineering studies be used to answer this question.

E2 e. Drainage status of project site soils:
__ Well Drained: _____% of site
__ Moderately Well Drained: _____% of site
__ Poorly Drained _____% of site

Answering Question E.2.e.

Drainage class of site soils refers to the frequency and duration of wet soil periods under natural conditions, without influence from human activity (without artificial drainage or irrigation). The drainage class can be found in the Web Soil Survey under the Soil Properties and Qualities tab. Click on Soil Qualities and Features > Water Features > Drainage Class, and then the View Rating button to run the report.

Seven classes of natural soil drainage are recognized in the Web Soil Survey, useful for the three categories in this question as: excessively drained, somewhat excessively drained, well drained, (Well Drained); moderately well drained, (Moderately Well Drained); and, somewhat poorly drained, poorly drained, and very poorly drained, (Poorly Drained).

E2 f. Approximate proportion of proposed action site with slopes:
__ 0-10%: _____% of site
__ 10-15%: _____% of site
__ 15% or greater: _____% of site

Answering Question E.2.f.

Slope is the steepness of the topography, or the amount of inclination of a surface in relation to the horizontal. It is also known as grade, incline, or rise. Percent slope is calculated by dividing the elevation change (rise) by the horizontal distance, and multiplying by 100. For example: a 20 foot rise over a 100 foot horizontal distance = a 20% slope.

Similar to the depth to bedrock and water table attributes, if there are multiple soil types on the site, there will probably be different slopes listed for each. The report generated using the WSS will list the percent slope ration for each soil type, and the percentage of the AOI that soil type covers.

The applicant can use the soil type covering the largest area, or make an estimate based on the area covered by each type. Depending on the type of project being proposed, the reviewing agency may request more detailed engineering studies be used to answer this question.

E2 g. Are there any unique geologic features on the project site?
If Yes, describe: _____

Unique Geologic Features

Unique or unusual geological features or landforms include but are not limited to features such as cliffs, dunes, waterfalls, erratic rocks, gorges, glacial features, or caves. These features are identified through the NYS Unique Geologic Landforms project. This is a joint venture between the NYS DEC and the New York State Museum - Office of the State Geologist. It was developed to assist in the implementation of the State Environmental Quality Review Act (SEQR) through the Environmental Assessment Form (EAF). There are over 600 sites that have been identified as unique geological features or landforms.

Answering Question E.2.g.



The answer to this question will be automatically inserted on the pdf generated by the EAF Mapper and a report generated. If a unique geologic site is located in the project area or within 500 feet of the project area, the EAF Mapper will return a 'yes' and will also name that feature. If there are no unique geologic features located in or within 500 feet of the project boundaries, the EAF Mapper will check "no" on the form. If a 'yes' answer is returned, applicants should then use the DEC Environmental Mapper to further verify and determine if the geologic feature is on or adjacent to the project site. If the applicant or project sponsor believes the answer filled out by the EAF Mapper is incorrect, supplemental information should be provided that explains that discrepancy.

If the applicant is going to use the EAF Mapper to help fill out any portions of Part 1, they should use that first before filling out any other portions of the EAF. For more information on the EAF Mapper application, see the EAF Mapper section of the How to Use The EAF Workbooks page.

The DEC Environmental Mapper will also identify catalogued unique geologic features and provides additional information. If the identified feature is also included on the DEC Unique Geologic Features picture page, you can find additional information and descriptions there. Keep in mind that not all unique geologic features may be included in the DEC data.

If the EAF Mapper is not used to answer this question, to identify unique geologic features near your project site, use the DEC Environmental Mapper, which identifies catalogued unique geologic features. Keep in mind that not all unique geologic features may be included in the DEC data.

To use the Environmental Resource Mapper:

- Go to the Environmental Resource Mapper site, and click on the "Enter Environmental Resource Mapper" link. DEC will be providing additional links to this data in the future.

As you zoom into your project site location, the map will show designated unique geologic features with a blue star icon. Use the "Identify" tool to click on the feature, and an information box will pop up with information on all of the nearby features. The 'identify' results from the Environmental Mapper will include

the name, Type, and Description for each unique geologic feature identified. If the identified feature is also included on the DEC Unique Geologic Features picture page, you can find additional information and descriptions there.

You should use local knowledge and information to confirm the presence of these features, if any. If you believe your site contains a unique geologic feature that is not shown in the database, you can include a description of it here. An example statement would be "Several erratic boulders along with glacial grooves can be found on the exposed bedrock located in the northwestern corner of the parcel."

Useful Links

To view photographs of some identified unique geologic features you can visit the DEC Unique Geologic Features page.

Water Resource Questions

Water, rivers, streams, lakes, ponds, wetlands, flood plains, aquifers

Water is the one natural resource necessary for every form of life. It is constantly flowing past us in our streams and rivers, falls from the sky on a regular basis, and is often available from the ground simply by drilling a hole deep enough to tap into it. Water is generally thought of as a public resource, to be used and managed for the good of the people. For these reasons, the federal and state governments see water as a natural resource important enough to plan for and regulate.

E2 h. Surface water features.
i. Does any portion of the project site contain wetlands or other waterbodies (including streams, rivers, ponds or lakes)?
ii. Do any wetlands or other waterbodies adjoin the project site?
If Yes to either i or ii, continue.
If No, skip to E.2.i.
iii. Are any of the wetlands or waterbodies within or adjoining the project site regulated by any federal, state or local agency?
iv. For each identified regulated wetland and waterbody on the project site, provide the following information.
• Streams: Name _____ Classification _____
• Lakes or Ponds: Name _____ Classification _____
• Wetlands: Name _____ Approximate Size _____
• Wetland No. (if regulated by DEC) _____
v. Are any of the above water bodies listed in the most recent compilation of NYS water quality-impaired waterbodies?

If yes, name of impaired water body/bodies and basis for listing as impaired:

_____

Rivers, Streams, Lakes, Ponds, and Wetlands

Note: This question asks for information about any existing water resources found on or adjoining the project site. The previous Question D.2.b. asks for information on proposed new uses that may impact water resources found on the project site.

New York's water resources, including rivers, streams, lakes, ponds and wetlands, are necessary for drinking and bathing; agricultural, commercial and industrial uses; and fish and wildlife habitat. In addition, New York's waterways provide opportunities for recreation; education and research; and aesthetic appreciation. The State has established policies to preserve and protect these important environmental features (Title 5 of Article 15 of the ECL).

Rivers and streams in NYS are given a classification based on existing or expected best usage of each water or waterway segment. These classifications are:

- Classification AA or A is assigned to waters used as a source of drinking water
- Classification B indicates a best usage for swimming and other contact recreation, but not for drinking water
- Classification C is for waters supporting fisheries and suitable for non - contact activities
- The lowest classification and standard is D
- Some waters may also have a designation of T or TS indicating they may support trout or trout spawning
- Small ponds and lakes with a surface area of 10 acres or less, located within the course of a stream, are considered to be part of a stream and are subject to regulation under the stream protection category of Protection of Waters

Wetlands (also known as swamps, marshes, tidal wetlands, and bogs), are areas saturated by surface or ground water to the extent that they are able to support distinctive types of vegetation adapted for life in saturated soil conditions. Wetlands serve as natural habitat for many species of plants and animals and absorb the forces of flood and tidal erosion to prevent loss of upland soil. Standing water is only one clue that a wetland may be present. Many wetlands only have visible water during certain seasons of the year, but are still considered wetlands. In New York State, two main types of wetlands are found: tidal wetlands around Long Island, New York City and up the Hudson River all the way to Troy Dam; and freshwater wetlands found along rivers and lake floodplains and in low laying areas across the State. Vernal pools, or temporary wetlands are critical to amphibian species and are also considered a form of wetland.

Wetlands may be regulated by a federal, state, or local agency. Some local communities may have their own wetland regulations. In NYS, Wetlands over 5 hectares (12.4 acres) are regulated by DEC along with a 100 foot adjacent area.

Water quality impaired waterbodies are those waters that have been identified as not supporting their appropriate uses. Projects in watersheds of impaired waters may be subject to heightened requirements. For example, the Federal Clean Water Act requires states to assess and report on the quality of waters in their state. Section 303(d) of the Act requires states to identify impaired waters. For these impaired waters, states must consider the development of a Total Maximum Daily Load (TMDL) or other strategy to reduce the input of the specific pollutant(s) restricting waterbody uses, in order to restore and protect such uses.

Answering Question E.2.h.



No matter how an EAF is being completed, the applicant should always make a visit to the site area, if possible. The presence of a waterbody or wetland often creates project constraints, so it is important information to know.

If using the EAF Mapper Application, the answer to this question and its sub-questions will be automatically inserted on the pdf generated by the EAF Mapper, and a report will be generated of the results.. The EAF Mapper uses data about regulated freshwater wetlands, NWI wetlands, APA wetlands, NHD waterbodies, water area, and streams, tidal wetlands, priority waterbodies list for lakes, ponds, streams, rivers, coastlines and estuaries. It also includes the protected water quality classifications..

For this question, the EAF Mapper serves as a screening tool that informs that a wetland or waterbody is close to or within the project site. If the EAF Mapper has indicated the presence of regulated wetlands or waterbodies, applicants should verify the reported waterbodies on the project site.
If a wetland or waterbody regulated by either the State or federal government does exist within the boundaries of the project site, or within 500' of the project site, the EAF Mapper will check "yes" on Question E.2.h.i of the PDF of the FEAF. It will also use the 500' buffer to identify if any wetlands or other water bodies adjoin the project site and will answer 'yes' or 'no' for E.2.ii.

If the answer is 'no' for E.2.i and E.2.ii, then there are no state wetlands or waterbodies present on the project site. A "no" response, however, does not mean that there are no federally regulated wetlands on the project site. Information on federal wetlands are known to be incomplete, so consultation should be undertaken with the US Army Corps of Engineers (ACOE) regarding federally regulated wetlands and waterbodies that may be of concern.

Names for wetlands and water bodies will not be returned on the form by the EAF Mapper, Rather, the EAF Mapper return value in an answer block will read "State wetland" or "Federal wetland". State wetlands will be coded with a wetland identifier such as "S-5". . State protected streams and rivers will be answered with a number such as 876-1, rather than a name. If a code such as this is returned, it implies that the name of the water body can be found in regulation at 6 NYCRR Chapter X (Parts 800 - 941) In this example, the 876 identifies part of Chapter X where the stream name is located (Part 876 is the Mohawk River Drainage Basin). The hyphenated numbers (ie. 876-1) indicates the Item number of the water body within that basin. The item number can be used to look up the water body name, class and standard by going to Table 1 (Classification and Standards ..), in the appropriate subpart of Chapter X. Table 1, is usually located in subsection 4 of the Part.

Question E.2.h.v. asks about water features listed by New York State as water quality-impaired waterbodies. If any of the waterbodies are listed as impaired, the EAF Mapper will return a 'yes' to this question and then name the waterbody and offer a short description of the basis for that listing.
Note that the EAF Mapper will NOT evaluate if any wetlands on or near the project site are regulated by a local agency. Therefore, applicants should investigate whether the municipality has local waterbody or wetlands rules.

If information exists that there are waterbodies on the project site that are regulated locally, or by the ACOE, that did not appear in the EAF Mapper return, then supplemental information should be attached to the EAF to identify this. Further information on wetlands and waterbodies can be found in the Environmental Resource Mapper site (see below).

If the applicant or project sponsor believes any answer filled out by the EAF Mapper is incorrect, supplemental information should be provided to the reviewing (lead) agency that explains that discrepancy.

If the EAF Mapper is not used to fill ou any or all portions of this Part 1 question, applicants should use DEC's Environmental Resource Mapper. The DEC regional office may also be contacted to determine if protected streams, wetlands, ponds, lakes, and waterbodies are contained within or adjoin your proposed project site. For areas within the Adirondack Park, use the Adirondack Regional Geographic Information System (ARGIS) map application. To find out if there are any mapped wetlands on your proposed project site that are outside of any NYS agency jurisdiction, you can use the National Wetlands Inventory Wetlands Mapper. Some waterbodies may be identified by name, wetland map number or other identification. Most of the mapping systems described here are developed at a scale that does not include wetlands smaller than about 1/4 acre. The fact that they are not mapped does not mean they are not regulated, and are still an important resource to be included in the evaluation.

In addition to these online mapping sites, local municipal offices often have paper copies of the DEC and APA regulatory maps. They may also have local plans, studies, or natural resource inventories that include mapped wetlands and locally designated wetlands.

Maps, plats, or site plans prepared for the proposed project should include locations having any waterbody or obviously wet areas. Plans should have sufficient detail on existing and proposed contours, grades, topographic features and profiles at a scale sufficient to assess project impacts on the waterbody.

Using the Environmental Resource Mapper, zoom into you project location. Clicking on any of the water resources show will display an information box with all of the data needed to answer questions E.2.h.i.-iv. The stream classification and NYS regulated wetland designations can also be found on printed maps that should be available at the local municipality, or by contacting DEC.

Once the water features and wetlands have been identified, you should investigate whether or not the water resource is classified as impaired in any way. A spreadsheet of all impaired waters is available on DEC's Section 303(d) webpage. The All Impaired Waters List (Excel, 300 KB) includes both Section 303(d) List waters, as well as Category 4a, 4b and 4c waters that are impaired but not included on the Section 303(d) List.

If you find that a water feature on or adjoining your project site is on this list, answer question E.2.h.v., and include the reason for its listing.

Useful Links

The NYS Freshwater Wetlands Act (PDF 129 KB)

Environmental Conservation Law, Article 25, Tidal Wetlands Act

APA Freshwater Wetlands Flyer

The U.S. Army Corps of Engineers (ACOE)

The National Wetlands Inventory

Protection of Waters Information

New York State Section 303(d) List of Impaired/TMDL Waters

E2 i. Is the project site in a designated Floodway?
E2 j. Is the project site in the 100 year Floodplain?
E2 k. Is the project site in the 500 year Floodplain?

Floodplains

Floodplains are low-lying lands found next to rivers and streams. When left in a natural state, floodplain systems store and dissipate floods without adverse impacts on humans, buildings, roads and other infrastructure. Natural floodplains add to our quality of life by providing open space, habitat for wildlife, fertile land for agriculture, and opportunities for fishing, hiking and biking.

Floodplains can be viewed as a type of natural infrastructure that can provide a safety zone between people and the damaging waters of a flood. But more and more buildings, roads, and parking lots are being built where forests and meadows used to be which decreases the land's natural ability to store and absorb water. Coupled with changing weather patterns, this construction can make floods more severe and increase everyone's chance of being flooded.

A 100-year floodplain is the area that would be inundated by the 100-year flood, better thought of as an area that has a one percent or greater chance of experiencing a flood in any single year. The 100-year floodplain is called a Special Flood Hazard Area and is shown on federal flood maps, called Flood Insurance Rate Maps (FIRMs). On the FIRM, these areas are shaded and labeled with the letter "A" or "V" sometimes followed by a number or another letter. The 100-year flood is also known as the base flood.

A 500-year floodplain is the area that would be inundated by a 500-year flood, or the area that has a 0.2 percent or greater chance of experiencing a flood in any single year. The 500 year floodplain is shown on federal flood maps (FIRMs) shaded and labeled with the letter "B" or "X".

A floodway is the channel of a river or other watercourse and the adjacent land areas that must be reserved in order to discharge the base flood without cumulatively increasing the water surface elevation more than a designated height. Communities must regulate development in these floodways to ensure that there are no increases in upstream flood elevations. Floodways are not always shown on every FIRM. When they are, it is usually labeled, and shown as a dashed outline with a diagonal line fill.

Answering Questions E.2.i. through k.



The answer to questions about floodways and floodplains will be automatically inserted on the pdf generated by the EAF Mapper and a report generated. If the project site is within a floodway, or 100 and 500-year floodplain, the EAF Mapper will check "yes" on the FEAF Part I pdf. Note however that flood map coverage is not available for the entire State. If data is available for the project site area a 'no' answer means that the project site is not within a mapped floodplain area. However, if there is no data available, the EAF Mapper will NOT return a 'no' but instead will indicate this with language such as 'mapping data not available for this area". If this response is received (neither a "yes" nor a "no"), the applicant should contact the municipality in which the project is located for any additional information on floodplain mapping in the area.

If the applicant or project sponsor believes the answer filled out by the EAF Mapper is incorrect, supplemental information should be provided that explains that discrepancy.

If the EAF Mapper is not used to help fill out any or all portions of this Part 1 question, applicants can view flood maps and other flood related information through the FEMA Map Service Center. Links on this page will allow you to view the National Flood Hazard Layer using the online map viewer. You can also view scanned versions of FIRMs (flood maps) by using the search box in the upper left side of the page.

Your local town, village, or city hall should have copies of these flood maps. EPA's NEPAssit mapping tool may also help you find floodplain information.



Source: FEMA Map Service Center - MSC Product Search

Useful Links

The National Flood Insurance Program

DEC - Floodplain Management

E2 l. Is the project site located over, or immediately adjoining, a primary, principal or sole source aquifer?
If Yes:
i. Name of aquifer: _____

Aquifers

About one quarter of New York residents rely on groundwater as a source of potable water. Several million more people also consume groundwater as visitors or customers of homes and businesses. The NYS Department of Health (DOH) has identified 18 Primary Aquifers in NYS, defined in the Division of Water Technical & Operational Guidance Series (TOGS) 2.1.3 as "highly productive aquifers presently utilized as sources of water supply by major municipal water supply systems". Another category of aquifer defined in TOGS 2.1.3 is a Principal Aquifer. These are "aquifers known to be highly productive or whose geology suggests abundant potential water supply, but which are not intensively used as sources of water supply by major municipal systems at the present time". Sole Source Aquifers are a federal designation. Sole Source Aquifers are designated by the US Environmental Protection Agency as the sole or main source of drinking water for a community in response to a petition from the locality.

Answering Question E.2.l.



The answer to this question will be automatically inserted on the pdf generated by the EAF Mapper and a report generated. If any primary principal or sole source aquifers are located under or within 500' of the project site, the EAF Mapper will check "yes" on the FEAF Part I pdf. If yes, sole source aquifer names will be included in E.2.l.i. If there are no such aquifers located within the project boundaries, the EAF Mapper will check "no" on the form. If the applicant or project sponsor believes the answer filled out by the EAF Mapper is incorrect, supplemental information should be provided that explains that discrepancy.

If the EAF Mapper is not used to fill out any or all of this Part 1 question, applicants, can access and download aquifer reports and maps for both primary and principal aquifers at the USGS Unconsolidated Aquifers of Upstate New York website. Note that large scale maps of principal aquifers have not been completed for all of NYS.

To access the primary aquifer maps, use the "1:24,000 scale maps" button at the bottom of the USGS page. This will open another page showing links to the abstracts for the primary aquifer reports completed for NYS. Opening the abstract page, and clicking on the numbered links after the line that reads "Plates in this publication:" will open the large scale maps that accompany each report. Use these maps to help you identify the locations and boundaries of primary aquifers in your project area.

To access the principal aquifer maps, use the "1:250,000 scale maps" button at the bottom of the USGS page. This will open another page showing links to the abstracts for the principal aquifer reports

completed for NYS. Opening the abstract page, and clicking on the numbered links after the line that reads "Plates in this publication:" will open the regional maps that accompany each report. Use these maps to help you identify the locations and boundaries of principal aquifers in your project area.

For the areas mapped at a scale of 1:250,000, locations mapped as "Unconfined Aquifer 10 to 100 gallons per minute" or "Unconfined Aquifer more than 100 gallons per minute" are considered to be Principal Aquifers unless contradictory site specific information is available.

Useful Links

- Information about aquifers (with map graphics and information on how to download available maps) can be found on the Aquifers in New York State page.
- Visit the EPA's webpages for more information on their Sole Source Aquifers for Drinking Water program.

Wildlife Resource Questions

This question explores the general wildlife community that may exist on or near a site. It will help the reviewing agency understand the environmental context for evaluating project impacts on the entire wildlife community. This question should be answered for all proposed projects.

The use of the term 'predominant' is intended to be synonymous with 'common', and describes species that are abundant in a natural community. Applicants can identify the most common species of the wildlife community present on the site. While some projects may require a list of species to be developed through field investigation, others may need only identification of commonly found species on a site. It is not the intent of this particular question to ask the applicant to provide for a full listing of each and every species that may be found on a site. However, the reviewing agency may require additional field surveys and other natural history information after reviewing information from this question in order to assess potential impacts on wildlife.

E2 m. Identify the predominant wildlife species that occupy or use the project site:

_____ _____

_____

_____ _____

_____

Wildlife

There are several ways to identify 'predominant' species. A field survey designed to inventory wildlife is one way to identify predominant species. Because there is a direct link between the kinds of species that inhabit a site and the kinds of habitats found there, applicants can inventory those habitats that are

present on the proposed site and then link them to the predominant wildlife species that use those habitats.

Habitats and Wildlife

Each habitat has its own wildlife community. Habitats can be classified many ways - each with a distinct character influenced by the climate, hydrology, geology, topography of the land, and soils. New York State has a diversity of habitat types ranging from coastal habitats along the Long Island Sound shoreline, to alpine habitats at the top of an Adirondack peak.

Habitats can be generally described as falling into seven major categories: marine, estuarine (where marine and terrestrial meet), riverine (rivers), lacustrine (lakes), palustrine (ponds and wetlands), terrestrial, and subterranean (caves). Terrestrial habitats can be further described as open uplands, barrens and woodlands, forested uplands, and terrestrial cultural.

The following habitat descriptions may be useful in identifying and classifying the predominant species found on the proposed project site.

Shoreline Habitats

Natural shorelines are the undeveloped fringe areas along the edge of a stream, lake, river, pond, or ocean. These areas connect the shallow aquatic portion of the waterbody with adjacent upland. Shorelines provide important environmental functions, such as regulating water quality (including temperature, clarity, nutrients, and contaminants) and sustaining critical habitat for a variety of aquatic and terrestrial organisms including invertebrates, fish, amphibians, reptiles, shorebirds and waterfowl, and mammals. Shorebirds, ducks, geese, gulls, cormorants, and osprey are examples of common species found along shorelines, along with fish species such as pike, pumpkinseed, perch, lake trout, and carp.

Wetland Habitats

There are several different kinds of wetland habitats in New York. These are forested, scrub/shrub, emergent marshes, and wetlands associated with open water. Each may have a different predominant wildlife community. One thing all have in common is that they are areas saturated by surface or ground water. Wetlands also support distinctive vegetation that is adapted for life in wet soil conditions. See Question E.2.h. for additional information on wetlands.

New York State has both tidal wetlands, found around Long Island, New York City and up the Hudson River all the way to Troy Dam, and freshwater wetlands found along rivers and lake floodplains and in low laying areas across the State. Beaver, mink, muskrats, songbirds, herons, ducks and geese, turtles, salamanders, frogs, pike, perch, and bass are common.

Forest Habitats

A forest is an area that is covered with mature trees. There are many different kinds of forests in New York, each dominated by one or more tree species. Forests range from boreal forests found at the highest elevations in the Adirondack and Catskill mountains, to northern hardwood forests found in upstate New York, and to pine barren forests found on Long Island. Forests provide habitats for a wide variety of wildlife species ranging from mice, deer, and bears, to salamanders, frogs, and snakes.

Built Landscape Habitats (Urban and Suburban)

An urban habitat is found in cities and suburbs. Dominated by man-made structures and built landscapes, urban and suburban habitats include parks, urban open spaces, lawns, and tree-lined streets. Buildings are an important part of an urban habitat, especially bridges. Many urban areas have rivers, streams, and lakes within them. Some suburbs have many trees and patches of forested areas, while others have virtually no trees. Some suburban habitats also can have wetlands, streams, shorelines, or pieces of other habitats included. Some undeveloped green areas may exist that sustain small mammals, birds and amphibians.

Agricultural/Grassland Habitats

This habitat type is dominated by open fields of grasses, sedges, and wildflowers with little to no shrubs and trees. Common grassland habitats are pastures and fallow fields, hayfields, and wet meadows.

Early to mid-successional Habitats

These are habitats that occur on sites that have been cleared for farming or development, and then abandoned. After abandonment, a variety of grasses and small herbaceous plants grow, followed after a few years by shrubs and small trees. These are habitats that are in a transition from a grassland to a forest. Common plant species found in successional habitats include goldenrods, a variety of grasses, asters, ragweed, Queen Anne's lace, dogwoods, sumac, and red cedar. These are relatively short-lived habitats and after about 15 years, eventually mature into a forest.

Answering Question E.2.m.

This question asks for a list of the predominant species that occupy the project site. It does not require that the applicant identify all species. There are several ways the predominant species can be identified:

- Identify the habitats at the site, and then extrapolate what species are likely to be found in those habitats. Once the habitat types present on the project site are identified, these descriptions could assist in generally characterizing the wildlife communities that may be present.
- Consult with any local conservation advisory councils (CAC), Environmental Management Councils (EMC), or other environmental organizations such as bird clubs or sportsmen organizations that may have information on wildlife species found in the area. Check local comprehensive plans, open space plans, or local biodiversity inventories that may exist.

- Use the New York Nature Explorer. This is an interactive online application on the DEC website. Enter a county, and Nature Explorer will return a list of all known breeding bird, reptile, and amphibian species in that county, as well as all rare and listed animals documented in the county.
- Use the lists from the New York State Breeding Bird Atlas. This is a searchable data base of breeding birds and can provide a great deal of information on a site by site basis.
- Use the lists from the New York State Herpetological Atlas. This is a searchable data base of inventoried reptiles and amphibians by species. Although searchable only by species, this atlas does show the locations and range of species included in the inventory.
- Review the DEC Comprehensive Wildlife Conservation Strategy. This offers wildlife information on a watershed basin basis for species of greatest conservation value. The Comprehensive Wildlife Conservation Strategy for New York State contains information about ecoregions, species, and species lists that may be of value in answering this question.

A field inventory to identify species may be needed if no information is obtainable from these data sites or literature.Field surveys may also be needed when the project site or project is very large and may have opportunities for different species habitats, or if a taking of a species is proposed. A field inventory could identify the habitat types that occur on the site and that may be adequate to identify the predominant wildlife species that may be present.

E2 n. Does the project site contain a designated significant natural community?
If Yes:
i. Describe the habitat/community (composition, function, and basis for designation):

_____

ii. Source(s) of description or evaluation:

_____

iii. Extent of community/habitat:
• Currently: _____ acres
• Following completion of project as proposed: _____ acres
• Gain or loss (indicate + or -): _____ acres

Significant Natural Communities



NYS DEC Natural Heritage Map of NYS

Significant Natural Communities include rare or high-quality wetlands, forests, grasslands, ponds, streams, and other types of habitats, ecosystems, and ecological areas. The NY Natural Heritage program calls these different types of habitats or ecosystems "natural ecological communities." NY Natural Heritage documents only those locations of natural communities where the community type is rare in New York State; or, for more common community types, where the community at that location is a high-quality example and meets specific, documented criteria for state significance in terms of size, undisturbed and intact condition, and the quality of the surrounding landscape.

A natural ecological community is defined as an assemblage of interacting plant and animal populations that share a common environment; the particular assemblage of plant and animal species occurs across the landscape in areas with similar environmental conditions. Examples of community types include deep emergent marsh, red maple-hardwood swamp, dwarf shrub bog, hemlock-northern hardwood forest, and tidal creek.

NY Natural Heritage keeps track of locations of significant natural communities because they serve as habitat for a wide range of plants and animals, both rare and common; and because natural communities in good condition provide ecological value and services. The conservation of high-quality examples of all the natural community types in each region of New York State will help ensure that all New York State's plants and animals are preserved.

Answering Question E.2.n.

The answers to questions E.2.n. and E.2.n.i will be automatically inserted on the pdf generated by the EAF Mapper and a report generated. If the project site contains any designated significant natural community, the EAF Mapper will check "yes" on the FEAF Part I pdf. If yes, the EAF Mapper will add in the natural community's name and its current acreage.

Note that other parts of this question will still need to be investigated and filled in by the applicant. If a 'yes' answer is returned, the EAF Mapper will also identify if the project is in a community with an approved Local Waterfront Revitalization Program and will automatically check 'yes or 'no'.

Note that the EAF Mapper will not fill in answers for E.2.n.ii and E..2.n.iii. These must be completed by the applicant. Information listed below for manually filling out the EAF should be consulted for completing this question.

If the applicant or project sponsor believes the answer filled out by the EAF Mapper is incorrect, supplemental information should be provided that explains that discrepancy.

If the applicant is using the EAF Mapper to help fill out any portions of Part 1, they should use that first before filling out any other portions of the EAF.

If the EAF Mapper is not used to complete part E.2.n and E.2.n.i, applicants can also enter the project site into the Environmental Resource Mapper to identify any significant natural communities that may be known on or near the project site. You can also explore the data from DEC's Google Earth data page. Alternatively, applicants may directly request the NY Natural Heritage Program for information about significant natural communities, as well as rare and listed animals and plants, at or near the proposed project site. Instructions for making requests by mail or e-mail can be found on the NY Natural Heritage Page.

Note that the locations displayed in the Environmental Resource Mapper, or reported by NY Natural Heritage data layer are not the only places in New York with rare or significant natural communities; they are only the places documented in the New York Natural Heritage Program's Biodiversity Databases. Not all of New York State has been surveyed, so if the project site shows no locations of significant natural communities, it does not mean there are none there; it only means NY Natural Heritage has no information about that area.

Detailed information about any community types identified by the Environmental Resource Mapper or by NY Natural Heritage is available from NY Natural Heritage's Conservation Guides. These guides include information about identification, dominant and characteristic vegetation, distribution, conservation and management. (More technical descriptions of all community types are in NY Heritage's 2002 Draft Ecological Communities of New York State).

If information from DEC's website or from NY Natural Heritage indicates that a significant natural community may be present at or near the location, a careful on-site evaluation should be done to confirm the size, status, and specific locations of those natural communities on the parcel, and to document the presence of any significant plants or wildlife. If there are no communities currently documented at the site, then a field investigation may be needed to identify vegetation, plant communities, and habitats present,

especially for sites where other significant natural resources are present and sites that are undeveloped or are relatively undisturbed. These data should be placed on site plans so it can be evaluated by the reviewing agency in relation to other features on or planned for the site.

Check with local sources of information as well. Consult with any local conservation advisory councils (CAC), Environmental Management Councils (EMC), or other environmental organizations such as bird clubs or sportsmen organizations that may have information on wildlife species found in the area. Check local comprehensive plans, open space plans, or local biodiversity inventories that may exist.

If any significant natural communities exist on the project site, answer 'yes' and all sub-questions. If none exist, then move to Question E.2.o.

i. Describe any significant natural communities at or near the project site, including the location on the site (or distance from the site) of each natural community or habitat. If the significant natural community is reported at the location, by the Environmental Resource Mapper or by NY Natural Heritage, also include the name of the community type, provided by that source. The report from NY Natural Heritage will also list what characteristics about the natural community makes it significant, and the NY Natural Heritage Conservation Guides will provide a description of the community type and its typical vegetation. A map showing the location of the significant natural community on the site is recommended to supplement this description. Depending on the type and significance of the natural community found, the reviewing agency may require additional inventories and field studies to determine whether potential adverse impacts may occur.

An example statement for this question would be: "The habitat is a hardwood forest on a well-drained site, located at the highest elevation of land and on the steepest slopes found on the parcel. The tree canopy is dominated by red, white and black oaks. Other common trees include shagbark hickory, white ash, red maple, and eastern hop hornbeam. The subcanopy includes small trees and shrubs. This area is designated as G4G5 and S4, and is classified as an Appalachian Oak Hickory Forest. This type of forest is common throughout the area."

ii. List the source of data used to answer this question including data from DEC (Environmental Resource Mapper, NY Heritage, Conservation Guides, etc.), local sources (CAC, or local inventories), and persons/firms who conducted field investigations.

iii. Once significant habitat types or communities are identified, the site should be inventoried, mapped and included on site plans or other maps that are part of the project application. From this map, calculate the total size of the significant natural habitat as it currently exists, then determine the extent of that habitat after project completion, in acres. Calculate the gain or loss in acres of that habitat.

E2 o. Does project site contain any species of plant or animal that is listed by the federal government or NYS as endangered or threatened, or does it contain any areas identified as habitat for an endangered or threatened species?
If Yes:
i. Species and listing (endangered or threatened):

_____

ii. Nature of use of site by the species (e.g., resident, seasonal, transient):

_____

Endangered and Threatened Species

Threatened and endangered species are protected by both State (6NYCRR Part 182 and ECL 11-0535 for animals; 6NYCRR Part 193 and ECL 9-1503 for plants) and by federal laws. These species, along with the habitats that support them are considered sensitive resources.

Information to be provided should include confirmation that the project side does or does not contain endangered plants or animals. If endangered or threatened species are confirmed at the site, the second part of the questions asks applicants to evaluate whether habitats that support those species are present. Modification of these habitats not only adversely affect those species and their ability to survive, but for endangered and threatened animals it could be considered a 'take' which may require an incidental take permit (link leaves DEC website) under Part 182, from DEC.

Answering Question E.2.o.



The Department's Natural Heritage Program maintains a database on documented occurrences of protected species in New York. You can obtain a report from the Natural Heritage Program concerning the potential presence of protected species in a particular location by submitting a request to NY Heritage. Instruction for making requests by mail or e-mail can be found on the NY Natural Heritage Page.

The answers to this question will be automatically inserted on the pdf generated by the EAF Mapper and a report generated. If the project site contains any known species of plant or animal that is listed by the State or federal government as threatened or endangered, or if it contains any areas identified as their habitat, the EAF Mapper will check "yes" on the FEAF Part I pdf. Note that the EAF Mapper does not list the species or the nature of use of that site by the species. A 'yes' answer by the EAF Mapper should be considered as a screening for more details about the species and its habitat on the project site.

The locations displayed in the Environmental Resource Mapper, the EAF Mapper or reported by NY Natural Heritage, are not the only places in New York with protected species: they are only the places documented in the New York Natural Heritage Program's Biodiversity Database. Not all of New York has

been surveyed, so if the project site shows no locations of significant natural communities, it does not mean that none are there, it only means NY Natural Heritage has no information about the area.

If the applicant or project sponsor believes the answer filled out by the EAF Mapper is incorrect, supplemental information should be provided to the reviewing agency that explains that discrepancy.

In addition, information on protected species and their habitat is available on the Department's website through the Environmental Resource Mapper and Nature Explorer web applications. The Environmental Resource Mapper highlights areas of concern in the vicinity of documented locations of protected species but does not give the specific location or the identity of the species. Nature Explorer can generate lists of the species that have been confirmed within any particular county in addition to generalized mapping of areas where protected species have been documented to occur. If either of these applications indicates that a protected species may be in the vicinity of a project site, a request may be submitted to NY Natural Heritage for a more detailed screening. Additional information concerning the presence of protected species can be obtained from regional DEC offices.

Note that the locations displayed in the Environmental Resource Mapper, or reported by NY Natural Heritage, are not the only places in New York with protected species: they are only the places documented in the New York Natural Heritage Program's Biodiversity Database. Not all of New York has been surveyed, so if no locations of endangered and threatened species are documented from the project site, it does not mean that none are there. It only means NY Natural Heritage has no information about the area.

You may also find that information on endangered and threatened species has already been collected for the municipality. Contact the town/city/village clerk to find out if a local comprehensive plan, open space plan, or wildlife and plant inventory has already developed for the area. Often, these documents include lists or maps that will be helpful to you in answering this question.

Some communities also have Conservation Advisory Councils (CAC) or Boards (CAB). These local environmental advisory groups, made up of volunteer members from the community, often have already completed local inventories of plant and animal species. They may be a helpful source of information and maps.

If a field survey or local or DEC information indicates that an endangered or threatened plant or animal species occurs or may occur on your proposed project site, additional information and field evaluations will likely be needed to fully inform the reviewing agency about the presence of these threatened or endangered species, or their habitats.

If any endangered or threatened plant or animal species, or their habitat exist on or near the project site, answer 'yes' and all sub-questions. If none exist, then move to Question E.2.p.

i. List any endangered or threatened animal species found or reported on or near the project site. Identify its status as either endangered or threatened. If endangered or threatened species are known to be present adjacent to, or near the location, and habitats are confirmed present on the project site, list those species and habitats.

ii. Habitats can be used by endangered and threatened species for breeding, hibernation, reproduction, feeding, sheltering, migration or overwintering. The site may be used year-round, seasonally, or on a transient basis (passing through the area or during migration.) Once endangered or threatened animal species are identified on or near the site or if their habitats are on the project location, a field investigation may be necessary to understand how the species may be using the site. This investigation should be thorough enough to understand the role the project location plays in supporting the species and whether there will be adverse modifications of that habitat. If the endangered or threatened species is a plant, indicate the habitat on the project site where the plant is found.

Useful Links

For a list of animals listed by the State as endangered or threatened, and for fact sheets on many of these species go to the State Threatened and Endangered Species List page. You can also find a list of endangered and threatened fishes on DEC's website.

For other information on endangered animal species, go to the Endangered Species Unit page and the NYS's Comprehensive Wildlife Conservation Strategy (CWCS) Plan.

For a list of plants listed by the State as endangered or threatened, go to DEC's Protected Native Plants page.

Information about many of the endangered and threatened animals and plants in New York, including habitat, biology, identification, conservation and management, are available from NY Natural Heritage Conservation Guides and from NatureServe Explorer.

For information on federally listed endangered and threatened species, go to the US Fish and Wildlife Service page.

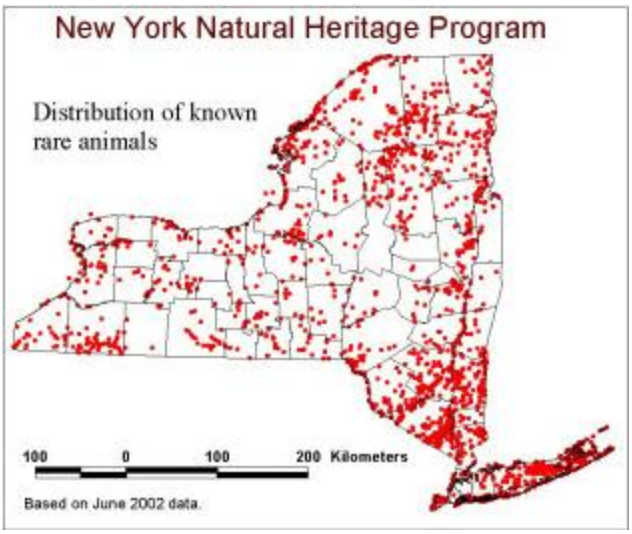
E2 p. Does the project site contain any species of plant or animal that is listed by NYS as rare, or as a species of special concern?
If Yes:
i. Species and listing:

_____

ii. Nature of use of site by the species (e.g., resident, seasonal, transient):

_____

Rare Species or Species of Special Concern



NYS DEC Rare Animal Information

New York State also classifies certain plants as Rare (6NYCRR Part 193 and ECL 9-1503) and certain animal species as being Species of Special Concern (6NYCRR Part 182 and 1503).

Species of special concern are fish and wildlife species that warrant attention and consideration, and there is concern for their continued welfare in New York, but current information, collected by DEC, at this time does not justify listing these species as either endangered or threatened.

Answering Question E.2.p.

Follow the same guidelines and use the same resources in answering this question as were provided for the previous questions, E.2.o., including using the EAF Mapper and obtaining a report from the NY Natural Heritage Program. Instruction for making requests by mail or e-mail can be found on the the NY Natural Heritage Program Page.

If any animal Species of Special Concern or plant species listed as Rare exist or are reported to be on or near the project site, answer "yes" and all sub-questions. If none exist, then move to Question E.2.q.

i. List any Species of Special Concern or Rare species found or reported on or near the project site. Identify its status as Species of Special Concern or Rare.

ii. Habitats can be used by animal Species or species of special concern for breeding, hibernation, reproduction, feeding, sheltering, migration or overwintering. The site may be used year-round, seasonally, or on a transient basis (passing through the area or during migration.) Once animal Species of special concern species are identified on or near the site, or if their habitats are on the project location, a field investigation may be necessary to understand how the species may be using the site. This investigation should be thorough enough to understand the role the project location plays in supporting the species and whether there will be adverse modifications of that habitat. If there is a plant species

listed as Rare identified on or near the site, indicate the habitat on the project site where the plant is found.

Useful Links

For a list of animals listed by the State as Species of Special Concern, and for fact sheets on many of these species, go to the State Threatened and Endangered Species List page. For more information, also see the Endangered Species Unit page and the a NYS Comprehensive Wildlife Conservation Strategy (CWCS) Plan.

For a list of plants listed by the State as Rare, go to the DEC's Protected Native Plants page.

Information about many of the Species of Special Concern and other rare animals and plants in New York, including habitat, biology, identification, conservation and management, are available from the NY Natural Heritage Conservation Guides and form the Nature Serve Explorer.

E2 q. Is the project site or adjoining area currently used for hunting, trapping, fishing or shell fishing?
If yes, give a brief description of how the proposed action may affect that use:

_____

Hunting, Trapping, Fishing

Answering Question E.2.q.

Hunting, trapping, fishing, or shell fishing are outdoor recreational activities related to the environment that may be impacted by a change in land use. Applicants should use their general knowledge of the project site to answer this question. If unfamiliar with the outdoor recreational use of the property, applicants should consult with former owners, neighbors, and local sportsmen clubs. If these activities are known to currently take place, describe how the proposal may affect them. For example, the change in use of lands for hunting could be described as "the site is a wooded parcel that is currently used for hunting. 50% of the woodland will be will be removed to construct the structure and parking lot. The remaining woodlands will be preserved, but due to their proximity to the new buildings, hunting will not be allowed."

Question E 3 - Designated Public Resources on or near Project Site - Full EAF (Part 1)

Full Environmental Assessment Form (FEAF) Workbook

E3 a. Is the project site, or any portion of it, located in a designated agricultural district certified pursuant to Agriculture and Markets Law, Article 25-AA, Section 303 and 304?
If Yes, provide county plus district name/number: _____

Agricultural Districts

SEQR includes evaluation of potential impacts on agriculture, especially those lands included in a New York State Agricultural District. Agricultural Districts are established per Article 25-AA of the Agriculture and Markets Law. The process to designate these districts includes landowner initiative, preliminary county review, adoption by the county, and state certification. Agricultural Districts have been established in most counties of the State and should not be confused with local agricultural zones, which are established through local zoning laws, and are not the subject of this question.

The purpose of agricultural districting is to support the continued use of farmland for agricultural production. The Agricultural Districts Law includes a combination of landowner incentives and protections, all of which are designed to forestall the conversion of farmland to non-agricultural uses. Included in these benefits are: preferential real property tax treatment (agricultural assessment and special benefit assessment), protections against overly restrictive local laws, government funded acquisition on construction projects, and private nuisance suits involving sound agricultural practices.

The Agricultural Districts Law also establishes a land classification system used to assign agricultural assessment values to qualified properties, creates a process for review of agricultural practices, discourages private nuisance lawsuits, provides advisory opinions on agricultural uses, and requires disclosure to prospective buyers or grantees of real property that is in an agricultural district.

Answering Question E.3.a.



To determine if the proposed project site is located within a NY Agricultural District, you can use the EAF Mapper to answer this question. The answer to these questions will be automatically inserted on the pdf generated by the EAF Mapper and a report generated. If the project site is within a designated agricultural district, the EAF Mapper will check "yes" on the FEAF Part I pdf. If yes, the EAF Mapper will also add in the county and agricultural district number. If the project site is not within a designated agricultural district, the EAF Mapper will check 'no'. If the applicant or project sponsor believes the answer filled out by the EAF Mapper is incorrect, supplemental information should be provided that explains that discrepancy.

If the applicant is going to use the EAF Mapper to help fill out any portions of Part 1, they should use that first before filling out any other portions of the EAF. For more information on the EAF Mapper application, see the EAF Mapper section of the How to Use The EAF Workbooks page.

Applicants can also review the individual county agricultural district information on the NYS Agriculture and Markets Agricultural Districts website. A map showing the name and extent of each district for each county is available for review and download through the Cornell University Geospatial Repository (CUGIR) website linked within the Agricultural District website. Agricultural District maps are also available directly from the CUGIR as downloadable shapefile, PDF or KML files for use with Google Earth. Detailed maps may also be available at the county planning department or Soil and Water Conservation District office.

If there are no NYS Agricultural Districts located on the proposed project site, move on to question E.3.b.

Additional information about agricultural districts can be found in local or county-level agriculture and farmland protection plans, on County websites, or at the NYS Department of Agriculture and Markets, Agricultural Districts website. Keep in mind that NY Agricultural Districts can and do change over time. Lands can be added to each district on an annual basis. Lands can be removed from each district every eight years. It is recommended that applicants check with each County contact shown to confirm the status of the agricultural districts.

Each district is identified by a number. Identify the county and Agricultural District number in the space provided on the form.

E3 b. Are agricultural lands consisting of highly productive soils present?
i. If Yes: acreage(s) on project site? _____
ii. Source(s) of soil rating(s): _____

Agricultural Lands and Highly Productive Soils

For the purposes of a SEQR review, it is suggested that agricultural lands be considered lands that currently have, or have had within the past 5 years, active agricultural activity on them. Land considered to be agricultural lands include, but are not limited to, those described in Agriculture & Markets Law 25-AA, § 301.2, 301.3, 301.13, 301.14, 301.15, and other sections, such as: livestock, woodlands, orchards, vineyards, tree nurseries, equine operations, apiaries, etc.

Highly productive soils are those that are best suited to producing food, feed, forage, fiber, and oilseed crops. In short, they are the best soils for high yields with minimum expense and the least damage to the environment. The US Department of Agriculture has defined several categories of highly productive soils. These include prime farmland, farmland of statewide importance, and unique soils. Some counties have also designated certain soils as those of local importance. Additionally, the NY Department of Agriculture and Markets has created an agricultural land classification system based on soils used in the agricultural assessment program.

Highly productive soils can be defined as those that are identified in a county soil survey as being prime farmlands, farmlands of statewide importance. Also, soil groups identified by the NY Department of Agriculture and Markets as Mineral Soil Groups 1 to 4 are considered to be highly productive soils and can be found on the NYS Agriculture and Markets annual updated master list of agricultural soils.

Answering Question E.3.b.

If no part of the parcel has land currently used or recently used in agriculture (crops, pastures, and woodlands), then move on to question E.3c.

If agriculture is or has recently taken place, use the county soil survey and the State's annually updated "agricultural soils" page to identify highly productive soils in the area.

Note: The terms "Soils of Statewide Importance", "Farmland of Statewide Importance", "Soils of Statewide Significance", and "Farmland of Statewide Significance" are used at various times by different agencies, and sometimes by the same agency in different publications. All four of these terms should be recognized to mean the same thing.

Soil survey information is available at the local County Soil and Water Conservation District (SWCD) office. If the applicant is familiar with soils information, another source to identify and calculate the acreage of highly productive soils is to use the Web Soil Survey (WSS), an online tool operated by the USDA Natural Resources Conservation Service (NRCS). Instruction on website navigation are found below. These soil surveys list and describe the various soil types (soil map units) found throughout the county, along with their characteristics, and a map showing their location. Soil maps are usually overlaid on an aerial photo, helping the applicant find their specific project site location. It is likely that the Soil and Water Conservation District can print out a soil map of the project site and assist in identifying highly productive soils. Identify all soils that are prime farmland, or farmland of statewide Importance or identified as being in mineral soil groups 1 - 4. On the specific Counties most recent New York Agricultural Land Classification page, choose all those mineral soil groups identified as being in 1 to 4 in the column titled "Soil Group".

Check local sources as well because many comprehensive plans, local or county agriculture and farmland protection plans, or open space plans also have information about highly productive soils and agriculture. These could be valuable sources of information for this question.

If any of highly productive soil types exist on the project site, map them on the site plan or other application materials. Once mapped, the acreage of that area can be calculated and evaluated in relation to the proposed project.

Web Soil Survey

Another source to identify and calculate the acreage of highly productive soils is to use the Web Soil Survey (WSS), an online tool operated by the USDA Natural Resources Conservation Service (NRCS).

This site will not have the county specific NYS Agricultural Land Classification information, which can only be found on the NYS Department of Agriculture and Markets website. The Web Soil Survey provides digital versions of all soil survey data and allows the user to specify a specific Area of Interest (AOI), producing a customized summary report of the soils just within that AOI. Information on how to use the Web Soil Survey, including a link to a Getting Started document, is available on the Web Soil Survey home page.

Begin using the Web Soil Survey by clicking the "Start WSS" button on the home page. This will open the map interface. Zoom and pan in to the general location of your project site using the tools along the top edge of the map. When you are at an appropriate scale, you can then use one of the "Define AOI" tools to draw a shape directly on the map that closely matches you project area or tax parcel. Once the AOI is created, clicking on the "Soil Data Explorer" tab will open another set of tabs, which will allow you to access many specific reports that describe detailed attributes of the soils found within the AOI. You can use this information to answer most of the soils related question in the FEAF.

Note: There are portions of Franklin, Lewis and Herkimer County where soil survey information is not available.

After defining an AOI, click on the "Soil Data Explorer" tab, and then the "Suitabilities and limitations for use" tab on the second row. Click on the "Land Classifications" row to expand it, and then the "Farmland Classification: row under that. Run the report by clicking the "View Rating" button.

The report will show the various soil types within the AOI that are classified as Prime Farmland or Farmland of Statewide Importance, and the total acreage for each. To identify soil types on the project parcel, click on the main "Soil Map" tab which will create a map and legend with a list of soils types and percentages within the AOI.

i. acreage(s) on project site?

Calculate the total acreage of highly productive soils located on the project site. If using the Web Soil Survey, simply add up the areas for all of the soils classified as Prime Farmland and Farmland of Statewide Importance, or those in mineral soil groups 1-4.

ii. Source(s) of soil rating(s):

Identify whether the source of soil ratings is from the county soil survey, Web Soil Survey, NYS Agriculture and Markets Agricultural Land Classifications, DEC website, or another information site.

E3 c. Does the project site contain all or part of, or is it substantially contiguous to, a registered National Natural Landmark?
If Yes:
i. Nature of the natural landmark: __ Biological Community __ Geological Feature
ii. Provide brief description of landmark, including values behind designation and approximate size/extent:
_____

National Natural Landmarks

The National Natural Landmarks (NNL) Program recognizes and encourages the conservation of sites that contain outstanding biological and geological resources, regardless of landownership type. It is the only natural areas program of national scope that recognizes the best examples of biological and geological features in both public and private ownership. Participation in the program is voluntary. National Natural Landmarks are selected for their outstanding condition, illustrative value, rarity, diversity, and value to science and education. Sites are designated by the Secretary of the Interior, with landowner concurrence. To-date, nearly 600 landmarks have been designated as NNLs. The National Park Service administers the program. You can learn more about the National Natural Landmarks Program by visiting their website.

Answering Question E.3.c.



The answer to this question will be automatically inserted on the pdf generated by the EAF Mapper and a report generated. If a national natural landmark is in or within 500' of the project site, the EAF Mapper will check "yes" on the FEAF Part I pdf. If yes, the EAF Mapper will add in the name of the natural landmark and its acreage in E.3.c. Note that other parts of this question will still need to be investigated and filled in by the applicant if there is a natural landmark present. If yes, applicants should further evaluate the landmark further to learn if it is in or contiguous to the project site.

If no national natural landmark is in or within 500' of the project site, the EAF Mapper will check 'no'. If the applicant or project sponsor believes the answer filled out by the EAF Mapper is incorrect, supplemental information should be provided that explains that discrepancy.
If the EAF Mapper is not used to fill out any portions of Part 1, the applicant can identify the 27 NNL sites located in New York State by visiting the National Natural Landmark Sites page for NYS. Clicking on the map, or using the drop-down list above the map will lead you to a page that describes each NNL.

E3 d. Is the project site located in or does it adjoin a state listed Critical Environmental Area?
If Yes:
i. CEA name: _____
ii. Basis for designation: _____
iii. Designating agency and date: _____

Critical Environmental Areas

Critical Environmental Areas (CEA's) are specific locations in a town, village, city, county, or the State that have this special designation because they have one or more of the following unique characteristics:

- Are a benefit or threat to human health
- Have an important or unique natural setting (e.g., fish and wildlife habitat, forest and vegetation, open space and areas of important aesthetic or scenic quality)
- Hold important agricultural, social, cultural, historic, archaeological, recreational, or educational values; or
- Have an inherent ecological, geological or hydrological sensitivity that may be adversely affected by any change

Local governments can identify and designate specific areas within their boundaries as CEA's according to 617.14 (g) (link leaves DEC website.) State agencies may also designate geographic areas they own, manage, or regulate. Once an area is designated as a CEA, the reviewing agency must consider the potential impact of any Type I or Unlisted Action on the environmental characteristics of that CEA as part of the determination of significance.

Answering Question E.3.d.



All CEA's designated through the SEQR process (617.14 (g) are identified and filed with New York State. The DEC CEA webpage provides information about, and links to, maps of the CEA's in the State. Check the DEC link to determine if your proposed activity is within or adjoining a CEA. If the list indicates a CEA exists in the general project area, but no map is provided, contact the local municipality to see if a more accurate location is on file.

An example of a Critical Environmental Area is from Warren County. The Town of Queensbury has designated a CEA for the Glen Lake and Surrounding Area to recognize the significance of the lake and surrounding ponds and wetlands.

The answer to this question will be automatically inserted on the pdf generated by the EAF Mapper and a report generated. This resource is buffered, so if the project site falls within the boundaries of a CEA or is

very close to it, the EAF Mapper will check "yes" on the FEAF Part I pdf and fill in the CEA name, the designating agency, date of listing, and the CEA's purpose.

A "yes' answer should be followed up with a check of the DEC CEA webpage to identify the CEA, its boundaries and its true proximity to the listed CEA property. If there is no CEA located within the project boundaries, the EAF Mapper will check "no" on the form. If the applicant or project sponsor believes the answer filled out by the EAF Mapper is incorrect, supplemental information should be provided that explains that discrepancy.

CEAs are often a work in progress, so it is advisable to check with your local government to see if any CEAs are being developed or proposed.

E3 e. Does the project site contain, or is it substantially contiguous to, a building, archaeological site, or district which is listed on, or has been nominated by the NYS Board of Historic Preservation for inclusion on, the State or National Register of Historic Places?
If Yes:
i. Nature of historic/archaeological resource: __ Archaeological Site __ Historic Building or District
ii. Name: _____
iii. Brief description of attributes on which listing is based:
_____

Registers of Historic Places

The National Park Service's National Register of Historic Places is a national program designed to identify, evaluate, and protect America's historic and archeological resources. The National Register is the official Federal list of districts, sites, buildings, structures, and objects significant in American history, architecture, archeology, engineering, and culture. Listing in the National Register of Historic Places provides formal recognition of a property's historical, architectural, or archeological significance based on national standards used by every state.

The State Register of Historic Places is the official list of districts, sites, buildings, structures, and objects, significant in the history, architecture, archeology, engineering, and culture of New York. The same eligibility criteria are used for both the State and National Registers. The State Historic Preservation Office (SHPO) helps communities identify, evaluate, preserve, and revitalize these resources. The State register website may have more up-to-date information than the National register site, but both may be useful to provide information for this question.

Historic properties include buildings, prehistoric and historic archeological sites, structures, objects, historic districts, and landscapes. Paraphrasing from the New York State Historic Preservation Plan - 2009 - 2013:

- Buildings are structures built to protect any form of human activity, and include houses, schools, barns, churches, hotels, and similar constructions.
- Structures are distinguished from buildings in that they are usually built for purposes other than creating human shelter. Some examples are bridges, tunnels, fire towers, dams, power plants, earthworks, railroad grades, systems of roadways and paths, boats and ships, railroad locomotives and similar things.
- Sites are locations of significant events, prehistoric or historic occupations or activities, or a buildings or structures, whether standing, ruined, or vanished, where the location itself possesses historic, cultural, or archeological value regardless of the value of any existing structure. Sites are such things as habitation or funerary sites, rock shelters, hunting and fishing sites, ceremonial grounds, battlefields, ruins of historic buildings and structures, shipwrecks, cemeteries, designed landscapes and natural features.
- Objects are distinguished from buildings and structures as those constructions that are primarily artistic in nature or are relatively small in scale as well as simply constructed such as sculptures, monuments, boundary markers, statuary, and fountains.
- Districts possess a significant concentration, linkage, or continuity of sites, buildings, structures, or objects united historically or aesthetically by plan or physical development. Districts include things such as college campuses, downtown business districts, residential areas, industrial complexes, large farms or estates, transportation networks, and large landscaped parks.

Answering Question E.3.e.



The answer to this question will be automatically inserted on the pdf generated by the EAF Mapper and a report generated. If the project site contains, or is within 500' of a building or district listed on the State or National Register of Historic Places, the EAF Mapper will check "yes" on the FEAF Part I pdf. If yes, the EAF Mapper will add in the name of the name of the historic resource. Note that the data does not include archaeological resources listed in the State and National Registers of Historic Places. Nor does it include National Register proposals that have not yet been approved by the State Historic Review Board. If the EAF Mapper returns a 'yes', applicants should investigate other sources of information to complete E.3.iii of the question related to the nature of the historic resource, and to give a brief description of the attributes upon which the listing was based for E.3.e.i and ii.

If no State or National historic resource is identified within the project site, the EAF Mapper will check 'no'. If the applicant or project sponsor believes the answer filled out by the EAF Mapper is incorrect, supplemental information should be provided that explains that discrepancy.

When the EAF Mapper is used to fill out any portions of Part 1, the applicant should use that first before filling out any other portions of the EAF.

To learn more about a historic resource, check the National Register Information System (NRIS). You can search by state, county, or city. The NRIS is arranged by the historic name of the property. If you know the address of the property, but not the historic name, you will have to look at each listing in the county or city.

To find out if a property is listed on the State Register, use the OPRHP Cultural Resource Information System (CRIS)

In addition to these online sources, the local municipality's historian, clerk, or other planning committee may have recent information on historic resources, particularly those that have been nominated for listing, or are in the process of being listed.

If the project site contains, or is it substantially contiguous to, one of the resources mentioned in the question, check 'yes' and supply the information requested in the sub-questions. If no such resources exist, move on to question E.3.f.

You may also want to find out if the local municipality is involved in designating historic properties or identifying properties for possible designation. For example, New York City's Landmark Preservation Commission is actively involved in these activities. For New York City, you can use the Landmark Maps page (NYCityMap) to identify designated properties. Other municipalities may have similar programs.

E3 f. Is the project site, or any portion of it, located in or adjacent to an area designated as sensitive for archaeological sites on the NY State Historic Preservation Office (SHPO) archaeological site inventory?

Archeological resources

In addition to our rich European-American built history, NYS also has a 12,000 year history of Native American activity. These archeological resources are usually not as evident as more recent structures and sites, but they are important resources to preserve, and they are very susceptible to development as they usually lie less than a foot or so below the surface of the ground.

Answering Question E.3.f.



The answer to this question will be automatically inserted on the pdf generated by the EAF Mapper and a report generated. If the project site contains an archaeologically sensitive resource designated on the

SHPO archaeological site inventory, the EAF Mapper will check "yes" on the FEAF Part I pdf. If no archaeological resources are known for that site, the EAF Mapper will return a 'no'.

If the applicant or project sponsor believes the answer filled out by the EAF Mapper is incorrect, supplemental information should be provided that explains that discrepancy.

If the EAF Mapper is not used to answer this question, the CRIS Online Tool can be used to identify areas within NYS that contain archeologically sensitive features. A project sponsor may also wish to contact OPRHP directly.

E3 g. Have additional archaeological or historic site(s) or resources been identified on the project site?
If Yes:
i. Describe possible resource(s): _____
ii. Basis for identification: _____

Additional Historic and Archaeological Resources

The National and State Registers of Historic Places will only include those resources that have gone through an official nominating process. Not all information on historic and archaeological resources has been provided to the State Office of Parks, Recreation and Historic Preservation. In addition to these "official" designations, local municipalities may have identified important places in their comprehensive plans, open space plans, or done an informal inventory of historic resources. The municipality may also have historic archives that contain lists of historically important places. In addition to the online sources mentioned in Questions E.3.e. and f., the local municipality's historian, or historic preservation commission may have information on unlisted historic resources.

Answering Question E.3.g.

If there are additional historic or archaeological resources on the project site that are included in any of these additional sources, but are not included in any of the official registers of historic places, describe the resource, and the basis for its identification (by whom and why it was identified).

E3 h. Is the project site within five miles of any officially designated and publicly accessible federal, state, or local scenic or aesthetic resource?
If Yes:
i. Identify resource: _____
ii. Nature of, or basis for, designation (e.g., established highway overlook, state or local park, state historic trail or scenic byway, etc.):
_____
iii. Distance between project and resource: _____ miles.

Scenic Resources

This question asks for information on those scenic and aesthetic resources that are officially designated and publicly accessible. Officially designated scenic areas include scenic byways, scenic roads, scenic areas of statewide significance, scenic trails, and scenic rivers. Other areas may also be designated at the state level for scenic and aesthetic reasons. Some local municipalities have conducted their own scenic inventory and have designated those areas in county or local plans. Others have designated critical environmental areas for aesthetic reasons. Publicly accessible aesthetic or scenic resources are those that can be viewed from public lands or on public roads.

Answering Question E.3.h.

To answer this question, applicants examine the following to determine if there are any officially designated aesthetic and scenic resources on or near the project site. A visual assessment may be required by the reviewing agency to be conducted to evaluate whether the project site is visible from any publicly accessible location (public lands and public roads).

Scenic Byways

In New York State, there are several types of corridors that fall under the Scenic Byways Program. These include transportation corridors that are of particular statewide interest; some corridors that were automatically designated as Scenic Byways; National Scenic Byways; Parkways; and North Country Touring Routes.

National Scenic Byways (Lakes to Locks Passage, All American Road, Mohawk Towpath Byway, National Scenic Byway, Great Lakes Seaway Trail, National Scenic Byway) are transportation corridors of particular nationwide interest. National Scenic Byways are designated by the United States Department of Transportation's Federal Highway Administration.

The following links will aid you in identifying Scenic Byways that may be affected by your proposed project:

- Current and Proposed New York State Scenic Byways
- New York State Designated Scenic Roads (NYS Highway Law, Article 12-C, Section 349-dd)
- New York State Parkways (State parkways as listed in the regulations of the Commissioner of OPRHP)

Scenic Areas of Statewide Significance

New York State has also designated several areas as part of the Scenic Areas of Statewide Significance (SASS). SASS designation protects scenic landscapes through review of projects requiring State or federal actions, including direct actions, permits, or funding. The first application of the State's scenic assessment program was in the Hudson River Valley coastal region, where six areas in Columbia, Greene, Dutchess and Ulster counties were designated in 1993 as Scenic Areas of Statewide

Significance. In 2010, nine areas totaling more than 25,000 acres on Long Island's East End within the Town and Village of East Hampton were designated as SASSs. The areas in both the Hudson Valley and East End encompass unique, highly scenic landscapes accessible to the public and recognized for their outstanding quality. These designated areas are considered an important indicator of scenic quality and are to be included as a component of the environmental review.

Scenic Rivers

The Wild, Scenic and Recreational Rivers Act (Article 15 of the Environmental Conservation Law) is intended to protect and preserve, in a free-flowing state, those rivers of the state which possess outstanding natural, scenic, historical, ecological and recreational values important to present and future generations. Rivers meeting the Act's criteria may be designated by the State Legislature for inclusion in the program. They are placed within the wild, scenic or recreational categories based upon current land use patterns. A list of rivers designated as scenic can be found on the DEC Wild, Scenic and Recreational Rivers webpage.

National Scenic Trails

National scenic trails are extended trails that closely follow a historic trail or route of travel of national significance. Designation identifies and protects historic routes, historic remnants, and artifacts for public use and enjoyment. The Appalachian Trail that runs for 88 miles through the southern part of NYS is the most well known National Scenic Trail. The North Country National Scenic Trail is the longest National Scenic Trail, stretching 4,600 miles from New York to North Dakota. Maps are available on the DEC website.

State Forest Lands

Some state-owned lands have been classified as part of the State Land Classification System as having scenic and aesthetic characteristics to be preserved.

Local Aesthetic and Scenic Resources and Inventories

Many local communities have done scenic resource inventories as part of a comprehensive or strategic planning process. Applicants should review local documents such as comprehensive plans, open space plans, scenic plans, zoning and other land use regulations, and locally designated critical environmental areas (CEA's).

Some municipalities have also adopted scenic overlay districts that officially designate areas considered to be important local scenic or aesthetic resources. For example, Tompkins County Scenic Inventory has conducted a county-wide inventory. Other local or state laws can include scenic resources such as the Long Island Pine Barrens Protection Act (Environmental Conservation Law Article 57) that includes scenic resources in the class of resources to be considered during preparation of the Central Pine Barrens Plan.

Other communities have established Critical Environmental Areas to identify and protect areas having unique character important to the community. In some cases, county and regional planning agencies may also be of assistance to individual municipalities.

Some state or local parks may also be designated for scenic purposes.

If the project site can be viewed from an officially designated and publicly accessible aesthetic or scenic resource, then check 'yes' and answer the sub-questions. If no such resources exist, move on to question E.3.i.

i. Identify resource:

Use the links and information provided above to identify scenic or aesthetic resources. Include the type and name of the resource. For example, "Black River Trail Scenic Byway."

ii. Nature of, or basis for, designation (e.g., established highway overlook, state or local park, state historic trail or scenic byway, etc.):

Once identified, describe the aesthetic or scenic resource. This should briefly describe the primary reason why that resource was designated and by whom. Applicants should read about the designated resource in order to understand and then summarize the nature of it here.

iii. Distance between project and resource:

Once the designated resource has been identified, applicants should determine how far the project site is from that resource. Calculate the distance between the publicly accessible location(s) of that designated resource and the project site. If the site is visible and it is possible that there may be adverse impacts to the designated aesthetic or scenic resource, then the reviewing agency may require additional information about the project such as the proposed massing and color of buildings, elevation, and context of the surrounding environment. A viewshed analysis may also be required to provide additional information. If there is a need for visual assessment, applicants should follow the existing DEC Program Policy DEP-00-2 "Assessing and Mitigating Visual and Aesthetic Impacts" for methodology and guidance. This policy has been developed for DEC staff but it is also recognized as an acceptable method for conducting visual assessment.

E3 i. Is the project site located within a designated river corridor under the Wild, Scenic and Recreational Rivers Program 6 NYCRR 666?
If Yes:
i. Identify the name of the river and its designation: _____
ii. Is the activity consistent with development restrictions contained in 6NYCRR Part 666?

Wild, Scenic, and Recreational Rivers

The Wild, Scenic, and Recreational Rivers Act (Article 15 of the Environmental Conservation Law) is intended to protect and preserve, in a free-flowing state, those rivers of the state which possess outstanding natural, scenic, historical, ecological and recreational values important to present and future generations. Rivers meeting the Act's criteria may be designated by the State Legislature for inclusion in the program. They are placed within the wild, scenic or recreational categories based upon current land use patterns. A river corridor is defined in 6 NYCRR 666 (link leaves DEC's website) as "the river and the land area in its immediate environs bounded as established by the Commissioner pursuant to section 15-2711 of the Act. Upon designation and until boundaries are established by the Commissioner, the river area shall be that area within one half mile of each bank of the river." Different buffers are established depending on whether the river is designated as wild, scenic or recreational and whether the use is residential or non-residential

Answering Question E.3.i.



The answer to this question will be automatically inserted on the pdf generated by the EAF Mapper and a report generated. If the project site is located in or within 500' of a designed river corridor under the Wild, Scenic and Recreational Rivers Program 6 NYCRR 666, the EAF Mapper will check "yes" on the FEAF Part I pdf. If yes, the EAF Mapper will also add in the name of the designated river. Note that the EAF Mapper will not complete E.3.1.ii as that is project-specific. If the project site is not located in a Wild, Scenic or Recreational River corridor, the EAF Mapper will check 'no'.

If the applicant or project sponsor believes the answer filled out by the EAF Mapper is incorrect, supplemental information should be provided to the reviewing agency that explains that discrepancy.

If the EAF Mapper is not used to answer this questions, the applicant can still evaluate the Wild, Scenic and Recreational Rivers program in order to address the questions asked in the EAF.

Review the list of designated wild, scenic and recreational rivers. If the proposed action is within the river area or the buffer areas as established by DEC then this question should be answered 'yes'. If it is not in a designated river area, then check 'no' and move onto Part 1, Section F.

For additional information, applicants may want to contact the regional DEC office or the Adirondack Park Agency.

i. Identify the name of the river and its designation:

Include the name of the river and identify if the river segment is designated as a wild, scenic or recreational river.

ii. Is the activity consistent with development restrictions contained in 6NYCRR Part 666?

Review 6NYCRR Part 666 (link leaves DEC's website) along with other DEC websites listed above to determine if the proposed project is consistent with requirements. Briefly describe how the proposed project is, or is not, consistent with these requirements. For example, a statement here could be "the site includes a river corridor designated as recreational. All structures and land disturbances will be 200' from the river bank and therefore, the activity is consistent with 6NYCRR Part 666 requirements."

Question F - Additional Information - Full EAF (Part 1)

Full Environmental Assessment Form (FEAF) Workbook

F. Additional Information
Attach any additional information which may be needed to clarify your project.
If you have identified any adverse impacts which could be associated with your proposal, please describe those impacts plus any measures which you propose to avoid or minimize them.

Some of your answers to the questions in the FEAF may not fit in the space provided on the form. In that case, you can make a note in the space provided, referencing the full answer in any attached additional sheets.

If you have incorporated into your project design specific design features that you feel will help avoid or minimize any potential impacts, please attach a narrative discussion of the measures included in your project and how they will help avoid or alleviate those impacts.

Examples

Example 1:

All structures proposed for the multi-family complex will be constructed with LEED Gold standards to promote energy efficiency and green building.

Example 2:

As this project is located within a floodplain and we are aware of the concerns related to the impact this project will have on flood waters and flooding patterns, our application materials include a HEC-RAS Analysis. This is the recognized method for determining impacts on flooding patterns. This analysis is included with our application materials and confirms that there will be no significant impacts to adjacent properties or changes in flood patterns.

Example 3:

During survey work for this project, a vernal pool was identified and subsequently evaluated during March and April to learn what amphibian and other wildlife species use it. Upon finding that it was used for the breeding of Jefferson Salamanders, we have designed the project to leave intact the entire vernal pool and a 700 foot buffer of upland area around it, and have designated that area as permanent preserved open space.

Question G - Verification - Full EAF (Part 1)

Full Environmental Assessment Form (FEAF) Workbook

G. Verification
I certify that the information provided is true to the best of my knowledge.
Applicant/Sponsor Name _____ Date _____
Signature _____ Title _____

When you (the applicant) have completed filling out Part 1, sign and date the form at the end of Part 1.

This form becomes part of the application for approval of your project, and is subject to public review.

The reviewing agency is responsible for filling out Part 2 and Part 3 of the FEAF.

This Page is Left Intentionally Blank

Part 2 - Identification of Potential Project Impacts (FEAF)

Full Environmental Assessment Form (FEAF) Workbook

Part 2 is to be completed by the lead agency.
Part 2 is designed to help the lead agency inventory all potential resources that could be affected by a proposed project or action. We recognize that the lead agency's reviewer(s) will not necessarily be environmental professionals. So, the questions are designed to walk a reviewer through the assessment process by providing a series of questions that can be answered using the information found in Part 1. To further assist the lead agency in completing Part 2, the form identifies the most relevant questions in Part 1 that will provide the information needed to answer the Part 2 question. When Part 2 is completed, the

lead agency will have identified the relevant environmental areas that may be impacted by the proposed activity.

Introduction

The purpose of Part 2 is to use the information from Part 1 to identify potential adverse impacts that need further consideration by the reviewing agency. The questions included in Part 2 are designed to help the reviewing agency identify what, if any, impacts may occur as a result of the project. Part 2 is further used to decide whether those impacts will have no impact or a small impact, or a moderate to large impact. Nothing in this workbook, particularly the guidance offered in Part 2 and 3, is found in regulation. While the EAF's need to be completed according to Part 617 regulations, interpretation on the size or significance of an impact is at the discretion of the reviewing agency.

Completing Part 2 will help identify any topics that need to be discussed further in Part 3. Taken together, Part 2 and Part 3 will help the reviewing agency determine if a negative or positive declaration is appropriate. If a positive declaration is made, parts 2 and 3 will help the reviewing agency develop a list, or 'scope' of environmental topics that will need to be addressed further in an environmental impact statement.

Note that nothing in this workbook, particularly the guidance offered in Part 2 and 3 is found in regulation. While the EAF's need to be completed according to the Part 617 regulations, interpretation on the size or significance of an impact is at the discretion of the reviewing agency.

Importance of Scale and Context

When you have determined that a potential impact may occur, you will also need to decide if that impact will be small or moderate to large. This decision should be based on the magnitude of the potential impact. Magnitude is not just the physical size of the project in feet or acres. Magnitude also considers the scale and context of a proposed project, and severity of that project's impact.

Scale

Scale refers to both the size and the intensity of the project. The scale of a project can be measured several ways. It includes the overall size of the project site, the number of buildings or structures proposed, the size of the parking lot, or the height and other dimensions of buildings. It also refers to features that measure the intensity of the project such as the amount of traffic that will be generated, or the amount of land to be cleared and graded in relation to the entire parcel size.

Context

Context refers to the conditions on the project site and its relation to adjacent parcels, the neighborhood, and the community as a whole. Similar projects in different settings may have very different environmental impacts. For example: construction of a commercial building that is 10,000 square feet in size in a

community that is already developed, has public water, sewer and storm drains, and is on a lot that has already been cleared will have very different impacts than the same sized and scaled project built in a rural, undeveloped community, with no public infrastructure, and little other development nearby. In this example, the scale is similar but the context is very different.

Measuring Impacts

An impact is measured in part, by its magnitude. The magnitude of an impact depends on the overall size, setting, and severity of the impact. A project that will disturb a few hundred square feet of land might be considered small in area, but if it destroys 100% of a rare species habitat, the severity of that impact would be considered large. Likewise, the construction of a warehouse in an established industrial district might be large in area, but the severity of the impact might be considered quite small, or even non-existent.

Part 2 asks reviewing agencies to identify if an impact will occur, and if so, what the size of that impact will be. The magnitude of an impact should be determined based, as much as possible, on the facts provided in Part 1, and on the scale and context of the project. A proposed action could have no impact on the environment, or an impact could be small, or moderate to large. In Part 2 of the FEAF, moderate and large impacts are considered together.

- **No Impact:** No impact will occur if the proposed action is consistent with the community's adopted plan and zoning, does not cause a change in the intensity of land use in the area, does not change the quality of the existing community or its character, does not change or impact any environmental resource or infrastructure, or create a hazard to human health as identified in Part 1.
- **Small Impact** These are impacts that are minor in magnitude and that have small or limited effects on environmental resources. Small impacts may also occur when an impact is limited to a small area. Small impacts are usually isolated, of minimal size, intermittent or short in duration (days to weeks), and do not affect rare or unusual species, habitats, or other resources. Small impacts include those that would generally be considered negligible and minor. These are often impacts from activities or resources that are not regulated or protected by any local, state or national agency.
- **Moderate Impact:** These are impacts that are moderate in magnitude and that have more impact on environmental resources. Moderate impacts can also occur when the impact affects a larger part of the parcel or even extending to a small area just beyond the parcel. Moderate environmental impacts may be either isolated (only in one location), or of regional concern (in a larger area). They generally are longer lasting (duration measured in weeks or several months), are often reversible and can be more readily addressed through mitigation measures or project changes. The resources affected often have broader local or regional concern and often are activities or resources that are regulated or protected by some local, state, or national agency.

- **Large Impact:** These are impacts that are severe in magnitude or cover larger areas in the neighborhood or community. The environmental impacts anticipated could be irreversible, challenging to mitigate, of wide regional scale, or of long duration. A large impact may also be unlikely to occur, but if it does, would be very damaging to the environment. The resources affected often have broader local or regional concern and often are activities or resources that are regulated or protected by some local, state, or national agency.

These descriptions of no or small impact, and moderate and large impacts are not always clearly defined, however. An impact to a very small area that is home to a rare species would generally be considered a large impact because it could severely impact that rare species. And a project that affects many acres may not affect any resources. When evaluating whether a proposed action has an impact, and if so, how large it is, the reviewing agency must consider the size, scale, magnitude, and resources in and around the location together.

Instructions for Completing Part 2

It is the reviewing agency's responsibility to answer all Part 2 questions, 1 through 18.

If the reviewing agency is a state agency (link leaves DEC website) **and** the action is in any Coastal Area, the reviewing agency must complete the Coastal Assessment Form before proceeding with this assessment.

See the Coastal Assessment page for further instructions.

You should use information submitted by the applicant or project sponsor in Part 1 to answer these questions. That includes additional information that may be submitted by the applicant. The reviewing agency can request clarification or expansion of information submitted in Part 1 if it is needed to answer the questions in Part 2. New information that is requested could come from currently existing or readily available sources, or site specific information collected as part of a survey, inventory, or other data collection. It is not intended that exhaustive new studies on all resources be required to complete Part 2. If, after your analysis, the reviewing agency finds that there is potential for at least one or more moderate to large impacts, Part 3 will be used to examine the impacts in more detail and a determination of the significance of those impacts will be made.
You may find it helpful to follow these steps to complete the Part 2 questions:

- Review answers to Part 1, questions A through G. This will help you become familiar with the project area. If you feel there is missing or incorrect information, you can request clarification or additional information from the project sponsor or applicant.
- Use the sub-questions to help you decide the size of a potential impact. Keep in mind that these sub-questions are meant as examples of impacts. Reviewing agencies should consider all the impacts of

the specific project even if these sub-questions are not relevant. If other impacts are identified, use the 'other impacts' sub-question for those that are not otherwise captured in the examples provided on the form.

- Be sure to consider all components and phases of the proposed activity in the Part 2 evaluation. The responsibility of the reviewing agency is to evaluate potential impacts from the entire project, even if some components are proposed to be years apart.
- Consider long-term, cumulative, and direct impacts. Some actions may have short-term impacts (for a few days, weeks or months) which improve quickly and thus may be of minor or negligible importance in a long time frame. Conversely, other actions may last for many months or be permanent.
- Cumulative impacts are those reasonably foreseeable impacts that result from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency or person undertakes such other action. Reasonably foreseeable is when something is sufficiently likely to occur within the projected build year(s).
- Reviewing agencies should consider impacts, that when added to other existing or future projects will cumulate into larger ones. For example, if a project was to construct a new coal fired electric generating unit, but it is adjacent to an existing electric generating plant, the project would be constructed with the allowance for expansion, and in the same industrial district, there is also an operating ethanol plant, there is a potential for cumulative impacts above and beyond those that may occur as the result of the proposed project alone. In that example, the cumulative impacts on air quality, traffic, and water may be significant.
- Impacts can also be either direct or indirect. Direct impacts are those that are caused by the action and occur at the same time and place. Examples of direct impacts would be traffic noise, alteration of visual character, changes in traffic patterns, or filling a wetland.
- Indirect impacts are those that may be caused by a project, but occur at a different time or place. Indirect impacts may include growth-inducing effects, cumulative impacts, and other effects related to changes in the pattern of land use, population density or growth rate and related effects on air and water and other natural systems.
- Many of the sub-questions contain thresholds for impacts. DEC established these thresholds in consultation with experts in various fields. For example, 1 (d) asks if the proposed action may involve the excavation and removal of more than 1,000 tons of natural material. The 1,000 tons establishes a threshold. These thresholds are intended to scale potential impacts or to separate out actions with relatively minor impacts from ones that may have larger impacts. The thresholds are not absolute, but if an impact is below a particular threshold it helps the reviewing agency to answer that a particular impact is more likely to be small. It will be important to evaluate impacts in the context of the community in Part 3, but this is to be done only where the reviewing agency has determined that an impact may be moderate to large. If the numeric threshold is exceeded in a question, the reviewing

agency should check "moderate to large impact may occur". If a potential impact could occur but does not exceed the threshold, check "no, or small impact may occur." Please be aware that there could be deviations from these thresholds and impact assignments. If so, explain in Part 2. For example, an action below a threshold will result in a potentially large impact. Usually context will play a role in such decisions.

- Using the workbook web pages as a guide, work through answering questions 1 through 18. Each question page includes references to pertinent Part 1 questions, and a process for deciding if there is any impact, and if so, what the magnitude of that impact might be.
- Fill in the Part 2 table on the FEAF.
    - Check 'No or small impact may occur' if you determine that there will be no impact or only a small impact to that resource.
    - Check 'Moderate to large impact may occur' if you determine there may be a moderate to large impact to that resource

Each of the Part 2 questions explores a different environmental topic. These topics, in general are:

Question 1: Impact on Land
Question 2: Impact on Geological Features
Question 3: Impacts on Surface Water
Question 4: Impact on Groundwater
Question 5: Impact on Flooding
Question 6: Impacts on Air
Question 7: Impact on Plants and Animals
Question 8: Impact on Agricultural Resources
Question 9: Impact Aesthetic Resources
Question 10: Impact on Historic and Archeological Resources
Question 11: Impact on Open Space and Recreation
Question 12: Impact on Critical Environmental Areas
Question 13: Impact on Transportation
Question 14: Impact on Energy
Question 15: Impact on Noise, Odor, and Light
Question 16: Impact on Human Health
Question 17: Consistency with Community Plans
Question 18: Consistency with Community Character

Moving on to Part 3

When the Part 2 table is complete, proceed to Part 3.

- If you checked "No or small impact may occur" for **all** eighteen questions in Part 2, then you are only required to check the "this project will result in no significant adverse impacts on the environment" line from Part 3, fill out the reviewing agency information, date, and sign the form.
- If you checked "Moderate to large impact may occur" for any question in Part 2, then each of these will need additional evaluation in Part 3. Part 3 will help the reviewing agency decide if the impacts identified are significant, whether impacts will be avoided or substantially mitigated, and whether or not to require an environmental impact statement.

Full EAF (Part 2) Coastal Assessment Form

Full Environmental Assessment Form (FEAF) Workbook

If the lead agency is a state agency and the action is in any Coastal Area, complete the Coastal Assessment Form before proceeding with this assessment.



Coastal Areas of New York State (highlighted in yellow)

The first step in the Part 2 evaluation is to determine if the Coastal Assessment Form (Leaves DEC's website) also needs to be completed. This only applies if the lead agency is a State Agency, and the proposed action is in a NYS coastal area. Towns, villages, cities, and counties are not considered state agencies under SEQR, and therefore are not required to complete the Coastal Assessment Form even if the project is located in a coastal area.

If the reviewing agency is not a state agency, or the proposed project is not in a coastal area, the coastal assessment form does not need to be completed, and the reviewing agency can move on the answering Part 2 question 1.

If the reviewing agency is a state agency and the proposed project is in a coastal area, the coastal assessment form must be completed before answering any Part 2 questions.

A map of NYS's coastal area can be found on the NYS Department of State website, as well as a list of Coastal waterbodies and designated inland waterways. It is beyond the scope of these workbooks to provide assistance with the coastal assessment form, and with ensuring consistency with state coastal policies and local waterfront revitalization plans. More information on the requirements for consistency review can be found on the NYS DOS website.

Whether or not an EIS is prepared, a State agency shall not make a final decision regarding an action until the agency makes a written finding that its action is consistent with State coastal policies, or an approved LWRP.

When you are done filling out the Coastal Assessment form, move on to question 1.

Question 1 - Impact on Land - Full EAF (Part 2)

Full Environmental Assessment Form (FEAF) Workbook

Proposed action may involve construction on, or physical alteration of, the land surface of the proposed site.



Concurrent mine reclamation
McEwan Mining
East Concord, Cattaraugus Co., N.Y

This question asks the reviewing agency to evaluate the potential impacts of any physical alteration of the land. This would include grading, clearing, filling, excavation, and construction of any structure on the land. Some examples of projects that would not include any physical alteration are Adoption of a comprehensive plan, the initial adoption of zoning regulations, the acquisition or sale of land, or the adoption of a local law.

To answer this question

Review Part 1 questions C.1., D.1., and D.2.

If the proposed project does not involve any physical alteration of the land, then check 'No' and move on to question 2. If the proposed project does involve some physical alteration, check 'Yes' and answer sub-questions (a) through (h).

Identifying potential impacts

The reviewing agency should evaluate the following sub-questions and decide if there will be any impact. If there will be an impact, the reviewing agency must then evaluate the magnitude of that impact, and decide if the impact will be small or moderate to large. This will depend on the overall scale and context of the proposed project as described in the Introduction to Part 2. The reviewing agency should be reasonable when conducting this review.

- If the proposed project exceeds a numeric threshold in a question, it is presumed to be a moderate to large impact.
- If the proposed project does not exceed a numeric threshold in a question, the reviewing agency should consider the scale and context of the project in determining if an impact may be small or moderate to large.
- These sub-questions are not meant to be exhaustive. The reviewing agency should use the "Other impacts:" sub-question to include any additional elements they feel need to be analyzed for potential impacts.

a. The proposed action may involve construction on land where depth to water table is less than 3 feet.

Ground water and water table are directly related. Part 2 question 4 specifically asks about impacts on groundwater. Some of the information, analysis, and impacts will overlap with that question. It is up to the reviewing agency to decide if they want to address these issues in question 1, 4, or both. However, if potable water will be involved or may be impacted, Question 4 must also be answered.

If construction will take place on lands having shallow depth to water table, then there is likely to be some level of impact. Construction in areas where the depth to water table is less than three feet can cause flooding of basements, storage tanks, underground utilities, waste dumps, and septic tank absorption fields. In addition, it may be difficult to provide stormwater management controls to meet SPDES permit requirements (runoff reduction). Rises in water tables or changes to surface water runoff can mobilize contaminants and threaten local groundwater quality. Contaminants can move into other subsurface facilities and into surface waters, causing health and safety problems. Although shallow ground water is not generally important for water supply, under certain conditions, contaminated shallow ground water may mix with water in underlying aquifers and degrade the quality of drinking and irrigation water.

Applicable Part 1 Information

D.2.a., D.2.p., D.2.q., D.2.r., D.2.s., D.2.t., E.2.d. and E.2.e.

Analysis

In order to decide if impacts will occur, the reviewing agency should look at the available information and ask:

- If the average depth to water table is less than 3 feet, what, if any portion of the land disturbance will be located in those locations?
- What portion of the land disturbance will be located where project site soils are poorly drained?
- Will surface water flows be altered?
    - If so, will it affect any stream, wetland, lake or other surface water body on or near the project site?
- Will any alteration affect any groundwater resources?

Will there be an impact?

If the depth to water table is greater than three feet and there will be no excavation on the project site that will lessen the depth to water table, or no proposed activities are planned for locations having shallow water tables, there will be no related flooding, contamination, or groundwater impacts, so check 'no, or small impact may occur'.

Small Impact:

Proposed projects that include minor levels of disturbance in areas having a water table close to the land surface are likely to have only a small impact. Examples would be:

- Disturbance of land, including stormwater mitigation practices, is limited to areas without high water table
- Disturbance to land, including stormwater mitigation practices, will remain close to the surface, but above the water table
- Minor excavation that avoids high water table
- Commercial application of pesticides.

Moderate to Large Impact:

Proposed projects that are much larger in scale, where areas of shallow depth to water table is extensive and unavoidable and where there is a higher potential for water pollution could have a moderate to large impact. Some examples that might fall into this category are:

- Major excavation that does not avoid high water table
    - Residential development with full basements and high water table.
- Mining activity, especially one that requires a DEC Mined Land Reclamation Permit for being larger than 5 acres and not privately operated on private land.
- Activity that does not have equilibrium between amounts of groundwater withdrawals and recharge.

- Water supply or sewage treatment is at an off-site location.
- A project where solid or hazardous waste production, storage, or disposal takes place.
- A project where storage of bulk petroleum or chemical products takes place.

b. The proposed action may involve construction on slopes of 15% or greater.

Construction on steep slopes (greater than 15%) can result in adverse impacts including land slippage, erosion, changes to stormwater runoff quantity and location, visual impacts, and safety issues for vehicular access. Upstream and downstream habitats and resources can be affected by erosion and sedimentation. Unstable soils can cause landslides or slippage after construction, creating ecological damage as well as unsafe conditions. Construction on steep slopes can change the pattern of runoff and the quantity of runoff, thus impacting soil stability and down slope areas. Steep slopes are usually part of a significant landscape characteristic (including the ridgelines) that when altered, can change the visual quality of the area. Providing access for sites on steep slopes can cause any of the above issues as well as be a safety issue.

Applicable Part 1 Information

D.2.a., D.2.e., E.2.b., E.2.f., and E.2.h.

Analysis

- Are there any portions of the site having slopes 15% or greater?
- Will any construction or land disturbance take place on those steep slopes?
- Is there potential for erosion from steep slope areas?
- Are there any water bodies that could be affected by erosion?
- Will a structure be placed on the slope or on the ridge top?
- How would this affect the visual quality of that area?

Will there be an impact?

If there are no slopes greater than 15% on the parcel, or no proposed activities are planned for locations on the parcel having steep slopes, there will be no steep slope related erosion, runoff, or visual impacts, so check 'no, or small impact may occur'.

Small Impact:

Proposed projects that disturb limited areas of land having slopes greater than 15% are likely to have only a small impact. Examples would be:

- Only a small portion of the site contains slopes of 15%, and building is limited.

- Any cut and fill needed can be done without creating slopes greater than 15% with appropriate erosion control measures.
- Visibility will not be increased due to position on a slope.

Moderate to Large Impact:

Proposed projects that are much larger in scale, where there are extensive areas of slopes greater than 15%, that are unavoidable, where there is a higher risk of stormwater runoff and erosion impacting valley streams and waterbodies, or where the project is on a site that is highly visible could have a moderate to large impact. Some examples that might fall into this category are:

- Extensive excavation on steep slopes where cut and fill will leave slopes steeper than exist now.
- Removal of large areas of vegetation on steep slopes from the site.
- Building on steep slopes next to streams or river banks with a history of unstable soils.
- Visibility will be increased due to position on a slope.

c. The proposed action may involve construction on land where bedrock is exposed, or generally within 5 feet of existing ground surface.

Construction in areas where bedrock is exposed or soils are shallow may mean that conventional septic systems cannot be properly built, or that difficulties could arise for placement of utilities and basements. Shallow soils may also cause problems with meeting stormwater permit requirements.

Applicable Part 1 Information

E.2.a., and E.2.b.

Analysis

- Is the average depth to bedrock less than 5 feet?
- Are there any bedrock outcroppings located on the site?
- Will any land disturbance take place on locations having shallow bedrock or bedrock outcroppings?
- Will blasting occur?
    - If yes, will that create fracturing of bedrock that would allow water or pollutants to percolate into groundwater?
    - Are there any nearby uses that might be affected by such blasting?

Will there be an impact?

If there are no areas having exposed or shallow bedrock, or no proposed activities are planned for locations on the parcel having exposed or shallow bedrock, there will be no related groundwater impacts, so check 'no, or small impact may occur'.

Small Impact:

Small impacts may occur where exposed or shallow bedrock is present and the proposed project disturbs only a limited area by excavation and where no blasting occurs. An example would be:

- Structures such as fences, accessory structures, parking areas, or limited disturbances take place on areas where there is shallow bedrock.

Moderate to Large Impact:

Proposed projects in locations with soils highly susceptible to erosion or extensive areas of shallow or exposed bedrock, where land disturbance to those areas are large or unavoidable, can result in moderate to large impact related to water runoff, fracturing bedrock etc. Some examples that might fall into this category are:

- A project where there is a need to blast in order to develop the site as proposed, resulting in fractures to the bedrock.
- The site is located over limestone bedrock known to have numerous caves, cracks, and sinkholes that impact the projects ability to meet SPDES permit requirements..
- Projects that are large in size that may change stormwater runoff patterns, and remove trees and vegetation that serve to hold soils in place.
- Engineering and added cost to extend infrastructure through difficult conditions such as
  - Roads
  - Water and sewer lines
  - Electric and gas services
- Need to blast in order to develop the site as proposed, resulting in fractures.

d. The proposed action may involve the excavation and removal of more than 1,000 tons of natural material.

This question explores whether any mining is proposed to take place. A Mined-Land Reclamation permit is required for all excavations and related activities defined as mining, from which more than 1,000 tons or 750 cubic yards, whichever is less, of a mineral(s)is (are) removed from the earth during twelve successive calendar months. This is approximately equal to 40-50 tandem-axle (10-wheeler) dump truck loads.

Mining includes

- The extraction of overburden and minerals from the earth
- The preparation and processing of minerals, including any activities or processes used for the extraction or removal of minerals from their original location

- The preparation such as washing, cleaning, crushing, stockpiling or other processing at a mine location that makes a mineral suitable for commercial, industrial, or construction

Some activities may still require evaluation, although not require a MLR Permit, such as:

- Manufacturing processes utilizing mined materials that are undertaken at the mine location
- Excavation, removal, and placement of minerals in the undertaking of a construction project, but generally not including the construction of a water body; and
- The excavation, removal, and placement of minerals undertaken strictly to aid in enhancing the agricultural utility of existing agricultural lands

Project applicants who answer yes to this question may want to contact the DEC Mined Land Reclamation Specialist located in the appropriate regional office that covers the project site for a determination on the applicability of the mined land reclamation law.

Applicable Part 1 Information

D.2.a., D.2.b.(ii), D.2.b.(iii), E.2.d., and E.2.e.

Analysis

- Does Part 1 D2a (ii) indicate that more than 1,000 tons of natural material will be removed?
- What materials will be removed?
- How long will removal take?
  - All at once or in phases over time?
- What impact will that removal have on habitats and ecology of the area?
- Where will removed materials be deposited?
  - On site or off site?
  - If off site, how much trucking will be required?
- Are any erosion control methods proposed?

Will there be an impact?

If no excavation is planned, there will be no related impacts, so check 'no, or small impact may occur'.

Small Impact:

Proposed projects that excavate small quantities of natural materials on an infrequent seasonal basis or that result in limited excavation in support of site construction could have small impacts. Examples would be:

- Excavation and removal of less than 1,000 tons of natural material.
  - Such as a small scale gravel or sand mining operation

- removal of no more than 1,000 tons from the site over the life of the mine or project, but occurring over a period of years.

- Excavation that is needed during the construction phase of a project that requires removal of excavated material off-site.

Moderate to Large Impact:

Proposed projects that are much larger in scale, that have long-term or multi-phased excavations, and that are near sensitive environmental features may have a moderate to large impact. Some examples that might fall into this category are:

- Multi-phased developments that take place over many years and where many tons of material are removed.
  - Multi-phase residential.
  - Gravel mine.
- Single-phase development, with concentrated timeline for excavation.
  - 24-hour operation.
- Excavations that are large and deep so that there may be an effect on nearby water wells.
- Large excavations that have potential impacts such as noise, air pollution, visual impacts due to changed landscapes and community character, introduction of large scale land uses that are in sharp contrast to existing uses, or removal of vegetation that will result in fragmentation of habitats.

e. The proposed action may involve construction that continues for more than one year or in multiple phases.

Construction that takes more than a year or that has multiple phases can cause impacts related but not limited to: ongoing traffic disruptions, use of heavy equipment with high noise levels, stockpiles of soils and materials and other visual signs of construction that result in longer-term visual changes to the character of the area, or other ongoing noise or odor nuisances.

Applicable Part 1 Information

D.1.e.

Analysis

- What is the total time frame for the project and how many phases are planned?
- What adjacent land uses may be affected by that long-term construction?
  - How would they be affected?

Will there be an impact?

If the project will be completed within one year of approval or if there is only one phase to the project, there will be no related impacts, so check 'no, or small impact may occur'.

Small Impact:

Examples of phased projects that would have a small impact could be:

- Construction that occurs in multiple phases, but the overall level of activity will not be substantially different from a single phase project
- Construction will continue for more than one year, but activity will be intermittent.
    - There will be spurts of activity for less than 2 months at a time, perhaps seasonally for one or two years.

Moderate to Large Impact:

- Construction that occurs over multiple phases, over many years should be considered long-term.

f. The proposed action may result in increased erosion, whether from physical disturbance or vegetation removal (including from treatment by herbicides).

Applicable Part 1 Information

D.1.b., D.2.a., D.2.b., D.2.e., D.2.q., and E.2.f.

Analysis

- Is the project required to create and implement a SWPPP?
- How much of the parcel will have impervious surfaces?
- How much of the parcel will be physically disturbed or have vegetation removed?
- What proposed activities could cause erosion?
- Are there streams, wetlands, lakes, or steep slopes on the parcel or nearby that could be affected by erosion from the site?
- What measures are proposed to limit erosion impacts?

Will there be an impact?

If no erosion is likely to occur from physical disturbance or vegetation removal, there will be no related water quality impacts so check 'no, or small impact may occur'.

Small Impact:

Proposed projects that disturb limited areas of land subject to erosion (e. g. stable soils, areas having slopes greater than 15%) are likely to have only a small impact. Examples would be:

- Stormwater discharges will take place but it will not flow to adjacent properties and the project minimizes stormwater runoff.

- The project includes land clearing that disturbs less than one-acre of land (or less than 5,000 square feet in the New York City - East of Hudson watershed) and does not require a SWPPP.
- The project includes some paving or construction of other impervious surfaces, but runoff is either controlled with a SWPPP, or covers a small percentage of the parcel.

Moderate to Large Impact:

Proposed projects that are much larger in scale and where larger volumes of stormwater will be created and managed could have a moderate to large impact. However, some smaller sized projects that do not need to meet NY stormwater permitting requirements may also have moderate to large impacts especially if the water body being affected is significant. Some examples that might fall into this category are:

- No SWPPP has been developed, and stormwater discharges will flow to adjacent properties and negatively impact that property or other natural resources off-site, such as wetlands, reservoirs, or protected streams.
- Stormwater will impact an important aquatic habitat for rare, endangered or threatened species.
- Stormwater will prevent the designated best use of Class A, B, or C(t) waterbodies.
- Large areas of vegetation will be removed from the site.
- Large portions of development will occur on steep slope areas.

g. The proposed action is, or may be, located within a Coastal Erosion hazard area.



Coastal Erosion

Applicable Part 1 Information

B.i. D.1.a., D.2.a., D.2.b., and D.2.e.

Analysis

- What coastal resources are likely to be impacted if erosion takes place?

- Is the project required to create and file a SWPPP?
- How much of the parcel will be impervious surfaces?
- How much of the parcel will be physically disturbed or have vegetation removed?
- What proposed activities could cause erosion?

Will there be an impact?

If the proposed project site is not located in a designated coastal erosion hazard area, there will be no related coastal erosion impacts so check 'no, or small impact may occur'.

Small Impact:

Examples would be:

- Development will occur within the coastal hazard area, but will not disturb any natural protective features, or existing erosion protection structures.
- Structures placed within the coastal hazard area are portable, temporary, or can be removed when hazard levels rise.

Moderate to Large Impact:

Examples would be:

- Development will occur within the coastal hazard area, and will require the removal of some natural vegetation which has been identified as a protective feature.
- A project will disturb or remove dunes, natural vegetation or other similar natural protective barriers.
- Large areas of impervious surfaces or other structures that will increase stormwater runoff are proposed.
- Development will require construction of new erosion protection structures.

h. Other impacts:

There may be other impacts identified by the reviewing agency that are not addressed by the above questions. If so, they should be identified and briefly described here.

Some proposed actions may have beneficial impacts on the environment. The reviewing agency can use the 'other' category for that purpose, too.\

Question 2 - Impact on Geological Features - Full EAF (Part 2)

Full Environmental Assessment Form (FEAF)

The proposed action may result in the modification or destruction of, or inhibit access to, any unique or unusual land forms on the site (e.g., cliffs, dunes, minerals, fossils, caves).

This question asks the reviewing agency to evaluate potential impacts to unique or unusual land forms, and National Natural Landmarks. This includes any alteration to the landform itself, or a change in access to the landform.

To answer this question

Review Part 1 questions E.2.g. and E.3.c.

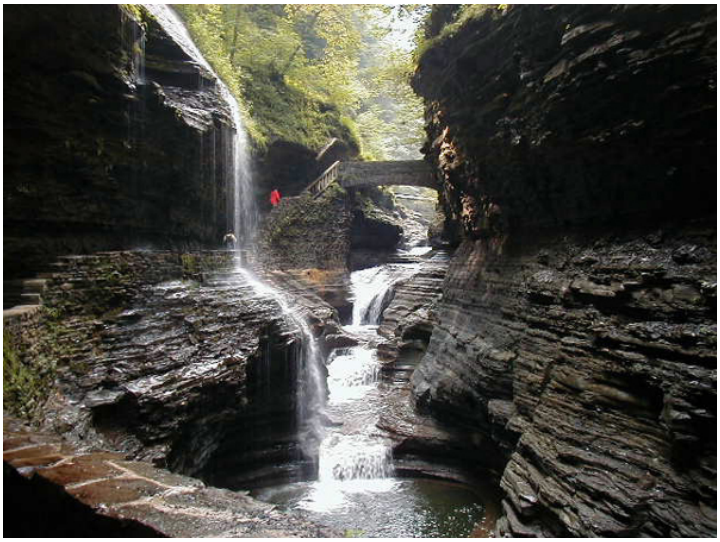
If the proposed project site does not contain nor is it adjacent to any unique geologic features or National Natural Landmarks, then check 'No' and move on to question 3. If the proposed project site does contain any of these features, or is adjacent to a National Natural Landmark, check 'Yes' and answer sub-questions (a) through (c).

Identifying potential impacts

The reviewing agency should evaluate the following sub-questions and decide if there will be any impact. If there will be an impact, the reviewing agency must then evaluate the magnitude of that impact, and decide if the impact will be small or moderate to large. This will depend on the overall scale and context of the proposed project as described in the Introduction to Part 2. The reviewing agency should be reasonable when conducting this review.

- If the proposed project exceeds a numeric threshold in a question, it is presumed to be a moderate to large impact.
- If the proposed project does not exceed a numeric threshold in a question, the reviewing agency should consider the scale and context of the project in determining if an impact may be small or moderate to large.
- These sub-questions are not meant to be exhaustive. The reviewing agency should use the "Other impacts:" sub-question to include any additional elements they feel need to be analyzed for potential impacts.

a. Identify the specific land form(s) attached:



Watkins Glen

The NYS Unique Geologic Landforms project is a joint venture between the NYS DEC and the New York State Museum - Office of the State Geologist. This project identifies and inventories over 600 New York State unique land formations such as cliffs, dunes, waterfalls, erratic rocks, gorges, glacial features, and caves. These unique resources provide a variety of benefits to the community. They can provide learning opportunities for geologists and other scientists, habitats for rare animal and plant species, and recreational opportunities for the public.

Applicable Part 1 Information

E.2.g.

Analysis

- Are there any land formations on the project site that are listed in the NYS DEC and State Geologist's database?
- What is the basis for the feature's inclusion in the list?
  - What is it that makes it unique?
- Are there any locally designated or officially recognized unique landforms or geologic features on the site?
  - Examples of these might be features or locations listed in a municipal comprehensive plan or open space plan.
- Does the proposed project make any physical alterations to any of these landforms?
- Is the feature currently publicly accessible, either physically, or visually?
- Will the proposed project cause any change in access to the unique land form?

Will there be an impact?

If there are no unique landforms located on the project site, check 'no, or small impact may occur'.

Small Impact:

Examples of small impacts would be:

- Land forms are located on the project site but the project will not affect the reason the feature was included in the database.
  - The proposed project will not affect the "setting" of the feature.
- There will only be a temporary limitation of access to the feature during the construction phase.

Moderate to Large Impact:

Projects may have moderate to large impacts if:

- There will be a severe limitation or elimination of access to the site containing the feature.
- There will be alteration to physical aspects of the feature in any way.
- The setting of the feature will be physically altered, or new structures will affect the aesthetic character and setting of the feature.

b. The proposed action may affect or is adjacent to a geological feature listed as a registered National Natural Landmark. Specific feature:

The National Natural Landmarks (NNL) Program recognizes and encourages the conservation of sites that contain outstanding biological and geological resources. NNLs are designated by the Secretary of the Interior to recognize some of the best examples of these resources in the nation. Some NNLs are the best remaining examples of a type of feature in the country and sometimes in the world. NNL designation does not impose any new land use restrictions that were not in effect before the designation.

Applicable Part 1 Information

E.3.c.

Analysis

- Are there any National Natural Landmarks on or adjacent to the project site?
- What are the reasons for this feature being registered in the NNL?
- Does the proposed project make any alterations to the physical characteristics of a NNL?
- Is the NNL currently publicly accessible, either physically, or visually?
- Does the proposed project site currently provide physical or visual access to the NNL, even if it is located on an adjacent property?
- Will the proposed project cause any change in physical or visual access to the NNL?

Will there be an impact?

If there are no NNLs on or adjacent to the project site, check 'no, or small impact may occur'.

Small Impact:

Temporary disturbances that are limited in size are likely to have only a small impact. Examples would be:

- Land forms are located on the project site but the project will not affect the reason the feature was included in the database.
  - There will be no effect on the "setting" of the feature.
- There will only be temporary limitation of access during the construction phase.

Moderate to Large Impact:

Examples of potential moderate to large impacts may be:

- Severe limitation or elimination of access to the site containing the feature.
- Alteration of physical aspects of the feature in any way.
- The project will affect the "setting" of the feature, including the aesthetic characteristics.
- The project removes or obstructs the physical structure of the NNL so that it no longer meets the original criteria upon which the features was designated a NNL.

c. Other impacts:

There may be other impacts identified by the reviewing agency that are not addressed by the above questions. If so, they should be identified and briefly described here. Some proposed actions may have beneficial impacts on the environment. The reviewing agency can use the 'other' category for that purpose, too.

Question 3 - Impacts on Surface Water - Full EAF (Part 2)

Full Environmental Assessment Form (FEAF) Workbook

The proposed action may affect one or more wetlands or other surface waterbodies (e.g., streams, rivers, ponds or lakes).



Upper and Lower Lakes
Wildlife Management Area
St. Lawrence County, New York

This question asks the reviewing agency to evaluate the potential impacts to any wetland or other surface waterbody including streams, rivers, ponds, and lakes. Actions would include activities that disturb the land such as removing vegetation; increasing or decreasing the size of a waterbody; creating new water bodies; and grading, clearing, filling, or excavating within or adjoining a waterbody. It also includes activities that would cause erosion, withdraw water, discharge wastes into the waterbody, or degrade water quality.

To answer this question

Review Part 1 questions D.2., E.1.b., and E.2.h.

If the proposed project site has no wetlands or other surface water bodies, or is an action that would not affect any waterbodies that may be present, then check 'No' and move on to question 4. If the project site contains wetlands or other surface waterbodies and the proposed action could affect the resource in some way, check 'Yes' and answer sub-questions (a) through (l).

Sub-questions (a) through (h) are similar in that they are all oriented to help the reviewing agency evaluate impacts on surface waterbodies. The actions explored in these questions cover activities that have the potential to adversely impact water quality and water ecosystems. Of prime concern are those actions that cause a loss of vegetation and wildlife habitat, erosion and sedimentation which degrades water quality and aquatic habitats, changes to the character of an area, changes in downstream water quality and ecology, or fragmentation of river and stream systems. Some actions can result in the trapping of nutrients and sediments that alters downstream ecosystems. Changes to surface water bodies can also change the water table, which could make water less accessible to plant roots and drinking water wells.

Identifying potential impacts

The reviewing agency should evaluate the following sub-questions and decide if there will be any impact. If there will be an impact, the reviewing agency must then evaluate the magnitude of that impact, and

decide if the impact will be small or moderate to large. This will depend on the overall scale and context of the proposed project as described in the Introduction to Part 2. The reviewing agency should be reasonable when conducting this review.

- If the proposed project exceeds a numeric threshold in a question, it is presumed to be a moderate to large impact.
- If the proposed project does not exceed a numeric threshold in a question, the reviewing agency should consider the scale and context of the project in determining if an impact may be small or moderate to large.
- These sub-questions are not meant to be exhaustive. The reviewing agency should use the "Other impacts:" sub-question to include any additional elements they feel need to be analyzed for potential impacts.

a. The proposed action may create a new water body.

b. The proposed action may result in an increase or decrease of over 10% or more than a 10 acre increase or decrease in the surface area of any body of water.

New water bodies can be created by damming streams and rivers, channeling water from wetlands, or even from surface runoff, by grading and land shaping activities that create new basins for water to collect in. Some new water bodies use groundwater sources such as springs. Creation of ponds, lakes, and reservoirs, or other land alterations that create new waterbodies are all activities that could have impacts.

Increasing or decreasing the surface area of waterbodies by over 10% or more than 10 acres mean it is more likely that adverse impacts to water quantity or quality, aquatic ecosystems, and downstream or upstream locations could occur. A change to the surface area of any body of water likely means that land disturbances or alterations of existing water flow are taking place. Physical changes to the land can occur with dredging, excavation, land filling, vegetation removal, or even changing streams or channel locations to feed or remove water sources. Applicants will need to provide measurements showing the percent or acreage of the surface waterbody to be increased or decreased.

Applicable Part 1 Information

D.1.b., D.1.h., D.2.a., D.2.b., D.2.e., E.1.b., E.1.e., E.2.d., E.2.h., E.2.i., E.2.j., and E.2.k.

Analysis

- What is the purpose of the activity and how will it be carried out?
  - What structures will be built to contain the water?
  - How large will the new water body be?
- What impacts may occur as a result of construction?

    - What natural habitats may be removed or flooded?
- After construction, what other resources including fish and wildlife, water supplies, changes to water chemistry, or changes upstream or downstream will result?
- What source of water will be used or changed, and does using that water affect other existing needs and uses of that water?
    - Will it affect other surface water bodies?
- Does the proposed activity occur in a floodplain or floodway, and if so, does it affect the functioning of that natural system?
- Are pollutants, including sediments being introduced into the waterbody and if so, how does that affect the ecology or use of that water?
- Are permits from other agencies required to conduct the activity?
- Will activities in or around a waterbody use or release any chemicals or contaminants?
- Are any methods proposed to use best management practices or mitigate potential adverse impacts?

Will there be an impact?

a. If no new water bodies will be created, there will be no related impacts. Check 'No, or small impact may occur'.

b. If the surface area of an existing water body will not be increased, there will be no related impacts. Check 'No or small impact may occur."

Small Impact:

Temporary changes or changes that are limited in size made to non-regulated water bodies may have only a small impact. Examples would be:

- A small water body is created or changed:
- The surface area of an existing water body will increase or decrease, but not by more than 10% or 10 acres.
- The waterbody being affected is not a regulated water body.
- The impact is isolated to the project site, is of minimal size, and does not adversely affect rare or unusual or listed species, habitats, or critical environmental areas.

Moderate to Large Impact:

Large and permanent changes made to a water body may change the ecology, water quality, use, or aesthetics of that waterbody and may have moderate to large impacts. Examples would be:

- The surface area of an existing water body will increase or decrease in size by more than 10% or more than 10 acres.

- The impact extends beyond the project site.
- There will be an impact to a resource that is of special value to the local community as identified in an open space or land use plan.
- If the water body is a habitat for a listed species or significant habitat, there may be moderate or large impacts even if it is changed by less than 10% or less than 10 acres.
- The waterbody is a regulated water body.
- The project will sever connections (such as diverting a stream) so that it changes a downstream wetland or other surface water body.

c. The proposed action may involve dredging more than 100 cubic yards of material from a wetland or water body.

Dredging is an integral part of the maintenance of New York's harbors, channels, fairways, canals, marinas, ports, terminals, and reservoirs. The term dredging includes all in-water activities designed to move or remove sediment. For further information on dredging, see the DEC technical and operational guidance document: In-Water and Riparian Management of Sediment and Dredged Material. Examples of dredging activities include but are not limited to mechanical and hydraulic dredging, mechanical plowing, trenching and jetting.

While dredging ultimately can serve an important function, there are potential impacts associated with it including but not limited to erosion, sedimentation, release of pollutants and chemicals, and changes in aquatic habitats. Applicants will need to provide measurements on how much material will be dredged from a wetland or water body in order to evaluate this question.

Applicable Part 1 Information

D.1.b., D.1.h., D.2.a., D.2.b., D.2.e., E.1.b., E.2.h., E.2.i., E.2.j., and E.2.k.

Analysis

- How much of the area will be dredged?
  - How much material will be dredged and removed?
- Will any significant fish or wildlife habitats be removed?
- How will water turbidity impacts be limited or eliminated?
- Where will dredged materials be removed to?
  - On site or off site?
  - What de-watering techniques will be used?
- Will important wildlife habitats be harmed or removed?
- What is the purpose of the activity and how will it be carried out?

- After construction, what other resources including fish and wildlife, water supplies, changes to water chemistry, or changes upstream or downstream will result?
- Does the proposed activity occur in a floodplain or floodway, and if so, does it affect the functioning of that natural system?
- Are permits from other agencies required to conduct the activity?
- Will activities in or around a waterbody use or release any chemicals or contaminants?

Will there be an impact?

If the proposed action does not involve dredging of a wetland or waterbody (stream, lake, pond, or reservoir), there will be no related adverse impacts. Check 'no, or small impact may occur'.

Small Impact:

Temporary changes or changes that are limited in size made to non-regulated water bodies may have only a small impact. Examples would be:

- The waterbody to be dredged is not a regulated waterbody.
- Dredging removes less than 100 cubic yards from a wetland or waterbody.

Moderate to Large Impact:

Examples of moderate to large impacts may be:

- When more than 100 cubic yards of material from a wetland or waterbody will be dredged.
- When the waterbody is a regulated waterbody.

d. The proposed action may involve construction within or adjoining a freshwater or tidal wetland, or in the bed or banks of any other water body.



Woodland Pool wetland

Construction in and around freshwater or tidal wetlands requires NYS DEC and US Army Corps of Engineer freshwater wetlands or tidal wetlands permits. Disturbances to the stream bed or banks may

also require a protection of waters permit. A Protection Of Waters Permit is required for disturbing the bed or banks of a stream with a classification and standard of C(T) or higher (disturbance may be either temporary or permanent in nature). Actions that disturb wetlands, streams and other water bodies can result in adverse impacts such as erosion, sedimentation, loss of aquatic and other wildlife habitats, changes to down or upstream ecosystems, changes in water quality or quantity, and a reduction or loss of the important functioning of these natural systems.

Applicable Part 1 Information

D.1.b., D.1.h., D.2.a., D.2.b., D.2.e., E.1.b., E.2.h., E.2.i., and E.2.k.

Analysis

- How much of the area will be dredged?
  - How much material will be dredged and removed?
- Will any significant fish or wildlife habitats be removed?
- How will water turbidity impacts be limited or eliminated?
- Where will dredged materials be removed to?
  - On site or off site?
  - What de-watering techniques will be used?
- Will important wildlife habitats be harmed or removed?
- What is the purpose of the activity and how will it be carried out?
- After construction, what other resources including fish and wildlife, water supplies, changes to water chemistry, or changes upstream or downstream will result?
- Does the proposed activity occur in a floodplain or floodway, and if so, does it affect the functioning of that natural system?
- Are permits from other agencies required to conduct the activity?
- Will activities in or around a waterbody use or release any chemicals or contaminants?

Will there be an impact?

- If the proposed action does not involve construction within or adjoining a freshwater or tidal wetland, or in the bed or banks of any other water body there will be no related adverse impacts. Check 'no, or small impact may occur'.

Small Impact:

Temporary changes or changes that are limited in size may have only a small impact. Examples would be:

- Construction removes a minor amount of vegetation and the stream or wetland is not in a floodway or 100 year floodplain.
- The project includes land clearing that disturbs less than 1 acre of land and does not require a SWPPP.
- The project includes some paving or other impervious surfaces, but runoff is either controlled with a SWPPP or covers a small percentage of the parcel.
- Construction disturbs a minor amount of stream bed or banks.
- The waterbody is not a regulated waterbody or is not known as a habitat for listed species or is a significant habitat.

Moderate to Large Impact:

Examples of moderate to large impacts include;

- The project is in a floodway or 100 year floodplain and is likely to change floodwaters, water flow or drainage to the water body.
- The construction will change drainage patterns and result in water flow to adjacent properties or to areas that previously have not flooded.
- Construction removes a moderate to large amount of streamside, lakeside or wetland vegetation.
- A project changes the stream or lake bed and removes or changes pools, riffles, water flow, or vegetation in or along the bank or shore of a waterbody.

e. The proposed action may create turbidity in a waterbody, either from upland erosion, runoff or by disturbing bottom sediments.

Turbidity is when water becomes muddy and has sediments suspended in it. Turbidity results when soils are eroded and carried into a waterbody by stormwater runoff. It can also occur when stream, wetland and lake bottom sediments are disturbed. Turbidity can increase water temperatures which makes it less suitable for fish and aquatic animals. Turbid water reduces the amount of sunlight that reaches aquatic plants and sediments can clog fish gills or bury fish eggs. It also changes the aesthetic character of a waterbody and can damage equipment and motors. Actions that cause turbidity often relate to development, dredging, urban land-use, agriculture, and timber harvesting. While the physical impact of soil erosion and sedimentation affects aquatic resources and degrades water quality, the effects are magnified when rural and urban runoff carries contaminants associated with sediments.

Applicable Part 1 Information

D.1.b., D.1.h., D.2.a., D.2.b., D.2.e., E.1.b., E.2.h., E.2.i., E.2.j., E.2.k.,a., E.2.o., and E.2.p.

Analysis

- Will there be any dredging of an existing waterbody?
  - How much material will be dredged and removed?
- Will any significant fish or wildlife habitats be removed?
- How will water turbidity impacts be limited or eliminated?
- Where will dredged materials be removed to?
  - On site or off site?
  - o Are disposal locations known?
  - What de-watering techniques will be used?
- How is erosion proposed to be controlled?
- What is the purpose of the activity and how will it be carried out?
- After construction, what other resources including fish and wildlife, water supplies, changes to water chemistry, or changes upstream or downstream will result?
- Are permits from other agencies required to conduct the activity?

Will there be an impact?

If the proposed action does not include any activities that will create turbidity in a waterbody, or there are no waterbodies on or near a project site that could be affected by sedimentation or runoff, there will be no related turbidity impacts. Check 'no, or small impact may occur'.

Small Impact:

Turbidity that is of a temporary nature and easily controlled with erosion controlled methods and limited in size and scope may have only a small impact. Examples would be:

- First and foremost, there should be no visible contrast in the water as a result of the proposed methods.
- Actions result in temporary and minor turbidity affecting only a small portion of the water body and takes place during construction phase only.
- Turbidity impacts will be limited to a short time period or during the time of year that does not affect vegetation or wildlife.
- The waterbody is not a regulated waterbody.
- There are no listed species, significant habitats, critical environmental areas, etc. associated with the waterbody.

Moderate to Large Impact:

Examples of moderate to large impacts are:

- Implementation of practices to avoid turbidity are note well represented and this impact may affect a large portion of the waterbody or affect a downstream waterbody.
- Turbidity results from both construction and operation phases of the project.
- Turbidity impacts are long-lasting or during the time of year that will affect the health and growth of vegetation and wildlife.
- The waterbody is a regulated waterbody.
- There are listed species, significant habitats, critical environmental areas, etc. associated with the waterbody.
- The waterbody is part of a larger complex of inter-connected water systems.

f. The proposed action may include construction of one or more intake(s) for withdrawal of water from surface water.

Water intake facilities can be located on rivers, estuaries, and marine environments. It is usually associated with provided water for domestic water supply facilities, irrigation systems for agriculture, power plants, and industrial process users. Water is diverted directly from the waterbody by means of pumping facilities or is stored in impoundments or reservoirs. Water withdrawn from estuarine and marine environments may be used to cool coastal power generating stations, as a source of water for agricultural purposes, and more recently, as a source of domestic water through desalinization facilities.

Water intake structures can interfere or disrupt ecosystem functions in the source waters, as well as downstream water bodies such as estuaries and bays. Long-term water withdrawal may adversely affect fish and shellfish populations and with high volume withdrawals, can trap and impinge fish and invertebrates, alter natural flow rates, degrade shorelines and riparian habitats, and can alter the aquatic community structure and diversity of species.

Applicable Part 1 Information

D.2.a., D.2.b., D.2.c., E.2.h., E.2.i., E.2.j., E.2.k., E.2.n., E.2.o., and E.2.p.

Analysis

- Will the water body and its adjacent banks, shores, or lands will be physically disturbed to install the withdrawal intakes?
- What impacts may occur as a result of construction in or near the waterbody?
- After construction, what other resources including fish and wildlife, water supplies, changes to water chemistry, or changes upstream or downstream will result?
- Does using that water affect other existing needs and uses of that water?

- Does the proposed activity occur in a floodplain or floodway, and if so, does it affect the functioning of that natural system?
- Are permits from other agencies required to conduct the activity?
- What affect will a water withdrawal have on the surface water body?
  - Will it change water levels, temperature, chemistry, turbidity, or flow?
- Are any methods proposed to use best management practices or mitigate potential adverse impacts?

Will there be an impact?

If the proposed project does not include construction of intake(s) for withdrawal of water from any surface water body, there will be no related impacts. Check 'no, or small impact may occur'.

Small Impact:

Temporary and small volume intakes of water, along with limited land disturbances needed for construction of intakes may have only a small impact. Examples would be:

- Water withdrawal intakes are temporary, such as several times during the summer season.
- Projects where there are no high volume withdrawals.
- Withdrawals that do not result in altered flow rates, or degraded shorelines, stream bottoms or riparian habitats.
- Projects that do not change the overall health of the aquatic community or species diversity.

Moderate to Large Impact:

Examples of moderate to large impacts are:

- Water withdrawals are used long-term for water supplies, irrigation, power plants and industrial uses.
- There are long-term or high volume withdrawals.
- Withdrawals could result in altered flow rates, could degrade shorelines, stream bottoms or riparian habitats, or change the ecological community.

It should be noted that interbasin diversion of water or wastewater of 1,000,000 gallons per day or more, likely requires registration per NYS DEC NYCRR Part 601.18. In addition, new or increased interbasin diversion of water or wastewater out of the Great Lakes Basin is prohibited except for limited public water supply projects (per NYCRR Part 601.18(j)). The DEC Division of Water should be contacted if this is a component of the project proposal.

g. The proposed action may include construction of one or more outfall(s) for discharge of wastewater to surface water(s).

Outfalls for discharge of wastewater would be considered a point-source of pollution. Not all point-source discharge results in adverse impacts to aquatic organisms or their habitats. Most point-source discharges are regulated by the DEC under the SPDES permit program and the effects on receiving waters are considered under this permitting program. Point source discharges may change habitats by creating adverse impacts to sensitive areas such as freshwater, estuarine, and marine wetlands; emergent marshes; and submerged aquatic vegetation beds and shellfish beds. When there is a high velocity of the discharge, scouring of the bed may occur causing turbidity.

The discharge of effluent from point sources can cause numerous habitat impacts such as changes to sediments, temperatures, current patterns or water salinity. There can be a loss of habitat, or a conversion to other types of species. For example, this can occur when freshwater is introduced into estuary areas. Temperature changes, increased turbidity, and the release of contaminants can also result in the reduced use of an area by marine and estuarine species and their prey and impede the migration of some fishes. Areas surrounding the discharge pipes may not support a healthy, productive community because of physical and chemical alterations of the habitat.

Applicable Part 1 Information

D.2.b., D.2.d., E.2.d., E.2.h., E.2.i., E.2.j., and E.2.k.

Analysis

- Will any part of the water body and its adjacent bank, shore, or land be physically disturbed?
- What impacts may occur as a result of construction in or near the waterbody (i. e. non-contact cooling water or washwater from an industrial process)?
- After construction, what other resources including fish and wildlife, water supplies, changes to water chemistry, or changes upstream or downstream will result?
- Do discharges in that water affect other existing needs and uses of that water?
- Does the proposed activity occur in a floodplain or floodway, and if so, does it affect the functioning of that natural system?
- Are pollutants, including sediments being introduced into the waterbody and if so, how does that affect the ecology or use of that water?
- Are permits from other agencies required to conduct the activity?
- Will activities in or around a waterbody use or release any chemicals or contaminants?
- What affect will a water discharge have on the surface water body?
    - Will it change water levels, temperature, chemistry, turbidity, or flow?
- Are any methods proposed to use best management practices or mitigate potential adverse impacts?

Will there be an impact?

If the proposed project does not include construction of outfall(s) for discharge of water to any surface water body, there will be no related impacts. Check 'no, or small impact may occur'.

Small Impact:

Temporary changes or changes that are limited in size made to non-regulated water bodies may have only a small impact.

- Discharge is low flow so that there is no change to bottom sediments, water temperatures, or changes in water chemistry or turbidity is an example.

Moderate to Large Impact:

Examples of moderate to large impacts are:

- Discharge is moderate to high flow in volume and it will likely result in scouring of bottom sediments, changes in water temperatures, changes in water chemistry and increases in turbidity.

h. The proposed action may cause soil erosion, or otherwise create a source of stormwater discharge that may lead to siltation or other degradation of receiving water bodies.

Sediment entering a water body can negatively impact both water quality and quantity in many ways. Siltation may reduce water storage capacity, recreational use such as boating. It can also stimulate aquatic weed and algae growth and degrade fish habitats. Siltation can also degrade the appearance of the waterbody because it can result in muddy water or visible sand bars.

Applicable Part 1 Information

D.1.b., D.1.h., D.2.a., D.2.b., D.2.e., E.1.b., E.1.e., E.2.d., E.2.h., E.2.i., E.2.j., E.2.k., E.2.n., E.2.o., and E.2.p.

Also: Water Discharge Permits

Analysis

- How much of the water body and its adjacent banks, shores, or lands will be physically disturbed?
- Are activities proposed that could increase erosion such as removal of vegetation, grading etc.
- What impacts may occur as a result of construction in or near the waterbody?
- After construction, what other resources including fish and wildlife, water supplies, changes to water chemistry, or changes upstream or downstream will result?
- Are pollutants, including sediments being introduced into the waterbody and if so, how does that affect the ecology or use of that water?
- Are permits from other agencies required to conduct the activity?
- Will activities in or around a waterbody use or release any chemicals or contaminants?

- Are any methods proposed to use best management practices or mitigate potential adverse impacts?

Will there be an impact?

If the action is one that will not cause soil erosion, or result in stormwater runoff that could impact surface waterbodies (wetlands, ponds, rivers, streams, lakes, etc.) there will be no related impact. In that case, check 'no, or small impact may occur'. Note however, that even land clearing that does not meet the thresholds of requiring a DEC SPDES permit may create some stormwater runoff that eventually finds its way to a surface water body. Reviewing agencies should carefully evaluate erosion and stormwater potential and impacts on surface waterbodies off-site.

Small Impact:

Isolated, temporary changes or disturbances that are limited in size may have only a small impact. Examples would be:

- The impact is isolated to the project site, is of minimal size, and does not adversely affect rare or unusual species, habitats, wetlands, or critical environmental areas.
- Less than 1 acre of land is to be disturbed and no SWPPP is required.
- There are no chemicals or other pollutants used on site that would impact surface waterbody chemistry, vegetation, or wildlife species.
- Runoff will be temporary and easily controlled with erosion control devices.

Moderate to Large Impact:

When moderate to large areas of vegetation are removed and soils exposed, erosion and stormwater discharges may cause siltation. Examples of projects that may result in moderate to large impacts are:

- When many impervious surfaces such as large parking lots and large scaled buildings are planned, where there is risk that such runoff will affect downstream waterbodies.
- A project where there are chemicals used or there is a risk of a spill on site that may become a water pollutant.

i. The proposed action may affect the water quality of any water bodies within or downstream of the site of the proposed action.

This question has similar components as Part 2, Question 3 (h). However, this question explores impacts beyond erosion. Reviewing agencies should evaluate if the action could impact water quality in ways other than erosion such as by adding fertilizers, detergents, phosphorus, petroleum products, cleaners or other chemicals to discharges or runoff.

Stormwater runoff comes from rain and snowmelt that flows over land or constructed surfaces such as paved streets, sidewalks, parking lots and rooftops and that does not seep into the ground. When this

happens, the water picks up and moves chemicals, nutrients, sediments or other pollutants and debris along with it. If this stormwater runoff is not slowed and captured before it flows into lakes, rivers, and wetlands, it can negatively impact water quality.

Pollution transported by stormwater degrades the quality of drinking water, and damages fisheries and habitats of plants and animals that depend on clean water for survival. Pollutants carried by stormwater can also affect recreational uses of water bodies by making them unsafe for wading, swimming, boating and fishing.

For additional information see also the Stormwater pages.

Other water quality impacts would include changes in temperature, or spikes in water volume flows, changes to the pH or dissolved oxygen levels, addition of suspended solids, or changes to water odor, color or taste. Water quality can also be impaired by actions that introduce or cause bacteria such as coliform or e. coli, or change other water chemistry.

Applicable Part 1 Information

a, D.1.h., D.2.a., D.2.b., D.2.d., D.2.e., E.1.b., E.1.e., E.2.h., E.2.i., E.2.j., E.2.k., E.2.n., E.2.o., and E.2.p.

Analysis

- How does the activity affect water quality including temperature, odor, color, taste, turbidity, and the chemical composition?
- Is the proposed activity likely to introduce coliform or other bacteria to the water?
- What impacts may occur as a result of these changes in water quality?
- Are pollutants, including sediments being introduced into the waterbody and if so, how does that affect the ecology or use of that water?
- Are permits from other agencies required to conduct the activity?
- Will activities in or around a waterbody use or release any chemicals or contaminants?
- Are any methods proposed to use best management practices or mitigate potential adverse impacts?

Will there be an impact?

If the action is one that will not cause any water quality impacts within or downstream from the action there will be no related impact. In that case, check 'no, or small impact may occur'. Note however, that even land clearing that is less than 1 acre and does not need to meet the DEC SPDES requirements is likely to create some stormwater runoff that eventually finds its way to a surface water body. Further, many small actions can impact water bodies. For example, removing some streamside vegetation can increase the amount of sunlight reaching a surface water body and that can raise the temperature, making it difficult for cold water fish species to survive. Reviewing agencies should carefully evaluate water quality changes on surface waterbodies off-site.

Small Impact:

Temporary changes or changes that are limited in size made to isolated non-regulated water bodies may have only a small impact. Examples would be:

- Water quality impacts may occur temporarily such as during a short construction season.
- The water body is isolated and not connected to a larger hydrogeological system.
- The water body is not part of a regulated waterbody.

Moderate to Large Impact:

Examples of moderate to large impacts may be when:

- Water quality impacts resulting from the project may occur frequently, or long-term.
- Impacts occur as part of both construction and operation phases.
- Affected waterbodies are interconnected and part of a larger system.
- Waterbodies are regulated.
- Chemical and physical indicators of water pollution such as change in temperature and pH, or use of nitrates, pesticides, or heavy metals are likely to be measured as a result of the proposed project.

j. The proposed action may involve the application of pesticides or herbicides in or around any water body.

Pesticides vary in their toxicity to humans and other animals. Some are not as toxic to humans and other mammals, but are quite toxic to fish and invertebrates. The term pesticide' includes those 'herbicides' which are targeted to kill vegetation. Pesticides can kill plants and animals as well as attach to soil particles and accumulate in waterbodies and their sediments. When herbicides are used, aquatic and terrestrial life can be impacted both by the direct toxic action of the herbicide, as well as by the actual removal of aquatic vegetation itself. Aquatic vegetation is an integral component of an aquatic ecosystem. Fish, reptiles, amphibians, aquatic birds, aquatic mammals, and invertebrates rely on aquatic vegetation for shelter, protection, spawning substrate, and food.

Applicable Part 1 Information

D.1.b.,D.2.q. E.1.b., E.2.d., and E.2.h.

Also see:

- Part 325 Regulations (link leaves DEC's website)
- Questions and Answers about NYS Pest Management

Analysis

- Will any pesticides be introduced to the water?

- If so, from what source?
- What pesticide?

- What impacts do these pesticides have on aquatic ecosystems?
- Is any of the water being affected by pesticides used for drinking water?
- How long and how frequently will the pesticides be used?
- Will pesticides sequester in sediments or be taken up by plants?
  - Or will it stay in the water column?
- Are any methods proposed to use best management practices or mitigate potential adverse impacts?

Will there be an impact?

If no pesticides or herbicides will be applied in or around surface water bodies, there will be no related impacts. Check 'No, or small impact may occur'.

Small Impact:

- Single use or treatment with a pesticide, or for individual residential use may have only a small impact. However, all pesticides have the potential to adversely impact a water body in some manner. Reviewing agencies should carefully examine what type of pesticide, how often they will be used, and what species of plant or animal may be affected in order to determine if the extent of impact is small, or moderate to large.

Moderate to Large Impact:

- When pesticides are applied on or near a surface water body by commercial or recreational users, such as golf courses there is a risk of moderate to large impacts occurring.
- Pesticide is being applied to control an invasive species or reclaim a waterbody.

k. The proposed action may require the construction of new, or expansion of existing, wastewater treatment facilities.

Wastewater treatment is the process of removing physical, chemical, and biological contaminants from sewage. It is essentially a way to speed up the natural purification processes to return the treated water back to the environment with as little impact as possible. Wastewater treatment facilities range from private septic systems to public sewage treatment facilities. Some projects may need a SPDES permit from DEC. SPDES is the NY State Pollutant Discharge Elimination System that controls wastewater discharges. Wastewater treatment utilities meeting the following criteria will need a SPDES permit from DEC:

- Constructing or connecting to an outlet or pipe that discharges more than 1,000 gallons per day of sewage-only wastes to ground water

- Constructing or connecting to an outlet or pipe that discharges industrial or other non-sewage wastes to ground water
- Constructing or connecting to an outlet or pipe that discharges wastewater into any surface water
- Constructing or operating a disposal system such as a sewage treatment plant

Wastewater treatment systems that discharge less than 1,000 gallons per day to groundwater, and that have no industrial or other non-sewage wastes will require approval from the appropriate city or county health department, or the appropriate district office of the New York State Department of Health.

Applicable Part 1 Information

D.1.a., and D.2.d.

Analysis

- How much treated wastewater will be produced?
- What water body will wastewater be discharged into?
- Will construction of the treatment facility impact water quality of the surface water body?
- Does the proposed activity occur in a floodplain or floodway, and if so, does it affect the functioning of that natural system?
- Does discharge from the waste treatment facility also include stormwater?
    - If so, what water quality impacts might that have?
- Will treated wastewater discharge change water levels, temperature, chemistry, turbidity, or flow?

Will there be an impact?

If there will be no construction or expansion of wastewater treatment facilities, there will be no related impacts. Check 'no, or small impact may occur'.

Small Impact:

Wastewater treatment systems that discharge less than 1,000 gallons per day to groundwater, and that have no industrial or other non-sewage wastes may have small impacts.

Moderate to Large Impact:

Examples of moderate to large impacts are:

- Constructing or connecting to an outlet or pipe that discharges more than 1,000 gallons per day of sewage-only wastes to ground water.
- Constructing or connecting to an outlet or pipe that discharges industrial or other non-sewage wastes to ground water.
- Constructing or connecting to an outlet or pipe that discharges wastewater into any surface water.

- Constructing or operating a disposal system such as a sewage treatment plant.

l. Other impacts:

There may be other impacts identified by the reviewing agency that are not addressed by the above questions. If so, they should be identified and briefly described here.

Some proposed actions may have beneficial impacts on the environment. The reviewing agency can use the 'other' category for that purpose, too.

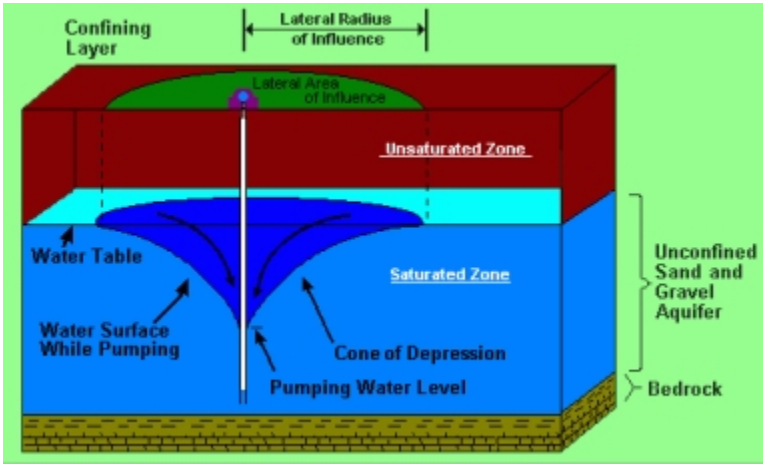
Some examples of other impacts related to surface water may be:

- Altering or disrupting the natural flow of current
- Altering the depth of the water body
- Changing the natural bottom composition
- Disturbing bottom materials that would release sequestered pollutants
- Impacts on surface water supplies that may be used for drinking water

Question 4 - Impact on Groundwater - Full EAF (Part 2)

Full Environmental Assessment Form (FEAF) Workbook

The proposed action may result in new or additional use of ground water, or may have the potential to introduce contaminants to ground water or an aquifer. (See Part 1.)



DEC Groundwater Definitions Page

This question asks the reviewing agency to evaluate potential impacts on the use of, and contamination of, groundwater resources. Groundwater is an important natural resource used by industrial, commercial,

agricultural, and residential uses for manufacturing, irrigation, and drinking water purposes. About one quarter of New York residents rely on groundwater as a source of potable water. Water is not an inexhaustible resource, and proposed actions need to be evaluated for their potential impact on both the quantity and the quality of the groundwater source they may use or affect. Once a groundwater supply is exhausted or contaminated, it is very expensive, and sometimes impossible, to replace.

To answer this question

Review Part 1 questions D.2.a., D.2.c., D.2.d., D.2.p., D.2.q., and D.2.t.

To begin its evaluation, the reviewing agency should ask "Does the proposed action include any of the following:"

- Excavation, mining, or dredging during or after construction?
- A new or additional demand for water?
- A public, private, or commercial potable water source that will be added or impacted by the proposed project?
- Generating any liquid waste, including but not limited to wastewater
- Bulk storage of more than 1,100 gallons of petroleum or chemical products?
- Use of pesticides, herbicides, or insecticides during or after construction of a commercial, industrial, or recreational use?
- Commercial generation, treatment, storage, or disposal of hazardous wastes?

If the answer is no to all of these questions, then check 'No' and move on to question 5. If the answer is yes to any of these questions, then check 'Yes' and answer sub-questions (a) through (h).

The sub-questions in this section can be divided into two groups. Sub-questions a, b, and c focus on the quantity aspects of groundwater. Sub-questions d, e, f, and g focus on potential contamination of groundwater.

Identifying potential impacts

The reviewing agency should evaluate the following sub-questions and decide if there will be any impact. If there will be an impact, the reviewing agency must then evaluate the magnitude of that impact, and decide if the impact will be small or moderate to large. This will depend on the overall scale and context of the proposed project as described in the Introduction to Part 2. The reviewing agency should be reasonable when conducting this review.

- If the proposed project exceeds a numeric threshold in a question, it is presumed to be a moderate to large impact.

- If the proposed project does not exceed a numeric threshold in a question, the reviewing agency should consider the scale and context of the project in determining if an impact may be small or moderate to large.
- These sub-questions are not meant to be exhaustive. The reviewing agency should use the "Other impacts:" sub-question to include any additional elements they feel need to be analyzed for potential impacts.

a. The proposed action may require new water supply wells, or create additional demand on supplies from existing water supply wells.

b. Water supply demand from the proposed action may exceed safe and sustainable withdrawal capacity rate of the local supply or aquifer. Cite Source:

Private and public water supplies often use groundwater as a water source. In order to maintain a sustainable system, the amount of water withdrawn from these groundwater sources must be balanced with the amount of water returned to the groundwater source. This is known as groundwater recharge. In evaluating the magnitude of potential impacts regarding sub-questions a. and b., it is critical for the reviewing agency to understand the balance between withdrawal and recharge, and how the proposed project might affect that balance.

If the proposed project will be connecting to an existing public water supply that uses groundwater as a source, the pumping capacity of the groundwater wells should be capable of supplying the quantity of water required for both the new use and all existing uses. If new wells will need to be added to an existing groundwater supply system, the impact of this additional withdrawal on the groundwater supply should be evaluated. If the withdrawn water will not be returned to the same groundwater source after use, that will affect the balance of the system.

If there are no existing groundwater wells on the site, then some research or testing will likely be needed to evaluate the groundwater capacity. The municipality may have done a hydrogeology study as part of a comprehensive plan, or as a standalone planning effort. Such a study may include recommendations about sustainable water withdrawals or housing densities for various locations throughout the municipality. The municipality may have standard requirements for water well testing for major subdivisions which include well pump test specifications.

As also mentioned in Question 3.f., it should be noted that registration per NYSDEC NYCRR Part 601.18 is required for interbasin diversion of water or wastewater of 1,000,000 gallons per day or more. In addition, new or increased interbasin diversion of water or wastewater out of the Great Lakes Basin is prohibited except for limited public water supply projects (per NYCRR Part 601.18(j)). The DEC Division of Water should be contacted if this is a component of the project proposal.

Applicable Part 1 Information

D.1.f., D.2.c., and E.2.l.

Also: any municipal-wide hydrogeologic studies done, or site-specific well tests performed by the applicant or required by the reviewing agency.

See: NYS Department of Health, Drinking Water Regulations, Part 5, Subpart 5-1, Public Water Systems - Appendix 5B and Appendix 5D

Analysis

- What is the type and size of the use?
  - Does the project make use of groundwater resources, or is it located over or near them.
  - How much water will be used, and for what purpose.
  - What is the capacity of the groundwater source to supply the new or expanded use.
  - Will there be an effect on any existing uses already tapping into the groundwater source.
- Will the water be supplied by an existing system, or will it require a new source?
- If an existing source will be used, will the existing infrastructure (wells) be able to handle the additional withdrawal?
- Is the groundwater source able to supply sufficient capacity for the new or additional demand?
- Is the additional demand placed upon an existing system within the capacity of that system?
- What is the extent of the groundwater source?
  - Is this an aquifer that supplies drinking water to multiple other uses?

Will there be an impact?

If the proposed project will not require any new or additional water supply, check 'No or small impact may occur' for both (a) and (b), and move on to question (c).

Small Impact:

Examples of projects that may have small impacts would be:

- The proposed project does not create a need for new water, or wastewater infrastructure.
- Proposed projects that will connect to an existing public water supply with adequate capacity, and adequate plans for growth.
- The intended water supply is a new ground water well, and there are no known problems with adjacent similar uses using the same ground water supply.

Moderate to Large Impact:

Examples of projects that may have moderate to large impacts would be:

- The water supply demand from the proposed action is expected to exceed the sustainable withdrawal capacity rate of the groundwater source.
- The proposed project will connect to a public water supply that is near full capacity, or the intended ground water source has known limitations.
- The proposed project will result in significant drawdown or reduction in flow of a nearby surface water body.

c. The proposed action may allow or result in residential uses in areas without water and sewer services.

Residential development that occurs outside of water districts and sewer districts will most likely depend on individual drilled wells and onsite septic systems. These types of projects need to be evaluated for adequate ground water supply, and recharge of the groundwater supply from wastewater. Some municipalities may have specific testing requirements in place that outline the number of test wells required based on the number of new residential parcels proposed, and specific well pump testing specifications. Absent these requirements, it will be up to the reviewing agency to determine if the information included in the FEAF is adequate to make such a determination. The reviewing agency should look at the information supplied in Part 1 of the FEAF, including soil drainage and depth to water table attributes, and water well data from any existing wells on the site or surrounding area.

Applicable Part 1 Information

D.1.a., D.2.c., and E.2.l.

Analysis

- What is the type and size of the use?
  - How much water will be used, and for what purpose.
  - What is the capacity of the groundwater source to supply the new or expanded use.
  - Will there be an effect on any existing uses already tapping into the groundwater source.
- Is the groundwater source able to supply sufficient capacity for the new or additional demand?
- Is the additional demand placed upon an existing system within the capacity of that system?
- What is the extent of the groundwater source?
  - Is this an aquifer that supplies drinking water to multiple other uses?
- What is the location of the use in relation to the groundwater source?
  - Will the water be used in the same location it is being withdrawn from?
  - Will the water be returned to the ground in the form of wastewater?
  - Will it be returned to the same location it was withdrawn from?
- What other uses depend on the groundwater source?

- How will the water be disposed of after its use?
  - Will it be disposed of onsite, or off site?
  - What will be the quality of the wastewater be?
- Has there been any evaluation of the groundwater resources of the area?
- Are there any well logs or other documentation of surrounding existing groundwater wells?
- Have there been any pump tests done for existing wells on the property?
- Are the soils on the site conducive to onsite septic systems? Poorly drained, or excessively drained?

Will there be an impact?

If the proposed action does not include building any residential uses in areas without water and sewer services, answer "no or small impact may occur."

Small Impact:

Examples of projects that may have small impacts would be:

- The project is located on a parcel with an existing well, and the capacity of the well is known to be sufficient to supply the project.
- The project is located on a parcel without an existing well, but adjacent properties with similar uses have drilled wells with sufficient capacity, and bedrock geology and soils are similar to the adjacent sites.
- A test well has been drilled, and capacity has been determined to be adequate for the proposed use.

Moderate to Large Impact:

Examples of projects that may have moderate to large impacts would be:

- When a hydrogeology study has determined that the area surrounding the proposed project may not have sufficient groundwater or recharge rates to sustain the proposed project.
- Groundwater resources are highly variable in an area and could be impacted by excessive water withdrawal as determined by examination of well logs or hydrogeology studies. This is of special concern in areas relying on limestone bedrock.
- When a single large user, or many smaller users such as a residential development, relies on groundwater wells without pump testing to determine water capacity or impacts of withdrawals on existing wells.
- When soils have severe limitations for development of septic systems due to slope, wetness, shallowness, or poor percolation.
- Groundwater withdrawal results in significant reduction in storage or flow in a nearby surface water body.

d. The proposed action may include or require wastewater discharged to groundwater.

If the proposed project will involve the use of water, but will not connect to an existing wastewater treatment system, there will likely be some discharge of wastewater to groundwater. The most common example of this is the use of onsite septic systems in residential developments. If this wastewater will be returned to a groundwater source that is also being used for drinking water, careful consideration must be made for potential impacts. If the wastewater will be returned to a different groundwater source than it is being withdrawn from, there may be impacts to the water table.

Applicable Part 1 Information

D.2.d. and E.2.l.

Analysis

- What is the location of the use in relation to the groundwater source?
  - Will the water be used in the same location it is being withdrawn from?
  - Will the water be returned to the ground in the form of wastewater?
  - Will it be returned to the same location it is withdrawn from?
- What is the extent of the groundwater source?
  - Aquifers do not follow property boundaries.
- What other uses depend on the groundwater source?
- How will the water be disposed of after its use?
  - Will it be disposed of onsite, or off site?
  - What will be the quality of the wastewater be?
- Will the additional wastewater affect the water table?
- Can the drainage characteristics of the soils found on the site handle the additional wastewater discharge?

Will there be an impact?

If the proposed action does not include wastewater discharge to groundwater, answer "no or small impact may occur."

Small Impact:

Small impacts could occur when:

- The county soil survey indicates the soil types found on the proposed project site are conducive to onsite septic systems.
- The county health department has approved an onsite septic system location.

- An engineer has designed an onsite septic system in accordance with the requirements of the county health department and the municipalities' requirements.

Moderate to Large Impact:

Examples of projects that may have moderate to large impacts would be:

- The proposed project will require multiple onsite septic systems.
- The proposed project is sited in an area having limestone or highly fractured bedrock where there is risk of widespread movement of contaminants.
- The proposed project will require a community sewage treatment system with a common leach field for multiple residential or commercial uses.

e. The proposed action may result in the construction of water supply wells in locations where groundwater is, or is suspected to be, contaminated.

Operating or closed solid waste facilities, use or disposal of hazardous waste, and history of a spill or accidental contamination on or near the site all pose possible impacts to groundwater, and will affect its potential use as a drinking water or irrigation source.

Applicable Part 1 Information

D.2.c., D.2.p., E.1.f., E.1.g.,E.1.h., and E.2.l.

Analysis

- What is the type and size of the use?
  - Does the project make use of groundwater resources, or is it located over or near them.
  - How much water will be used, and for what purpose.
  - What is the capacity of the groundwater source to supply the new or expanded use.
  - Will there be an effect on any existing uses already tapping into the groundwater source.
- What is the location of the use in relation to the groundwater source?
  - Will the water be used in the same location it is being withdrawn from?
  - Will the water be returned to the ground in the form of wastewater?
  - Will it be returned to the same location it was withdrawn from?
- What is the extent of the groundwater source?
- What other uses depend on the groundwater source?
- Is the proposed project located near an operating or closed solid waste management facility, hazardous waste use or disposal site?

- Is the proposed project located on or near a former agricultural operation with a history of pesticide use?
- Has there been any testing of the soils on the site, or groundwater near the site?
- Will the groundwater withdrawal effect nearby surface water bodies?
- Will water be diverted outside of the Great Lakes basin?

Will there be an impact?

If there are no known possible sources of contamination on the site, or on adjoining sites, answer "no or small impact may occur."

Small Impact:

Small impacts could occur when water supply wells are planned where:

- A small accidental spill has been recorded on the site, but remediation has removed all traces of contamination.
- A hydrogeology study has confirmed that the soils, topography, and distance between a proposed new well site and former municipal land fill offer adequate protection to the proposed drinking water source.

Moderate to Large Impact:

Moderate to large impacts could occur when water supply wells are planed where:

- Groundwater resources are the only source of potable water for an area and it could be impacted by pollution known or suspected to exist in the wellhead area.

f. The proposed action may require the bulk storage of petroleum or chemical products over ground water or an aquifer.

Bulk storage of petroleum or chemical products over groundwater or an aquifer can pose risk and adverse impacts to water quality. This is especially important when land uses in the area rely on those groundwater sources for potable water. Such uses can pose possible impacts to groundwater, and may affect its potential use as a drinking water or irrigation source.

Applicable Part 1 Information

D.2.c., D.2.p., E.1.f., E.1.g.,E.1.h., and E.2.l.

Analysis

- What is the type and size of the use?
  - How many gallons are proposed to be stored?
  - Will there be frequent dispensing of the fuel or chemical such as in a commercial propane fuel depot or gas station?

- What is the location of the use in relation to the groundwater or aquifer source?
  - Will the water be used in the same location it is being withdrawn from?
  - Will the water be returned to the ground in the form of wastewater?
  - Will it be returned to the same location it was withdrawn from?
- What is the extent of the groundwater source?
- What other uses and how many depend on the groundwater source?
- What containment design requirements are proposed?

Will there be an impact?

If there is no petroleum or chemical storage proposed, or the proposed project will not include the storage of more than 1,100 gallons of petroleum products, or 550 gallons of chemical products, answer "no or small impact may occur."

Small Impact:

Small impacts could occur when:

- A hydrogeology study has confirmed that the soils, topography, and distance between a proposed aquifer or groundwater source offers adequate protection to those water sources.
- A petroleum or chemical storage facility is proposed in an area that uses a municipal water supply system so the risk of contamination to potable water is small.
- Site layout and spill containment plans are such that even in the event of a spill, the risk to groundwater and aquifers has been determined to be small.

Moderate to Large Impact:

Moderate to large impacts could occur when:

- The aquifer or groundwater resource is the only source of potable water for residents and businesses and it could be impacted by pollution.
- A new petroleum storage facility is proposed in a rural residential area without access to a municipal water supply system.

g. The proposed action may involve the commercial application of pesticides within 100 feet of potable drinking water or irrigation sources.

The application of pesticides in close proximity to groundwater drinking water sources opens up the possibility of substantial impacts to human health. Conditions of the site will affect the potential for leaching of pesticides into groundwater. These include: depth to groundwater, geologic conditions, topography, climate, and irrigation practices.

Applicable Part 1 Information

D.2.c., D.2.q., E.2.h., and E.2.l.

Cornell University's Fact Sheet: Pesticides and Groundwater: A Guide for the Pesticide User

Analysis

- What is the type and size of the use?
  - Does the project make use of groundwater resources, or is it located over or near them.
- What is the location of the use in relation to the groundwater source?
- What is the extent of the groundwater source?
- What other uses depend on the groundwater source?
- Will the proposed project include the commercial application of pesticides?
- Is there adequate separation between the soil surface and the water table?
- Is there adequate separation between the application sites, and any water withdrawal sites?
- What kind of cleaning, storage, and disposal procedures will be used?
- Will the proposed project use Integrated Pest Management (IPM) (see D.2.q.)

Will there be an impact?

If the proposed action does not involve the commercial application of pesticides, or if there are no drinking water or irrigation water sources on or within 100 feet of the proposed site, answer "no or small impact may occur."

Small Impact:

Small impacts could occur when:

- Storage of pesticides, herbicides or other chemicals will take place, but is done in a completely enclosed structure that meets appropriate storage requirements, and the site is greater than 300 feet from any water body, well or water source used for irrigation or drinking.

Moderate to Large Impact:

Moderate to large impacts could occur when:

- Storage of pesticides, herbicides or other chemicals will take place on a site that is within 100 feet of a water body, well, or surface water source used for irrigation.

h. Other impacts:

There may be other impacts identified by the reviewing agency that are not addressed by the above questions. If so, they should be identified and briefly described here. Some proposed actions may have

beneficial impacts on the environment. The reviewing agency can use the 'other' category for that purpose, too.

Examples of 'other impacts' to groundwater:

- Mining operations may alter hydrology, may place the water table closer to potential contamination, or may change the groundwater recharge rate.

Question 5 - Impact on Flooding - Full EAF (Part 2)

Full Environmental Assessment Form (FEAF) Workbook

The proposed action may result in development on lands subject to flooding.



Floodplains are low-lying lands next to rivers and streams. When left in a natural state, floodplain systems store and dissipate floods without adverse impacts on humans, buildings, roads and other infrastructure. Natural floodplains add to our quality of life by providing open space, habitat for wildlife, fertile land for agriculture, and opportunities for fishing, hiking and biking.

Floodplains can be viewed as a type of natural infrastructure that can provide a safety zone between people and the damaging waters of a flood. But more and more buildings, roads, and parking lots are being built where forests and meadows used to be which decreases the land's natural ability to store and absorb water. Coupled with changing weather patterns, this construction can make floods more severe and increase everyone's chance of being flooded.

Some projects may be outside of a floodplain, but still be in an area with known flooding history. Some projects that disturb more than one-acre may be required to have a stormwater pollution prevention plan (SWPPP) and will need to include engineered or site designed methods to control stormwater.

Development proposed in a floodway or floodplain will need to meet State or local regulations. For more information, see the DEC Floodplain Construction Requirements page.

To answer this question

Review Part 1 questions D.1.h., E.1.e., E.2.e., E.2.h., E.2.i., E.2.j., and E.2.k.

Lands subject to flooding can include:

- Lands in a floodway or floodplain.
- Lands in wetlands or in areas where the water table is less than 3 feet.
- Lands where development will change drainage patterns so as to create the potential for flooding.

If the proposed action will not result in any development of lands subject to flooding, then check 'No' and move to question 6. If the proposed action will result in development of lands subject to flooding, check 'Yes' and answer sub-questions (a) through (g).

Identifying potential impacts

The reviewing agency should evaluate the following sub-questions and decide if there will be any impact. If there will be an impact, the reviewing agency must then evaluate the magnitude of that impact, and decide if the impact will be small or moderate to large. This will depend on the overall scale and context of the proposed project as described in the Introduction to Part 2. The reviewing agency should be reasonable when conducting this review.

- If the proposed project exceeds a numeric threshold in a question, it is presumed to be a moderate to large impact.
- If the proposed project does not exceed a numeric threshold in a question, the reviewing agency should consider the scale and context of the project in determining if an impact may be small or moderate to large.
- These sub-questions are not meant to be exhaustive. The reviewing agency should use the "Other impacts:" sub-question to include any additional elements they feel need to be analyzed for potential impacts.

a. The proposed action may result in development in a designated floodway.

The floodway is that area that must be kept open to convey flood waters downstream. Within an "AE" zone or a numbered "A" zone on a floodplain map, there may be an area known as the "regulatory floodway," which is the channel of a river and adjacent land areas which must be reserved to discharge the 100-year flood without causing a rise in flood elevations. No development is allowed unless the developer has first proven that the development will not increase flood elevations at any location during the 100-year flood.

Applicable Part 1 Information

E.2.i.

Analysis

- Is any part of the proposed action located within the floodway?
- Does the proposal meet the requirements of the local municipality's floodplain management law or ordinance?
- If yes, what type of development or land disturbance is planned for the floodway?
- Do the local floodplain regulations impose more stringent restrictions on floodway development than the State?
- If land disturbance or development is proposed in the floodway, has the developer conducted studies to prove flood elevations will not be increased?

Will there be an impact?

If there is no land disturbance or development of any kind in the floodway, then there will be no related impacts. Check 'No or small impact may occur."

Small Impact:

Some proposed projects that include minor changes to the landscape with non-permanent structures placed in the floodway are likely to have only a small impact. An example would be:

- Utility poles, posts or piers, or elevated structures designed to allow flow underneath.

Moderate to Large Impact:

It is likely that one or more moderate to large impacts could occur under one or more of these circumstances:

- Grading, fill, or land clearing takes place in the floodway.
- Construction of any kind of permeable surface is planned in the floodway.
- Construction of any structure that impedes or changes drainage patterns or water flow is planned in the floodway.
- Construction of piers, weirs, docks, retaining walls, and other features that reach from land to water are planned in the floodway.
- Riparian vegetation that grows from the water or bank edge (sometimes called stream side or lake side vegetation) is removed.

b. The proposed action may result in development within a 100 year floodplain.

A 100-year floodplain is the area that would be inundated by the 100-year flood. It is an area that has a one percent or greater chance of experiencing a flood in any single year. The 100-year floodplain is called a Special Flood Hazard Area and is shown on federal flood maps, known as Flood Insurance Rate Maps (FIRM). On the FIRM, these areas are shaded and labeled with the letter "A" or "V" sometimes followed by a number or letter.

In the coastal "V" zone, new construction and substantial improvement or substantially damaged structures must be elevated on pilings, columns or sheer walls such that the bottom of the lowest horizontal structural member supporting the lowest elevated floor is elevated to or above the base flood elevation plus two feet. Detailed standards exist regarding how to elevate the structure.

When there is a base flood elevation available, the lowest floor of any residential or commercial structure, including any basement, must be at or above the base flood elevation plus two feet. Alternatively, non-residential structures may be flood proofed in lieu of elevation. Every community should have a local flood plain administrator and questions on building in a floodplain should be directed to that office.

Applicable Part 1 Information

E.2.j.

Analysis

- What land disturbance or construction will take place in the 100-year floodway?
- Will the proposed project alter the flow of water or change drainage patterns into the water body?
- What is the base flood elevation compared to the elevation of the structure and has the applicant calculated the base flood elevation?
- Does the proposal meet requirements of the local municipality's floodplain management law or ordinance?
- What flood protection is proposed?
- What is the extent of recurring flooding in that location?
- What is the vulnerability of existing and proposed development activities?
- Are any other mitigation methods included in the proposed project to reduce flooding or flood damage?

Will there be an impact?

The absence of a stream, river, or lake on a property does not necessarily mean there will be no flooding on the property. Floodplains can extend for a distance beyond streams, rivers, lakes, and tidal waters.

If a stream, river or lake is on or near the property and there are no mapped floodplains and there is no history of flooding at the location, there will likely be no flooding impacts. Further, if there is a designated 100 year floodplain but the proposed project is not located in or near the floodplain, or does not change stormwater runoff or flows of water within that floodplain, there will likely be no flooding impacts. Check 'No, or small impact may occur."

Small Impact:

Proposed projects that include minor changes to the landscape, uses with pervious surfaces, structures built above base flood level, limited grading or clearing, or limited changes of drainage patterns in the 100-year floodplain are likely to have only a small impact. Examples would be:

- Construction of any structure in the 100 year floodplain but it is built above base flood, plus 2 feet, pursuant to floodplain management regulations.
- Land uses that include pervious surfaces such as gravel parking lots.
- Land uses that do not change the flow of water or drainage patterns.
- Limited clearing or grading activities.

Moderate to Large Impact:

It is likely that one or more moderate to large impacts could occur under one or more of these circumstances:

- Construction of large expanses of impervious surfaces within the 100 year floodplain.
- Clearing or grading, creation of walls or berms that alter the flow of water or drainage patterns.
- Land uses that store chemicals or petroleum products above ground or below ground in areas subject to flooding.
- Waste treatment or solid waste facilities located in the 100 year floodplain.
- Alterations to surface water bodies with a designated 100 year floodplain in a manner which alters flow or drainage patterns.

c. The proposed action may result in development within a 500 year floodplain.

A 500-year floodplain is the area that would be inundated by the 500-year flood. It is an area that has a 0.2% chance of experiencing a flood in any single year.

Coastal "V" zones are particularly hazardous areas.

Applicable Part 1 Information

E.2.k.

Analysis

- What land disturbance or construction will take place in the 500-year floodplain?
- Will the proposed project alter the flow of water or change drainage patterns into the water body?
- What is the base flood elevation compared to the elevation of the structure and has the applicant calculated the base flood elevation?
- Will the development be protected to the 500 year flood elevation?
- What is the extent of recurring flooding in that location?
- What is the vulnerability of existing and proposed development activities?
- Are any other mitigation methods included in the proposed project to reduce flooding or flood damage?

Will there be an impact?

As stated previously, the absence of a stream, river or lake on a property does not necessarily mean there will be no flooding on the property. Floodplains can extend for a distance beyond streams, rivers, lakes, and tidal waters.

If a stream, river or lake is on or near the property and there are no mapped floodplains and there is no history of flooding at the location, there will likely be no flooding impacts. Further, if there is a designated 500 year floodplain but the proposed project is not located in or near the floodplain, or does does not change stormwater runoff or flows of water within that floodplain, there will likely be no flooding impacts. Check 'No, or small impact may occur."

Small Impact:

Proposed projects that include minor changes to the landscape, uses with pervious surfaces, structures built above base flood level, limited grading or clearing, or limited changes of drainage patters in the 500-year floodplain are likely to have only a small impact. Examples would be:

- Construction of any structure in the 500 year floodplain but it is built above base flood pursuant to floodplain management regulations.
- Land uses that include pervious surfaces such as gravel parking lots.
- Land uses that do not change the flow of water or drainage patterns.
- Limited clearing or grading activities.

Moderate to Large Impact:

It is likely that one or more moderate to large impacts could occur under one or more of these circumstances:

- Construction of large expanses of impervious surfaces within the 500 year floodplain.
- Clearing or grading, creation of walls or berms that alter the flow of water or drainage patterns.
- Land uses that store chemicals or petroleum products above ground or below ground.
- Waste treatment or solid waste facilities located in the 500 year floodplain.
- Alterations to surface water bodies with a designated 500 year floodplain in a manner which alters flow or drainage patterns.
- Any development in a coastal "V" zone is likely to have a moderate to large impact.

d. The proposed action may result in, or require, modification of existing drainage patterns.

There are several actions that can modify existing drainage patterns. Any kind of change such as channeling, creation of impoundments, and stormwater increases or altered flow patterns are all actions that can modify drainage patterns of surface water flow. Stormwater runoff causes erosion but construction activities and land clearing can also change drainage patterns. The concern about altered drainage patterns is that it could adversely impact streams, rivers and lakes, or redirect coastal storm surges or wave actions. Altered flow can increase flooding and introduce more erosion and potential for pollution. If water is diverted from its normal flow, the opposite may occur: wetlands and streams may not receive as much water as needed to maintain the ecology and functioning as before. Drainage can be directed to stormwater drains,or to constructed bioretention, rain garden, or other storage and retention areas designed to slow water and allow sediments to settle out. When a large amount of stormwater is created, municipalities may need to construct a stormwater management system. Some stormwater may be directed into a water treatment facility that is already over-capacity. This can cause impacts when stormwater surges allow sewage to flow untreated into rivers and streams.

Applicable Part 1 Information

D.1.h., D.2.b., D.2.e., E.2.e., and E.2.h.

Analysis

- Is any type of land disturbance or construction planned that would increase, decrease or change the flow of stormwater?
- Will there be any increase in stormwater discharge from the site, and if so, how much?
- Will there be a need for new stormwater retention ponds, or other stormwater management practices?

- If there are stormwater discharges and no existing conveyance system, what are the plans to address stormwater and erosion from the site?

- If Part 1 indicated that storm water discharges might flow to adjacent properties, where, how much, and what impacts might occur on the adjacent property.
- If Part 1 indicated that there will be storm water discharges conveyed to established systems, is there enough capacity to handle the extra storm water?
  - Do the proposed plans include any upgrades or expansion to that system?
- Is the project going to disturb more than one-acre of land and require a SWPPP and coverage under the stormwater general permit?
  - If it does not disturb more than one acre, but still has some land clearing, does the application include any erosion control and runoff controls?
- Are there any protected water bodies or important surface drinking water supplies nearby that need to be protected from erosion and sedimentation (wetlands, reservoirs, protected streams)?
- Are any stormwater reduction methods included such as minimizing impervious surfaces, using porous materials, or collecting and reusing stormwater?

Will there be an impact?

If there are no land disturbances or construction planned that would result in, or require, modification of existing drainage patterns, then there is no related impact. Check "No, or small impact may occur."

Small Impact:

Proposed projects that include minor changes to the drainage patterns are likely to have only a small impact. Examples would be:

- Land uses with pervious surfaces that create limited stormwater runoff.
- Where stormwater is contained on site and does not flow to or impact surface water bodies off-site on other properties.
- Projects that are designed so that the amount of stormwater generated before construction is the same as afterwards. Projects that are designed using low impact development techniques for stormwater.

Moderate to Large Impact:

It is likely that one or more moderate to large impacts could occur under one or more of these circumstances:

- When land uses with high percentages of the lot are covered in impervious surfaces.
- Where stormwater generated on site will impact water bodies off-site on other properties.

- With projects that generate large amounts of stormwater that need engineered stormwater control devices.

e. The proposed action may change flood water flows that contribute to flooding.

Similar to Question 5.d., any project that alters or increases surface water runoff has the potential to contribute to flooding, both on-site and at downstream, upstream, or across stream locations. In addition to channeling, creation of impoundments, or increased or altered stormwater runoff, activities such as removal of stream-side vegetation, changes to riverine wetlands, or changes to stream and river banks can also contribute to flooding. Inadequately sized culverts or bridges can also clog and impede the passage of flood waters. Review the answers and analysis of Part 2, Question 5 (a, b and c) to understand any flooding issues.

Applicable Part 1 Information

D.1.h., D.2.b., D.2.e., E.2.e., E.2.h., E.2.i., E.2.j., and E.2.k.

Analysis

- Are there any streams, rivers, lakes and any designated floodplains on the project site or nearby that could be influenced by the project?
- Is any stream side vegetation being removed?
- Will any changes to drainage ditches or existing channels occur?
- Are any wetlands being impacted that could change water flow downstream?
- Is the project impacting any regulated floodplain (see question 5 a, b, and c)?
- Where will surface water flow from the project site and will it affect off-site streams, rivers or lakes?

Will there be an impact?

If the proposed project does not change floodwater flows to on-site or off-site streams, rivers and lakes, then there will be no related impact. Check 'No, or small impact may occur."

Small Impact:

Proposed projects that include minor changes to the flow patterns but that do not direct large volumes of water into different locations are likely to have only a small impact. Examples would be:

- Construction of any structure in a 100 year or 500 year floodplain but it is built above base flood pursuant to floodplain management regulations.
- Land uses that are maintaining or increasing pervious surfaces.

- Land uses that do not change the flow of water or drainage patterns off site or into surface water bodies that have not received that volume of stormwater before.
- Minor clearing or grading activities.

Moderate to Large Impact:

Moderate to large impacts could occur under one or more of these circumstances:

- Construction of large expanses of impervious surfaces within the floodplain.
- Clearing or grading, creation of walls or berms that alter the flow of water or drainage patterns.
- Alterations to surface water bodies within a designated floodplain in a manner which alters flow or drainage patterns.

f. If there is a dam located on the site of the proposed action, the dam has failed to meet one or more safety criteria on its most recent inspection.



Dam failure can do great damage to people, property, and natural habitats downstream, potentially including loss of life.

Dams in the state's inventory of dams are classified according to potential for downstream damage upon dam failure, called Hazard Classification. The safety standards for a dam depend on its hazard classification, with higher hazard dams having to meet more robust criteria. Development within the dam's potential failure inundation area can cause an increase of the dam's Hazard Classification, and put the dam owner out of compliance. A project that contributes more runoff to a dam's impoundment can lead to exceeding the dam's design, and challenge the dam's ability to safely pass flood flows, potentially causing dam failure. High and Intermediate Hazard dam owners are required to have certain documents and submit some of them to the DEC. This includes an Emergency Action Plan

Applicable Part 1 Information

D.1.h., and E.1.e.

Analysis

- If the dam is in the state's inventory of dams, what is its current Hazard Class?
- Has there been a recent inspection of the dam?
- If the dam is a Class C (High Hazard) or Class B (Intermediate), does the owner have an emergency action plan and other required documents?

Will there be an impact?

If there is no dam on the project site, and none is proposed, there will be no related impacts. If a dam is present or proposed that is classified as Hazard Class A and is in compliance, and no part of the project will be downstream of the dam, there would likely be a no impact. Check 'No, or small impact may occur."

Small Impact:

- If there is a dam on the project site, and it is proposed to be repaired or upgraded, and no part of the project will be downstream of the dam, there will be a small impact.

Moderate to Large Impact:

- If a dam is present or proposed that is classified as a Hazard Class B or Class C, or if it currently is Class A but parts of the project will be built downstream of the dam such that its hazard class could be raised and the dam will have to be upgraded, there would be a moderate to large impact.

g. Other impacts:

There may be other impacts identified by the reviewing agency that are not addressed by the above questions. If so, they should be identified and briefly described here.

Some proposed actions may have beneficial impacts on the environment. The reviewing agency can use the 'other' category for that purpose, too.

Question 6 - Impacts on Air - Full EAF (Part 2)

Full Environmental Assessment Form (FEAF) Workbook

The proposed action may include a state regulated air emission source.



Air pollution can harm human health, and damage elements of the ecosystem. Exposure to air pollution is associated with numerous effects on human health, including pulmonary, cardiac, vascular, and neurological impairments. High-risk groups such as the elderly, infants, pregnant women, and people with chronic heart and lung diseases are more susceptible to air pollution. Children are at greater risk because they are generally more active outdoors and their lungs are still developing.

Air pollutants are produced by many human activities. Most pollutants come from industries that manufacture chemicals and other goods, from on- and off-road vehicles and power equipment, and from energy facilities that burn oil, gas, or coal.

The Federal Clean Air Act and Article 19 of the State Environmental Conservation Law provide the framework for the State's air pollution control program. Article 19 of the ECL was enacted to safeguard the air resources of New York against pollution; and to ensure the protection of the public health and welfare, the natural resources of the State, physical property, and industrial development. It is the policy of the State to require the use of all available, practical and reasonable methods to prevent and control air pollution in New York. To facilitate this policy objective, the Legislature bestowed specific powers and duties on the Department of Environmental Conservation including the power to adopt and promulgate regulations for preventing, controlling and prohibiting air pollution. This authority specifically includes establishing standards for the coordination of State and Federal air pollution programs.

To answer this question

Review Part 1 questions D.2.f., D.2.g., and D.2.h.

If information from the applicant, or from Part 1 already identifies that an air emission from the proposed project is one that is state regulated, check "yes" and then answer sub-questions (a) through (f). However, the reviewing agency may alternatively need to first evaluate and answer the sub-questions (a) through (f) in order to know if emissions are state regulated. These sub-questions are largely 'yes' or 'no' answers and will assist in more fully identifying which ones, or how much of potential air emissions will be generated. Taken together, these sub-questions will determine how question 6 should be answered. If the reviewing agency has information from Part 1 that indicates no state regulated air emissions are part of the proposed project, then check 'no' and move to Question 7.

Identifying potential impacts

The reviewing agency should evaluate the following sub-questions and decide if there will be any impact. If there will be an impact, the reviewing agency must then evaluate the magnitude of that impact, and decide if the impact will be small or moderate to large. This will depend on the overall scale and context of the proposed project as described in the Introduction to Part 2. The reviewing agency should be reasonable when conducting this review.

- If the proposed project exceeds a numeric threshold in a question, it is presumed to be a moderate to large impact.
- If the proposed project does not exceed a numeric threshold in a question, the reviewing agency should consider the scale and context of the project in determining if an impact may be small or moderate to large.
- These sub-questions are not meant to be exhaustive. The reviewing agency should use the "Other impacts:" sub-question to include any additional elements they feel need to be analyzed for potential impacts.

Applicable Part 1 Information

D.1.g., D.2.f., D.2.g., and D.2.h., D.2.k., and D.2.s.

Analysis

Answers to sub-questions (a) through (e) all offer information that will help the reviewing agency identify risks and hazards that may occur. Most of these are 'yes' or 'no' questions.

DEC's Division of Air Resources is an important resource that a reviewing agency should use to help assess potential impacts of air emissions. It is not expected that reviewing agencies do that assessment, but they should call upon others that do have the expertise to help them evaluate risks associated with air emissions. See the DEC web page: Interested Agency and Public Involvement for more information.

The National Park Service (NPS) has published a short 24 page document: Technical Guidance on Assessing Impacts to Air Quality in NEPA and Planning Documents. This report was developed specifically for use by the NPS. However, the analytical process outlined in chapter 4 can be easily applied to a much broader range of projects. These steps are summarized here:

- Determine the level of analysis needed
  - Describe the types of pollutants proposed to be emitted
  - Estimate proposed emission levels
  - Consider the distances from the source to potential impacts
- Obtain current air quality information
- Assess the potential impact levels
  - Consider impacts on human health

- Consider impacts to flora and fauna; soils and water
- Consider impacts to visibility, buildings, and infrastructure

In addition to the sub-questions, answering the following will assist the reviewing agency in determining the size and importance of these impacts.

- What is the air pollutant and what are the risks with exposure?
- What type of mitigation is being proposed to minimize the risks associated with exposure to the air pollutants?

a. If the proposed action requires federal or state air emission permits, the action may also emit one or more greenhouse gases at or above the following levels:

i. More than 1000 tons/year of carbon dioxide (CO_2)
ii. More than 3.5 tons/year of nitrous oxide (N_2O)
iii. More than 1000 tons/year of carbon equivalent of perfluorocarbons (PFCs)
iv. More than .045 tons/year of sulfur hexafluoride (SF6)
v. More than 1000 tons/year of carbon dioxide equivalent of hydrochloroflourocarbons (HFCs) emissions
vi. 43 tons/year or more of methane

b. The proposed action may generate 10 tons/year or more of any one designated hazardous air pollutant, or 25 tons/year or more of any combination of such hazardous air pollutants.

c. The proposed action may require a state air registration, or may produce an emissions rate of total contaminants that may exceed 5 lbs. per hour, or may include a heat source capable of producing more than 10 million BTU's per hour.

d. The proposed action may reach 50% of any of the thresholds in "a" through "c", above.

e. The proposed action may result in the combustion or thermal treatment of more than 1 ton of refuse per hour.

Will there be an impact?

Once it has been determined that the project involves air emissions that may pose a risk to human health, it is unlikely that there will be situations where there are no impacts at all related to those emissions. The agency may determine that there may be very small risks or that impacts are deemed to be not significant. However it is not likely there will be situations where there will be no impacts at all.

The size of the impact depends on a variety of factors. For instance, the emission rate, type of pollutant, and location in the environment all have bearing on the determination if the impact will be small, or moderate to large. The reviewing agency should look carefully at all of the information provided by the applicant and ask appropriate questions.

Small Impact:

A small impact could occur under one or more of these circumstances:

- Polluting air emissions will take place, but the emissions will be at a level that will not affect pollution levels off-site.
- Polluting air emissions will take place, but the emissions will occur rarely, for short intervals of time, and the source is not located near a potentially conflicting use, such as a school, hospital, day-care center, or park.

Moderate to Large Impact:

A moderate to large impact could occur under one or more of these circumstances:

- The reviewing agency answers 'yes' to any of the (a) through (e) sub-questions.
- Air emissions will take place, and the emissions will be at a level that will affect pollution levels off-site.
- Air emissions will take place, and the emissions will occur on a regular basis, for long periods of time
- Air emissions will take place, and the source is located near a potentially conflicting use, such as a school, hospital, day-care center, or park.

f. Other impacts:

There may be other impacts identified by the reviewing agency that are not addressed by the above questions. If so, they should be identified and briefly described here.

Some proposed actions may have beneficial impacts on the environment. The reviewing agency can use the 'other' category for that purpose, too.

Question 7 - Impact on Plants and Animals - Full EAF (Part 2)

Full Environmental Assessment Form (FEAF) Workbook

The proposed action may result in a loss of flora or fauna.



Fawn in Forest Fern by Laurie Dirkx

This question asks the reviewing agency to evaluate potential impacts to plants and animals. Some of the sub-questions that follow are specifically related to threatened, endangered, rare species, or species of special concern, significant natural communities and natural landmarks. However, other sub-questions explore impacts to the predominant species using the site or impacts to large areas of habitats that are not fragmented.

Habitats are used by all fauna (insects, reptiles, amphibians, fish, mammals, birds) for breeding, hibernation, reproduction, feeding, sheltering, migration or overwintering. The habitats may be used year-round, seasonally, or on a transient basis (passing through the area or during migration.) For threatened and endangered animals species, modification of their habitats not only adversely affect the animals and their ability to survive, but could be considered a 'take' which may require an incidental take permit (link leaves DEC website) under 6NYCRR Part 182, from DEC.

Unless the project has no land disturbances, or if it redevelops a location that has already been cleared, some vegetation (flora) will likely be removed. This removal represents a loss of both plants and the habitats it provides. Once habitats are lost, then there is likely to be a loss of fauna as well. As habitats are lost, animals could die due to lack of food or cover, or may move to other locations, if available.

To answer this question

Review Part 1 questions E.2.m., E.2.n., E.2.o., E.2.p., and E.2.q.

If the proposed project does not involve any loss of flora and its associated fauna, then check 'No' and move on to question 8.

If the project includes land disturbances that will remove terrestrial or aquatic plants there also will likely be some level of animal loss. Therefore, where land clearing and grading occur and vegetation will be removed, check 'Yes' to Question 7 and then answer sub-questions (a) through (j).

Identifying potential impacts

The reviewing agency should evaluate the following sub-questions and decide if there will be any impact. If there will be an impact, the reviewing agency must then evaluate the magnitude of that impact, and decide if the impact will be small or moderate to large. This will depend on the overall scale and context of the proposed project as described in the Introduction to Part 2. The reviewing agency should be reasonable when conducting this review.

- If the proposed project exceeds a numeric threshold in a question, it is presumed to be a moderate to large impact.
- If the proposed project does not exceed a numeric threshold in a question, the reviewing agency should consider the scale and context of the project in determining if an impact may be small or moderate to large.
- These sub-questions are not meant to be exhaustive. The reviewing agency should use the "Other impacts:" sub-question to include any additional elements they feel need to be analyzed for potential impacts.

a. The proposed action may cause reduction in population or loss of individuals of any threatened or endangered species, as listed by New York State or the Federal government, that use the site, or are found on, over, or near the site.

b. The proposed action may result in a reduction or degradation of any habitat used by any rare, threatened or endangered species, as listed by New York State or the federal government.





Threatened and endangered species are protected by both State and federal laws. These two sub-questions evaluate the potential impacts to both individual threatened or endangered plants or animals and their habitats.

New York State also classifies certain animal species as Special Concern and certain rare plant species as Rare. The Natural Heritage Program ranks rare animals and rare plants, including endangered and threatened species.

A project site may be used in several different ways. Locations where plants are found are considered habitat because it provides the right environmental conditions for the plants growth and reproduction. Animals use their habitat for feeding, cover, reproduction, and migration. Because animals are mobile, they could pass through the project area on a daily or seasonal basis as they travel from one place within their range to another. Or, the site itself may be important for feeding, breeding, or cover. For birds, large areas of contiguous tree cover may be needed to allow them to travel from one location to another. Further, the project site can serve as an important buffer that protects the primary habitats of threatened and endangered species that are found nearby.

A reduction in a threatened or endangered population can result if there is either mortality of individuals or loss of habitat. Because there is a close relationship between loss of individuals and populations (sub-question (a)) and loss of habitats (Sub-question (b)), reviewing agencies should carefully consider these questions together and in the larger context of the needs of those species. A project site may be a rare, critical location that endangered and threatened species depend solely on. Or, it may not be a rare habitat, but may be part of a much larger area needed to support the individuals that are part of the population.

When evaluating these questions, consider if there will be loss of populations, individuals or their habitats only for those species found on, adjacent or near the project site.

Applicable Part 1 Information

E.2.o., and E.2.p.

Analysis

- Are there any threatened or endangered individuals identified on, adjacent to or near the project site?
  - Evaluate loss of habitats, populations or individuals only for those species.
- What habitats needed by threatened or endangered species are found on the project site?
- Is the habitat rare?
- Is the project site part of a larger range that supports an endangered or threatened population?
- Are there any actions proposed that will reduce the size, structure or other features of the habitats but not totally remove it from the project site?
- Is there a barrier proposed as part of the action that will hinder or harm key migration patterns?
- What percentage of the project site contains habitats used by rare, threatened or endangered species and what portion of that will be impacted?

Will there be an impact?

If there are no rare habitats on the project site, or if no endangered or threatened species are known to be on, adjacent or near the project site, there will be no related impacts. Check 'No, or small impact may occur."

Small Impact:

It is likely that a small impact could occur under one or more of these circumstances:

- Rare or threatened species are found near or on adjacent parcels but there is no habitat found on the project site.
- Rare or threatened species or their habitats are found on the site but construction or operation activities will avoid impairment of their habitats and not impair the animals' ability to use the site.
- Rare and threatened species or their habitats are found on the site, some construction or operation activities will remove or impair a small portion of the habitat but mitigation is planned to create or permanently protect remaining and other critical areas for those species.
- Species are found traveling through or flying over the project site, and the activities are such that these travel patterns will not be disrupted. Important travel corridors are identified and all natural vegetation is protected to allow wildlife travel.

Moderate to Large Impact:

It is likely that one or more moderate to large impacts could occur under one or more of these circumstances:

- Large portions of habitats known to be used by threatened and endangered species will be removed, including removal of vegetation, cutting dead trees down, grading cliffs, or fragmenting large areas of potential habitats to create islands of remaining habitat.
- Fencing or walls will be constructed around the property limiting wildlife access to the site even though the habitat may remain.
- Specific features of importance to the threatened and endangered species will be destroyed such as grasslands, dead trees, riffle and pool areas in the stream, removal of all underbrush, or removal of prime nesting trees or winter habitats.

c. The proposed action may cause reduction in population, or loss of individuals, of any species of special concern or conservation need, as listed by New York State or the Federal government, that use the site, or are found on, over, or near the site.

d. The proposed action may result in a reduction or degradation of any habitat used by any species of special concern and conservation need, as listed by New York State or the Federal government.

f. The proposed action may result in the removal of, or ground disturbance in, any portion of a designated significant natural community. Source:

(Note: See sub-question e. below)

New York State also classifies certain plant and animal species as Special Concern and certain plant species as Rare being rare, or as a species of special concern. Species of special concern refers to those species that warrant attention and consideration but current information, collected by DEC, does not justify listing these species as either endangered or threatened. The Natural Heritage Program ranks rare animals and rare plants, including Species of Special Concern.

The reviewing agency will need to look beyond the boundaries of the project site during the SEQR evaluation. A project site may be used in several different ways. Locations where plants are found are considered habitat because it provides the right environmental conditions for the plants growth and reproduction. Animals use their habitat for feeding, cover, reproduction, and migration. Because animals are mobile, they could pass through the project area on a daily or seasonal basis as they travel from one place within their range to another. Or, the site itself may be important for feeding, breeding, or cover. For birds, large areas of contiguous tree cover may be needed to allow them to travel from one location to another. Further, the project site can serve as an important buffer that protects the primary habitats of species of special concern that are found nearby.

Significant Natural Communities include rare or high-quality wetlands, forests, grasslands, ponds, streams, and other types of habitats, ecosystems, and ecological areas. They serve as habitat for a wide range of plants and animals, both rare and common; and are important because natural communities in good condition provide ecological value and services.

NY Natural Heritage documents only those locations of natural communities where the community type is rare in New York State; or, for more common community types, where the community at that location is a high-quality example and meets specific, documented criteria for state significance in terms of size, undisturbed and intact condition, and the quality of the surrounding landscape.

A reduction in a population of species of special concern can occur if there is either mortality of individuals or loss of habitat. Because there is a close relationship between loss of individuals and populations and loss of habitats, reviewing agencies should carefully consider these questions together and in the larger context of the needs of those species. A project site may be a rare, critical location that species of special concern depend solely on. Or, it may not be a rare habitat, but may be part of a much larger area needed to support the individuals that are part of the population.

When evaluating these questions, consider if there will be loss of populations, individuals or their habitats for those species found on, adjacent or near the project site.

Applicable Part 1 Information

E.2.p., and E.2.n.

Analysis

- Are there any listed species of special concern found on, adjacent to or near the project site?
  - Evaluate loss of habitats, populations or individuals only for those species.
- Does the project site contain habitats needed by species of special concern that are identified there?
  - If yes, what are the habitat components of importance?
- Is the habitat rare?
- Is the project site part of a larger range that supports a species of special concern population?
- Are there any actions proposed that will reduce the size, structure or other features of the habitats but not totally remove it from the project site?
  - If so, what percentage of the project site contains habitats used by species of special concern and what portion of that will be impacted?
- Are there any locations on the project site identified as part of a designated significant natural community?
  - If so, how large an area is it and what portion of that will be impacted by the project?
  - If so, how will that natural community be degraded?

Will there be an impact?

If there are no species of special concern on, adjacent or near the project site, if there are no habitats used by species of special concern or in conservation need, or if there are no designated significant natural communities identified on the project site, there will be no related impacts. Check 'No, or small impact may occur."

Small Impact:

It is likely that a small impact could occur under one or more of these circumstances:

- Species of special concern are found near or adjacent to the project site but there is no habitat found on the project site.
- Rare or threatened species or their habitats are found on the site but construction or operation activities will avoid impairment of their habitats and not impair the animals' ability to use the site.
- Construction will take place within a portion of the habitat on site but will be done during a season when the species is not present, and vegetation will be replaced in the same location after construction.

- Species of special concern or their habitats are found on the site, some construction or operation activities will remove or impair a small portion of the habitat but mitigation is planned to create or permanently protect remaining and other critical areas for those species.
- Species are found traveling through or flying over the project site, and the activities are such that these travel patterns will not be disrupted. Important travel corridors are identified and all natural vegetation is protected to allow wildlife travel.

Moderate to Large Impact:

It is likely that one or more moderate to large impacts could occur under one or more of these circumstances:

- Large portions of habitats known to be used by special concern species will be removed, including removal of vegetation, cutting dead trees down, grading cliffs, or fragmenting large areas of potential habitats to create islands of remaining habitat or removing other habitat features.
- Fencing, walls, or other barriers will be constructed around or on the property limiting wildlife access to the site even though the habitat may remain.
- Specific features of importance to the species of special concern species will be destroyed such as grasslands, dead trees, riffle and pool areas in the stream, removal of all underbrush, or removal of prime nesting trees or winter habitats.

e. The proposed action may diminish the capacity of a registered National Natural Landmark to support the biological community it was established to protect.

The National Natural Landmarks (NNL) is a voluntary program that recognizes and encourages the conservation of sites that contain outstanding biological and geological resources. National Natural Landmarks are selected for their outstanding condition, illustrative value, rarity, diversity, and value to science and education. Sites are designated by the Secretary of the Interior, with landowner concurrence. To-date, there are 27 National Natural Landmarks designated in New York State. These are found in the following counties: Albany, Allegany, Cattaraugus, Clinton, Dutchess, Genesee, Herkimer, Jefferson, Livingston, Monroe, Onondaga, Orleans, Rockland, Saratoga, Seneca, St. Lawrence, Suffolk, Tompkins, Ulster, Wayne, and Westchester. You can learn more about the National Natural Landmarks Program by visiting their website.

Applicable Part 1 Information

E.3.c.

Analysis

- Is there a NNL on the project site, and if so, how large is it and what portion of the project site does it occupy?

- Will any proposed project activities remove or disturb that NNL?
  - If so, what portion of the NNL will be removed or disturbed?
- Does the NNL extend to other locations around the proposed project site?

Will there be an impact?

If no registered National Natural Landmarks exist on the project site, then there will not be any related impacts. Check "No, or small impact may occur."

Small Impact:

A small impact could occur if:

- A portion of a NNL exists on the property site and will be removed, but it also extends beyond the site to include a much larger area and the portion to be removed is less than a few percent of the total area.

Moderate to Large Impact:

It is likely that one or more moderate to large impacts could occur under one or more of these circumstances:

- Large portions of the NNL will be disturbed or removed.
- Portions of the NNL natural vegetation will be removed, and although there are other significant sections remaining, the habitat is now fragmented and not likely to support the species that rely on it.
- One component of the vegetation, such as mature canopy trees, are to be removed, thus destroying an ecological layer required by many bird and mammal species.

g. The proposed action may substantially interfere with nesting/breeding, foraging, or over-wintering habitat for the predominant species that occupy or use the project site.

This question explores the role the project site plays in the area's ecology and bio-diversity. The use of the term 'predominant' is intended to be synonymous with 'common', and describes species that are abundant in a natural community. Habitats are used in different ways, depending on the species. Some areas have just the right conditions that make an area attractive for breeding and nesting. For example, the ground is covered with abundant herbaceous growth that shelters ground nesting birds, or an area of the stream has a bank overhanging the water that provides shade and protection. Other areas provide abundant food sources while others have features that make the area attractive for hibernation or winter travel.

Actions can interfere with nesting/breeding, foraging or overwintering habitat by removal of vegetation or by changing the conditions of that habitat such as altering the amount of sunlight that reaches the ground, the temperature of the water, or removal of important habitat features such as rocky outcrops or dead trees used for nesting. Other features of the proposed project can also interfere with those activities by creating excessive noise, placement of buildings in a location that disrupts travel, or placement of bright

lights. In order to answer this question, the reviewing agency may need to find out, or ask the applicant to supply information on the basic habitat needs of the predominant species found at the site.

A substantial interference is not specifically defined in SEQR, but should be considered by the reviewing agency in relation to the scale and context of the site and project. In general, a 'substantial' interference would be when the change to the habitat features on the project site are of considerable importance, large in size or quantity, or when the habitat is largely, but not wholly affected. An example of a substantial interference is the removal of 8 out of 10 acres of northern hardwood forest existing on a site. Or, building of a road and 15,000 square foot building in the middle of a large, unbroken expanse of forest that would fragment the habitat and reduce its value to those species needing large areas of unbroken forest.

Applicable Part 1 Information

E.2.m.

Analysis

- What habitat requirements do those predominant species have?
- How do those predominant species use the project site?
  - Breeding, feeding, cover, or all the individual needs?
- Do species use the project site year round or seasonally?
- Will project activities disturb or remove the vegetation or important habitat features?
- Are there similar habitats adjacent to or nearby?

Will there be an impact?

A proposed project would be considered to have no impact if habitats for predominant species are not affected at all. An example would be a redevelopment project that is contained to previously disturbed portions of a site, and does not disturb any existing natural habitat. Infill development in a highly urban area of a site or sites with no natural land cover may also be considered to have no impact.

Small Impact:

A small impact could occur under one or more of these circumstances:

- A very limited amount of vegetation and habitat features will be removed leaving the large majority of habitat available.
- No excessive noise, lights, fences, or walls will be part of the project and won't interfere with the ecology and ability of the species to survive.

Moderate to Large Impact:

It is likely that one or more moderate to large impacts could occur under one or more of these circumstances:

- A large percentage of the vegetation is removed and replaced with lawns or other cover types and structures.
- A major feature of the habitat is removed, such as removal of all ground vegetation.
- Large areas of trees will be selectively removed to thin the forest and allow more sunlight to reach the ground. This will change the ecology of the forest and thus the species that will live there.
- The project will include structures built along areas known to be important overwintering or travel corridors.
- Fencing or walls are placed that will prevent normal movement from one location to another.
- Bright lights will be placed that will interfere with nocturnal species.

h. The proposed action requires the conversion of more than 10 acres of forest, grassland or any other regionally or locally important habitat.
Habitat type & information source:

Many species of wildlife need large areas of their habitats. Some need not only large areas, but also those that are not fragmented by roads, buildings, or other man-made structures. When forests, grasslands, and other regionally or locally important habitats are fragmented by development, those areas can become less attractive to wildlife and biodiversity can decrease. Individual animal survival can be diminished and populations reduced when these habitats are disrupted. This question explores whether large areas, greater than 10 acres in size are fragmented or converted to other uses.

Applicable Part 1 Information

E.1.b.

Analysis

- Is the project site larger than 10 acres and contain vegetation similar to that found on a larger area of land?
- How many acres of the cover type will be converted?
- Does the proposed action fragment this larger area?

Will there be an impact?

If no lands are disrupted and converted to another land use, then there will be no related impact. Check "No, or small impact may occur."

Small Impact:

A small impact could occur under one or more of these circumstances:

- If a very small portion of a very large site is disrupted and converted to another land use. For example, a one acre conversion may have a small impact when the remaining 300 acres of grassland still exists.

- If 1 to 10 acres are disrupted and converted, impacts may be small if there are similar remaining lands that are of significant size, or it is a highly disturbed site to begin with.
- The loss does not fragment significant habitats.
- The new land use is not growth inducing so that over time more of the habitat will be not lost to subsequent development.
- Some land will be converted but the remaining land is still of intact and significant size and the applicant will place a conservation easement on the remainder of the land to protect it.

Moderate to Large Impact:

It is likely that one or more moderate to large impacts could occur under one or more of these circumstances:

- A very large proportion or the entire site is disrupted and converted to another land use.
- More than 10 acres are disrupted and converted.
- The loss creates a fragmented habitat.
- The loss removes small, but critical areas, such as vernal pools and their surrounding uplands that are required for amphibian breeding.
- Critical vegetation known for creating important fish breeding sites will be removed.
- Critical features known to be important to species will be removed.

i. Proposed action (commercial, industrial or recreational projects, only) involves use of herbicides or pesticides.

According to Part 325: Application of Pesticides, (link leaves DEC's website)

- Pesticide includes all herbicides and means:

1. Any substance or mixture of substances intended for preventing, destroying, repelling, or mitigating any insects, rodents, fungi, weeds, or other forms of plant or animal life or viruses, except viruses on or in living humans /or other animals, which the department shall declare to be a pest; and
2. Any substance or mixture of substances intended as a plant regulator, defoliant or desiccant.

- Pesticide use means:

1. Performance of the following pesticide-related activities: application; mixing; loading; transport, storage or handling after manufacturer's seal is broken; cleaning of pesticide application equipment; and any required preparation for container disposal.

This question applies to commercial, industrial or recreational projects only. It includes pesticide use on the land and in aquatic environments. Include occasional and regular pesticide use. Evaluate use of

pesticides in relation to degrading or removing plants, potential adverse impacts to wildlife, and risks for polluting surface waterbodies.

Applicable Part 1 Information

D.2.q.

Analysis

- Is the pesticide intended to control animals or plants?
- Will the pesticide be used to remove all or part of the vegetation on site?
- What risks to non-target species are associated with application of those pesticides?
- What methods are being proposed to prevent or minimize impacts to water quality?
- Is the pesticide application one time, on a regular basis, or seasonal?

Will there be an impact?

If no pesticides are being applied on the project site, then there will be no related impacts. Check "No, or small impact may occur."

Small Impact:

A small impact could occur under one or more of these circumstances:

- A small area will be impacted and that area is isolated so that pesticides do not travel into stormwater runoff.
- Pesticide will be done on a one time basis.
- Integrated pest management methods will be used on a small area of land, such as around a commercial building.
- There are no surface water bodies nearby and stormwater control devices will collect and capture chemicals.

Moderate to Large Impact:

It is likely that one or more moderate to large impacts could occur under one or more of these circumstances:

- Large areas will be impacted.
- There is risk for pesticides to be picked up in stormwater and carried to surface water bodies, including wetlands both on and off-site. Integrated pest management is not being uses.
- Pesticide use will be done on a regular or seasonal basis, such as at a golf course.
- Herbicides will be used to remove many plants over large areas that may be habitats for a variety of fish and wildlife species.

j. Other impacts:

There may be other impacts identified by the reviewing agency that are not addressed by the above questions. If so, they should be identified and briefly described here.

Some proposed actions may have beneficial impacts on the environment. The reviewing agency can use the 'other' category for that purpose, too.

Question 8 - Impact on Agricultural Resources - Full EAF (Part 2)

Full Environmental Assessment Form (FEAF) Workbook

The proposed action may impact agricultural resources.



This question asks the reviewing agency to evaluate potential impacts on agriculture. Agricultural resources means the land and on-farm buildings, equipment, manure processing and handling facilities and processing and handling facilities which contribute to the production, preparation and marketing of crops, livestock and livestock products as a commercial enterprise, including a commercial horse boarding operation, a timber operation, compost, mulch or other biomass crops, and commercial equine operation as defined in Article 25-aa.

One of the most important agricultural resources is soils. Productive soils allow farmers to obtain high crop yields with the least expense and damage to the environment. In order to be successful, farmers need not only good soils but also need access to open lands suitable for farming. Farmers also need to be able to install and use various land management systems to support the farm operation including irrigation, manure spreading, and the ability to move equipment over roads and bridges.

To answer this question

Review Part 1 questions E.1.b., E.3.a. and E.3.b.

If any agricultural activities are taking place on or adjacent to the project site, or if the project site is within a New York State Agricultural District, the proposed project may have adverse impacts on farming. If so, check "yes" to Question 8 and answer sub-questions (a) through (h). If no agriculture is taking place on or adjacent to the project site or if the property is not part of a New York State Agricultural District, check "no" to Question 8 and move on to Question 9.

Identifying potential impacts

The reviewing agency should evaluate the following sub-questions and decide if there will be any impact. If there will be an impact, the reviewing agency must then evaluate the magnitude of that impact, and decide if the impact will be small or moderate to large. This will depend on the overall scale and context of the proposed project as described in the Introduction to Part 2. The reviewing agency should be reasonable when conducting this review.

- If the proposed project exceeds a numeric threshold in a question, it is presumed to be a moderate to large impact.
- If the proposed project does not exceed a numeric threshold in a question, the reviewing agency should consider the scale and context of the project in determining if an impact may be small or moderate to large.
- These sub-questions are not meant to be exhaustive. The reviewing agency should use the "Other impacts:" sub-question to include any additional elements they feel need to be analyzed for potential impacts.

a. The proposed action may impact soil classified within soil group 1 through 4 of the NYS Land Classification System.

Highly productive soils are those that are best suited to producing food, feed, forage, fiber, and oilseed crops. In short, they are the best soils for high yields with minimum expense and the least damage to the environment. The NY Department of Agriculture and Markets has created a land classification system based on soils that are used in the agricultural assessment program pursuant to Article 25-AA of the Agriculture and Markets Law. Soil Groups can be identified at the NYS Ag and Markets Soil Group Numbers page. These soils are prime farmland soils and soils of statewide importance. An impact means that highly productive soils are taken out of agriculture and converted to non-farm use.

Applicable Part 1 Information

E.3.a. and E.3.b.

Analysis

- How many acres of soils identified as 1 through 4 in the New York State Land Classification System are present on the project site?

- How many acres of these soils will be impacted by the proposed project?
- What proportion of the total site are soils in group 1 through 4?

Will there be an impact?

If no highly productive soils classified in Soil Groups 1 through 4 exist on the project site, then there will be no related impacts. Check 'No, or small impact may occur."

Small Impact:

A small impact could occur under one or more of these circumstances:

- The project will temporarily use these soils but will restore them for agricultural use next season.
- A small proportion of these soil groups will be impacted and the remainder will remain in agriculture.
- There are many areas adjacent to the site having highly productive soils remaining in agriculture.
- Highly productive soils will be scraped away, stored nearby, and then spread after construction for reuse as agricultural soils.
- The land use is such that the highly productive soils could be used again in the future, i.e. they are not covered in structures or impervious surfaces but will remain in critical sizes useable for agriculture.

Moderate to Large Impact:

It is likely that one or more moderate to large impacts could occur under one or more of these circumstances:

- There will be permanent loss of these soils with no chance of use for agricultural purposes again.
- A large portion of the site will have the soils disturbed that will make it hard or impossible to continue use of them for agriculture.
- There are no other farmlands having such highly productive soils in the area.
- Construction and operation of the proposed project will limit access to adjacent highly productive farmlands.

b. The proposed action may sever, cross or otherwise limit access to agricultural land (includes cropland, hayfields, pasture, vineyard, orchard, etc).

Some developments make it harder for farmers to access their agricultural fields. Installation of fences, gates, structures, or even landscaping in the wrong location can all prevent farmers from reaching their fields. Similarly, changes in roads and bridges, driveway configuration, or changes in traffic configuration can all work to limit a farmers' ability to use large farm equipment and trucks.

Applicable Part 1 Information

E.1.a., and E.1.b.

Analysis

- Are there any agricultural fields on or adjacent to the project site?
- Are any structures, fences, signs, landscaping, gates, or similar structures sited in a manner that may prevent travel with large equipment along or to farm fields?
- Will the proposed project result in any significant changes in traffic or traffic patterns that may limit the farmers' ability to access farm fields?

Will there be an impact?

If no structures, other planned site features, road, driveway or traffic changes prevent access to farm fields on or adjacent to the proposed site, there will be no related impacts. Check 'No, or small impacts may occur."

Small Impact:

A small impact could occur under one or more of these circumstances:

- An action that severs, crosses, or limits access temporarily and the land can return to agricultural use after completion of the construction phase.
- Structures, fences, signs, gates or similar structures will be sited in a manner that will limit access but provisions have been made for farm equipment to have a right-of-way during certain times of the year, or in a different location acceptable to the farm landowner.
- New roads, driveways, and bridges are built that may make it harder to access farm fields, but they are designed to accommodate equipment and machinery so they do not limit it.

Moderate to Large Impact:

It is likely that one or more moderate to large impacts could occur under one or more of these circumstances:

- Structures, fences, signs, landscaping, gates, or similar structures are sited in a manner which prevents access to farm fields.
- Changes in traffic, road construction, bridges, and driveways are such that farm equipment will be unable to travel to reach farm fields.
- Landscaping, structures, fences or similar structures are placed in a way that shade fields and are too close to safely use farm equipment near them.

c. The proposed action may result in the excavation or compaction of the soil profile of active agricultural land.

Some actions use or travel across active agricultural fields during construction processes. Others excavate or remove soils, such as mines and soil or sod operations. Actions that excavates, removes, or

compacts, soils on active agricultural lands may impact the ability of those soils to be productive again for crops. Since farms depend on quality soils to grow crops, these activities could result in a loss of agriculture and farmland.

Applicable Part 1 Information

E.3.b.

Analysis

- Are there active agricultural lands on or adjacent to the project site?
- Will there be any excavation or removal of soils or any heavy equipment used that would compact soils?

Will there be an impact?

If there are no activities that will excavate or compact soils on active agricultural lands, or if there are no active agricultural lands on or adjacent to the project site, there will be no related impacts. Check 'No, or small impact may occur."

Small Impact:

A small impact could occur under one or more of these circumstances:

- Compaction of the soil profile is temporary and there are plans to restore that section of land to return it to agricultural use.
- A limited amount of excavation is planned but it will not result in the cessation of farming on the property or the loss of much farmland.

Moderate to Large Impact:

It is likely that one or more moderate to large impacts could occur under one or more of these circumstances:

- Compaction of the soil profile is long-term and done in a way that the land becomes unusable for active farmland.
- A large amount of excavation is planned so that there is no or little active farmland remaining.

d. The proposed action may irreversibly convert agricultural land to non-agricultural uses, either more than 2.5 acres if located in an Agricultural District, or more than 10 acres if not within an Agricultural District.

Some farmlands are included in a New York State Agricultural District established as per Article 25-AA of the Agriculture and Markets Law. There are NY Agricultural Districts established in each county of the State and in many rural towns, large areas of the municipality may be included in the NY Agricultural

District. (These districts should not be confused with local agricultural districts. Local agricultural districts are established through local zoning laws and are not the subject of this question.)

As land is converted to non-farm uses, it often becomes harder to maintain agriculture in the region in the face of competition for the land, escalating land prices, nuisance complaints, and incompatible land uses. Since the purpose of a New York State Agricultural District is to promote and encourage active farming, it is especially important to evaluate a project's impact on the ability of farmers in an Agricultural District to keep farming. Construction of commercial and residential structures, new roads, and removal of soil are all actions that irreversibly convert agricultural lands so that they cannot be farmed again in the future. There is often a cumulative effect of land conversion: When a large amount of land is converted, the ability of other farms in and around that location to remain in agriculture becomes harder over time.

Applicable Part 1 Information

E.1.b., and E.3.a.

Analysis

- Does the proposed project include activities such as building, land clearing, grading, filling, or soil removal of agricultural land on some or the entire project site?
- Is the project site located in a New York State Agricultural District?
  - If so, is the project site greater than 2.5 acres in size?
- Is the project site not included in a New York State Agricultural District?
  - If so, is the project site greater than 10 acres?

Will there be an impact?

If no agricultural lands are present, or if no farmlands are permanently converted to other land uses, there will be no related impact. Check 'No, or small impact may occur.'

Small Impact:

A small impact could occur under one or more of these circumstances:

- The proposed action may irreversibly convert agricultural land to non-agricultural uses, either less than 2.5 acres if located in an Agricultural District or less than 10 acres if not within an Agricultural District.
- Land that is converted is a use that is compatible with agriculture. This could include low density residential development, farm businesses, agri-tourism uses, or outdoor recreational uses like snowmobile trails or seasonal camps.

Moderate to Large Impact:

It is likely that one or more moderate to large impacts could occur under one or more of these circumstances:

- The proposed action may irreversibly convert agricultural land to non-agricultural uses, either more than 2.5 acres if located in an Agricultural District or more than 10 acres if not within an Agricultural District.
- The proposed action irreversibly converts agricultural land to moderate to high density residential uses adjacent to or near an active farm located in a NYS Agricultural.
- Known and identified critical masses of farmland are fragmented with non-farm uses.
- New infrastructure such as roads, water or sewer lines are installed into active farmland. This is growth inducing infrastructure that could eventually bring new development that would result in the future conversion of active agricultural land.

e. The proposed action may disrupt or prevent installation of an agricultural land management system.

Agricultural land management systems include placement and use of irrigation lines and equipment, fencing, crop and soil management (fertilizing, plowing, preparing, tending crops, soil erosion control, manure management, etc), and pesticide control. This question explores whether a proposed action would disrupt or prevent these agricultural activities. Reviewing agencies should look beyond the boundaries of the project site and evaluate whether the proposal may adversely affect the ability of adjacent farms to operate their agricultural operations.

Applicable Part 1 Information

E.1.a. and E.1.b.

Analysis

- Is the project location within a NY Agricultural District?
- Is active agriculture taking place on or adjacent to the proposed project site?
- What agricultural land management systems are being implemented and how might the proposed project disrupt or prevent them?

Will there be an impact?

If no agriculture is taking place in or adjacent to a project site, or if no part of the project will disrupt or prevent installation of agricultural land management practices, then there will not be any related impacts. Check 'No, or small impact may occur."

Small Impact:

A small impact could occur under one or more of these circumstances:

- The project construction phase results in temporary disruption to agricultural land management systems.

- Density of new residences or commercial uses is very low so as to be compatible with on-going farming.
- Proposed projects are agriculturally oriented such as farm support businesses, processing facilities or farm tourism facilities that are compatible with agricultural management systems.

Moderate to Large Impact:

It is likely that one or more moderate to large impacts could occur if:

- Development brings large numbers of non-farm uses and dwellings to an area which can prevent installation of land management systems due to concerns about noise, odor, or farm practices such as use of fertilizers and pesticides.

f. The proposed action may result, directly or indirectly, in increased development potential or pressure on farmland.

This question explores the growth inducing potential of the proposed project. Farmers rely on their farmland in order to remain in business. Farms do best when there is a critical mass of contiguous farmland located in an area. New, non-farm development can directly impact the ability of farms to remain in business directly, by removing lands that can be farmed. Or, non-farm development can fragment the critical mass of farmland to the point where farms can no longer efficiently operate. The more non-farm uses that are in and around farming operations, the more nuisance complaints there often are and farmers often have difficulty conducting their normal operations. Further, as lands are converted to non-farm uses, land values increase making it harder for farmers to maintain their land in farming or to buy other lands needed for their businesses. There is also a demand for new public services such as water, sewer and improved roads. All of these will directly or indirectly make it increasingly more expensive and difficult to continue farm operations. As farmers see the impermanence of agriculture as a land use, farms can increasingly be sold for non-farm uses.

Applicable Part 1 Information

C.2.c., C.3., D.2.c., D.2.d., D.2.j., D.2.t., E.1.b., E.3.a., and E.3.b.

Analysis

- Will the proposed project remove active farmlands?
- Are there other non-farm uses in the area already and
  - If so, how many in comparison to farm uses?
- Is there an area in Town that is a large, concentrated block of farmland?
  - If so, does this project fragment these active farming areas?

- Will the proposed project introduce new public services or improvements such as water and sewer lines that will make it more attractive for future non-farm growth?
- Is the proposed use compatible with surrounding agricultural operations that may exist?
- Is there a local or county right-to-farm law in the community where the proposed action is taking place?

Will there be an impact?

If there are no agricultural activities taking place in, adjacent to, or near the project site, it is not likely that there will be increased development pressure that would negatively impact farms. If so, check 'No, or small impact may occur."

Small Impact:

A small impact could occur if:

- The project includes very low density residential development and small scale non-residential development that can be shown to be compatible with farming.
- The project includes agricultural businesses, food processing, and other agri-businesses that require produce grown locally that would support continued active farming nearby and in the region.

Moderate to Large Impact:

It is likely that one or more moderate to large impacts could occur under one or more of these circumstances:

- Moderate to high residential density that can result in loss of farmland and farming activity.
- Provision of water and sewer systems as well as road improvements that bring more people and traffic to a farming area. These are growth inducing and will likely negatively impact farms over time.
- Large commercial employers bringing in large structures, intense uses, and traffic that could adversely affect farms.
- Land use conversions that increase the price of land make it harder for farmers to maintain their land due to increased taxes and makes it harder to buy new land to expand operations.

g. The proposed project is not consistent with the adopted municipal Farmland Protection Plan.

Many counties and local towns have adopted farmland protection plans. These plans usually identify critical farmlands, characterize current farming activities, discuss new opportunities for farming, and make recommendations on where and what kind of farming is planned for in the future. Other communities do not have a separate farmland protection plan, but do include this topic as part of their adopted Comprehensive Plan. Both types of plans should be considered as addressing future plans for agriculture in the community.

The reviewing agency should become familiar with locally adopted plans to understand long- and short-term plans related to farming in general and that neighborhood or parcel in particular. Some plans may identify certain areas as being critical farmlands where agricultural activities should be the primary land use. Others are more general and offer general vision and goals about what is desired for agriculture in the future.

Applicable Part 1 Information

C.2.a., C.2.b., and C.2.c.

Analysis

- Do the plans recommend specific actions related to the location of the proposed activity?
  - How is the proposed project consistent with those recommendations?
- Are there general goals that establish the role agriculture should play in the community?
  - How is the proposed project consistent with those goals?
- Is the land in and around the project site identified as being of particular importance to long-term agricultural uses in the municipality?
  - If so why and how, and is the proposed project consistent with continued use of agriculture in that area?

Will there be an impact?

If there are no agricultural activities in or near the project site, or if the proposed plan is shown to be fully consistent with the goals, recommendations, and actions established in the local plans, then there will be no related impact. Check 'No, or small impact may occur."

Small Impact:

A small impact could occur if:

- The proposed project occurs on lands that are not currently farmed and that are not part of the critical mass of farmland identified in the municipality.
- The project is of small scale and will not impair continuation of farm activities in areas of the town shown in the plan to be those where agriculture is considered the primary land use.
- The project helps the community meet its goals to attract agriculturally related businesses such as a food processing plant that will use locally grown foods, a sawmill that uses lumber from local forests, or a restaurant oriented around serving locally grown food.

Moderate to Large Impact:

It is likely that one or more moderate to large impacts could occur under one or more of these circumstances:

- A project removes lands from production that are identified in the plan as part of the areas critical farmland.
- The project introduces land uses that are incompatible with agriculture in an area identified in the plan as critical farmlands or that will induce non-agricultural growth.
- The project introduces a moderate to high density of population that will make it more likely that there will be farm/non-farm incompatibility and nuisance complaints will develop in an area identified in the plan as suitable for low density residential development.
- A project that does, or could induce growth in the future with new road, water or sewer infrastructure that would ultimately be incompatible with areas planned for agriculture.

h. Other impacts:

There may be other impacts identified by the reviewing agency that are not addressed by the above questions. If so, they should be identified and briefly described here.

Some proposed actions may have beneficial impacts on the environment. The reviewing agency can use the 'other' category for that purpose, too.

Question 9 - Impact on Aesthetic Resources - Full EAF (Part 2)

Full Environmental Assessment Form (FEAF) Workbook

The land use of the proposed action are obviously different from, or are in sharp contrast to, current land use patterns between the proposed project and a scenic or aesthetic resource.



This question explores consistency in land use between the proposed project and other land uses that may be seen from or part of a scenic or aesthetic resource. It is oriented to those scenic and aesthetic resources that are officially designated and publicly accessible. Officially designated scenic areas include scenic byways, scenic roads, scenic areas of statewide significance, scenic trails, and scenic rivers. Other designated areas may also include places or sites listed on the National or State Registers of Historic Places, State Parks, State Forest Preserve areas, State Game Refuges, National Natural Landmarks, and

National Park Service Lands. Note that other areas may also be designated for scenic and aesthetic reasons at the local level. For example, some local municipalities have conducted their own scenic inventory and have designated those areas in county or local plans, and may include municipal parks and designated open spaces, local roads, or historic areas. Others have designated critical environmental areas for aesthetic reasons. Publicly accessible aesthetic or scenic resources are those that can be viewed from public lands or on public roads.

In order to determine if a project is obviously different from or in sharp contrast to current land use patterns part that are viewed from or part of a scenic resource, you will have to understand the context and scale of other land uses. "Different or in sharp contrast" may mean bigger, taller, higher, more dense, an obviously different color or design, or where the landscape is significantly changed. For example, a project that removes 10 acres of woodland on a completely wooded hillside is likely to result in a landscape that is in sharp contrast to current patterns. Or a 300 unit residential complex proposed on a parcel that is surrounded by large agricultural fields seen from a scenic byway would also be obviously different or in sharp contrast to the current agricultural nature.

When answering this question, first determine if an officially designated scenic or aesthetic resource is present. If so, then look at Part 1, Question E1b to understand the current land uses and cover types that are in the area and potential changes after project completion. The following may help you answer this question:

- Will the proposed activity introduce a different land use in or near the project site?
- Will the proposed activity have architectural features and site design that is visually consistent with other buildings and structures in the area?
- Will the proposed activity introduce a different level or kind of activity in the area that is very different from what currently exists?
- How far away is the proposed project site from the scenic or aesthetic resource?

To answer this question

Review Part 1 questions C.2., C.3., D.1.a., D.1.g., D.2.n., E.1.a., E.1.b., E.3.c., E.3.g., and E.3.h.

If the project will create a land use that is obviously different or in sharp contrast to these existing land uses when viewed from or within a scenic resource, then answer 'Yes' to Question 9 and then complete sub-questions (a) through (g). If there is no obvious change or sharp contrast in land uses, then check "No" to Question 9 and move on to Question 10.

Identifying potential impacts

The reviewing agency should evaluate the following sub-questions and decide if there will be any impact. If there will be an impact, the reviewing agency must then evaluate the magnitude of that impact, and

decide if the impact will be small or moderate to large. This will depend on the overall scale and context of the proposed project as described in the Introduction to Part 2. The reviewing agency should be reasonable when conducting this review.

- If the proposed project exceeds a numeric threshold in a question, it is presumed to be a moderate to large impact.
- If the proposed project does not exceed a numeric threshold in a question, the reviewing agency should consider the scale and context of the project in determining if an impact may be small or moderate to large.
- These sub-questions are not meant to be exhaustive. The reviewing agency should use the "Other impacts:" sub-question to include any additional elements they feel need to be analyzed for potential impacts.

a. Proposed action may be visible from any officially designated federal, state, or local scenic or aesthetic resource.

Officially designated scenic areas include scenic byways, scenic roads, scenic areas of statewide significance, scenic trails, and scenic rivers. Other locations and areas may also be designated for scenic and aesthetic reasons at the local level. See the above discussion of other officially designated scenic or aesthetic resources. You may want to review the DEC Program Policy on Visual Impacts: DEP-00-2 "Assessing and Mitigating Visual and Aesthetic Impacts." (PDF) (1.35 MB)

Applicable Part 1 Information

E.3.h.

Analysis

- Is the project site visible from a designated scenic resource?
- How much of the project site is visible?
- How much distance is there between the project and resource?
- Is the visibility of the project seasonal?
  - If so, is the project site visible at the same time of year that the public views the scenic or aesthetic resource?
- What general land uses exist between the project site and scenic resource?
  - Will the project site be in sharp contrast to those land uses?

Will there be an impact?

If the proposed project is not visible from any officially designated federal, state, or local scenic or aesthetic resource, or there are no such designated resources in the area, then there will be no related impacts. Check 'No, or small impact may occur."

Small Impact:

Some examples of small impacts that might fall into this category are:

- The project will be partly visible, but it is not in sharp contrast with other existing land uses in the area.
- The project will be partly to mostly visible, but it is very far away from the scenic resource and is not in sharp contrast to existing land uses in the area.
- A limited portion of the project will be visible, but from very few publicly accessible locations.
- The project will be visible but vegetation or other factors such as distance and topography screen and soften the visibility of it.

Moderate to Large Impact:

Some examples of moderate to large impacts that might fall into this category are:

- The project will be visible and is in sharp contrast to surrounding land uses by virtue of its scale, dimension, color, or height.
- The project is not in sharp contrast to existing land uses in the area but is very visible.
- The project will obstruct or partially obstruct publicly accessible views of the scenic resource.
- The project is situated so that it changes the visual aspect of the scenic resource.

b. The proposed action may result in the obstruction, elimination or significant screening of one or more officially designated scenic views.

Placement of new structures, including signs, fences, or landscaping may obstruct, screen or otherwise prevent views of a scenic resource from publicly accessible locations. Other projects may remove vegetation that has served to screen non-scenic resources that may now become visible from publicly accessible locations. Any project activity that changes the views from or to a scenic resource could potentially have adverse impacts.

Applicable Part 1 Information

E.3.h. and C.2.b.

Analysis

- Are any new structures, including signs, fences or landscaping placed on the project site in such a way as to obstruct views from or to a scenic resource?

- Have any changes been proposed that will remove landscaping or fences that screen non-scenic resources also visible from or to a scenic area?

Will there be an impact?

If no features of the proposed project will obstruct, eliminate or screen views from or to a scenic or aesthetic resource, then there will be no related impacts. Check 'No, or small impact may occur."

Small Impact:

Some examples of small impacts that might fall into this category are:

- The project will be visible, but it is not in sharp contrast with other existing land uses in the area and will not obstruct, eliminate or screen the scenic resource.
- The project will be visible, but it is very far away from the scenic resource and is not in sharp contrast to existing land uses in the area.

Moderate to Large Impact:

Some examples of moderate to large impacts that might fall into this category are:

- The project will obstruct or partially obstruct publicly accessible views of the scenic resource.
- The project is situated so that it changes the visual aspect of the scenic resource by being in sharp contrast to the surrounding land uses or by screening the scenic resource.
- The project will eliminate or partially eliminate, obstruct, or screen the scenic resource.

c. The proposed action may be visible from publicly accessible vantage points: i. Seasonally (e.g., screened by summer foliage, but visible during other seasons) ii. Year round

Publicly accessible vantage points may be scenic viewing spots, identified road pull-offs and overlooks, parks and greens, road sections within a scenic byway, or other locally designated spots. These are locations where one can view a scenic or aesthetic resource. Some vantage points may have year-round views of the scenic resource. Others may be important during the winter season when leaves are off the trees.

Applicable Part 1 Information

E.3.h.

Analysis

- Will the proposed site be visible from any publicly accessible vantage point?
  - If so, what will be seen and how much of the project will be visible?

Will there be an impact?

If the project site is not visible from any publicly accessible vantage point, then there will be no related impacts. Check 'No, or small impact may occur.'

Small Impact:

Some examples of small impacts that might fall into this category are:

- Only a limited portion of the project will be visible when there are no leaves on the trees and the rest of the year, vegetation will largely screen the site.
- The project can only be seen from very limited locations that are publicly accessible.
- Some portion of the project will be visible during the winter when leaves are off the trees but the scale, color, dimension, and type of land use is consistent with and not in sharp contrast to the scenic resources and surrounding land uses.

Moderate to Large Impact:

Some examples of moderate to large impacts that might fall into this category are:

- The site will be very visible all year round and will not be screened by vegetation.
- The project is viewed by many publicly accessible vantage points.
- The project results in a land use that is in sharp contrast to surrounding land uses seen from or in the scenic resource.
- The project is of scale, color, or dimension that will be highly visible from publicly accessible scenic resources.

d. The situation or activity in which viewers are engaged while viewing the proposed action is:

i. Routine travel by residents, including travel to and from work
ii. Recreational or tourism based activities

e. The proposed action may cause a diminishment of the public enjoyment and appreciation of the designated aesthetic resource.

When a proposed project is part of or visible from a scenic or aesthetic resource, it will be viewed by many different people in different circumstances. This question explores whether the project site is in a location that will be viewed on a daily and constant basis by members of the community and/or if it is within a location that also has an important role in recreation or a tourism economy of the area. Both are important and changes to scenic and aesthetic resources may have adverse impacts on both the quality of life of residents and broader economic impacts.

Applicable Part 1 Information

E.3.h., E.2.q., and E.1.c.

Analysis

- How often will members of the community view the project site?
- Is the project site in or viewed from a scenic or aesthetic resource that is important to recreation in the area or to tourism?
  - If so, how?
- How will that project site change the use or perception about that scenic resource?

Will there be an impact?

If the project site is not visible from or within a scenic or aesthetic resource, it will not have any related impacts. Check 'No, or small impact may occur.'

Small Impact:

Some examples of small projects that might fall into this category are:

- The project site is visible from minor roads used by a limited number of local residents only and is not part of a recreational or tourism related activity.
- A limited portion of the project site is visible, but because it is not in sharp contrast to the scenic resource or surrounding land uses, there will be no diminishment of the designated resource.

Moderate to Large Impact:

Some examples of moderate to large impacts that might fall into this category are:

- The project site is visible from major roads and highly traveled routes used by many residents and visitors.
- The project site is visible from, is in, or obstructs a scenic resource that plays a key role as part of a recreational or tourist asset of the community.
- The project site is visible and because it is in sharp contrast to the scenic resource and surrounding land uses, will significantly reduce enjoyment and appreciation of the scenic resource.

f. There are similar projects visible within the following distance of the proposed project:

0-1/2 mile
½ -3 mile
3-5 mile
5+ mile

Similar projects include those of the same use, but also of similar scale, context, dimensions, density, design, or location.

Applicable Part 1 Information

D.1.a., E.1.a., D.1.f., and D.1.g.

Analysis

- How many land uses are similar to the proposed project?
- How far away are those similar projects?
- How are the land uses similar?
    - Scale, color, intensity of use, type of land use, height or other bulk dimensions, size of lot, or cover type?
- If there are no other similar users will the proposed use be in sharp contrast to the overall landscape?

Will there be an impact?

If the proposed project is similar to multiple developments or projects in the area in terms of scale, context, dimensions, density, design, and location, then it is not likely to have any impacts to scenic or aesthetic resources. The reviewing agency will need to decide however, what the threshold is for how many other similar projects may be visible. That depends solely on the context of the community. The reviewing agency will need to determine a threshold for what would constitute no impact for this question. When a scenic or aesthetic resource is being evaluated it is likely that some impact may occur even though there are many similar projects in the area.

Small Impact:

Some examples of small projects that might fall into this category are:

- The project is fully or partially visible, but there are other land uses of similar scale, design, density, dimension, or location both nearby and far away so that the context of the scenic resource does not change.

Moderate to Large Impact:

Some examples of moderate to large impacts that might fall into this category are:

- The project is visible, but there are none or very few other land uses of similar scale, design, density, dimension, or location nearby so that the context of the scenic resource changes and the proposed activity will be in sharp contrast to existing resources.

g. Other impacts:

There may be other impacts identified by the reviewing agency that are not addressed by the above questions. If so, they should be identified and briefly described here.

Some proposed actions may have beneficial impacts on the environment. The reviewing agency can use the 'other' category for that purpose, too.

Question 10 - Impact on Historic and Archeological Resources - Full EAF (Part 2)

Full Environmental Assessment Form (FEAF) Workbook

The proposed action may occur in or adjacent to a historic or archaeological resource.



Bluff Point (Photo: Susan L. Shafer)

Historic resources provide an important cultural and economic focus in a community. They are often tourism destinations and community anchors that support other artistic, cultural, educational, recreational, and entertainment resources. Historic resources tell the stories of each community's pattern of growth and development, and they help create a sense of place and uniqueness that differentiates one community from another. They are important economic and educational assets, and are critical components of community pride and local character.

Archeological sites hold important information about the state's pre-European contact and historic populations. They help document cultures, traditions, and historic human interaction with the environment. In many cases archeological data is the only information available about the area's early peoples and places. It is important to understand the delicate, nonrenewable nature of archeological sites. The fundamental value of archeology lies in the information that sites and artifacts offer about the way humans have lived in the past. Once archeological material has been removed from the ground and not properly preserved, whether through excavation or as a result of looting, development, erosion, or other processes, the site is destroyed forever, and its information lost.

The terms "archeological" and "historic" are specifically included in the definition of the "environment" in Part 617.2(l) as physical conditions potentially affected by a project.

To answer this question

Review Part 1 questions E.3.e., E.3.f., and E.3.g.

Ask the following questions to see if you need to further evaluate the sub-questions in this section:

- Does the project site contain, or is it contiguous with a building, historic district, or archaeological site on or nominated for the National or State Register of Historic Places?
- Does the project site contain, or is it contiguous with, an area designated as sensitive for archaeological sites.
- Does the project site contain, or is it contiguous with, a known archaeological site, even though it may not be included on the NY SHPO inventory?

If the answer to all of these questions is no, check "no" to Question 10 and move on to Question 11. However, if the answer to any of these questions is yes, check "yes" to question 10 and answer sub-questions (a) through (e)

Identifying potential impacts

The reviewing agency should evaluate the following sub-questions and decide if there will be any impact. If there will be an impact, the reviewing agency must then evaluate the magnitude of that impact, and decide if the impact will be small or moderate to large. This will depend on the overall scale and context of the proposed project as described in the Introduction to Part 2. The reviewing agency should be reasonable when conducting this review.

- If the proposed project exceeds a numeric threshold in a question, it is presumed to be a moderate to large impact.
- If the proposed project does not exceed a numeric threshold in a question, the reviewing agency should consider the scale and context of the project in determining if an impact may be small or moderate to large.
- These sub-questions are not meant to be exhaustive. The reviewing agency should use the "Other impacts:" sub-question to include any additional elements they feel need to be analyzed for potential impacts.

a. The proposed action may occur wholly or partially within, or substantially contiguous to, any buildings, archaeological site or district which is listed on or has been nominated by the NYS Board of Historic Preservation for inclusion on the State or National Register of Historic Places.

Properties listed on the State or National Register of Historic Places and properties determined eligible for the Registers receive some protection from the effects of federal or state agency sponsored, licensed or assisted projects. There are no restrictions placed on private owners of registered properties. Private property owners may sell, alter or dispose of their property as they wish.

The following criteria are used to evaluate properties for listing on the New York State and National Registers of Historic Places. The quality of significance in American history, architecture, archeology, engineering, and culture is present in districts, sites, buildings, structures, and objects that possess integrity of location, design, setting, materials, workmanship, feeling, and association, and:

- that are associated with events that have made a significant contribution to the broad patterns of our history; or
- that are associated with the lives of persons significant in our past; or that embody the distinctive characteristics of a type, period, or
- method of construction, or that represent the work of a master, or that possess high artistic values, or
- that represent a significant distinguishable entity whose components may lack individual distinction; or that have yielded, or may be likely to yield, information important in prehistory or history.

Applicable Part 1 Information

E.3.e.

Analysis

- Is the proposed project location in a historic district?
- Is the proposed project next to, or contiguous with any buildings or sites listed on the National or State Register of Historic Places?
- Are there any buildings or sites near the project location that have been nominated for listing on the National or State Register of Historic Places?
- For what reason was the site placed on the Register?
    - History?
    - Architecture?
    - Archeology?
    - Engineering?
    - Cultural?
- Will the proposed project alter or affect any of the criteria used to evaluate and place the building or site on the Register?
    - Will it affect the physical integrity of the building or site?
    - Will it restrict any existing public access to the building or site?

- Will it obstruct the view of the building or site?

Will there be an impact?

If there are no buildings, archeological sites, or historic districts listed or nominated to be listed on the State or National Register of Historic Places on or contiguous to the proposed project site, then there will be no related impacts. Check 'No, or small impact may occur."

Small Impact:

A small impact could occur if:

- There is no historic or archaeological resource on the site, but there may be a small impact to community character because of concerns over consistency with existing architectural and aesthetic resources.
- There are historic or archaeological resources on the site, but the project design is such that no disturbances or major changes to historic structures will occur. For example, the location where archaeological resources exist will be avoided, or the historic structure on the property will be maintained and restored.
- Minor disturbances to the resources will occur or minor changes to the aesthetic or scenic quality of the area but these do not destroy the historic resource or drastically change the character of the area.
- Work at a location that is locally designated and historic preservation permits are issued that indicate identified work as being in compliance with relevant local historic preservation code.

Moderate to Large Impact:

Moderate to large impacts may occur if:

- Historic structures are planned to be demolished or relocated as part of the development plan.
- Historic structures are to be remodeled in a way that destroys or damages its historic value.
- The project introduces an architectural design that is not consistent with an existing designated historic district and that is not consistent with the long-term vision the community has for its aesthetic character as identified in an adopted comprehensive plan.
- The project changes the character or view of important aesthetic resources.

b. The proposed action may occur wholly or partially within, or substantially contiguous to, an area designated as sensitive for archaeological sites on the NY State Historic Preservation Office (SHPO) archaeological site inventory.

The National Register of Historic Places defines an archeological site as "the place or places where the remnants of a past culture survive in a physical context that allows for the interpretation of these remains" (National Register Bulletin 36, "Guidelines for Evaluating and Registering Historical Archeological Sites

and Districts"). One of the primary criteria used for evaluating listing a property on the National Register of Historic Places is that "...they have yielded, or may be likely to yield, information important to prehistory or history."

The presence of a significant cultural resource within a proposed project may affect development by requiring relocation or modification of design plans to avoid damage to culturally significant areas. The sequence of studying archaeological resources is:

- Phase I Reconnaissance
  - Phase IA (literature and document review and sensitivity assessment)
  - Phase IB (field investigations)
  - A Phase I study produces a final report that identifies sensitive areas and standing structures within a project area and tests that project for traces of the past.
  - The Phase I report presents a summary of all the findings and recommendations either of no adverse impact, or continuation to the next phase of investigation (Phase II Site Evaluation).
- Phase II Site Evaluation
  - Involves additional research and excavation to collect the data necessary for evaluating a site's data potential and research significance.
  - Obtains detailed data on the boundaries, age, function, integrity, and significance in support of a recommendation for National Register eligibility.
- Phase III Data Recovery
  - Usually recommended in response to a determination of adverse effect.
  - A detailed data recovery plan is developed with guidance from and approval of SHPO

Applicable Part 1 Information

E.3.f.

Analysis

- Are there any areas designated as sensitive archaeological sites within or contiguous with the proposed project location?
- Have there been any phase I, II, or III studies done on the site?
- Will there be any disturbance of the archaeological resource?
  - Will it affect the physical integrity of the site?
  - Will it restrict any existing public access to the site?
  - Will it obstruct the view of the site?
  - Will it alter any access to the site for purposes of scientific, historic, or archeological research?

- Does the proposed project include any avoidance or mitigation measures?

Will there be an impact?

If there are no areas designated as sensitive for archeological sites on or contiguous to the proposed project site, then there will be no related impacts. Check 'No, or small impact may occur."

Small Impact:

An example of a small impact could occur if:

- There are archaeological resources known to occur in the vicinity of the project that are already included in a sensitive area designated by the SHPO, but a site-specific inventory shows that no artifacts at the specific site that will be disturbed.
- There are archaeological resources known to occur in the vicinity of the project that are already included in a sensitive area designated by the SHPO, and site specific inventory and recover of artifacts has already been completed.

Moderate to Large Impact:

A moderate to large impact could occur if:

- Archeological resources are present on the actual site and the site is included in a sensitive area designated by the SHPO, but the project is such that the artifacts will be destroyed, covered, or built on in a manner which makes it impossible to study or recover artifacts in the future.

c. The proposed action may occur wholly or partially within, or substantially contiguous to, an archaeological site not included on the NY SHPO inventory.

Not all archeological sites are listed in the SHPO inventory. There may be local knowledge of a resource, or historic records that exist but have not been thoroughly investigated. Local comprehensive or open space plans may identify areas that are suspected to contain archeological resources, but are not confirmed. Some local communities have extensive historic inventories completed that will yield direct information or clues as to where archaeological sites may be located.

Applicable Part 1 Information

E.3.g.

Analysis

- Are there any areas on the site with known, but not inventoried, archaeological resources?
- Are there records or maps that describe or show historic locations of human habitation that are now no longer self-evident?
- What is the source of the identification?

- Have there been any archeological studies done on the site?
- Will there be any disturbance of the archaeological resource?
  - Will it affect the physical integrity of the site?
  - Will it restrict any existing public access to the site?
  - Will it obstruct the view of the site?
  - Will it alter any access to the site for purposes of scientific, historic, or archaeological research?
- Does the proposed project include any avoidance or mitigation measures?

Will there be an impact?

If there is no evidence that there are any un-inventoried archeological sites on or contiguous to the proposed project site, then there will be no related impacts. Check 'No, or small impact may occur."

Small Impact:

An example of a small impact could occur if:

- There are archaeological resources known to occur in the vicinity of the project, but a site-specific inventory shows that there are no artifacts at the specific site that will be disturbed.
- There are archaeological resources known to occur in the vicinity of the project and site specific inventory and recovery of artifacts has already been completed.

Moderate to Large Impact:

A moderate to large impact could occur if:

- Local historical information indicates that archeological resources may be present on the actual site but there is no study or inventory completed. The proposed project is one where potential artifacts could be destroyed, covered, or built on in a manner which makes it impossible to recover artifacts in the future.

d. Other impacts:

There may be other impacts identified by the reviewing agency that are not addressed by the above questions. If so, they should be identified and briefly described here.

Some proposed actions may have beneficial impacts on the environment. The reviewing agency can use the 'other' category for that purpose, too.

e. If any of the above (a-d) are answered "Yes", continue with the following questions to help support conclusions in Part 3:

i. The proposed action may result in the destruction or alteration of all or part of the site or property.
ii. The proposed action may result in the alteration of the property's setting or integrity.

iii. The proposed action may result in the introduction of visual elements which are out of character with the site or property, or may alter its setting.

Once a historic or archeological resource is altered or destroyed, it is impossible to replace. All of these sub-questions (i to iii) assume there will be some impact to the resource being evaluated. It is up to the reviewing agency to determine whether or not it will be a small impact, or a moderate to large impact.

Applicable Part 1 Information

C.2., C.3., E.1.a., E.1.b., E.3.e., E.3.f., E.3.g., and E.3.h.

Analysis

Analysis of question e. is based on the answers to (i), (ii), and (iii).

Will there be an impact?

If the answer to all of the (i) to (iii) questions is no, there will be no related impacts. Check 'No, or small impact may occur." If any of the answers to the (i) to (iii) questions are yes, then the reviewing agency will need to evaluate the potential magnitude of any associated impact in Part 3.

Question 11 - Impact on Open Space and Recreation - Full EAF (Part 2)

Full Environmental Assessment Form (FEAF) Workbook

The proposed action may result in a loss of recreational opportunities or a reduction of an open space resource as designated in any adopted municipal open space plan.

There are many recreational opportunities that may be impacted by proposed actions. When a location is converted from undeveloped land to residential, commercial, or industrial uses, there is at least some loss of open spaces that are or could be used for outdoor recreation. There could be a loss of recreational opportunities such as hunting, fishing, and hiking, as well as, but not limited to hiking, mountain biking, bird watching, photography, and recreational vehicle use. Some communities have unique recreational opportunities such as caves for spelunking or cliffs for rappelling that could be impacted.

Open space resources are defined differently in different places. All open spaces are undeveloped areas, but these may range from, but not limited to large forests, patches of woodland, and farm fields to village greens, public parks, state lands, wetlands, and rivers and river corridors.

Municipalities can plan for their recreation and open space needs by developing and adopting a recreation plan, open space plan, or comprehensive plan. Sometimes, a comprehensive plan includes both recreation and open space planning. Part 1 will identify which of these plans are present and relevant to the proposed project. However, it will be useful if the reviewing agency become familiar with recreation, open space and comprehensive plans to understand what the community's goals for these resources are.

These plans may also establish municipal policies, and outline plans for capital improvements to or purchase of lands for new trails, open spaces, or recreation areas. Many of these plans will also identify critical open spaces and establish municipal policies oriented towards protection of those areas. Both applicants and reviewing agencies should be familiar with the municipal plans so that they can fully evaluate potential impacts on those resources.

To answer this question

Review Part 1 questions C.2.c., E.1.c., and E.2.q.

If after examining Part 1 answers and local recreation, open space or comprehensive plans, the reviewing agency determines that the proposed project will result in a loss of recreational opportunities or open space resources, check 'Yes' to Question 11 and answer all the sub-questions (a) through (e). If the reviewing agency determines there are no recreational or open space resources that will be lost as a result of a proposed project, check 'No' to Question 11 and move on to Question 12.

Identifying potential impacts

The reviewing agency should evaluate the following sub-questions and decide if there will be any impact. If there will be an impact, the reviewing agency must then evaluate the magnitude of that impact, and decide if the impact will be small or moderate to large. This will depend on the overall scale and context of the proposed project as described in the Introduction to Part 2. The reviewing agency should be reasonable when conducting this review.

- If the proposed project exceeds a numeric threshold in a question, it is presumed to be a moderate to large impact.
- If the proposed project does not exceed a numeric threshold in a question, the reviewing agency should consider the scale and context of the project in determining if an impact may be small or moderate to large.
- These sub-questions are not meant to be exhaustive. The reviewing agency should use the "Other impacts:" sub-question to include any additional elements they feel need to be analyzed for potential impacts.

a. The proposed action may result in an impairment of natural functions, or "ecosystem services", provided by an undeveloped area, including but not limited to stormwater storage, nutrient cycling, and wildlife habitat.

Natural ecosystems and the plants and animals within them provide humans with services that would be very difficult to duplicate. Many of these services are performed seemingly for "free", yet are worth many trillions of dollars. Ecosystems provide many "services". For example some ecosystem services include seed dispersal, wetlands that detoxify waters, natural control of agricultural pests, pollination of crops and natural vegetation, protection of streams, river and coastal shores from erosion, and contribution to climate stability, among many others. Ecosystem services are fundamental to life.

Many human activities disrupt, impair, or reengineer ecosystems every day including those that impact the resources and activities that are a subject of SEQR such as:

- Runoff of pesticides, fertilizers, and animal wastes and erosion of soils
- Pollution of land, water, and air resources
- Destruction of wetlands or deforestation
- Urban sprawl

By examining Part 1 questions, especially those that provide information about what ecosystems are present, the reviewing agency can begin to understand what ecological role those areas play. Evaluating this question in Part 2 will require reviewing agencies to be familiar with all aspects of the project and to synthesize Part 1 information so that they understand what natural ecosystems and functions may be impacted.

Applicable Part 1 Information

D.2.e., E.1.b., E.2.h., E.2.m., E.2.n., E.2.o., and E.2.p.

Analysis

There are a wide variety of questions that could be asked related to this sub-question. A sampling of major questions includes:

- Will additional stormwater or changes surface water flows result from the project?
- What surface water bodies will be affected by the project?
- Will the project affect groundwater?
- Will there be removal of natural vegetation, such as in a woodland or along a stream or river?
- Will wetlands be impacted?
- Will there be a loss of natural cover types such as woodlands, meadows, or grasslands?

- Will there be a loss of habitats or biodiversity?

Will there be an impact?

All development impacts natural functions, even if in a small way. There may be limited situations where no impact could occur. It is possible that no impact to natural functioning would result if a proposed project is located at a site that is already fully disturbed and converted to developed land uses. An example of this could be development of a new structure in an existing parking area located at a large regional shopping mall. If there is no impact, check 'No, or small impact may occur.'

Small Impact:

A small impact could occur under one or more of these circumstances:

- The physical size of the area to be impacted is small in relation to the scale of the natural resource and the resource is not identified as a significant or rare habitat or other critical location.
- The proposed project will not induce growth or contribute to the cumulative degradation of a natural resource.

Moderate to Large Impact:

A moderate to large impact could occur under one or more of these circumstances:

- The physical size of the area to be impacted is small, but the natural resource affected is unique, significant, limited in its range, or plays an important role in the ecology of the area.
- Large areas of the natural resource will be physically disturbed, obstructed, or diminished.
- The proposed project will have impacts on and off-site to natural resources due to ecological or physical connections.
- The proposed project may have small impacts but is one that is likely to induce future growth that will have adverse cumulative impacts.

b. The proposed action may result in the loss of a current or future recreational resource.

c. The proposed action may eliminate open space or recreational resource in an area with few such resources.

Some actions may convert natural areas that are used now, or planned to be used in the future for recreational activities. This question asks the reviewing agency to explore the recreational role that the area plays. Thus, you should examine whether opportunities for hunting, trapping, fishing, hiking, bird watching, photography, or use of motorized recreational vehicles will be lost or minimized, or whether the proposed project would prevent such uses in the future. Reviewing agencies should think broadly to how the particular parcel relates to other nearby areas. For example, a community has long-term plans for creation of a 10 mile trail between two villages. The proposed project is located in the middle and in a

location that would fragment the lands available for that trail. Conversion of that land to commercial use could result in a disconnect from one end of the trail to the other. In that case, the proposed project affects future recreational resources.

Some urban and suburban communities have limited open spaces and recreational resources. There may be only small patches of woodland, ribbons of greenspaces along creeks and streams, or public parks. For example, stream corridors and the trees and plants that grow beside them are critical travel corridors for wildlife and link larger habitat areas. A proposal includes removal of that vegetation and conversion to a commercial use. There may be a park or other greenspace near the project site that is a favored location for bird and other wildlife viewing. If a proposed project includes removal of that streamside vegetation, then it is possible that wildlife populations may be reduced in the nearby park and thus the project has impacted the limited recreational resources of the community.

Applicable Part 1 Information

C.2.a., C.2.c., E.1.c., and E.2.q.

Analysis

- Is the project site currently used as a recreational resource?
  - If so, how?
- Is the project site an open space that serves as an important link between other larger open spaces? (An aerial photograph can easily show this).
- Will the project result in a loss of those resources?
  - If so, how, and to what extent?
- Does the community have long-term plans for recreational use of that property?
  - If yes, how?
  - If yes, will the proposed project prevent those plans from coming about?
    - If so, how?

Will there be an impact?

If there are no recreational uses of the project site now, or if there are no planned recreational uses for that site, then there will be no related impacts. Check 'No, or small impact may occur.'

Small Impact:

A small impact could occur under one or more of these circumstances:

- Existing or planned recreational resources are near, but not adjacent to the proposed project.
- The proposed project is adjacent to an existing or planned recreational resource and may cause minor disturbances during construction phase but will not impair use or enjoyment of that resource.

Moderate to Large Impact:

A moderate to large impact could occur under one or more of these circumstances:

- The proposed project diminishes recreational resources or access to those existing or planned recreational resources.
- The proposed project disturbs land in one location that will result in direct or indirect loss of habitats that support fish and wildlife species on existing or planned recreational lands.
- Construction and/or operational phases of the proposed project will significantly reduce access to the recreational resource.

d. The proposed action may result in loss of an area now used informally by the community as an open space resource.

Sometimes, private and public lands become informal recreational areas for neighbors and residents. Areas used informally are not officially designated as parks, trails, public open spaces, or having public access for other outdoor activities. Nonetheless, these opportunities are sometimes important to the community, and to the area's economy. Common activities done on an informal basis include hunting, trapping, fishing, hiking, and using recreational vehicles on self-made trails. They may also provide informal connections between other, more formally designated recreation areas. Most of the time, these uses have the approval of the landowner, but there is usually no written agreement with the users. A new owner or a new project may not want to continue such an arrangement, and the informal use may be discontinued under the proposed action. This question explores the impact of loss of such lands on the recreational opportunities in the area.

Applicable Part 1 Information

C.2.c. and E.1.c.

Analysis

- What recreational activities may be taking place informally on the property?
- How important to the community are those informal opportunities and are there other locations that can provide those same open space resources?
- Are there any methods to maintain those informal uses after the proposed project is approved?

Will there be an impact?

If there are no recreational or open space resources used informally by the community, then there will be no related impacts. Check 'No, or small impact may occur."

Small Impact:

A small impact could occur under one or more of these circumstances:

- Existing or planned recreational resources are near, but not adjacent to the proposed project.
- The proposed project is adjacent to an existing or planned recreational resource and may cause minor indirect disturbances during construction phase but will not impair use or enjoyment of that resource.

Moderate to Large Impact:

A moderate to large impact could occur under one or more of these circumstances:

- The proposed project diminishes recreational resources or access to informally used recreational resources.
- The proposed project disturbs land in one location that will result in direct or indirect loss of habitats that support fish and wildlife species on lands used informally for recreational purposes.
- Construction and/or operational phases of the proposed project will significantly reduce access to the recreational resource.

e. Other impacts:

There may be other impacts identified by the reviewing agency that are not addressed by the above questions. If so, they should be identified and briefly described here.

Some proposed actions may have beneficial impacts on the environment. The reviewing agency can use the 'other' category for that purpose, too.

Other questions that may apply to open space and recreation include the following. Some of these questions are related to and explored in other Part 2 questions, but the reviewing agency may want to note them again in this open space section. The project may result in a loss of:

- An important habitat that links two larger habitats together
- Open spaces identified by the local community as important farmland
- Open spaces that contribute to the community's character or scenic designations
- Open spaces that will result in fragmentation of large, intact habitats
- Open spaces that are significant natural communities, natural landmarks, or important to endangered, threatened, or rare species or those listed as species of special concern

Question 12 - Impact on Critical Environmental Areas - Full EAF (Part 2)

Full Environmental Assessment Form (FEAF) Workbook

The proposed action may be located within or adjacent to a critical environmental area (CEA).

Critical Environmental Areas (CEA's) are specific locations in a town, village, city, county, or the State that have identified because they have one or more of the following unique characteristics:

- Are a benefit or threat to human health
- Have an important or unique natural setting (e.g., fish and wildlife habitat, forest and vegetation, open space and areas of important aesthetic or scenic quality)
- Hold important agricultural, social, cultural, historic, archaeological, recreational, or educational values; or
- Have an inherent ecological, geological or hydrological sensitivity that may be adversely affected by any change

Local governments can identify and designate specific areas within their boundaries as CEA's according to 617.14 (g) (link leaves DEC website.) State agencies may also designate geographic areas they own, manage, or regulate. Once an area is designated as a CEA, the reviewing agency must consider the potential impact of any Type I or Unlisted Action on the environmental characteristics of that CEA as part of the determination of significance.

To answer this question

Review Part 1 questions E.3.d.

If there is a CEA located on or adjacent to the proposed project site, there may be adverse impacts on the CEA. If so, check "yes" to Question 12 and answer sub-questions (a) through (c).

If there are no CEAs located on or adjacent to the proposed project site, check "no" to Question 12 and move on to Question 13.

Identifying potential impacts

The reviewing agency should evaluate the following sub-questions and decide if there will be any impact. If there will be an impact, the reviewing agency must then evaluate the magnitude of that impact, and decide if the impact will be small or moderate to large. This will depend on the overall scale and context of the proposed project as described in the Introduction to Part 2. The reviewing agency should be reasonable when conducting this review.

- If the proposed project exceeds a numeric threshold in a question, it is presumed to be a moderate to large impact.
- If the proposed project does not exceed a numeric threshold in a question, the reviewing agency should consider the scale and context of the project in determining if an impact may be small or moderate to large.

- These sub-questions are not meant to be exhaustive. The reviewing agency should use the "Other impacts:" sub-question to include any additional elements they feel need to be analyzed for potential impacts.

a. The proposed action may result in a reduction in the **quantity** of the resource or characteristic which was the basis for designation of the CEA.

b. The proposed action may result in a reduction in the **quality** of the resource or characteristic which was the basis for designation of the CEA.

It is important to know both the unique characteristics that resulted in the designation of the CEA, and the possible impacts to that feature. Wherever these two might overlap, there is the potential for some impact. The wide variety of reasons for forming a CEA makes it difficult to apply a one-size-fits-all approach to evaluating potential adverse impacts.

If the CEA is an archeological site that has been documented as being limited to a single parcel, and the proposed project is located on an adjacent parcel, there will be no disturbance of the CEA, and therefore probably result in no impact at all. If the CEA is a municipal water supply, and the aquifer or watershed extends over many acres of surrounding land, a proposed project may have an impact, even though it is not adjacent to the CEA.

To begin reviewing possible impacts to the CEA, the reviewing agency should answer the two questions regarding quantity and quality of the CEA. Question (a) asks about a change in the size of the CEA. If the

Applicable Part 1 Information

E.3.d.

Analysis

- Is there a CEA located on the proposed project site?
- Are there any CEAs in the surrounding area?
- If there is a CEA, for what purpose was it established?
- Do any of the reasons for the CEAs establishment extend outside the CEA boundaries?
  - If the CEA is a water supply, how extensive is the aquifer?
  - If the CEA is a wetland, where does the water come from?
  - If the CEA is a landfill, is there a groundwater connection?
  - If the CEA is a wildlife corridor, what larger habitats does it connect?
- Could there be a negative impact to the CEA, even though the CEA may not be within the proposed project boundaries?

- Does the proposed project negatively affect or reduce any of the qualities that led to the CEA being designated?
- Does the proposed project reduce the size of the CEA?

Will there be an impact?

If the project is not located within a CEA, there will be no reduction in the size of the CEA. Therefore, there will be no impact. Check 'No, or small impact may occur" to question (a).

If the project is not located within a CEA and it will not affect any of the qualities of an adjacent CEA that led to its designation, there will be no impact. Check 'No, or small impact may occur" to question (b).

Small Impact:

A small impact could occur under one or more of these circumstances:

- A proposed project may be entirely or partially within a CEA. Likewise, a CEA might be entirely contained within, or partially overlap a proposed project's boundaries.
- If there is very little conflict between the reasons for a CEA's designation, and the proposed projects goals, there will likely only be a small impact.

Moderate to Large Impact:

A moderate to large impact could occur under one or more of these circumstances:

- If the proposed action is incompatible with the reasons for designating the CEA.

c. Other impacts:

There may be other impacts identified by the reviewing agency that are not addressed by the above questions. If so, they should be identified and briefly described here.

Some proposed actions may have beneficial impacts on the environment. The reviewing agency can use the 'other' category for that purpose, too.

Question 13 - Impact on Transportation - Full EAF (Part 2)

Full Environmental Assessment Form (FEAF) Workbook

The proposed action may result in a change to existing transportation systems.

New development can generate or change traffic, or create a new demand for public transportation. Several potential adverse impacts can result when traffic levels increase in a community. More traffic can lead to congestion, which in turn may have economic, environmental and safety impacts. Traffic

congestion is not only annoying to motorists, but can increase economic costs because of extra fuel used, lost productivity, and time wasted. It can also result in higher air pollution emissions, increased traffic accident rates, decreased accessibility to economic centers, decreased road surface lifetimes, and increased vehicle maintenance costs. A proposed action can also increase the demand for public transportation, parking, sidewalks, bike paths, or bike lanes.

To answer this question

Review Part 1 questions D.2.j.

Part 1, Question D.2.j. in this workbook includes a table defining thresholds for significant traffic increases. That table uses the number of new vehicle trips made during peak traffic hours (early morning and late afternoon) to help determine if a substantial increase in traffic is likely to occur as a result of a proposed activity. It assumes that a project generating fewer than 100 peak hour vehicle trips per hour will not result in any significant increases in traffic.

Use of the table is intended, however, to identify projects that may potentially have traffic related impacts and require a traffic study. Once triggered, the impact assessment should continue in the context of the project in order to understand possible traffic impacts. For example, a multi-family development or a retail shopping center of 6,000 square feet on a busy commercial street may not have a large impact in a more urban environment.

Identifying potential impacts

The reviewing agency should evaluate the following sub-questions and decide if there will be any impact. If there will be an impact, the reviewing agency must then evaluate the magnitude of that impact, and decide if the impact will be small or moderate to large. This will depend on the overall scale and context of the proposed project as described in the Introduction to Part 2. The reviewing agency should be reasonable when conducting this review.

- If the proposed project exceeds a numeric threshold in a question, it is presumed to be a moderate to large impact.
- If the proposed project does not exceed a numeric threshold in a question, the reviewing agency should consider the scale and context of the project in determining if an impact may be small or moderate to large.
- These sub-questions are not meant to be exhaustive. The reviewing agency should use the "Other impacts:" sub-question to include any additional elements they feel need to be analyzed for potential impacts.

a. Projected traffic increase may exceed capacity of existing road network.

Capacity is defined as the maximum number of vehicles for any given unit of time, which can be accommodated on a road. Capacity is semi-independent of the demand for roads and it considers the traffic conditions, road way characteristics, and traffic controls such as the signing or signals at intersections. It addresses the physical amount of vehicles and pedestrians a road can handle and does not depend on the total number of vehicles demanding service, but is influenced by the relative distribution of vehicles by lane. The geometric design of the road influences capacity. For example, a curved road has lesser capacity compared to a straight road. Increasing the proportion of traffic turning left on a shared lane may reduce capacity.

A term closely related to capacity and often confused with it is the level of service (LOS). While road capacity gives a quantitative measure of the amount of traffic that can be handled, level of service gives a qualitative measure of how well that traffic flows. For a given road, capacity would be constant, although it may vary at intersections. But actual traffic flow will be different for different days and different during a day itself. The intention of LOS is to relate the quality of traffic service to a given flow rate. LOS is a term that designates a range of operating conditions, based on delay, on a particular road or at an intersection.

LOS is the typical measurement included in a traffic study and this information may be needed to answer this question. The reviewing agency will need to know if an LOS of the road network is to be substantively worsened. Some of this information may be obtained from Part 1, Question D2j. Other information may be provided if a traffic impact study has already been submitted. If there is likely to be a substantial increase in traffic and a traffic impact analysis has not yet been conducted, the reviewing agency may need to request such information prior to answering this question. See Part 1 D2j for additional information on the recommended components of a traffic impact analysis. If a traffic study is needed and not prepared as part of the submission, the lead agency may indicate the potential for an adverse impact in its Part 3 analysis and inform that a traffic study will be needed as part of a scope for an Environmental Impact Statement.

Applicable Part 1 Information

D.2.j.

Analysis

- Is there a perception that the action will result in long vehicle delays or reduced operating speeds?
- Is there an increase in traffic substantial enough to alter level of service on roads to be affected by the proposed project?
- How much additional traffic is expected as a result of the proposed project?
- Will the additional traffic volume result in a change to the level of service for affected roads?

Will there be an impact?

There will be no impact if the proposed project does not add traffic to existing roads. Check 'No, or small impact may occur."

Small Impact:

A small impact could occur under one or more of these circumstances:

- The project will add some level, but not substantial traffic to the area, and existing roads have the capacity to handle that level of traffic without reconfiguration.
- The project will add some level, but not substantial traffic to the area, and minor access management techniques can be successfully used to control minor traffic issues.

Moderate to Large Impact:

A moderate to large impact could occur under one or more of these circumstances:

- The project adds substantial traffic to the area.
- The project adds some level of, but not substantial traffic (as defined in Part 1, Question D2. J.) to the area, but due to current road, traffic, and intersection conditions, the road does not have the capacity to handle it.

b. The proposed action may result in the construction of paved parking area for 500 or more vehicles.

Issues related to large parking lots include stormwater runoff, loss of vegetation, impaired aesthetics, increases in surface heating (the urban heat island effect), and traffic congestion. Different impacts may arise from parking garages, automated parking facilities, and parking. A paved parking area for 500 or more vehicles generally corresponds to the parking requirements for a non-residential structure having 100,000 square feet of gross floor area. This is the threshold contained in 617.4(b)(6)(iv). However, the reviewing agency should review impacts of all sized parking lots because all paved parking lots have the same types of potential impacts. Paved parking lots used for both temporary and long-term events would be included in this evaluation. Parking for large numbers of vehicles where no paving, grading or land disturbances are required (such as at special events using a lawn or field for parking on a temporary basis) is not be considered in this question.

Reviewing agencies should also consider if the proposed parking is or could be shared. Shared parking is when adjacent property owners share their parking lots to reduce the number of parking spaces that each would provide on their individual properties. Often, sites with large amounts of parking are located next door to other sites with equally numerous lots. If adjacent sites serve different purposes, each parking lot may lie empty for long periods of time. When parking is somehow connected and shared, there is less space given over to parking. This reduces environmental impacts and creates opportunities for more compact development, more space for pedestrian circulation, or more open space and landscaping.

Applicable Part 1 Information

D.2.j.

Analysis

- Is any internal and external landscaping in the parking lot planned?
- How is stormwater from proposed parking being managed?
- Does lighting use downward directed fixtures to reduce glare and light pollution?
- What are the plans for ingress, egress, stacking lanes, traffic control, pedestrian safety and walkways, and the general design for location of the parking lot?
    - Is the location to the front of a building or to the side, and what impact does that have on the visual streetscape of the area?
- Will vehicles enter or leave all at one time of day, and if so, will this cause traffic congestion?
- Will turning lanes or street lights be required to manage traffic from the parking lot?
- Is the location of the parking lot sited in a manner consistent with the aesthetic character of the community and neighboring uses?
- Are there connections with, or future connections planned to, adjacent properties?

Will there be an impact?

If no parking is proposed, or if proposed parking needs can be met by using existing off-street parking or existing on-street parking, then there will likely be no related impacts. Check 'No, or small impacts may occur.'

Small Impact:

A small impact could occur under one or more of these circumstances:

- Small parking lots that have landscaping and downward directed lights, or no lighting needed.
- Infrequently used parking lots that have permeable surfaces, exterior landscaping for screening, minimal lighting, and placed to the side or rear of a structure.
- Small expansions to existing parking lots or facilities.
- Shared parking may have smaller impacts than those that are not shared in terms of stormwater runoff, lighting, traffic, safety, energy use, and operation.

Moderate to Large Impact:

A moderate to large impact could occur under one or more of these circumstances:

- One or more parking facilities (including lots) are planned for 500 or more cars.
- Parking lots of any size that require construction of turning lanes or traffic lights are proposed.

- Parking lots of any size that are used on a regular basis and that have other design features that may result in impacts such as all-night illumination, disturb one acre or more of land, or is located within a residential zoning district.
- Parking lots of any size or type that creates a streetscape that is in sharp contrast to the existing character of the community or neighborhood.

c. The proposed action will degrade existing transit access.

Transit services or facilities include bus, taxi, train, park and ride lots, parking lots, and subways. Placement of public and private transportation services or facilities more than one-half mile distant means that pedestrians will be less likely to use those facilities. One-half mile is the distance that reflects the typical walking distance pedestrians would use. Transit services can be degraded by overcrowding a system so that it becomes harder to conveniently use it. Degrading access could also mean either eliminating a bus stop or limiting access to a bus stop, such as making it harder for pedestrians to reach a transit stop, forcing a reroute of a railroad, transit route, or reducing access to such, relocating a transit stop, or removing an area that is used as a park and ride location.

Applicable Part 1 Information

D.2.j.

Analysis

- What transit facilities will serve the project site and how much capacity do they have to accommodate new users.
- Does the proposed project remove bus or train stops?
- Does the proposed project make it more difficult for people to use the transit system (e. g. parking, access, congestion, too many people)

Will there be an impact?

If the project does not create a demand for transit facilities, or remove or degrade access to transit, then there will likely be no related impacts. Check 'No, or small impact may occur.'

Small Impact:

- The project will increase the demand for public transportation, but the existing system has the capacity to handle that increase or a minor upgrade to the system can be created.

Moderate to Large Impact:

- The project will create a demand for public transportation when none currently exists, or what exists does not have the capacity to handle it, or the project fails to take advantage of existing capacity.

d. The proposed action will degrade existing pedestrian or bicycle accommodations.

This question explores the potential impacts on pedestrian or bicycle accommodations including but not limited to sidewalks, crosswalks, trails or paths, bike paths, dedicated bike lanes, or bike parking areas. Some proposed actions may remove entirely, or limit access to these pedestrian or bicycle opportunities. Other projects may not include adequate plans for pedestrian or bicycle accommodations.

Provision of pedestrian accommodations (sidewalks and paths), or bicycle routes (trails, paths, sidewalks, bicycle parking, or bike lanes) can work towards improving health and reducing impacts on the environment by offering alternative transportation routes to the proposed site. This could reduce traffic volumes and air emissions.

Applicable Part 1 Information

D.2.j.

Analysis

- What pedestrian or bicycle accommodations are included in the plan?
- Does the proposed project limit access or remove to existing accommodations? How?
- Will the proposed project create a demand for pedestrian and bicycles facilities but not provide new or improved opportunities?
- Is there a planned vehicle or pedestrian corridor in the area?
- Is there an existing facility such as an abandoned rail line or trail that could expand the existing non-motorized network?

Will there be an impact?

If the proposed action provides adequate pedestrian or bicycle accommodations, or is a project setting or location where pedestrian or bicycle accommodations are not appropriate, there will be no related impact. Check 'No, or small impact may occur.'

Small Impact:

- The project will increase the demand for sidewalks, bike paths, bike lanes and bike racks, but existing bicycle/pedestrian facilities have the capacity to handle the increase, or the proposed project includes new connections, or expansion of existing facilities.

Moderate to Large Impact:

- The project will create a demand for pedestrian facilities when either none currently exists or do not have the capacity to handle it and the project does not include these improvements.

e. The proposed action may alter the present pattern of movement of people or goods.

Alterations of traffic patterns include both vehicular and pedestrian traffic. This would include changes including but not limited to re-routing, creation of one-way streets, installation of round-abouts, construction of new streets, addition of new intersections or ramps, etc., to streets, roads, intersections, sidewalks or other pathways.

Applicable Part 1 Information

D.2.j.

Analysis

- How will the modification of existing roads, creation of new roads, or change in existing access impact current motorized and non-motorized traffic patterns?

Will there be an impact?

If no alteration of the existing pattern of movement of people or goods is proposed, then there will be no related impact. Check 'No, or small impact may occur.'

Small Impact:

- Existing roads and transit systems exist and have the capacity to handle added traffic but minor signage and traffic signal changes may be needed.

Moderate to Large Impact:

- New or altered roads, intersections, transit facilities, access control, or signal systems are required to handle the additional demand related to the proposed project.

f. Other impacts:

There may be other impacts identified by the reviewing agency that are not addressed by the above questions. If so, they should be identified and briefly described here.

Question 14 - Impact on Energy - Full EAF (Part 2)

Full Environmental Assessment Form (FEAF) Workbook

The proposed action may cause an increase in the use of any form of energy.

Energy use is an important factor to consider when evaluating potential environmental impacts as it is tied to many other aspects of a project, and can have some unforeseen consequences. An increase in energy use means a need for more energy production either on-site or off-site, which in turn will mean an

increase in pollution. It puts more strain on the energy supply system (the energy grid), sometimes to the point where upgrades to the production or delivery system are needed. If a project requires an amount of energy that necessitates upgrades to the delivery or generation system, those upgrades will also have their own environmental impacts.

There are few projects that will not cause some increase in the use of energy. Some examples may be:

- The adoption or amendment of a local law, ordinance, or regulation
- The granting of a zoning change, or allowable uses in a zoning law
- The acquisition sale, or lease of land by a state or local agency
- Conversion of one use to another, where there is a minimal amount of new construction involved, and the intensity of use will not change

To answer this question

Review Part 1 questions C.1., D.1., and D.2.,

If the project includes some form of construction activity, a change to a more intensive land use, or a new or expanded building or structure, there will be an increase in the use of energy. Check 'Yes' to Question 14 and then answer sub-questions a through e. If the project does not include any of these, check 'No', and move on to Question 15.

Identifying potential impacts

The reviewing agency should evaluate the following sub-questions and decide if there will be any impact. If there will be an impact, the reviewing agency must then evaluate the magnitude of that impact, and decide if the impact will be small or moderate to large. This will depend on the overall scale and context of the proposed project as described in the Introduction to Part 2. The reviewing agency should be reasonable when conducting this review.

- If the proposed project exceeds a numeric threshold in a question, it is presumed to be a moderate to large impact.
- If the proposed project does not exceed a numeric threshold in a question, the reviewing agency should consider the scale and context of the project in determining if an impact may be small or moderate to large.
- These sub-questions are not meant to be exhaustive. The reviewing agency should use the "Other impacts:" sub-question to include any additional elements they feel need to be analyzed for potential impacts.

a. The proposed action will require a new, or an upgrade to an existing, substation.

b. The proposed action will require the creation or extension of an energy transmission or supply system to serve more than 50 single or two-family residences or to serve a commercial or industrial use.

c. The proposed action may utilize more than 2,500 MWhrs per year of electricity.

d. The proposed action may involve heating and/or cooling of more than 100,000 square feet of building area when completed.

When evaluating the use of energy, consideration should be given to the construction phase of the project as well as the use after construction.

Climate Smart Communities (CSC) is a state-local partnership to reduce greenhouse gas emissions, save taxpayer dollars and advance community goals for health and safety, economic vitality, energy independence and quality of life. Any town, city, village or county can join Climate Smart Communities, without cost by adopting the CSC Pledge and informing DEC. The CSC Pledge describes the steps the adopting community will take to reduce greenhouse gas emissions, reduce electrical use, incorporate energy efficient technologies into its infrastructure, and improve vehicle fuel economy.

Answering sub-questions (a) through (d) will help the reviewing agency determine if the proposed project rises to the level of a moderate to large impact.

Applicable Part 1 Information

D.1.f., D.1.g., D.1.h., and D.2.k.

Analysis

In addition to the (a) through (d) sub-questions, the reviewing agency may also want to ask:

- Does the proposed action incorporate any energy efficient design features and technologies such as incorporated in:
  - The NY Energy Star Homes Program?
  - The ICC/NAHB Green Building Standard?
  - The US Green Building Council's Leadership in Energy and Environmental Design (LEED)?
- Has the municipality adopted the Climate Smart Communities Pledge?
  - If the project is a municipal action, does it fit the community's CSC Pledge?

Will there be an impact?

There is not likely to be any impacts on energy if the proposed action does not require new, upgraded, creation, or extension of substations, energy transmission supply systems, nor does it use more than 2500 MWhrs or energy or is a building less than 100,000 square feet of building area.

Small Impact:

- Proposed projects that include land uses similar to those in the surrounding area, and that follow the NYS Energy Code, are likely to have only a small impact. Examples would be:
  - Residential development in an already suburbanized area.
  - Small commercial uses in a professional office or industrial park.
  - Uses that are fully compliant with a community's adopted Local Climate Action Plan.

Moderate to Large Impact:

- Proposed projects that are much larger in scale than the surrounding land uses, or that are in a remote area with limited energy infrastructure, could have a moderate to large impact. Some examples that might fall into this category are:
  - An industrial use on a rural road with electric transmission lines designed for only scattered residential land uses.
  - A single commercial use in an industrial park with much higher energy demands than the other uses in the park.
  - Industrial projects that require large amounts of energy during operation.
  - Large number of residential units in a rural area.

e. Other Impacts:

There may be other impacts identified by the reviewing agency that are not addressed by the above questions. If so, they should be identified and briefly described here.

Some proposed actions may have beneficial impacts on the environment. The reviewing agency can use the 'other' category for that purpose, too.

Question 15 - Impact on Noise, Odor, and Light - Full EAF (Part 2)

Full Environmental Assessment Form (FEAF) Workbook

The proposed action may result in an increase in noise, odors, or outdoor lighting.

Noise, odors and lighting generated by a proposed project can impact adjacent or nearby properties. They can be generated during both construction and operation phases of a project and can create conditions which can affect the health and safety of both humans and wildlife. Often, construction activities can create a great deal of noise, but when completed, the project area may become quiet again. Odors can also be generated by construction vehicles, but may also be part of normal operating conditions related to

the proposed land use activity. Most projects that result in a structure or building have the need for outdoor lighting that can cast glare onto nearby roads and properties. This question explores whether the proposed project will increase noise, air conditions, or lighting levels.

To answer this question

Review Part 1 questions D.2.m., D.2.n., D.2.o., and E.1.a.

If noises or odors will be produced or outdoor lighting used, answer 'Yes' to Question 15 and then continue to sub-questions (a) through (f). If no increase in noise, odor or lighting is expected as a result of the proposed project, check 'No' to Question 15 and move on to Question 16.

Identifying potential impacts

The reviewing agency should evaluate the following sub-questions and decide if there will be any impact. If there will be an impact, the reviewing agency must then evaluate the magnitude of that impact, and decide if the impact will be small or moderate to large. This will depend on the overall scale and context of the proposed project as described in the Introduction to Part 2. The reviewing agency should be reasonable when conducting this review.

- If the proposed project exceeds a numeric threshold in a question, it is presumed to be a moderate to large impact.
- If the proposed project does not exceed a numeric threshold in a question, the reviewing agency should consider the scale and context of the project in determining if an impact may be small or moderate to large.
- These sub-questions are not meant to be exhaustive. The reviewing agency should use the "Other impacts:" sub-question to include any additional elements they feel need to be analyzed for potential impacts.

a. The proposed action may produce sound above noise levels established by local regulation.

"Noise is defined as any loud, discordant or disagreeable sound or sounds. More commonly, in an environmental context, noise is defined simply as unwanted sound. Certain activities inherently produce sound levels or sound characteristics that have the potential to create noise. The sound generated by proposed or existing facilities may become noise due to land use surrounding the facility. When lands adjoining an existing or proposed facility contain residential, commercial, institutional or recreational uses that are proximal to the facility, noise is likely to be a matter of concern to residents or users of adjacent lands."

Sources of noise can come from fixed or mobile equipment, process operations, or in the transportation of products, materials, or wastes. Noise generating equipment can include " a very wide range of equipment

including: generators; pumps; compressors; crushers of plastics, stone or metal; grinders; screens; conveyers; storage bins; or electrical equipment. Mobile operations may include: drilling; haulage; pug mills; mobile treatment units; and service operations. Transport movements may include truck traffic within the operation, loading and unloading trucks and movement in and out of the facility. Any or all of these activities may be in operation at any one time. Singular or multiple effects of sound generation from these operations may constitute a potential source of noise."

DEC has developed a guidance document on assessing and mitigating noise impacts (PDF) (107 KB) that may be helpful in evaluating noise impacts.

Applicable Part 1 Information

D.2.m.

Analysis

- What is the ambient noise level in and around the project site?
- Will the project result in noise that will be above the ambient noise level?
- How long will the noise last (hours, days, permanently), and what type of noise will it be (steady or variable)?
- If noises are to be produced, does the project already include any mitigation measures such as sound barriers?
- Does the community have a local law regulating noise?

Will there be an impact?

Projects that do not involve construction or land use activities may not affect the ambient noise levels. (Ambient noise level is the total background noise in an area.) If physical disturbances to a property are part of the proposed project then it is possible that construction activities will, at least temporarily, result in noise levels that exceed ambient conditions. After construction, some projects will no longer affect ambient noise levels, while others may significantly alter those levels.

Small Impact:

A small impact could occur under one or more of these circumstances:

- If the project produces noise but those levels are below regulated levels.
- If the project produces noise, but those levels are below or even above regulated levels and they are temporary and will occur only during a short-term construction phase.

Moderate to Large Impact:

A moderate to large impact could occur under one or more of these circumstances:

- The project will generate regular or sporadic noise throughout its operating phase above any regulated level.
- Noise will be generated continuously during day and/or night time hours even if the overall ambient noise levels do not change.
- Noise will be generated sporadically or continuously and there are residences, businesses, hospitals, clinics, day care centers, or other receptors adjacent to the proposed project. Noise levels above ambient conditions will be produced long-term.
- Noise will exceed established standards.

b. The proposed action may result in blasting within 1,500 feet of any residence, hospital, school, licensed day care center, or nursing home.

Blasting, or the lawful use of regulated explosives, is a common technique for civil engineering applications such as mining, tunneling, and removing bedrock outcroppings for building and highway construction. Blasting can also be used to deconstruct unnecessary or damaged structures. Blasting can result in vibration, which can shake people, animals, trees, buildings, roads, etc. causing physical damage to nearby structures and natural features could occur. The environmental effects of blasting noise and vibration vary depending not only on the size and location of the blast, but also on atmospheric conditions such as wind and humidity.

Applicable Part 1 Information

D.2.m., and

E.1.d.

Analysis

- Will blasting occur? If so, when and how often?
- Are there any residences, hospitals, schools, licensed day care centers, or nursing homes within 1,500 feet of the blasting operation?
- Are any noise mitigation methods proposed as part of the project?
- Has a noise impact study been conducted?

Will there be an impact?

If no blasting is to occur as part of a proposed project, or if blasting will take place in locations more than 1,500 feet from any residence, hospital, school, licensed day care center, or nursing home, there will be no related impacts. Unless local regulations or ordinances exist that are less than 1,500 feet, check "No, or small impact may occur."

Small Impact:

- A small impact could occur if a number of blasts are part of the proposed project only during the construction phase.

Moderate to Large Impact:

A moderate to large impact could occur under one or more of these circumstances:

- Blasting will take place on an ongoing basis as part of the operation of the project.
- Blasting will take place within 1,500 feet from any residence, hospital, school, licensed day care center, or nursing home,

c. The proposed action may result in routine odors for more than one hour per day.

An odor is a chemical in the air that is "smelled" or sensed by our nose (olfactory system). Odor can be a significant environmental concern related to manufacturing, food processing, composting, landfills, and institutional or municipal facilities such as water and wastewater treatment plants.

Certain groups of chemicals that produce odors are potentially harmful and can cause health problems. Some of these harmful chemicals are regulated by the Department of Environmental Conservation (See Division of Air Resources), New York State Department of Health, and the US Environmental Protection Agency under the Clean Air Act.

Odor can be controlled by chemical or mechanical methods, or a combination of both. Chemical applications, atomizing and liquid application systems, bioengineering programs, sheltering the activity or constructing containment structures equipped with appropriate air venting/filtering systems are all used as odor control methods.

Applicable Part 1 Information

D.2.o.

Analysis

- Will odors be produced?
  - If so, how often, how long will they last, and what will produce that odor?
- What kinds of surrounding land uses are adjacent to the proposed site and how far away will odors be smelled?

Will there be an impact?

If no odors will be produced from the proposed project, there will be no related impact. Check 'No, or small impact may occur."

Small Impact:

A small impact may occur if:

- Odors will be produced for less than one hour per day.

Moderate to Large Impact:

A moderate to large impact may occur if:

- Odors will be produced for more than one hour per day. This may include the application of odors to entice pedestrians to purchase services or merchandise.

d. The proposed action may result in light shining onto adjoining properties.

e. The proposed action may result in lighting creating sky-glow brighter than existing area conditions.

Outdoor lights have the potential to cause light pollution and glare. Light pollution is excessive and inappropriate artificial light. Problems associated with excessive or inappropriate outdoor lighting include sky glow (a brightening of the night sky over inhabited areas), light trespass (light falling where it is not intended, wanted, or needed), glare (excessive brightness which causes visual discomfort or decrease visibility) and clutter (bright, confusing, and excessive groupings of light sources). Adverse effects of light pollution include disruption of biological rhythms, impact on nocturnal wildlife, lowered visibility, and wasted money and energy. Glare can also be particularly hazardous to drivers. Projects may include general lighting for parking lots and buildings, safety lighting for walkways, or lighting for signs, landscaping and flagpoles.

Applicable Part 1 Information

D.2.n., and E.1.a.

Analysis

- What is the source of lighting and the location, height, direction and aim?
- What type and wattage will the bulb be and what color is the light?
- What hours will the lights be illuminated and are automatic timers planned?
- How close is the lighting to the nearest occupied structure or public thoroughfare?
- What are the existing sky glow conditions?
    - Will the proposed project change existing conditions?
    - If so, for how long and how much of the area will be impacted?
- Will lighting cause glare or spillage onto neighboring properties or roads?
- Are there any natural barriers that will prevent light spillage and glare or are any mitigation measures included such as screening such as vegetation, topography, or fencing?

Will there be an impact?

If no outdoor lighting will be used, then there will be no related impact. Check 'No, or small impact may occur.'

Small Impact:

• A small impact may occur if:

- A limited number of lighting fixtures are planned for parking and safety lighting but all fixtures will be fully shielded, downward-directed and no glare or light spillage on adjacent properties or roadways will result, No signs, accessory structures, or buildings will be illuminated.

Moderate to Large Impact:

A moderate to large impact could occur under one or more of these circumstances:

- Lighting will be provided for large recreational facilities or arenas.
- Lighting will remain illuminated all night.
- Lighting will be created in a rural area where there is currently dark skies and little sky glow.
- There are no natural barriers present to screen lighting effects and the project site is visible from adjacent land uses.
- Visibility of drivers on adjacent or nearby roads and streets may be impaired.

f. Other impacts:

There may be other impacts identified by the reviewing agency that are not addressed by the above questions. If so, they should be identified and briefly described here.

Some proposed actions may have beneficial impacts on the environment. The reviewing agency can use the 'other' category for that purpose, too.

Question 16 - Impact on Human Health - Full EAF (Part 2)

Full Environmental Assessment Form (FEAF) Workbook

The proposed action may have an impact on human health from exposure to new or existing sources of contaminants.



This question asks the reviewing agency to evaluate the potential impacts from exposure to any solid or hazardous substances and contaminants. These substances can be toxic, infectious, inflammable, or corrosive. They can occur as solids, liquids, semi-solids, or gases. Whatever form they take, hazardous substances can adversely affect the environment and human health if not properly handled and disposed of. Both solid and hazardous wastes are regulated by New York State.

Solid Wastes are managed in solid waste management facilities. There are many different kinds of solid waste management facilities in New York. They range from construction and demolition processing facilities to solid waste landfills. Some are closed and not used any more, while others are still active. All solid waste management facilities are permitted, registered, and controlled at the regional level through 6NYCRR Part 360. The general operational requirements for all solid waste management facilities are contained in the Part 360 regulations, Subpart 360-1. Hazardous waste is a waste with properties that make it potentially dangerous or harmful to human health or the environment. There are many different kinds of hazardous wastes. Hazardous wastes can be liquids, solids, or contained gases. They can be the by-products of manufacturing processes, discarded used materials, or discarded unused commercial products such as cleaning fluids (solvents) or pesticides.



If a site has been part of a remediation (clean-up) in the past, or is currently undergoing remediation, then there is a higher risk of significant adverse environmental impacts resulting from development of or near that site. The New York State Department of Environmental Conservation Division of Environmental Remediation is in charge of all hazardous waste management programs, including remediation. Their web pages include definitions, regulations, databases, and other information about hazardous waste. A lead agency conducting an analysis of a project that involves environmental remediation should be consulting with the DEC.

To answer this question

Review Part 1 questions D.2.q., E.1. d., E.1.f., E.1.g., and E.1.h.

To determine if you need to answer the sub-questions in this section you should ask:

- Is the project site on, adjacent to, or near a location that contains contaminants that may be disturbed, released, or leached out?
- Will the proposed project use, create, dispose of, or store any hazardous substances as part of its construction or operation?

If the project site is not on, adjacent to, or near a contaminated site or does not use, create, dispose of, or store hazardous substances, then there will be no related impacts. Check 'no, or small impact may occur.' If there are, then check 'yes' and then answer sub-questions (a) through (m).

Identifying potential impacts



The reviewing agency should evaluate the following sub-questions and decide if there will be any impact. If there will be an impact, the reviewing agency must then evaluate the magnitude of that impact, and decide if the impact will be small or moderate to large. This will depend on the overall scale and context of the proposed project as described in the Introduction to Part 2. The reviewing agency should be reasonable when conducting this review.

- If the proposed project exceeds a numeric threshold in a question, it is presumed to be a moderate to large impact.
- If the proposed project does not exceed a numeric threshold in a question, the reviewing agency should consider the scale and context of the project in determining if an impact may be small or moderate to large.
- These sub-questions are not meant to be exhaustive. The reviewing agency should use the "Other impacts:" sub-question to include any additional elements they feel need to be analyzed for potential impacts.

Applicable Part 1 Information

D.2.q., D.2.r., D.2.s., D.2.t., E.1.d., E.1.f., E.1.g., and E.1.h.

Analysis

Answers to sub-questions (a) through (l) all offer information that will help the reviewing agency identify risks and hazards that may occur. Most of these are 'yes' or 'no' questions.

Local and State health departments are important resources that a reviewing agency should use to help assess impacts on human health. It is not expected that reviewing agencies do that assessment, but they should call upon others that do have the expertise to help them evaluate risks associated with hazardous materials and uses. See the DEC web page: Interested Agency and Public Involvement for more information.

In addition to the sub-questions, answering the following will assist the reviewing agency in determining the size and importance of these impacts.

- Is there a risk of a contaminant being released to the ground, air, or water?
- Does the proposed project include the commercial, recreational, or industrial use, application, or storage of pesticides, herbicides, or known contaminants beyond normal household use?
- Will there be any bulk storage of petroleum or chemical products?
- Will the proposed project generate or use hazardous air pollutants?
- Will there be any solid or hazardous wastes to be disposed of?
- Is there to be any unearthing of solid or hazardous materials?
- Does the site contain a former agricultural use that is known to have used pesticides?
- If there are hazardous substances on or near the site, is there risk of that contaminant traveling off site via water, air, or in soils?
- What is the contaminant and what are the risks associated with it?
- What plans, notifications, or protections are formulated to address risks?

a. The proposed action is located within 1500 feet of a school, hospital, licensed day care center, group home, nursing home or retirement community.

Some land uses, facilities, and populations tend to be more susceptible to impacts from exposure to hazardous substances than others. This may be due to age, health, mobility issues, or the fact that they live, work, congregate, or recreate in a concentrated area. There may be higher risks involved when susceptible populations are near a hazardous situation.

b. The site of the proposed action is currently undergoing remediation.

c. There is a completed emergency spill remediation, or a completed environmental site remediation on, or adjacent to, the site of the proposed action.

When a site is currently undergoing remediation, it means that hazardous materials are present. While remediation is an important activity in and of itself, it also means that there is a higher risk of release of hazardous materials.

Remediation is the corrective action performed on properties that have a history of solid or hazardous waste contamination. If there are any ongoing or completed remedial activities occurring on or adjacent to the project site, the reviewing agency should evaluate any impacts that may occur. The reviewing agency should understand the circumstances that led to such remedial actions, what the specific remediation actions are, and what risks are associated with it.

d. The site of the action is subject to an institutional control limiting the use of the property (e.g. easement or deed restriction)

e. The proposed action may affect institutional control measures that were put in place to ensure that the site remains protective of the environment and human health.

Properties that may pose a threat to human or environmental health due to past contamination may have restrictions placed on them as a mitigating measure. These may include deed restrictions that prevent certain kind of future activities, or easements that prevent development of or access to certain locations on the parcel. Any influence a project might have on these restrictions must be evaluated.

f. The proposed action has adequate control measures in place to ensure that future generation, treatment and/or disposal of hazardous wastes will be protective of the environment and human health.

If a proposed action involves hazardous wastes or risks to human health, the reviewing agency will want to ensure that adequate control measures are put into place to protect the environment and human health in the long-term. Those controls are put in place through the DEC permitting process. Land uses that include the generation, treatment, or disposal of hazardous wastes above a stated threshold will require a permit from DEC. Whether a new use, or expansion or change of an existing use involving hazardous materials, the reviewing agency should evaluate control measures and determine if changes need to be made. Evaluating adequacy of signage, emergency equipment, training, access, and on-site methods for control, for instance are all important considerations.

g. The proposed action involves construction or modification of a solid waste management facility.

This question provides information about whether solid waste will be generated or if there is a need for management of that waste. If so, the reviewing agency will need to know what kind and how much waste is to be generated, and what disposal methods or facilities will be used to deal with it. Reviewing agencies will need to evaluate whether there will be an increase in the rate of solid waste disposal or processing.

h. The proposed action may result in the unearthing of solid or hazardous waste.

If an action is on a site that unearths solid or hazardous wastes that have been previously deposited, there is a higher risk for spill, leaking, leaching, or emission of those substances into the environment.

i. The proposed action may result in an increase in the rate of disposal, or processing, of solid waste.

Some proposed projects may create solid wastes that need to be disposed of or processed. The reviewing agency should evaluate if there is existing capacity to dispose of or process these solid wastes, and if not, will there need to be an expansion or creation of facilities. More solid waste may mean more facilities are needed.

j. The proposed action may result in excavation or other disturbance within 2000 feet of a site used for the disposal of solid or hazardous waste.

k. The proposed action may result in the migration of explosive gases from a landfill site to adjacent off site structures.

l. The proposed action may result in the release of contaminated leachate from the project site.

When a project is proposed in an area that has been used for solid or hazardous waste disposal, there is added risk of placing populations within close range of these substances. There is further risk of land disturbances that may alter runoff or other conditions that will cause leachate or release of hazardous substances. When a landfill exists, especially one without modern protections such as liners, methane gases may leak or migrate off-site. Consequently, land disturbances nearby may allow that gas to move to other areas or leak out. Similarly, new land disturbances near buried contaminants may result in changes to drainage or surface runoff. This could leak down into the solid waste disposal area where the water can pick up hazardous materials and then leach out into ground or surface water sources.

Will there be an impact?

Once it has been determined that the project involves hazardous substances that may pose a risk to human health, it is unlikely that there will be situations where there are no impacts at all related to those hazardous substances. The agency may determine that there may be very small risks or that impacts are deemed to be not significant. However it is not likely there will be situations where there will be no impacts at all.

The size of the impact depends on a variety of factors. For instance, the amount of substance, type of substance, and location in the environment all have bearing on the determination if the impact will be

small, or moderate to large. The reviewing agency should look carefully at information provided by the applicant and ask appropriate questions.

Small Impact:

A small impact could occur under one or more of these circumstances:

- Storage of pesticides, herbicides or other chemicals will take place, but is done in a completely enclosed structure that meets appropriate storage requirements, and the site is greater than 300 feet from any water body, well or water source used for irrigation.
- Solid or hazardous waste will be generated in limited amounts that can be easily handled at a permitted disposal facility. All remediation, emergency, and institutional controls are in place.

Moderate to Large Impact:

A moderate to large impact could occur under one or more of these circumstances:

- The reviewing agency answers 'yes' to any of the (a) through (l) sub-questions
- There is a new use or high density residential development proposed near an existing site.
- A site is undergoing remediation
- Storage of pesticides, herbicides or other chemicals will take place on a site that is greater than 100 feet but less than 300 feet from any water body, well or surface water source used for irrigation.
- Solid or hazardous waste will be generated in an amount that may require additional capacity to be developed at an existing or new permitted disposal facility.
- Storage of pesticides, herbicides or other chemicals will take place on a site that is within 100 feet of any water body, well or water source used for irrigation.

m. Other impacts:

There may be other impacts identified by the reviewing agency that are not addressed by the above questions. If so, they should be identified and briefly described here.

Some proposed actions may have beneficial impacts on the environment. The reviewing agency can use the 'other' category for that purpose, too.

Question 17 - Consistency with Community Plans - Full EAF (Part 2)

Full Environmental Assessment Form (FEAF) Workbook

The proposed action is not consistent with adopted land use plans.

General City Law § 28-a, Town Law § 272-a, Village Law § 7-722, and (for counties) General Municipal Law § 239d define and describe the legal aspects of comprehensive planning in NYS. These laws allow and encourage the adoption of comprehensive plans for all NYS municipalities, but do not require it. There are other plans that have land use components as well. These include open space plans, economic development plans, local waterfront revitalization plans, agriculture and farmland protection plans, stream management plans, or main street plans.

A comprehensive plan identifies the goals, objectives, principles, guidelines, policies, standards, and strategies for the growth and development of the community. It is not a law in itself, but New York State statutes require that all land use laws in a municipality be consistent with a comprehensive plan.

Some plans are general in nature and do not make specific recommendations for individual locations in a community. Understanding whether or not a proposed activity is consistent with a municipality's comprehensive plan or other adopted plans provides a context for determining if the activity is compatible with the community's overall plans for development. Activities that are consistent with an adopted plan are less likely to result in impacts to community character or to the environment.

In order to answer this Part 2 question, the reviewing agency should become familiar with what, if any plans exist, and what the vision, goals, recommendations, and mapped land use plans may be included. For help in determining if your municipality has adopted land use plans, check their website, and contact the municipal clerk, code enforcement officer (or building inspector), or planning board clerk. Contacting local resources is the best way to identify adopted plans and to help you determine if a municipality has an adopted comprehensive plan.

If one or more adopted plans are in place, the reviewing agency should research the plan(s) and any accompanying maps in order to determine the goals and strategies that apply to the project site, and if there are any specific recommendations applicable to the project site. Some plans are general in nature and do not make specific recommendations for individual locations in a community. Others are very specific and text or maps exist indicating exactly what is planned for a particular location.

When reviewing adopted plans, pay special attention to the vision and goals, and the maps that may be included in the plan. When a comprehensive plan exists, an action would be considered consistent if it is not in conflict with the stated vision, goals, recommendations or land use concept map. Some of the questions that may be helpful to evaluate this include:

- How do the vision and goals described in these plans compare with various elements of the proposed project?

- Do any elements of the proposed project conflict the vision, goals, and strategies outlined in any of these adopted plans?

- Does the community have an adopted zoning law?
  - Check the zoning map, use schedule, and bulk/dimension information and compare to see if the project is consistent with those requirements.

Note that Question 17 asks if the proposed project is NOT consistent with adopted plans. Reviewing agencies will need to first review the plans. Then you may need to ask and answer sub-questions (a) through (h) below, in order to determine if "the action is consistent with adopted land use plans". If, after reviewing those plans, you decide that the action IS consistent with the plan, then check "No" to this question and move to Question 18. However, if you find that the proposed action is NOT consistent with those plans, then answer sub-questions (a) through (h) to evaluate the size of potential impacts resulting from that inconsistency.

To answer this question

Review Part 1 questions C.1., C.2., and C.3.

Identifying potential impacts

The reviewing agency should evaluate the following sub-questions and decide if there will be any impact. If there will be an impact, the reviewing agency must then evaluate the magnitude of that impact, and decide if the impact will be small or moderate to large. This will depend on the overall scale and context of the proposed project as described in the Introduction to Part 2. The reviewing agency should be reasonable when conducting this review.

- If the proposed project exceeds a numeric threshold in a question, it is presumed to be a moderate to large impact.
- If the proposed project does not exceed a numeric threshold in a question, the reviewing agency should consider the scale and context of the project in determining if an impact may be small or moderate to large.
- These sub-questions are not meant to be exhaustive. The reviewing agency should use the "Other impacts:" sub-question to include any additional elements they feel need to be analyzed for potential impacts.

a. The proposed action's land use components may be different from, or in sharp contrast to, current surrounding land use pattern(s).

The land use components in this question refer to the proposed use, dimensions of the lot, dimensions and location of all structures, setbacks, size of the structure(s), accessory uses, and overall scale and intensity of the proposed project. For example, a proposed 150,000 square foot warehouse with 20

loading docks would likely have land use components that include the structure itself, parking areas, signs, driveways, a new traffic light, fencing, landscaping, and outdoor lighting. If that warehouse was proposed in an industrial district surrounded by other similar scaled land uses, then the action would not be different or in sharp contrast to the current land use pattern. However, if that same warehouse was proposed on a former agricultural field surrounded by single-family houses, then the project would be different from and in sharp contrast to the current land uses.

Consider 'surrounding' to mean those land uses adjacent to the project site, those within the same zoning district, if one exists, or those within 1,500 feet.

Applicable Part 1 Information

C.2., C.3., D.1.a., E.1.a., and E.1.b.

Analysis

- What is the scale and size of the project site in comparison to current land uses?
  - Is the structure larger?
  - Taller?
  - On a different lot size?
  - Of a very different land use?
  - Of an architectural design that is in sharp contrast?
  - Sited on the parcel in a very different manner?
- Is the intensity of the proposed similar or different from surrounding uses?
  - Will there be more people at the site than surrounding uses?
  - More traffic?
  - More structures on the lot and less green space than others?

Will there be an impact?

If all land use components that are part of the proposed project are consistent in their use, dimensions of the lot, dimensions and location of all structures, setbacks, size of the structure(s), accessory uses, and overall scale and intensity with current land use patterns then there likely will be no related impacts. Check 'No, or small impact may occur.'

Small Impact:

A small impact could occur if:

- The proposed project is not consistent with surrounding land use patterns, but the community has specifically zoned the area for those new uses and the project is consistent with those community laws and goals.

Moderate to Large Impact:

A moderate to large impact could occur if:

- The proposed project is not consistent in its proposed use, dimensions of the lot, dimensions and location of all structures, setbacks, size of the structure(s), accessory uses, and overall scale and intensity with existing land uses and local laws and plans encourage maintenance of such existing uses.

b. The proposed action will cause the permanent population of the city, town or village in which the project is located to grow by more than 5%.

A population increase of 5% or more has many implications for a community. It may mean there is need for additional water and sewer infrastructure, new roads, new schools, or additional municipal services. Such population increases also bring new building: there will be a need for more residences and businesses to serve them. All of these could result in significant adverse environmental impacts.

If the answer to this question is 'yes', then review other sections of Part 2 to evaluate the potential impacts of that population increase. In particular, review your decisions from Part 2, questions 3k, 4a, 7, 8, 9, 10, 11, 13, and 15. Those questions directly evaluate whether there will be increased demands for services and impacts resulting from new building.

Applicable Part 1 Information

C.2., C.4., D.1.c., D.1.f., many D.2. questions, especially D.2.c., D.2.d., D.2.e., and D.2.j.

Analysis

- Where will the new population live?
  - In already developed locations?
  - In new housing developments?
- Will there need to be new transit systems, roads, or other similar infrastructure?
- Will that growth induce additional residential or non-residential growth?
- Are there jobs in the municipality to support that population or will those people commute to different locations?
- Is the water and sewer system, and other public services such as schools adequate to support that population growth?

Will there be an impact?

If the project does not include any population growth, then there will be no related impact. If it is likely to increase permanent population the reviewing agency will need to evaluate the other sections of Part 2 to determine if there will be direct or indirect adverse impacts due to that increase. If there is a population

increase, and all other areas explored in Part 2 are deemed 'no impact', then it is possible the determination for this question would also be 'no impact'. If however, that population growth does cause other impacts, then the reviewing agency will need to determine if that is a small or moderate to large impact. It is likely that a large population growth would result in some impacts that should be explored in the environmental review. See Part 2, Question 17 (e) as that is where you can review changes to density that may be less than a 5% population increase, but that still might affect infrastructure or other community resources.

Small Impact:

A small impact could occur if:

- The proposed project will cause a minor increase in population but there is adequate infrastructure, housing, services, and capacity in the municipality to accommodate that growth without the need for increasing capacity. The increase does not have cumulative adverse impacts.

Moderate to Large Impact:

A moderate to large impact could occur under one or more of these circumstances:

- A proposed project that results in a population growth that exceeds 5% of the current municipal population.
- A proposed project that results in any population growth that would result in the expansion or creation of new infrastructure, housing, services, or other municipal capacity to accommodate that level of growth.

c. The proposed action is inconsistent with local land use plans or zoning regulations.

d. The proposed action is inconsistent with any County plans, or other regional land use plans.

Zoning is one land use technique used to help implement a municipality's comprehensive or other land use plans. It is a locally adopted law that regulates the types of land use, the density of land use, and the size and siting of structures. When a municipality has a comprehensive plan, zoning and other land use laws must be adopted in accordance with that plan.

Some communities have a comprehensive plan, but no zoning. Note that in municipalities where there is little or no advanced planning, using SEQR as a substitute for community planning is not appropriate. Lead agencies should not use the environmental assessment form as a place to make up for lack of plans or regulations.

When an adopted plan and zoning, or some combination exists, the proposed project needs to be evaluated to see if it is consistent with them. If zoning exists, an action would be considered consistent if it is a permitted use or a specially permitted use, and meets all zoning requirements for that use and district.

However, if a project requires a zoning change or an area or use variance, or is in conflict with the stated vision, goals, recommendations or land use concept map of a comprehensive plan, then the proposed action is inconsistent, and the reviewing agency will need to evaluate whether this inconsistency is small or moderate to large. There may be instances where the proposed action is consistent with a plan and not zoning, or vice versa. In that case, some impact may occur and the reviewing agency should evaluate whether this is a small or moderate to large impact.

Some counties and regions have adopted county-wide comprehensive plans. Other county or regional level plans to be aware of include agriculture and farmland protection plans, local waterfront revitalization plans, open space plans, transportation plans, housing plans, economic development plans, watershed or other water quality protection plans, or recreation plans.

Applicable Part 1 Information

C.2., and C.3.

Analysis

- Is the project consistent with the vision and goals established in those plans or zoning laws?
  - Is it likely that the proposed project will prevent the municipality from attaining those vision and goals?
- Do any strategies, recommendations, maps, or other actions in the plans address the proposed land use or location?
  - If so, how, and is the project consistent with those?
- Is the proposed project a land use that was anticipated and encouraged in the plan(s)?
- Does the proposed project meet all zoning and other land use regulations?
  - Are any variances or zoning changes required?
  - Are those variances area variances or use variances?
    - Both types of variances may mean that the project is not consistent with local regulations.

Will there be an impact?

If there are no adopted land use plans, zoning, or other land use regulations in the community, there is nothing for the project to be consistent with. If the proposed project is completely consistent with the adopted land use plans and zoning in the community, then there will not be any related adverse impacts. Check 'No, or small impact may occur.'

When an adopted plan and zoning, or some combination exists, the proposed project needs to be evaluated to see if it is consistent with them. If zoning exists, an action would be considered consistent if it is a permitted use or a specially permitted use, and meets all zoning requirements for that use and district.

When a comprehensive plan exists, an action would be considered consistent if it is not in conflict with the stated vision, goals, recommendations or land use concept map.

However, if a project requires a zoning change or an area or use variance, or is in conflict with the stated vision, goals, recommendations or land use concept map of a comprehensive plan, then the proposed action is inconsistent, and the reviewing agency will need to evaluate whether this inconsistency is small or moderate to large. There may be instances where the proposed action is consistent with a plan and not zoning, or vice versa. In that case, some impact may occur and the reviewing agency should evaluate whether this is a small or moderate to large impact.

Small Impact:

A small impact could occur if:

- A minor area variance is required because the lot size, building height, or setback requirements cannot be met.

Moderate to Large Impact:

A moderate to large impact could occur if:

- The proposed action is largely or totally incompatible with the land use plans or zoning in the community. It is likely that one or more moderate to large impacts could occur under one or more of these circumstances:
  - A use variance is required.
  - Significant area variances are required (for example, none of the lot, height, or setback requirements are met)
  - No zoning exists, but the proposed action introduces a use into an area that is in conflict with what the community plan establishes for that area.

e. The proposed action may cause a change in the density of development that is not supported by existing infrastructure or is distant from existing infrastructure.

f. The proposed action is located in an area characterized by low density development that will require new or expanded public infrastructure.

Density refers to the number of residential dwelling units or the number of non-residential uses in an area. Low density development is typically seen in rural areas, small villages, hamlets, and some suburban areas.

These questions explore whether the proposed project will result in a change in density that will require new or expanded infrastructure. Infrastructure includes such things as water, sewer, new or upgraded roads, sidewalks or paths, and solid waste facilities. When a project requires new or expanded

infrastructure, it not only has direct effects on the environment due to land disturbance, but can also affect taxes, the fiscal health of a community, and future growth. Once infrastructure is in place, new land uses typically follow. In many places, residential growth does not bring in adequate tax dollars to support the infrastructure needed to support it. Thus, infrastructure itself is a growth inducement that could impact the environment in the short and long-term.

Applicable Part 1 Information

C.3., C.4., D.1.c., D.1.d., D.1.f., D.2.c., D.2.d., D.2.j., D.2.k., D.2.s., and E.1.b.

Analysis

- Will new or expanded infrastructure be needed?
  - If so, what and where?
  - What are the fiscal implications of this expansion?
- What environmental impacts would result from construction of that infrastructure?
- Are there land, water, or other resources available to support that expansion?
- Will that expansion result in the potential for future growth beyond the proposed project?
  - If so, what impacts may that have?

Will there be an impact?

If no new or expanded infrastructure is necessary to support the proposed change in density then there will be no related impact. Check 'No or small impact may occur.'

Potential Impacts:

There are many impacts that could occur related to expansion or development of new infrastructure in any area. In addition to impacts from land disturbances and changes to community character that changes to density can bring to an area, there may be impacts on surface or groundwater and transportation. If new or expanded infrastructure is required to support a project, then it is suggested that those impacts would be considered moderate to large.

Small Impact

Projects that require additional external sidewalks or other pedestrian facilities, an extension of an existing road, addition of a turning lane or traffic light, or upgrading a private road to public road standards are examples of impacts that could be considered small depending on the scale and context of the proposed project.

Moderate to Large Impact:

Extension or creation of sewer or water lines, creating new public infrastructure districts, and construction of new roads would all be considered moderate to large impacts, especially if that infrastructure allows additional growth to occur.

A moderate to large impact could also occur if the proposed project induces growth at a level that requires additional infrastructure beyond those identified above as small impact.

g. The proposed action may induce secondary development impacts (e.g., residential or commercial development not included in the proposed action)

This question explores the potential growth inducing aspects of a proposed project. A project may foster economic or population growth, or result in an increase in land use in a geographic area if it is establishes essential public services, provides for economic expansion (construction of additional housing, changes in revenue base, employment expansion, etc.), is precedent-setting such as a zoning change, and develops or encroaches on an isolated or adjacent area of open space.

Applicable Part 1 Information

C.2.a., C.3., C.4., D.1.c., D.1.d., D.1.f., D.2.c., D.2.d., D.2.j., D.2.k., D.2.s., and E.1.b.

Analysis

- Will the project foster similar or additional residential or commercial development in the future?
- Will the project make it easier for other land uses to move into the area in the future?
- Will public infrastructure be established that future growth could take advantage of?
- Does the project promote economic growth that could have secondary impacts such as construction of additional housing?
- Was a zoning change needed so that the proposed project sets a new precedent for future growth in the area?
- Is the proposed project located in an undeveloped area of the community that could become a target for additional growth in the future?

Will there be an impact?

If there are no secondary, or growth inducing, aspects of the proposed project, then there will be no related impacts. Check 'No, or small impact may occur.'

Small Impact:

Additional growth could occur but roads and other public infrastructure, schools, municipal services, etc. all are below capacity and there will be no new or extension of infrastructure necessary. Note that there may need to be additional studies or evaluation to determine how much additional growth could occur and this information may not be available from Part 1. The reviewing agency could request this information if

needed. Or, if there is possibility that the existing community capacity could not accommodate the potential induced growth, the reviewing agency should indicate impacts from induced growth as a potential moderate to large impact. This would then be further explored in Part 3.

Moderate to Large Impact:

A moderate to large impact could occur if the proposed project induces growth at a level that requires additional infrastructure, community services, or if it would be at a density or type of land uses that changes the community character.

h. Other:

There may be other impacts identified by the reviewing agency that are not addressed by the above questions. If so, they should be identified and briefly described here.

Some proposed actions may have beneficial impacts on the environment. The reviewing agency can use the 'other' category for that purpose, too.

Question 18 - Consistency with Community Character - Full EAF (Part 2)

Full Environmental Assessment Form (FEAF) Workbook

The proposed project is inconsistent with the existing community character.

Many people define their community's character in very general terms: suburban, rural, urban, quiet, safe, scenic, or friendly are terms often used. Others describe community character only in terms of visual features. Community character is broader than this however.

Community character is defined by all the man-made and natural features of the area. It includes the visual character of a town, village, or city, and its visual landscape; but also includes the buildings and structures and their uses, the natural environment, activities, town services, and local policies that are in place. These combine to create a sense of place or character that defines the area.

Changes to the type and intensity of land use, housing, public services, aesthetic quality, and to the balance between residential and commercial uses can all change community character. Most proposed

actions will result in some change in community character. There are probably few that will result in no change at all. Examples of actions that may not affect community character include passage of a local law that is not related to land use, or other discretionary actions that require SEQR but that do not result in building or development.

Note that Question 18 asks if the proposed project is NOT consistent with community character. Reviewing agencies will need to first understand what the existing community character is. Sometimes this is clearly defined in a comprehensive plan. As such, reviewing agencies should be familiar with those plans. Other times, the reviewing agency will need to discuss and articulate what current community character is.

Reviewing agencies should then ask and answer sub-questions (a) through (g) below, in order to understand what changes the proposed project might bring to the community. A comparison of current conditions to those that might exist after implementation of the project will determine if "the action is inconsistent with the existing community character" or not. If the reviewing agency decides that the action IS consistent with community character, then check "No" to this question and move to Part 3. However, if you find that the proposed action is NOT consistent with existing community character, then answer sub-questions (a) through (g) to evaluate the size of potential impacts resulting from that inconsistency.

To answer this question

Review Part 1 questions C.2., C.3., C.4., D.2., E.1.c., and E.3.

Identifying potential impacts

The reviewing agency should evaluate the following sub-questions and decide if there will be any impact. If there will be an impact, the reviewing agency must then evaluate the magnitude of that impact, and decide if the impact will be small or moderate to large. This will depend on the overall scale and context of the proposed project as described in the Introduction to Part 2. The reviewing agency should be reasonable when conducting this review.

- If the proposed project does not exceed a numeric threshold in a question, the reviewing agency should consider the scale and context of the project in determining if an impact may be small or moderate to large.
- These sub-questions are not meant to be exhaustive. The reviewing agency should use the "Other impacts:" sub-question to include any additional elements they feel need to be analyzed for potential impacts.

a. The proposed action may replace or eliminate existing facilities, structures, or areas of historic importance to the community.

Community character is, in part, influenced by the buildings and structures that exist in a community. Historic structures are especially influential on the character of the built environment. Whenever existing buildings and structures are replaced or removed, the character of the street, neighborhood, district or entire community can change. For example, replacing a traditional three story main street structure having parking in the rear with a modern concrete block structure having parking the front could significantly change the character of the street. In some communities the character is also influenced by entire blocks, streets, or neighborhoods that may be altered by a project. Removal or replacement can significantly change the function, look, and economics of an area.

Applicable Part 1 Information

E.3.e., E.3.f., and E.3.g.

Analysis

- What specific buildings or structures are to be replaced or eliminated?
- What is proposed in its place?
  - Is the new structure of similar scale, siting, design, and function?
- Is there a designated historic district impacted? How will that change?
- Will the proposed project change the ratio of street width to building height?
  - For example, are narrow streets having buildings set close to the road being replaced by wider streets with buildings having deep front setbacks?
  - Are sidewalks and street furniture being removed or replaced and if so, with what?

Will there be an impact?

If no facilities, structures or areas of historic importance to the community are being replaced or eliminated, then there will be no related impacts. However, many proposed actions will result in some change in community character. There are probably few that will result in no change at all. Examples of actions that may not affect community character include passage of a local law that is not related to land use, or other discretionary actions that require SEQR but that do not result in building or development. Another example may be infill development that is consistent with the style and character of the neighborhood. Check 'No, or small impact may occur.'

Small Impact:

A small impact could occur under one or more of these circumstances:

- The visual character of the area is changed in a minor way but is generally consistent in the design, placement, size, streetscape, intensity and architecture of the neighborhood or community.
- The balance between retail commercial uses and residential uses does not change in a significant way.

- The proposed project is a land use that is similar to others that can be found in the neighborhood or area.

Moderate to Large Impact:

A moderate to large impact could occur under one or more of these circumstances:

- The proposed project moderately or significantly changes the visual character of the area.
- The proposed project is of a larger scale than currently exists in the area.
- New building design, lot layout, streetscapes, or intensity of use is in sharp contrast to that which exists.
- The project introduces a land use that is inconsistent or in sharp contrast with surrounding land uses.
- The project introduces odors, lights, noise, or traffic to an area in a way that is different than currently exists.

b. The proposed action may create a demand for additional community services (e.g. schools, police and fire)

Part of a community's character comes from the community services that are available because those contribute to the sense of community residents have. Growth and development can change this part of community character by bringing in more people to an area, who in turn, demand more in public services. This demand can result in the need for municipalities to build more schools, parks, roads, and infrastructure, or can bring in crime and the need for additional police, fire and emergency services.

Here, context of the project is very important. An urban community that already has large school districts, and paid police and fire services may be able to absorb an increased demand for these community services. A rural or a small community that relies on volunteers for these services, or has a school district that has little capacity to accept growth may be less able to absorb the same increase in demand.

Applicable Part 1 Information

C.4., D.2.c., D.2.d., D.2.j., and D.2.s.

Analysis

- Will the proposed project result in an increase in population that will require the community to invest in additional public services?
  - Where will these services be physically located, and how might they change the sense of place and character of the community?

Will there be an impact?

If the proposed project does not create any additional demand for community services, then there will be no related impact. Check 'No, or small impact may occur."

Small Impact:

A small impact may occur if:

- The demand on public services can be handled by existing resources and the proposed project will not exceed existing capacity.

Moderate to Large Impact:

A moderate to large impact may occur if:

- The demands on public services will increase and result in the need to extend existing services.

c. The proposed action may displace affordable or low-income housing in an area where there is a shortage of such housing.

Displacement of housing could mean that structures are physically removed and replaced with other land uses, or housing that is no longer affordable for low-income families. Or, displacement can also mean that existing housing is rehabilitated or restored in a manner that gentrifies the area and results in higher rents and land values. Affordable housing is generally defined as housing that costs no more than 30% of the buyer's or renters income. For example, for someone earning $50,000 a year, an affordable house costs no more than $15,000 a year ($1250 per month). Displacement of these housing units can change the social fabric and demographics of a community. That in turn can affect future growth and development and other changes to the physical character of the area.

Note that Part 1 does not address or ask for information on affordable or low-income housing. The municipal planning agency should have knowledge of the demographics of the area. Alternatively, the information may also be included in zoning, site plan, special use, or subdivision application materials. Use the 'Analysis' questions below to determine if there is potential for a need or change in affordable housing before requesting other demographic information.

Applicable Part 1 Information

C.2., C.3., D.1.f., D.1.g., and E.1.a.

Analysis

In order to answer this question, the reviewing agency may need to evaluate additional information in order to determine the need for and impact to affordable housing.

- How much affordable housing would be removed?
- Does the project replace affordable housing opportunities in other areas or with new units?
- Will there be a change in the nature of housing in the area, such as changing a single family neighborhood into a multi-family one, or change the affordability of housing?

Will there be an impact?

If the project does not affect housing or displace affordable or low-income housing at all then there will be no related impact. Check 'No, or small impact may occur.'

Small Impact:

There may be a small impact if:

- The proposed project decreases the number of affordable housing units in the community but adequate affordable housing opportunities remain in the community.

Moderate to Large Impact:

There may be a moderate to large impact if:

- The proposed project will result in a decrease in the number of affordable housing units where the availability of such housing is limited and not expected to meet demand.

d. The proposed action may interfere with the use or enjoyment of officially recognized or designated public resources.

Officially recognized or designated public resources include parks, playgrounds, public properties and buildings, ball fields, picnic areas, designated fishing access locations, public beaches, scenic pull-offs, museums, pedestrian pathways such as hike and bike trails, rail trails or snowmobile trails, or community centers. When a proposed project interferes with the public use or enjoyment of these resources, quality of life, and thus community character can be adversely impacted.

Applicable Part 1 Information

C.2. and E.3.

Analysis

- What officially recognized or designated public resources exist in or near the proposed project site?
- Will the proposed project impede access or prevent use of these resources?
- Will the proposed project increase public use of a resource beyond its capacity?
- Will the proposed project result in an inability to maintain the resource or will it degrade the resource so that it is no longer safe or useable by the public?

Will there be an impact?

If there are no officially recognized or designated public resources that will be interfered with in any way, then there will be no related impact. Check 'No, or small impact may occur.'

Small Impact:

There may be a small impact if:

- The proposed project will add population, visitors, or employees that increase demand for parks, playgrounds, public, cultural or recreational facilities, but adequate resources exist that are underused or have available capacity.

Moderate to Large Impact:

There may be a moderate to large impact if:

- The proposed project will add population, visitors, or employees that increase demand for parks, playgrounds, public, cultural or recreational facilities but existing facilities are already overused or have no capacity to handle that additional demand.

e. The proposed action is inconsistent with the predominant architectural scale and character.

Predominant architectural scale and character need to be defined locally: they are determined through understanding the size, height, dimensions, and intensity of uses as they already exist in the neighborhood or community.

Actions inconsistent with the predominant architectural scale and character of the area could include those that results in a structure or landscape that is in sharp contrast to that which currently exists. A new structure(s) that is larger, taller, or of different architectural style, could be inconsistent with the existing character. Changes in color scheme, window and door configuration, roof style, setback from the street, or style of signs and accessory structures can all result in adverse impacts to community character. Streets that are widened, intersections that are changed, streets where trees have been removed, and placement of parking lots are other actions that can change community character. Introduction of noises, lighting and traffic are others.

Applicable Part 1 Information

C.2. and C.3.

Analysis

- Describe the current predominant architectural scale and character.
  - This can be defined by the size, height, setback, and site layout common to existing structures in the area.
  - It can also be defined by the architectural details such as building material, façade, color, window and door treatments, presence of architectural fenestration and details, signage, and location of parking lot.
- What is the architectural scale and character of the proposed new structures and does this differ from existing?
  - If so, how?

Will there be an impact?

If the proposed action does not introduce new or change the predominant architectural scale and character at all, then there will be no related impacts. Check 'No, or small impact may occur.'

Small Impact:

There may be a small impact if:

- The visual character of the area is changed in a minor way but is generally consistent in the design, placement, size, color, intensity and architecture of the neighborhood or community.

Moderate to Large Impact:

There may be a moderate to large impact if:

- The proposed project introduces an architectural style that is in sharp contrast in its size, window or door size and style, building materials, roof pitch, façade, color, or signage with existing or surrounding buildings.

f. Proposed action is inconsistent with the character of the existing natural landscape.

The natural landscape plays a large role in defining a community's character. For example, a municipality may define itself as rural community because of a large amount of open space and farming. Or, one may be defined as a mountain town due to being in the Adirondacks. Waterbodies, open lands, forested lands, topography, natural communities and wildlife, and unique geologic features all contribute to the natural landscape. When these resources are reduced, fragmented, or eliminated, the natural landscape can change.

Applicable Part 1 Information

C.2., C.3., E.1.a., E.1.b., E.2.g., and E.2.h.

Analysis

- What are the features that make up the natural landscape?
  - Are some features more predominant than others?
  - How would you define this?
- What changes to the natural landscape will result?
  - What features will be changed or eliminated?
- How visible to the general public will these changes be?
- How much area will be impacted?

Will there be an impact?

If the proposed project does not physically alter the landscape, or change the cover type, or reduce, eliminate or fragment natural features, there will be no related impact. There may also be no impact if the project site is located in a heavily developed area already largely disturbed and built upon. Check 'No, or small impact may occur.'

Small Impact:

There may be a small impact if:

- The project site is located in an area that already has a diversity of vegetation and mix of cover types and where land uses and the proposed use are similar to or already found nearby.
- The project activities do not have other significant adverse environmental impacts and the structures are sited in such a manner (such as with very large setbacks or significant buffering) so that the visual character of the natural landscape is not noticeably different.
- The change to the natural landscape is small in size, and not in sharp contrast to the broader area.

Moderate to Large Impact:

There may be a moderate to large impact if:

- Significant portions (in size and in importance to the community) of the natural landscape are removed or changed, such as through blasting, grading, filling, or removal of predominant vegetation growing in the area.
- There are more buildings, lawns, roads, and other structures introduced into an area that is currently rural and undeveloped.
- A proposed project includes a road that is highly visible where no other built features can be seen.
- Structures taller than the predominant vegetation are introduced.

g. Other impacts:

There may be other impacts identified by the reviewing agency that are not addressed by the above questions. If so, they should be identified and briefly described here.

Some proposed actions may have beneficial impacts on the environment. The reviewing agency can use the 'other' category for that purpose, too.

This Page is Intentionally Blank

Part 3 - Evaluation of the Magnitude and Importance of Project Impacts and Determination of Significance (FEAF)

Full Environmental Assessment Form (FEAF)

Part 3 provides the reasons in support of the determination of significance. The lead agency must complete Part 3 for every question in Part 2 where the impact has been identified as potentially moderate to large or where there is a need to explain why a particular element of the proposed action will not, or may, result in a significant adverse environmental impact.

Based on the analysis in Part 3, the lead agency must decide whether to require an environmental impact statement to further assess the proposed action or whether available information is sufficient for the lead agency to conclude that the proposed action will not have a significant adverse environmental impact. By completing the certification on the next page, the lead agency can complete its determination of significance.

Introduction

The purpose of Part 3 is to build on evaluations made during Part 2, to decide how significant the Part 2 moderate to large impacts are, and to decide if further information is needed in an environmental impact statement. Part 3 is where the reviewing agency discusses for each potential impact the magnitude, importance, probability of occurrence, duration of impact, irreversibility of impact, geographic scope, and cumulative impacts in the context of the site and community.

Some of these features - such as magnitude - were also considered in Part 2 as part of deciding if an impact was small, moderate or large. The Part 3 evaluation looks again at those features in a more comprehensive manner to determine if a potential impact is significant or not.

Note that nothing in this workbook, particularly the guidance offered in Part 2 and 3 is found in regulation. While the EAF's need to be completed according to the Part 617 regulations, interpretation on the size or significance of an impact is at the discretion of the reviewing agency.

Part 3 is also the location where the reviewing agency articulates the rationale of its decision making. Taken together, parts 1, 2 and 3 will create a strong record of the 'hard look' required by SEQR.

Instructions for the Reviewing Agency

It is the responsibility of the reviewing agency to complete Part 3 to determine the significance of any of the identified impacts. Part 3 evaluates only those impacts identified in the Part 2 table as being moderate to large. Information submitted by the applicant or project sponsor in Part 1 together with the evaluation and additional information from Part 2 and any information that may be submitted as part of the application (For example: site plan, subdivision plan, special use permit, or other environmental permits) should be used to complete Part 3. You can request clarification or expansion of information submitted in Part 1 if needed to complete Part 3.

Reasons Supporting This Determination:

To complete this section:

- Identify the impact based on the Part 2 responses and describe its magnitude. Magnitude considers factors such as severity, size or extent of an impact.
- Assess the importance of the impact. Importance relates to the geographic scope, duration, probability of the impact occurring, number of people affected by the impact and any additional environmental consequences if the impact were to occur.
- The assessment should take into consideration any design element or project changes.
- Repeat this process for each Part 2 question where the impact has been identified as potentially moderate to large or where there is a need to explain why a particular element of the proposed action will not, or may, result in a significant adverse environmental impact.
- Provide the reason(s) why the impact may, or will not, result in a significant adverse environmental impact.
- For Conditional Negative Declarations identify the specific condition(s) imposed that will modify the proposed action so that no significant adverse environmental impacts will result.
- Attach additional sheets, as needed.

The following pages will lead the reviewing agency through the steps needed to complete Part 3:

1. Understand what makes an impact significant - Understanding Significance - Full EAF (Part 3)
2. Identify and evaluate each impact identified as moderate to large - Evaluating Significance - Full EAF (Part 3)
3. Make a decision on the significance of each impact - Determination of Significance - Full EAF (Part 3)
4. File the decision - Filing Requirements - Full EAF (Part 3)5 - Examples - Full EAF (Part 3)

More about Part 3 - Evaluation of the Magnitude and Importance of Project Impacts and Determination of Significance (FEAF):

- Understanding Significance - Full EAF (Part 3) - The key characteristics of possible impacts that should be considered in determining significance are magnitude, duration, and likelihood (probability). Magnitude assesses factors such as severity, size, or extent of an impact.
- Evaluating Significance - Full EAF (Part 3) - The reviewing agency makes the decision about whether a potential impact is significant or not. Many variables go into a determination of significance. The significance of an impact is based on the specific environmental setting where the activity is proposed, on the type of resource being impacted, and on the values, history, and preferences of the community.
- Determination of Significance - Full EAF (Part 3) - Determination of Significance - For many proposed projects, many of the identified impacts can be or already are mitigated by changes or certain project

components. Part 3 gives the reviewing agency and opportunity to examine the proposed project in relation to the potential impacts and identify if any mitigations have been included in the project plans.

- Filing Requirements - Full EAF (Part 3) - List - Name of Action: Name of Lead Agency: Name of Responsible Officer in Lead Agency: Title of Responsible Officer: Signature of Responsible Officer in Lead Agency:_____ Date: Signature of Preparer (if different from Responsible Officer): _____ Date: For Further Information: Contact Person: Address: Telephone Number: E-mail
- Examples - Full EAF - (Part 3) - Examples - This page will be used to identify Examples for Part 3

Understanding Significance - Full EAF (Part 3)

Full Environmental Assessment Form (FEAF) Workbook

The key characteristics of possible impacts that should be considered in determining significance are **"magnitude"**, **"duration"**, and **likelihood (probability)**. Magnitude assesses factors such as severity, size, or extent of an impact. Duration looks at how long an impact may last. Importance relates to how many people are going to be impacted or affected by the project or what role a resource, including natural resources, may have in the community. Likelihood measures how probable it is that the impact may occur. Generally, bigger impact (larger "magnitude") projects are more likely to need more detailed analysis. Taken together, magnitude, duration, and likelihood; along with the context and scale of the proposal; define an impact's importance."Importance" requires us to look at an impact in relation to the whole action. The short or long term or cumulative nature of the impacts also needs to be considered. Each impact of an action must be judged by these characteristics within the context of the site and community.

Magnitude, **duration**, and **likelihood** of an impact occurring are described as follows:

Magnitude:

For each potential impact being evaluated in Part 3, decide how large of an impact there might be. Magnitude reflects both the area of land as well as the amount of a particular resource or the number of people being impacted. Magnitude is conveyed as 'moderate' or 'large'. It is assumed that all impacts that would be considered 'small' in magnitude were identified as such in Part 2 and therefore not considered in Part 3.

- **Moderate Impact:** These are impacts that are of a size that will likely result in more impacts on one or more environmental resources but are more localized, and not regional in nature. Moderate impacts can occur when the project affects a portion of a parcel or even a larger area extending to a small area just beyond the parcel. Moderate environmental impacts may be either isolated (only in one location), or of neighborhood concern. An impact of moderate magnitude would likely affect a moderate number of people. Size in acreage or people affected is not the only aspect of magnitude, however. If a project

affects a small area of land, but the resource being impacted is locally rare, for example, then the actual impact may be large. When reviewing an impact's magnitude, the reviewing agency should consider the size of the impact and resource, as well as the scope and context of the project. A proposed project that impacts a small number of people may also be considered a moderate impact. The resources affected by a moderated impact may often have broad local concern and often are activities or resources that are regulated or protected by some local, state, or national agency.

- **Large Impact:** These are impacts that may cover larger areas beyond the parcel in the neighborhood or community or impact larger numbers of people. As described above related to a moderately sized impact, size in acres is not the only aspect of this either. Impacts on large areas of land, or on a large number of people however, would usually be classified as a 'large' impact. The resources affected by a large impact often have broad local or regional concern and often are activities or resources that are regulated or protected by some local, state, or national agency.

Duration:

For each potential impact being evaluated in Part 3, decide if it will be short-term, medium-term, long-term, or irreversible in its duration. Duration refers to how long an impact is likely to last.

- **Short-term Impact:** Some actions may have short-term impacts. These are often due to the initial land disturbance or construction phase. Short-term impacts can occur for a few days, weeks or several months, and then improve quickly. In this case, short-term impacts may be of minor or negligible importance in a long time frame. It is very important to evaluate the duration of an impact in the context and scope of a project. A short-term impact in one situation may not be significant, but in other cases, may be very significant.
    - An example of a short-term impact would be stock-piling topsoil and placement of erosion control methods in one location during construction of a structure. After construction, the topsoil would be graded and re-seeded or landscaped. Short-term impacts would occur due to the initial disturbance of soil and vegetation, but within several weeks, it would be replaced.
- **Medium-term Impact:** Some actions may have impacts that last longer but that are still not permanent or irreversible. Medium-term impacts can be measured in months, over several seasons, or perhaps a few years, but have an end-point where the conditions improve and adverse impacts dissipate. Depending on the context and scale of the project, as well as the other features evaluated in Part 3, medium-term impacts could have minor or large significance.
    - An example of a medium-term impact might be construction of an access way using a single culvert over a small, non-regulated stream that has wooded stream banks. Construction of the culvert and driveway will require removal of some additional stream-side vegetation and disturbance to the water flow. Thus it could affect water temperature (by removal of the trees), increase turbidity, change water flow, and reduce habitats for fish and invertebrates. In this example, there could be

both short-term and medium-term impacts. After construction, the water flow and turbidity issues would dissipate, but the changes to the stream bank and stream bottom habitats could last months or seasons before the vegetation returns and habitats re-formed. If the applicant included stream bank and stream bottom restoration, use of best management practices for stream corridors, and re-planting of deciduous trees, then the adverse impacts could be moderated in duration.

- **Long-term Impact:** These are impacts that last for years, or last as long as the activity that generates the impact continues to take place. Some projects continually impact the environment in an adverse way while the activity takes place, but then the environment improves if the operation ceases. Other actions may occur only for a short period of time, but the impacts last a very long time and it takes years for the environment to recover. Examples might be:
  - Adverse changes in air quality while a manufacturing use operates, or continual production of noise levels above ambient levels while the use operates. Should the manufacturing cease operations, the air pollution and noise impacts end. Removal of large acreages of forest lands on a portion of a parcel to be planted in grass would likely be considered long term impact, even though the forest might regenerate if maintenance of the lawn stopped and trees were allowed to re-grow.
  - A chemical spill that pollutes water or soils that would take decades before the natural resources are recovered.
  - A large residential construction project with multiple phases could last a decade once built, actual construction sequences might be deemed moderate, but the long lasting effect of the constructed property may be viewed as long term.
- **Irreversible Impact:** These are impacts that occur where the environment can't return to its original state at any time or in any way. Use of nonrenewable resources may be irreversible since it is unlikely that the resource can be used again. Impacts that generally commit future generations to similar uses may also be considered irreversible impacts. Projects where there is no potential for future restoration are also considered irreversible. In some cases, there may be difficulty distinguishing between a long-term impact and one that is irreversible, but generally, irreversible impacts are those that permanently result in an adverse change.
  - Examples of irreversible impacts include:
    - The extinction of an animal or plant species
    - Conversion of prime farmland soils to residential use
    - Construction of a structure that permanently alters a scenic view in a negative way
- Other impacts may not fit neatly in the short, medium or long term categories because they may be continuous, or intermittent. The reviewing agency should use their best judgment to determine the category that fits the duration of the potential impact.

Likelihood:

For each potential impact being evaluated in Part 3, the reviewing agency will need to decide if the impact will be unlikely to occur, will possibly occur, or will probably occur. Given the nature of the project, some impacts may be very likely to occur while others may possibly occur, and others are unlikely to occur. The reviewing agency may decide that unlikely impacts may be of large magnitude or long duration but are ultimately not significant because they are so unlikely to actually occur. In other cases, an unlikely impact may carry such a high risk that the reviewing agency may decide it is very significant.

- **Unlikely to Occur:** These are impacts that have a very low chance of occurring now or in the future.
  - An example of an impact that is unlikely to occur could be a spillage of a toxic chemical used in a manufacturing process. There is an extremely low probability of this occurring, in part because of protocols used in handling such materials.
- **Possibly will Occur:** These are impacts that are possible, but not likely occur.
  - An example of an impact that possibly could occur would be the growth inducing aspects of a new 100-lot subdivision development in a city that has had very slow growth and is not near an urbanized area. The residential development may create consumer demands that will influence and promote development in another location in the community. There is the potential for impacts to the community long-term, but may possibly occur given the character and economy of the area.
- **Probably will Occur:** These are impacts that are very likely to occur
  - An example of an impact that probably will occur would be loss of fisheries due to a dredging operation throughout a water body that supports warm water fish species that require shallow water to survive.

The importance of an impact is more subjective and is based on the combination of magnitude, duration, likelihood, the specific environmental setting where the activity is proposed, and on the values, history, and preferences of the community. After evaluating all of these characteristics of a potential impact, a community may decide that it is not important and therefore, may determine that the impact is not significant. For example, a project that adds many lighting fixtures and parking lots in an urban neighborhood having many existing lights and parking areas may be deemed to be not important. Conversely, An example of an impact that is very important could be a project in a community whose economy is based upon tourism related to fishing cold-water species. The impact of a project that directly discharges warm water to that cold water stream would be very important.

Beginning the evaluation

Once the reviewing agency understands these concepts, it is time to begin evaluating each of the moderate to large impacts identified in Part 2:

Evaluating Significance - Full EAF (Part 3)

Full Environmental Assessment Form (FEAF) Workbook

The term 'significant' is somewhat subjective. That is because the significance of an impact is dependent on the magnitude, duration, and likelihood of that impact occurring. It is also dependent on the scale and context of the project. Context refers to the unique characteristics of the natural and man-made environment in any given location. Significance is very much tied to the context of the site and the community. Similar projects may receive different decisions on significance because of differences in the context. Each impact therefore, must be judged and weighed by these different characteristics.

What could be a significant impact?

The reviewing agency makes the decision about whether a potential impact is significant or not. Many variables go into a determination of significance. The significance of an impact is based on the specific environmental setting where the activity is proposed, on the type of resource being impacted, and on the values, history, and preferences of the community.

The information that goes into, and the reasoning behind a determination of significance is presented in Part 3 in a logical, comprehensive, and understandable manner. A legally sufficient determination of significance implies that a lead agency has in its possession, and can demonstrate that it has considered at least the following:

- The entire action, not just one part of it (see Segmentation);
- The information provided from the environmental assessment form (EAF);
- Any other information provided by the applicant, including the underlying application;
- The criteria for determining significance found in 617.7(c) ; and
- Any input from involved and interested agencies, interested organizations or other groups of people and the general public.

The specific criteria for determining the significance of an action comes in part from the criteria listed in 617.7(c). These criteria assist the reviewing agency by focusing attention on a wide range of important environmental considerations. But this list is illustrative, not exhaustive. Agencies may develop additional criteria to those listed in 617.7(c), especially if past experience has indicated the importance of particular considerations with respect to actions frequently encountered by an agency. Such additional criteria should be developed and adopted in accordance with rules governing individual agency implementation of SEQR, see 617.14(e).

The information provided in this section of the workbook offers the reviewing agency tools to help pull all the known information together, organize decisions, and make that determination of significance.

For each potential impact, there are many combinations of magnitude, duration, and likelihood that can occur. There is no universally accepted measure of significance. None of the criteria (magnitude, duration, likelihood, scale, and context) should be considered more important than any other. Instead, they should be examined in an equal manner to help frame the rationale for making a determination of significance and for communicating why you made that determination.

Whether a potentially adverse impact is significant or not is ultimately determined or tempered by the specifics related to the scale of the proposed project and context within your community. Remember that the determination of significance needs to be based as well on the magnitude, duration, and likelihood of an impact occurring. These criteria cannot be inserted into a formula that will automatically produce a finding of significance or insignificance. These criteria simply aid the reviewing agency in making a judgment on a case-by-case basis.

The following steps and information will help you determine the environmental significance of the moderate top large impacts identified in Part 2.

Making and Organizing Your Decisions

Each moderate to large impact needs to be discussed and evaluated for its magnitude, duration, importance and likelihood. The reviewing agency will need to take each moderate to large Part 2 impact, make decisions on these factors, and then take a comprehensive view of them all together to determine if the impact will be significant.

Because there are many variables that will influence your determination of the significance of an impact, it may be useful to organize your decisions for each impact discussed. Using a chart or checklist can be a helpful tool. The chart below is a tool to help you organize, think about, and help make your decisions on magnitude, duration, and likelihood for each impact. The chart illustrates the options to be considered. If you use a tool similar to the following chart, you can circle or highlight one choice in each column for each Part 2 impact to be evaluated.

Magnitude of Impact	Duration of Impact	Likelihood of Impact	Importance of Impact
Moderate (localized) Large (Severe)	Short-term Medium-term Long-term Irreversible	Unlikely to occur Possibly will occur Probably will occur	Not Important Fairly Important Very Important

An Example Using the Chart

The following example illustrates an action that, according to Part 2, the reviewing agency determined could have moderate to large impacts. This example is for a project proposed to be built in an area having

significant archaeological resources. The Planning Board evaluated the information available and determined that the potential impacts on the archaeological resources are confined to the parcel itself, are irreversible because the resources could potentially be destroyed, that the type of resources are very important because of the reliance on those archeological resources as a significant part of the community's identity, and that the impacts will probably occur because the site plan shows disturbances to the area where the resources exist. The chart below summarizes the thought process that went into the Planning Board's evaluation of this particular impact:

	Magnitude of Impact	Duration of Impact	Likelihood of Impact	Importance of Impact
Question 8: Impact on historic, archaeological, architectural, or aesthetic resources	Moderate - because a significant portion of the parcel will be impacted Large	Short-term Medium-term Long-term Irreversible - because the resources could be destroyed during construction or permanently made inaccessible	Unlikely to occur Possibly will occur Probably will occur - because the site plan shows grading, soil removal and construction over the site where the resources are located	Not Important Fairly Important Very Important

Determination of Significance - Full EAF (Part 3)

Full Environmental Assessment Form (FEAF)

Determination of Significance - Type 1 and Unlisted Actions
SEQR Status: __ Type 1 __ Unlisted
Identify portions of EAF completed for this Project:
__ Part 1 __ Part 2 __ Part 3

Identify Mitigations Included in the Project

For many proposed projects, many of the identified impacts can be or already are mitigated by changes or certain project components. Part 3 gives the reviewing agency and opportunity to examine the proposed project in relation to the potential impacts and identify if any mitigations have been included in the project plans.

Review the proposed action and identify methods that the project sponsor or applicant has included in the project design to avoid or reduce the identified impacts. Examples of mitigations could be:

- Changes to the size or location of the structure or of the disturbance
- Phasing of the project construction by time of day or season
- Construction of a berm or fence to block noise or visual impacts
- Permanent protection with a conservation easement of that part of the parcel that is a significant natural community.

It is feasible that the reviewing agency will identify a potential large, long-lasting, important impact that is likely to occur but the project includes features that mitigate those effects to the point where the impact is no longer a significant concern, Some projects include aspects that mitigate impacts partially or fully. This needs to be taken into consideration when determining significance of an impact.

Statement of Significance

Once you have determined the significance of the various impacts, it is time to write your decision. This statement is very important to record the rationale behind your decision making. It should include a short summary explaining how you determined that the impact will or will not be significant. It should summarize what the potential impacts will be, what your decisions about its magnitude, duration, importance and

likelihood are, and how you used that information to reach your decision about significance. Part 3 does not include a specific place to record your statement, but you should attach additional sheets as needed.

If you used a chart or checklist to organize your decisions as described in this workbook, you can use that to describe the impact(s), and summarize your decisions about significance. The statement can be short or long, but ultimately should describe your evaluation process and the rationale used in your decision making. See the Examples page for model Part 3 statements.

Upon review of the information recorded on this EAF, as noted, plus this additional support information
_____
_____
_____
and considering both the magnitude and importance of each identified potential impact, it is the conclusion of the
_____ as lead agency that:

A. This project will result in no significant adverse impacts on the environment, and, therefore, an environmental impact statement need not be prepared. Accordingly, this negative declaration is issued.

B. Although this project could have a significant adverse impact on the environment, that impact will be avoided or substantially mitigated because of the following conditions which will be required by the lead agency: There will, therefore, be no significant adverse impacts from the project as conditioned, and, therefore, this conditioned negative declaration is issued. A conditioned negative declaration may be used only for UNLISTED actions (see 6 NYCRR 617.d).
_____
_____
_____
_____

C. This Project may result in one or more significant adverse impacts on the environment, and an environmental impact statement must be prepared to further assess the impact(s) and possible mitigation and to explore alternatives to avoid or reduce those impacts. Accordingly, this positive declaration is issued.

A. Negative Declarations

If, after analysis, you have determined that none of the environmental impacts identified are significant, then check box 'A'. In this case, no additional study through an environmental impact statement is necessary and a negative declaration will be issued. Part 3 will serve as the negative declaration and a

copy of this form should be filed as per the instructions on the form. Describe your reasoning behind this decision in a significance statement.

If one or more significant adverse environmental impacts have been identified, but the project includes, or the lead agency requires mitigation to reduce or avoid it, then you may decide that an environmental impact statement is not necessary. If so, describe this reasoning in your Part 3 statement. Then, check box 'A' stating that the proposed action will not result in any significant adverse environmental impact.

B. Conditional Negative Declarations

If the action being considered is an Unlisted Action (6NYCRR 617.d), and one or more significant adverse impacts have been determined but that certain project changes or conditions will allow the adverse impacts to be substantively avoided or mitigated, the reviewing agency can declare this a conditioned negative declaration. See 6NYCRR 617.7 (link leaves DEC website) and the SEQR Handbook for full information on conditioned negative declarations.

In that case, check box 'B' on Part 3 and describe those conditions. Part 3 will serve as the conditioned negative declaration and a copy of this form should be filed as per the instructions on the form.

A conditioned negative declaration (CND) is a form of negative declaration which may be used for Unlisted actions only, and only in limited circumstances. Use of a CND can be appropriate when a lead agency concludes that a proposed action may have a potentially significant adverse impact on the environment, but the impact can be eliminated or adequately mitigated by conditions imposed by the lead agency, without the need for additional environmental studies. Use of the CND acknowledges that without imposition of conditions by the lead agency, the action may have potentially significant impacts. In situations where those impacts are readily mitigated or avoided, use of the CND allows an agency to issue an approval with enforceable conditions. When a lead agency uses the CND process it must consider the whole action and all relevant impacts in identifying appropriate conditions.

The lead agency can attach conditions which are explicitly-articulated standards (either numerical or narrative) within that lead agency's underlying jurisdiction, or conditions that an applicant is otherwise legally obligated to meet in order to obtain a permit or approval. Under these circumstances, the lead agency could issue a Negative Declaration if the effects of the action will not be significant when such conditions are imposed. Typical examples of conditions that may be imposed based on the lead agency's underlying authority, and thus not require a conditioned negative declaration, are:

- Requiring relocation of a building footprint during site plan approval;
- Requiring conformance to a municipality's standards for setback from lot lines;
- Meeting emission or discharge standards as required by law;
- Locating septic tanks above seasonal groundwater levels;

- Requiring erosion and runoff controls during construction; and
- Requiring a detention or retention basin for stormwater control.

Typical examples of conditions that may be imposed through the conditional negative declaration process are:

- Requiring addition of a turning lane and new traffic signal to mitigate traffic impacts
- Addition of a permanent vegetated buffer area along the stream bank to protect the riparian corridor along the waterway
- Requiring that all stonewalls located along public roads shall be maintained
- Requiring that a landscape berm shall be built between the public road and the parking lot to screen and buffer a new shopping plaza; and
- Requiring that the siting of the proposed parking lot shall be moved to from the eastern side to the western side of a proposed structure to avoid impacts to a wetland.

Note that using a conditioned negative declaration in a situation where the reviewing agency requires additional information to be submitted prior to approval is not an acceptable use of the CND procedure.

The reviewing agency will need to describe, in writing, how the whole action was considered and that all relevant areas of environmental concern were identified and thoroughly analyzed. A reasoned elaboration must be given as to why any areas of concern would not constitute significant adverse environmental impacts. The lead agency must document its conclusion that any potential impacts are not significant, or that any potentially significant impacts would be adequately mitigated through either the standards within the jurisdictions of the lead and other involved agencies, or through the special conditions of the CND.

C. Positive Declarations

If one or more significant adverse environmental impacts identified in Part 3 are not mitigated, then you may decide that an impact is significant and that an environmental impact statement is required. If so, describe this reasoning in your Part 3 statement. This is referred to as a 'positive declaration'. A positive declaration means that another phase of the SEQR process will be required and additional information on the impacts determined to be significant will need to be prepared via an environmental impact statement.

The environmental impact statement will study and evaluate the specific resources and significant adverse impacts in more detail. If you decide that further study and evaluation is needed, then check box 'C' stating that the proposed action may result in one or more potentially adverse impacts and that an environmental impact statement is required.

Not all resources or all impacts need to be included in the environmental impact statement. Work completed in Part 3 can be useful to identify the relevant areas of concern so a targeted study can be conducted. Thus, the results of your analysis of Part 3 should be used to identify the list of topics to be

included in the environmental impact statement. This list of topics is known as the draft scope. Part 3 will serve as the positive declaration and a copy of this form should be filed as per the instructions on the form.

Complete the form

- Fill in the Lead Agency information at the bottom of Part 3
- Sign and date the form
- This completes this stage of SEQR

Filing Requirements - Full EAF (Part 3)

Full Environmental Assessment Form (FEAF)

Name of Action:
Name of Lead Agency:
Name of Responsible Officer in Lead Agency:
Title of Responsible Officer:
Signature of Responsible Officer in Lead Agency:_____ Date:
Signature of Preparer (if different from Responsible Officer): _____ Date:
For Further Information:
Contact Person:
Address:
Telephone Number:
E-mail:

For Type 1 Actions and Conditioned Negative Declarations, a copy of this Notice is sent to:
Chief Executive Officer of the political subdivision in which the action will be principally located (e.g., Town / City / Village of)
Other involved agencies (if any) Applicant (if any)
Environmental Notice Bulletin : http://www.dec.ny.gov/enb/enb.html

Preparation of Documents

The Filing requirements for a negative declaration, a conditioned negative declaration, and a positive declaration are contained in 617.12 (link leaves DEC website.)
Every negative declaration, conditioned negative declaration, and positive declaration must state that it has been prepared in accordance with article 8 of the Environmental Conservation Law, and must contain:

- The name and address of the lead agency (Included here)
- The name, address and telephone number of a person who can provide additional information (Included here)
- A brief description of the action (see Part 1, question A)
- The SEQR classification (see Part 3, Determination of Significance) and
- The location of the action (see Part 1, question A)

A conditioned negative declaration must also identify the specific conditions being imposed, and the period (not less than 30 calendar days) during which comments will be accepted by the lead agency.

A positive declaration must identify the potential significant adverse environmental impacts that require the preparation of an EIS and state whether scoping will be conducted.

Where to send the documents

Again, specific requirements are contained in 617.12 (link leaves DEC website).

A negative declaration, conditioned negative declaration, positive declaration for a Type I action, and positive declaration for an Unlisted Action must be filed with:

- The chief executive officer of the political subdivision in which the action will be principally located
- The lead agency
- All involved agencies
- Any person who has requested a copy; and
- The applicant, if the action involves an applicant

An Unlisted Action, with a negative declaration (even though using the Full EAF) only needs to be filed with the lead agency.

Notice of a Type I negative declaration, conditioned negative declaration, and positive declaration must be published in the Environmental Notice Bulletin (ENB) in a manner prescribed by the department (DEC). Notice must be provided by the lead agency directly to Environmental Notice Bulletin, 625 Broadway, Albany, NY 12233-1750 for publication in the ENB.

Examples - Full EAF - (Part 3)

Full Environmental Assessment Form (FEAF)

Part 3 - Determination of significance

Example 1

Proposed activity: A business park complex is proposed consisting of multiple buildings, parking lots, and accessory structures totaling 150,000 square foot of building space. It is proposed to be located in a mixed commercial/residential zoning district on a forty acre parcel. The area is currently a mix of agriculture, residential or vacant parcels. The parcel is in a New York State Agricultural District. The total area of land to be disturbed is 15 acres. There is no potable water or sewer available on the parcel, but they are available nearby and could be extended to the parcel. There is access directly to a state highway. There is a Class C (t) stream and heavily wooded stream bank located at the rear of the parcel. There is no regulated floodplain in this location. This stream flows nearby to a larger, state-regulated wetland and the entire area is used in the winter by Bald Eagles for feeding and resting.

- Using information from Part 1, the Planning Board has answered questions 1 through 18 on Part 2.
- Using the Part 2 tools, the Planning Board determined that there would be no impact to the environmental resources evaluated in Questions 2, 4, 5, 6, 10, 11, 12, 14, 16, and 17. These were all checked as "no or small impact may occur" on Part 2.
- However, the Planning Board determined that questions 1,3, 7, 8, 9, 13, 15, and 18 would need further evaluation in Part 3 because they identified the following impacts that could potentially be moderate to large. The project may:
    - result in increased erosion that would impact the stream and wetland with turbidity, including downstream locations;
    - impact the bank of the stream and remove important streamside vegetation;
    - require construction of a new wastewater treatment facility or expansion and connection to one that is several miles away that could serve the location;
    - impact an endangered species and its habitat;
    - result in a loss of farmland and prime farmland soils;
    - change community character because the project is in sharp contrast to the land use patterns and intensity currently found in the area;
    - create a traffic issue by creating left turn traffic where there is currently no traffic management needed at that location; and
    - result in glare or light pollution due to lighting in parking lots, signs, and internal roadways.

After further review, the Planning Board found:

The Planning Board evaluated the magnitude, duration, likelihood and importance of those potential impacts within the context of the community. They decided:

1. There is a high likelihood that erosion and impacts to the stream and its wetlands may occur due to the land disturbances and ongoing stormwater runoff. The Planning Board also felt that removal of

vegetation along the stream would likely affect the stream quality and wildlife habitats long term. In the context of the site and community these were deemed significant adverse impacts.

2. Because either new wastewater or expanded wastewater facilities were needed, that would affect the broader community long-term. It would impact many people and the Board was concerned that either creation or expansion of water and sewer facilities would be growth inducing that would in the long-term, attract other business projects that could further impact the stream and character of the area.
3. It was recognized that prime farmland was definitely going to be lost, but given the parcel is in an area zoned for mixed/residential use, the impacts were small and would not impede farmers from using other lands for agriculture.
4. Although the proposed buildings were architecturally consistent with others in the area, the Planning Board decided that the project would introduce a land use much larger than any other in the area, and that the aesthetic and community character impacts were likely to occur, large because it affected the entire area, and of critical importance to the community. The community had identified community character as one of its most important values to preserve in its comprehensive plan.
5. Addition of more traffic was determined to be a large impact, of long-term duration, and very important. However, the project included a left hand turning lane and stop light to control congestion so the Board did not think this was significant.
6. Glare and light pollution could also change community character but the project included use of fully shielded light fixtures that the Board felt would mitigate the impacts.

As a result of this analysis, the Planning Board decided that of the impacts identified from Part 2, the Part 3 analysis resulted in identification of impact on stormwater, erosion, loss of habitat, growth inducing aspects of the project and changes to community character as significant impacts that have not been mitigated and needed further analysis. They decided that an environmental impact statement would be required and that the scope of that would be limited to topics 1, 2 and 4 (erosion, induced growth, and architecture).

An appropriate Part 3 statement for this example would be:

The Planning Board determined that potential moderate to large impacts could occur related to land disturbance (erosion and stormwater), changes in use and intensity of use, traffic, loss of important habitats, and impacts on the stream. The action will be a more intense land use, will create traffic issues, could impact stream habitats and a regulated wetland downstream, and could change community character.

After analysis, the Planning Board decided that loss of agriculture was not significant. It was recognized that prime farmland was definitely going to be lost, but given the parcel is in an area zoned for mixed/residential use, the impacts were small and would not impede farmers from using other lands for

agriculture. Also, traffic and lighting impacts were not significant because the glare and light pollution that may result is mitigated by use of fully shielded light fixtures. Although the addition of more traffic was determined to be a large impact and of long-term duration, provision of a left hand turning lane and stop light to control congestion mitigated these impacts, so the Board determined traffic impacts were not significant.

The Planning Board determined that other impacts however would be moderate to large in magnitude, mostly long-term, and probably will occur. There is a high likelihood that erosion and impacts to the stream and its wetlands may occur due to the land disturbances and ongoing stormwater runoff. The Planning Board determined that removal of vegetation along the stream would likely affect the stream quality and wildlife habitats long term. New wastewater or expanded wastewater facilities would affect the broader community long-term. Such infrastructure would impact many people and are likely to be growth inducing by attracting other business projects that could further impact the stream and character of the area.

Although the proposed buildings were architecturally consistent with others in the area, the Planning Board determined that the project would introduce a land use much larger than any other in the area, and that the aesthetic and community character impacts were likely to occur, would be large because it affected the entire area, and that district is of critical importance to the community and its character.

As a result of this analysis, topics 1, 2, and 4 have been determined to be potentially significant impacts. There is not adequate information or analysis on those impacts or how they could be mitigated. In the context of the site and community these topics (1, 2, and 4) were deemed significant adverse impacts.

Therefore, the Planning Board has determined that there is likely to be adverse environmental impacts to stream ecology and water quality, to the community long-term through growth inducement, and significant potential changes to community character. An environmental impact statement oriented to these topics is therefore necessary.

The planning board then checks and completes section C. on the last page of the FEAF.

Example 2

Proposed activity: Adoption of a comprehensive plan in a rural community aimed at preserving open space, rural character, and farmland. The community is suburbanizing and has experienced much residential and business growth over the past decade. There has subsequently been a loss of open space, a need for more recreation, a lack of pedestrian opportunities, and changes in community character. The proposed plan is oriented around methods to improve community character and aesthetics, promote traditional style neighborhoods, preserve open space, and to change business zoning districts to encourage infill development.

After further review, the Planning Board found:

The Town Board evaluated all 18 sections of Part 2.

An appropriate Part 3 statement for this example would be:

The proposed comprehensive plan is designed to meet a variety of goals established by the Town. The Plan recommends potential regulatory changes, capital improvements, and policy/program initiatives.

The Plan offers a roadmap to regulate growth and development so that the Town's character is maintained. The new Plan should itself be viewed as mitigation against the adverse impacts of future development on environmental resources. Its main focus is to guide new development in a manner that will enhance the community in the future to foster environmental sustainability.

The proposed Plan seeks to protect the environment through use of conservation subdivisions, reduction in density, design standards, and improvements to the site plan law.

All new development has the potential to impact water resources, but the proposed Plan, if implemented reduces that potential. Lower density will lower the overall demand for water and will also serve to reduce the potential negative impacts of new septic systems.

Major strategies included in the proposed Plan are specifically directed at preserving plants, animals, and biodiversity and include use of conservation subdivisions, stream buffers, mapping and prohibition of construction in a 100 year floodway (these are also critical riparian habitats), and protection of wetlands, natural landscapes, and steep slopes. These strategies will be protective or plants and animals because habitats will be preserved. Thus the new Plan if implemented will benefit the environment and would not be expected to have any significant adverse environmental impacts.

Future growth and development of houses, businesses, and new roads in the future could reduce natural areas currently available for plants and animals. Projects that may come before the town may individually or cumulatively affect plants and animals. However, the proposed Plan helps the Town to manage and reduce overall growth potential by decreasing development capacity to a level that is more environmentally sustainable, especially related to water capacity.

The proposed plan establishes many strategies directed at protecting aesthetic resources. Community character is recognized by the Town as one of the primary resources desired to be protected. However, the Town recognizes that future growth and development will likely bring about some changes to the aesthetic character. The proposed plan allows the Town to more effectively review, manage and reduce impacts through a reduction in overall growth potential. The plan establishes new standards that require careful siting of structures with respect to open spaces, scenic views, and agriculture - all of which

contribute to the aesthetic resources of the Town. Therefore, impacts will be less under the proposed plan than if the Town did not adopt them.

The proposed plan recommends use of conservation subdivisions, siting of building envelopes, permanent protection of open spaces on large developments along with creation of greenways and links for pedestrians, and other programs. Additional development may also increase the need for public water or sewer in certain locations which could have adverse impacts to the Town and its residents. This potential impact is offset by the maintenance of open space, farms, and environmental resources.

Subsequent housing and business development could generate additional traffic. Additional business development, along with related traffic could change traffic flow and lead to congestion. Any new road built could involve the disturbance of land, removal of trees and loss of habitats, and changes in stormwater. These are all potentially impacting. However, the proposed land use development standards recommended in the plan includes those designed to give the Town the ability to identify and mitigate traffic impacts. Thus, future growth will be better managed and transportation impacts reduced by adoption of the proposed plan.

The intent of the Comprehensive Plan is to protect the very factors that make the town an attractive place to live and work - character being a prime component. The proposed plan achieves this through a balanced approach that focuses on appropriate scale and location of development, conserves open spaces and working landscapes, and encourages economic development that is appropriate to the needs and scale/design.

The magnitude, importance, duration, and scale of adverse impacts related to adoption of the Comprehensive Plan are small. The town finds that adoption of and then subsequent implementation of the recommendations in the plan would have positive impacts on the environment and would serve to decrease or mitigate future negative impacts that may result from development. As such, the Board concludes that adoption of the plan will not have adverse impacts and therefore an environmental impact statement shall not be prepared.

The town board then checks A. on the last page of the FEAF, issuing a negative declaration (Neg. Dec.) for the action.

Example 3

Proposed activity: A 60-lot subdivision is planned on a 200-acre vacant lot in a suburban area that does not have public water, sewer and stormwater facilities. The area is zoned for residential use, is similar to other subdivisions in the area, and has adequate street access and road capacity. The subdivision is designed as a conservation subdivision where the homes will be clustered on 60-acres and a conservation easement will permanently protect the remainder of the parcel for open space for active and passive recreation for the residents. Clustering the homes will allow easier provision of water and sewer to

the residences. Water wells would be drilled and a small package plant provided. Low impact development methods such as bioswales and rain gardens will be used to control stormwater. There are no wetlands, streams, or other natural resources of concern.

- Using information from Part 1, the Planning Board has answered questions 1 through 18 on Part 2.
- Using the Part 2 tools, the Board determined that there would be no impact to some environmental resources but they determined that there may be moderate to large impacts related to questions 3 and 4 (surface water and groundwater). This was because new water supply wells would need to be provided and require the construction of a new wastewater treatment plant.
- If needed, look at DOH website for public health law definition of realty subdivision.

After further review, the Planning Board found:

1. There are adequate water supplies, and groundwater quality or quantity would not be affected as determined through test wells showing adequate capacity and high quality potable water. Further, the Health Department tests show soils on site are supportive for individual septic systems as proposed.
2. Erosion control methods will be used during construction to minimize erosion.
3. The developer has included plans for a community sewer system to serve the new residences. This system has been approved by the Department of Health and DEC, and the Planning Board found only short-term, minor impacts due to the land disturbance and construction of the homes, water facilities, and sewer systems.

As a result of this analysis, the Planning Board has decided that the impacts will be avoided or mitigated and thus small in magnitude and unlikely to occur. Given the context of this project in an area of similar scaled and dense residential subdivisions, the Board did not find any impacts that they considered important. They made a determination that the project was not significant and would not need further analysis in an EIS.

An appropriate Part 3 statement for this example would be:

Potential impacts to surface and ground waters were identified as moderate to large because new water supply wells and a wastewater treatment facility would be needed. The project is designed to protect a significant portion of the parcel as open space. Impacts to groundwater were determined to be not significant because testing showed there are ample groundwater resources available and water quality met all standards. Further, erosion measures will be put in place to control runoff during construction, and the project will incorporate low impact development standards so there will be no increase in runoff. Impacts related to construction of a water and sewer system to serve the residences were found to have small impacts that would occur mostly during the construction phase. Further, impacts of that infrastructure would not be growth inducing since the area was already similarly dense and not likely to

induce other growth. Given the scale and context, the Planning Board determined there would be no significant adverse impacts and no EIS will be required.

The planning board then checks A. on the last page of the FEAF, issuing a negative declaration (Neg. Dec.) for the action.

Example 4

Proposed activity: A non-retail commercial use already located and operating wants to expand. The proposal is to add more parking spaces and enlarge the structure to accommodate an increase in the number of employees by 25 percent. The project is located along a local town road and there will be additional commuter and truck delivery traffic. The facility depends on a drilled well for water supply and an onsite septic system for wastewater disposal. The Health Department has determined there is capacity to accommodate the additional employees. Surrounding land uses include vacant lands and single-family residences. The project design includes construction of the new parking lot that will use crushed gravel instead of asphalt, will include shielded lighting fixtures to be placed in landscaped planting islands, and a vegetated berm between the parking lot and the road to screen views of some of the parking lot. New drainage and erosion controls designed according to a DEC approved stormwater pollution prevention plan are also planned. To accommodate additional cars and trucks, the applicant has also included a re-design of the local road.

- Using information from Part 1, the Planning Board has answered questions 1 through 18 on Part 2.
- Using the Part 2 tools, the Planning Board determined that there would be no impact to some environmental resources but they determined that the impacts to 3 (surface water), 13 (traffic) and 15 (light) could potentially be moderate to large.

After further review, the Planning Board found:

1. There is ample acreage on the parcel to accommodate these enlargements.
2. A 25 foot forested buffer already exists on all sides of the parcel except along the road frontage, so screening of the facility will be maintained.
3. Stormwater runoff will be mitigated by use of pervious surfaces in the parking lot and new stormwater control facilities.
4. There will likely be issues handling the anticipated additional commuter and delivery truck traffic, but that these will be mitigated by the road redesign. The design has been approved by the local highway department.
5. The aesthetics of the parking lot will be improved due to placement of landscaped islands.
6. Lighting fixtures will be shielded so no glare will occur on neighboring properties.

7. The community has a comprehensive plan that seeks to maintain rural character, but also recognizes the need for jobs in the area and encourages re-use of existing buildings.

After this analysis, the Planning Board decided that the magnitude of the project was large, that the impacts to changes in intensity and traffic would be long-term, but are unlikely to occur because of the mitigation included in the project design. Given the scale and context of the proposed project, the Planning Board determined there would be not be significant impacts.

An appropriate Part 3 statement for this example would be:

The Planning Board has evaluated the magnitude, duration, likelihood, scale and context of the project and has decided that the potential impacts could be large in magnitude because it could change the character of the area, increase the intensity of land use in a rural community, and impact roads and traffic.

However, because the use already exists, and because the project includes features such as use of a pervious parking lot surface, screening, new landscaping, use of shielded lights, incorporation of erosion and stormwater control devices, and a redesign of the road to accommodate traffic, the impacts are adequately mitigated as follows:

There is ample acreage on the parcel to accommodate these enlargements. A 25 foot forested buffer already exists on all sides of the parcel except along the road frontage, so screening of the facility will be maintained. Stormwater runoff will be mitigated by use of pervious surfaces in the parking lot and new stormwater control facilities. There will likely be issues handling the anticipated additional commuter and delivery truck traffic, but that these will be mitigated by the road redesign. The design has been approved by the local highway department. The aesthetics of the parking lot will be improved due to placement of landscaped islands. Lighting fixtures will be shielded so no glare will occur on neighboring properties. The community has a comprehensive plan that seeks to maintain rural character, but also recognizes the need for jobs in the area and encourages re-use of existing buildings.

Short-term impacts may occur during construction, but in light of the scale and context of the project area, is seen as a small impact. As a result of the project design the Planning Board has determined that significant adverse impacts are unlikely to occur and will not require preparation of an environmental impact statement.

> The planning board then checks A. on the last page of the FEAF, issuing a negative declaration (Neg. Dec.) for the action.

The End.

Reference 1.3:
Riverhead Water District 2025
Pumpage Data Report

Reference 1.3

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

Division of Water, Region 1

SUNY @ Stony Brook, 50 Circle Road, Stony Brook, NY 11790

P:(631) 444-0405 I F:(631) 444-0424 I Email: R1dow@dec.ny.gov

www.dec.ny.gov

Instructions to add more columns for additional wells:

Right click on heading letter H and click insert.

Right click on cell G32, press copy.

Right click on cell G33, press paste special - formula (Fx).

Repeat steps above to create as many additional columns as needed.

Reporting Period:	**2025**
Utility Name:	**Riverhead Water Dist**
Address:	1035 Pulaski st Riverhead New York.
Report Prepared By:	John Flynn
Phone Number:	631-727-3205
Email Address:	flynn@townofriverheadny.gov

PUMPAGE DATA

DEC Well Number:	S-108348	S-7261	S-111777	S-30271	S-34732	S-66685	S-124088	S-89133	S-105439	S-114622	S-122918
WSA or WWA #:	WSA9370	WSA1938	WSA9370	WSA5522	WSA5641	WSA6842	WSA66685	WSA7782	WSA9065	n/a	n/a
District Well ID:	Well#1a	Well#2	Well#3a	Well#4-1	Well#4-2	Well#5-1	Well#5-2a	Well#7-2	Well#7-3	Well#11-1	Well#11-2
Authorized Capacity:	1000 gpm	1000 gpm	1000 gpm	1000 gpm	1200 gpm	1200 gpm	1000 gpm	1200 gpm	1200 gpm	1380 gpm	1380 gpm
Actual Capacity:	1000 gpm	900 gpm	1000 gpm	1000 gpm	1200 gpm	1200 gpm	1000 gpm	1200 gpm	1200 gpm	1325 gpm	1350 gpm
January	6,111,000	0	6,731,000	9,502,000	24,000	16,240,000	14,855,000	0	20,443,000	4,873,000	5,174,000
February	5,004,000	0	17,822,000	6,683,000	0	12,767,000	4,373,000	0	8,432,000	5,448,000	5,180,000
March	5,908,000	0	18,353,000	9,142,000	0	9,654,000	6,578,000	0	4,689,000	4,615,000	3,250,000
April	14,836,000	0	7,363,000	25,761,000	15,000	11,489,000	18,888,000	6,043,000	4,541,000	9,514,000	9,833,000
May	24,261,000	0	0	43,828,000	669,000	30,677,000	32,305,000	11,782,000	12,780,000	26,792,000	27,891,000
June	30,628,000	127,000	25,027,000	43,483,000	6,674,000	37,352,000	37,470,000	32,099,000	36,439,000	28,675,000	34,296,000
July	35,982,000	4,387,000	39,415,000	46,612,000	15,767,000	36,458,000	48,792,000	36,542,000	40,293,000	42,590,000	37,268,000
August	35,304,000	4,924,000	39,847,000	44,170,000	15,801,000	39,434,000	47,043,000	32,272,000	36,618,000	41,594,000	40,415,000
September	21,920,000	1,428,000	32,686,000	37,377,000	5,680,000	38,375,000	34,679,000	32,055,000	37,080,000	30,370,000	30,095,000
October	11,310,000	0	32,558,000	25,195,000	57,000	22,487,000	32,676,000	28,441,000	29,718,000	16,847,000	18,778,000
November	8,256,000	0	11,759,000	16,251,000	0	18,779,000	5,095,000	12,248,000	13,932,000	7,638,000	7,488,000
December	9,996,000	0	13,456,000	10,229,000	0	10,355,000	9,275,000	9,720,000	10,386,000	5,599,000	5,489,000
Total	209,516,000	10,866,000	245,017,000	318,233,000	44,687,000	284,067,000	292,029,000	201,202,000	255,351,000	224,555,000	225,157,000

NOTE: Pumpage entered in thousands of gallons

Sum of Monthly Total

Sum of Each Well Total

1. Population served in service area: 36,000
2. Population served outside of own service area: 21
3. Percent of Customers Metered: 100%
4. Number of Services: 12,477
5. Peak Day Rate: 17,935,000
6. Date of Peak Occurrence: 7/30/2025
7. Number of wells which can be operated by power source other than electric: 14
8. Amount of water purchased from another water district (thousands of gallons): 60
9. District water was purchased from: SCWA
10. Amount of water supplied to another district

(thousands of gallons): 145

11. District water supplied to: SCWA

STORAGE FACILITIES

Name	Type	Capacity
Pulaski St Tank	Elevated	0.16 million
Baiting Hollow Plt 8	Standpipe	1.0 million
Wading River Plt no.9	Standpipe	0.827 million
Northville Plt no. 10	Ground	1.5 million
Route 58 Tank	Elevated	0.75 million
Tuthills Lane Plt 15	Ground	2.0 million

NOTE: Storage facilty capacity entered in millions of gallons

S-49605	S-129655	S-129656	S-129657	S-129453	S-130317	S.C.W.A	S.C.W.A	
n/a	WSA11249	WSA11249	WSA11249	WSA11367	WSA11411			
Well#12-1	Well#15-1	Well#15-2	Well#15-3	Well#16-1	Well#17-1	Merokee Trail	Dogwood Dr	
1000 gpm	250 gpm	250 gpm	250 gpm	2380 gpm	650 gpm	interconnect	interconnect	
1000 gpm	250 gpm	250 gpm	250 gpm	1600 gpm	500 gpm			Monthly Totals
0	0	0	0	4,992,000	0	0	0	88,945,000
0	0	0	0	14,601,000	0	0	0	80,310,000
0	0	0	0	30,193,000	0	0	0	92,382,000
0	0	0	22,000	29,563,000	0	0	0	137,868,000
0	233,000	0	276,000	21,615,000	704,000	0	0	233,813,000
0	2,389,000	0	2,777,000	25,607,000	4,167,000	0	60,000	347,270,000
0	4,042,000	0	4,661,000	45,605,000	9,192,000	0	0	447,606,000
0	4,221,000	0	4,842,000	44,227,000	10,601,000	0	0	441,313,000
0	3,183,000	0	3,638,000	22,523,000	5,928,000	0	0	337,017,000
0	1,937,000	0	2,227,000	0	0	0	0	222,231,000
0	0	0	0	3,897,000	0	0	0	105,343,000
0	0	0	0	10,454,000	0	0	0	94,959,000
0	16,005,000	0	18,443,000	253,277,000	30,592,000	0	60,000	2,629,057,000

Reference 1.4:

2024 Riverhead Comprehensive Plan Draft Generic Environmental Impact Statement, Appendix 5: Transportation Data

Appendix 5. Transportation Data

EXISTING AND FUTURE LEVEL OF SERVICE (STATE ROADS)									
Route	Name	From	To	Jurisdiction	Lanes	2020 AADT	2020 LOS	2050 AADT	2050 LOS
NY25		T/ BROOKHAVEN - T/RIVERHEAD	WADING RIVER RD	NYSDOT	2	14036	A-C	16647	A-C
NY25		WADING RIVER RD	RT 25A	NYSDOT	2	8556	A-C	10147	A-C
NY25		RT 25A	EDWARDS AVE	NYSDOT	2	16740	A-C	19853	A-C
NY25		EDWARDS AVE		NYSDOT	2	15337	A-C	18190	A-C
NY25			CR 58 OLD COUNTRY RD	NYSDOT	4	15337	A-C	18190	A-C
NY25		CR 58 OLD COUNTRY RD	I-495 L.I.E UNDER	NYSDOT	4	6184	A-C	7334	A-C
NY25		I-495 L.I.E UNDER		NYSDOT	4	9797	A-C	11619	A-C
NY25			MILL RD	NYSDOT	2	9797	A-C	11619	A-C
NY25		MILL RD	CR 94A RIVERHEAD	NYSDOT	2	14858	A-C	17622	A-C
NY25		CR 94A RIVERHEAD	PECONIC AVE	NYSDOT	2	9972	A-C	11827	A-C
NY25		PECONIC AVE	CR 58 OLD COUNTRY RD	NYSDOT	2	15255	A-C	18092	A-C
NY25		CR 58 OLD COUNTRY RD	CR 105 CROSS RIVER DR	NYSDOT	2	21449	A-C	25438	A-C
NY25		CR 105 CROSS RIVER DR	TUTHILLS LA	NYSDOT	2	17828	A-C	21144	A-C
NY25		TUTHILLS LA	SOUTH JAMESPORT AVE / N	NYSDOT	2	17828	A-C	21144	A-C
NY25		SOUTH JAMESPORT AVE / MANOR LA	T/RIVERHEAD - T/SOUTHHO	NYSDOT	2	14590	A-C	17304	A-C
NY25A		TOWN OF BROOKHAVEN & TOWN OF	WADING RIVER RD	NYSDOT	2	22980	A-C	27254	A-C
NY25A		WADING RIVER RD	NORTH RD / SOUND AVE	NYSDOT	2	16231	A-C	19250	A-C
NY25A		NORTH RD / SOUND AVE	RT 25 END RT 25A	NYSDOT	2	8354	A-C	9908	A-C

EXISTING AND FUTURE LEVEL OF SERVICE (COUNTY ROADS)									
CR43	NORTHVILLE TPK	CR 73	CR 58	SCDPW	2	6531	A-C	7746	A-C
CR43	NORTHVILLE TPK	CR 58	CR 105	SCDPW	2	5729	A-C	6795	A-C
CR43	NORTHVILLE TPK	CR 105	SOUND AVENUE	SCDPW	2	7762	A-C	9206	A-C
	HULSE LANDING RD	SOUND AVENUE	N WADING RIVER RD	SCDPW	2	4707	A-C	5582	A-C
CR58	OLD COUNTRY RD	NY 25 (WEST)		SCDPW	3	29651	A-C	35166	A-C
CR58	OLD COUNTRY RD		CR 58 WB LOOP TO WB I495	SCDPW	4	29651	A-C	35166	A-C
CR58	OLD COUNTRY RD	CR 58 WB LOOP TO WB I495	489W DOT YARD	SCDPW	3	29651	A-C	35166	A-C
CR58	OLD COUNTRY RD	489W DOT YARD	OSBORN AVE	SCDPW	4	29651	A-C	35166	A-C
CR58	OLD COUNTRY RD	OSBORN AVE	CR 73	SCDPW	4	32863	A-C	38976	A-C
CR58	OLD COUNTRY RD	CR 73	OSTRANDER AVE	SCDPW	4	24020	A-C	28488	A-C
CR58	OLD COUNTRY RD	OSTRANDER AVE	CR 43	SCDPW	3	24020	A-C	28488	A-C
CR58	OLD COUNTRY RD	CR 43	NY 25 (EAST)	SCDPW	3	21686	A-C	25719	A-C
CR63	PECONIC AVE	CR 94/CR 104/NY 24 CIRCLE	NY 25	SCDPW	2	11186	A-C	13267	A-C
CR73	ROANOKE AVE	NY 25	CR 43	SCDPW	2	8836	A-C	10480	A-C
CR73	ROANOKE AVE	CR 43	CR 58	SCDPW	2	10798	A-C	12807	A-C
CR105	CROSS RIVER DR	SOUTHHAMPTON T/L	NY 25	SCDPW	4	23760	A-C	28180	A-C
CR105	CROSS RIVER DR	NY 25	CR 43	SCDPW	4	3973	A-C	4713	A-C
CR105	CROSS RIVER DR	CR 43	SOUND AVE	SCDPW	4	1782	A-C	2113	A-C

EXISTING AND FUTURE LEVEL OF SERVICE (TOWN ROADS)									
	CENTER ST	FRONT ST	DEAD END	Town of Riverhead	2	95	A-C	112	A-C
	CHURCH LA	MAIN RD NY 25	PHILLIPS LA	Town of Riverhead	2	2478	A-C	2939	A-C
	ECONNECTICUT AV	RIVER RD	BROOKHAVEN T/L	Town of Riverhead	2	401	A-C	476	A-C
	COVE ST	BROAD AVE	SHADE TREE LA	Town of Riverhead	2	264	A-C	313	A-C
	DOCTORS PATH	NY 25	OAK DR	Town of Riverhead	2	3316	A-C	3932	A-C
	DOCTORS PATH	OAK DR	REEVES AVE	Town of Riverhead	2	2075	A-C	2461	A-C
	DOCTORS PATH	REEVES AVE	SOUND AVE	Town of Riverhead	2	1023	A-C	1213	A-C
	EAST AVE	NY 25	CR43 NORTHVILLE TPKE	Town of Riverhead	2	785	A-C	931	A-C
	EDGAR AVE	NY 25	HUBBARD AVE	Town of Riverhead	2	2321	A-C	2752	A-C
	EDGAR AVE	HUBBARD AVE	OVERLOOK DR	Town of Riverhead	2	4262	A-C	5055	A-C
	EDWARDS AVE	RIVER RD	NY 25	Town of Riverhead	2	8014	A-C	9505	A-C
	EDWARDS AVE	NY 25	SOUND AVE	Town of Riverhead	2	4091	A-C	4852	A-C
	EDWARDS AVE	SOUND AVE	L I SOUND	Town of Riverhead	2	1059	A-C	1256	A-C
	ELTON ST	BEFORE OSTRANDER AVE	NY 25	Town of Riverhead	2	4466	A-C	5296	A-C
	FAIRWAY AVE	NY 25	HUBBARD AVE	Town of Riverhead	2	2501	A-C	2966	A-C
	FORGE RD	RIVERHEAD TL	NY 25	Town of Riverhead	2	1449	A-C	1719	A-C
	FRESH POND AVE	NY 25	SOUND AVE	Town of Riverhead	2	1291	A-C	1531	A-C
	FRONT ST	CENTER ST	GREEN ST	Town of Riverhead	2	86	A-C	101	A-C
	GRIFFING AVE	NY 25	PULASKI ST	Town of Riverhead	2	2143	A-C	2542	A-C
	GRUMMAN BLVD	WADNG RIVER MANOR RD	RIVER RD	Town of Riverhead	2	1749	A-C	2075	A-C
	HARRISON AVE	OSBORNE AVE	MIDDLE RD	Town of Riverhead	2	3785	A-C	4490	A-C
	HERRICKS LA	NY 25	SOUND AVE	Town of Riverhead	2	667	A-C	791	A-C
	HIDDEN POND PATH	WADING RIVER MANOR RD	WADING RIVER MANOR RD	Town of Riverhead	2	586	A-C	695	A-C
	HOLLY BERRY CT	HIDDEN PHEASANT PATH	CUL DE SAC	Town of Riverhead	2	92	A-C	109	A-C
	HORTON AVE	MIDDLE RD	REEVES AVE	Town of Riverhead	2	1262	A-C	1496	A-C
	HORTON AVE	REEVES AVE	SOUND AVE	Town of Riverhead	2	551	A-C	653	A-C
	HUBBARD AVE	NY 25	CR 105	Town of Riverhead	2	5455	A-C	6470	A-C
	HUBBARD AVE	CR 105	EDGAR AVE	Town of Riverhead	2	4819	A-C	5715	A-C
	IDA LA	CHURCH LA	CUL DE SAC	Town of Riverhead	2	122	A-C	144	A-C
	IVY CIR	WOODCHUCK HOLLOW LA	CUL DE SAC	Town of Riverhead	2	87	A-C	103	A-C
	KROEMER AVE	CR 58	NY 25	Town of Riverhead	2	3191	A-C	3785	A-C
	LAUREL LA	MAIN RD	SOUTHOLD T/L	Town of Riverhead	2	897	A-C	1064	A-C
	LAURIN RD	CALVERTON CT	GERALD ST	Town of Riverhead	2	105	A-C	124	A-C
	LINDA LA W	ROANOKE AVE	SANDY CT	Town of Riverhead	2	200	A-C	237	A-C
	MANOR LA	NY 25	SOUND AVE	Town of Riverhead	2	830	A-C	984	A-C
	MAPLE AVE	NY 25	CR 43	Town of Riverhead	2	449	A-C	533	A-C
	MARCY AVE	NY 25	OSBORN AVE	Town of Riverhead	2	1683	A-C	1996	A-C
	MARJORIE CT	LINDA LA W	DEAD END	Town of Riverhead	2	137	A-C	163	A-C

EXISTING AND FUTURE LEVEL OF SERVICE (TOWN ROADS CONTINUED)									
	MIDDLE RD	NY 25	CR 43	Town of Riverhead	2	3345	A-C	3967	A-C
	MIDDLE RD	CR 43	CR 73	Town of Riverhead	2	6444	A-C	7643	A-C
	MIDDLE RD	CR 73	OSBORN AVE	Town of Riverhead	2	6032	A-C	7154	A-C
	MIDDLE RD	OSBORN AVE	MILL RD	Town of Riverhead	2	5067	A-C	6009	A-C
	MIDDLE RD	MILL RD	END	Town of Riverhead	2	3240	A-C	3843	A-C
	MILL RD	NY 25	CR 58	Town of Riverhead	2	5939	A-C	7044	A-C
	MILL RD	CR 58	MIDDLE RD	Town of Riverhead	2	6701	A-C	7948	A-C
	MILL RD	MIDDLE RD	OSBORN AVE	Town of Riverhead	2	3212	A-C	3810	A-C
	N WADING RIVER	N COUNTRY RD	HULSE LANDNG R	Town of Riverhead	2	3986	A-C	4727	A-C
	N WADING RIVER	HULSE LANDNG R	CR 54	Town of Riverhead	2	165	A-C	196	A-C
	N COUNTRY RD	SOUND RD	WADING RIVER MANOR RD	Town of Riverhead	2	5379	A-C	6379	A-C
	N COUNTRY RD	WADING RIVER MANOR RD	CUL DE SAC	Town of Riverhead	2	1301	A-C	1543	A-C
	OAKLEIGH AVE	SOUND AVE	WOODCLIFF TRL	Town of Riverhead	2	1494	A-C	1772	A-C
	OLIVER ST	CR 58	CR 43	Town of Riverhead	2	1799	A-C	2134	A-C
	OSBORN AVE	NY 25	LINCOLN ST	Town of Riverhead	2	6350	A-C	7531	A-C
	OSBORN AVE	LINCOLN ST	HARRISON AVE	Town of Riverhead	2	5347	A-C	6341	A-C
	OSBORN AVE	HARRISON AVE	CR 58	Town of Riverhead	2	5335	A-C	6327	A-C
	OSBORN AVE	CR 58	MIDDLE RD	Town of Riverhead	2	3189	A-C	3782	A-C
	OSBORN AVE	MIDDLE RD	MILL RD	Town of Riverhead	2	2003	A-C	2375	A-C
	OSBORN AVE	MILL RD	SOUND AVE	Town of Riverhead	2	3842	A-C	4557	A-C
	OSTRANDER AVE	NY 25	CR 43	Town of Riverhead	2	2311	A-C	2741	A-C
	OSTRANDER AVE	CR 43	CR 58	Town of Riverhead	2	3883	A-C	4606	A-C
	OSTRANDER AVE	CR 58	MIDDLE RD	Town of Riverhead	2	3147	A-C	3733	A-C
	PARK RD	SOUND AVE	TOWN BEACH	Town of Riverhead	2	1209	A-C	1434	A-C
	PARKWAY ST	MARCY AVE	COLUMBUS AVE	Town of Riverhead	2	322	A-C	382	A-C
	PECONIC BAY BLVD	MEETING HOUSE CREEK RD	TUTS LN	Town of Riverhead	2	2537	A-C	3009	A-C
	PECONIC BAY BLVD	TUTS LN	LAUREL LA	Town of Riverhead	2	1939	A-C	2300	A-C
	PENNYS RD	SOUND AVE	SOUND SHORE RD	Town of Riverhead	2	544	A-C	646	A-C
	PHILLIPS LA	SOUND AVE	CHURCH LA	Town of Riverhead	2	305	A-C	361	A-C
	PIER AVE	SOUND AVE	SOUND SHORE RD	Town of Riverhead	2	829	A-C	983	A-C
	PULASKI ST	CR73 Roanoke Ave	OSBORN AVE	Town of Riverhead	2	5257	A-C	6235	A-C
	PULASKI ST	RAYNOR AVE	DEAD END	Town of Riverhead	2	4800	A-C	5692	A-C
	RAILROAD AVE	EDWARDS AVE	RIVER RD	Town of Riverhead	2	196	A-C	232	A-C
	REEVES AVE	OSBORN AVE	DOCTORS PATH	Town of Riverhead	2	953	A-C	1130	A-C
	RILEY AVE	EDWARDS AVE	TWOMEY AVE	Town of Riverhead	2	1804	A-C	2140	A-C
	RIVER AVE	RIVERSIDE DR	DEAD END	Town of Riverhead	2	204	A-C	242	A-C
	RIVER RD	WADNG RIVER MANOR RD	SWAN POND RD	Town of Riverhead	2	614	A-C	728	A-C
	RIVER RD	SWAN POND RD	CONNECTICUT AVE	Town of Riverhead	2	1553	A-C	1842	A-C
	RIVER RD	CONNECTICUT AVE	EDWARDS AVE	Town of Riverhead	2	1487	A-C	1764	A-C
	RIVER RD	EDWARDS AVE	LIE	Town of Riverhead	2	1028	A-C	1219	A-C
	RIVER RD	LIE	NY 25	Town of Riverhead	2	1030	A-C	1221	A-C
	RIVERSIDE DR	NY 25	CR 105	Town of Riverhead	2	3737	A-C	4432	A-C
	ROANOKE AVE	CR 58	MIDDLE RD	Town of Riverhead	2	7552	A-C	8957	A-C
	ROANOKE AVE	JOYCE DR	REEVE AVE	Town of Riverhead	2	4181	A-C	4958	A-C
	ROANOKE AVE	REEVE AVE	SOUND AVE	Town of Riverhead	2	3330	A-C	3949	A-C
	ROANOKE AVE	SOUND AVE	LINDA LA E	Town of Riverhead	2	983	A-C	1166	A-C
	ROBERT ST	LINDA AVE	TROUT BROOK LA	Town of Riverhead	2	76	A-C	90	A-C
	SANDY HOLLOW CT	RAYNOR AVE	CUL DE SAC	Town of Riverhead	2	187	A-C	221	A-C
	SCHOOL ST	HARRISON AVE	N GRIFFING AVE	Town of Riverhead	2	2383	A-C	2826	A-C
	SCHULTZ RD	WADING RIVER MANOR RD	PECONIC RIVER	Town of Riverhead	2	3736	A-C	4431	A-C
	SOUND AVE	NY 25A	WEST LA	Town of Riverhead	2	6696	A-C	7942	A-C
	SOUND AVE	WEST LA	PHILLIPS LA	Town of Riverhead	2	12449	A-C	14764	A-C
	SOUND AVE	PHILLIPS LA	PIER AVE	Town of Riverhead	2	15884	A-C	18839	A-C
	SOUND AVE	PIER AVE	SOUTHOLD T/L	Town of Riverhead	2	15152	A-C	17970	A-C
	SOUND RD	N COUNTRY RD	CREEK RD	Town of Riverhead	2	1816	A-C	2153	A-C
	SOUND SHORE RD	PENNYS RD	PIER AVE	Town of Riverhead	2	510	A-C	605	A-C
	SWEEZY AVE	NY 25	OSBORN AVE	Town of Riverhead	2	1586	A-C	1881	A-C
	TUTHILLS LA	NY 25	CHURCH LA	Town of Riverhead	2	438	A-C	519	A-C
	TWOMEY AVE	DEEP HOLE RD	YOUNGS AVE	Town of Riverhead	2	2431	A-C	2883	A-C
	TWOMEY AVE	YOUNGS AVE	SOUND AVE	Town of Riverhead	2	1791	A-C	2125	A-C
	W WOODLAND DR	REMSEN RD	E WOODLAND DR	Town of Riverhead	2	177	A-C	210	A-C
	WASHINGTON AVE	WEST ST	NY 25	Town of Riverhead	2	1677	A-C	1988	A-C
	WATERVIEW CT	ROANOKE AVE	CUL DE SAC	Town of Riverhead	2	163	A-C	193	A-C
	WEST LA	NY 25	SOUND AVE	Town of Riverhead	2	991	A-C	1175	A-C
	WOODCREST AVE	OSBORN AVE	OLD COUNTRY RD	Town of Riverhead	2	873	A-C	1036	A-C
	YOUNGS AVE	TWOMEY AVE	OSBORN AVE	Town of Riverhead	2	874	A-C	1037	A-C
	UNION AVE	NY 25	CR 105	Town of Riverhead	2	359	A-C	426	A-C
	UNION AVE	NY 25	CR 43	Town of Riverhead	2	571	A-C	678	A-C
	WADING RIVER MANOR RD	RIVER RD	SCHULTZ RD	Town of Riverhead	2	1165	A-C	1382	A-C
	WADING RIVER MANOR RD	SCHULTZ RD	NY 25	Town of Riverhead	2	5286	A-C	6269	A-C
	WADING RIVER MANOR RD	NY 25	NY 25A	Town of Riverhead	2	7456	A-C	8843	A-C
	WADING RIVER MANOR RD	NY 25A	N COUNTRY RD	Town of Riverhead	2	5419	A-C	6427	A-C
	SANDPIPER DR	SOUND AVE	CUL DE SAC	Town of Riverhead	2	500	A-C	593	A-C
	MYSTIC CT	SANDPIPER DR	CUL DE SAC	Town of Riverhead	2	84	A-C	99	A-C
	GREAT ROCK DR	N WADING RIVER RD	GREAT ROCK DR	Town of Riverhead	2	324	A-C	384	A-C
	BEACH AVE	CEDAR ST	HARBOR RD	Town of Riverhead	2	102	A-C	121	A-C
	EIGHT BELLS RD	CROWS NEST DR	HORNPIPE DR	Town of Riverhead	2	65	A-C	77	A-C
	HILL ST	WILDWOOD RD	HULSE AVE	Town of Riverhead	2	77	A-C	92	A-C
	MIDWAY DR	NORTHVILLE TPKE	CUL DE SAC	Town of Riverhead	2	178	A-C	212	A-C
	WILDWOOD RD	N WADING RIVER RD	BIRCH LA	Town of Riverhead	2	212	A-C	252	A-C
	ST ANDREWS PATH	MAIDSTONE LA	HIDDEN ACRES PATH	Town of Riverhead	2	146	A-C	174	A-C

Location ..... 1. CR-58 EB, 500' E. of Harrison Ave
Location Code 1
Jurisdiction ..... Riverhead, NY
Recorder Set 07/08/21 06:37
Recording Start ... 07/08/21 07:00
Recording End 07/22/21 09:00
Sample Time ..... 15 Minutes
Operator Number ...
Machine Number 128
Channel 1
Recorder Mode ..... Volume

CR 58 ATR COUNTS

EASTBOUND

DATE	DAY	AM												PM												
		12 AM TO 1 AM	1 AM TO 2 AM	2 AM TO 3 AM	3 AM TO 4 AM	4 AM TO 5 AM	5 AM TO 6 AM	6 AM TO 7 AM	7 AM TO 8 AM	8 AM TO 9 AM	9 AM TO 10 AM	10 AM TO 11 AM	11 AM TO 12 PM	12 PM TO 1 PM	1 PM TO 2 PM	2 PM TO 3 PM	3 PM TO 4 PM	4 PM TO 5 PM	5 PM TO 6 PM	6 PM TO 7 PM	7 PM TO 8 PM	8 PM TO 9 PM	9 PM TO 10 PM	10 PM TO 11 PM	11 PM TO 12 AM	EB DAILY TOTAL
7/8/2021	THURSDAY	-	-	-	-	-	-	-	1021	1082	1115	1259	1356	1442	1437	1424	1344	1282	1204	1042	885	801	620	415	227	-
7/9/2021	FRIDAY	138	48	43	47	62	239	463	654	791	840	976	1167	1399	1460	1457	1391	1406	1349	1139	1112	1089	777	512	347	18,906
7/10/2021	SATURDAY	199	107	75	67	77	204	434	665	923	1121	1368	1383	1417	1378	1341	1289	1285	1162	1058	963	820	688	534	333	18,891
7/11/2021	SUNDAY	235	110	78	55	103	285	349	405	647	874	1155	1407	1390	1398	1421	1256	1180	1123	1052	919	723	501	364	205	17,235
7/12/2021	MONDAY	120	59	45	28	65	239	647	890	1012	1026	1153	1376	1429	1424	1327	1384	1296	1195	1061	937	828	498	340	186	18,565
7/13/2021	TUESDAY	91	51	35	36	74	293	711	898	967	970	1149	1327	1501	1396	1387	1332	1270	1246	1130	961	820	592	368	209	18,814
7/14/2021	WEDNESDAY	126	66	30	45	64	274	753	933	1013	1076	1164	1178	1401	1369	1332	1289	1193	1205	1101	995	925	603	455	239	18,829
7/15/2021	THURSDAY	127	72	37	39	85	286	707	924	1014	1053	1243	1373	1486	1331	1357	1289	1302	1229	1147	1060	996	848	585	312	19,902
7/16/2021	FRIDAY	169	60	44	48	77	302	727	902	1042	1159	1295	1447	1223	1133	1274	1319	1262	1233	1191	1177	1045	782	522	320	19,753
7/17/2021	SATURDAY	185	113	50	44	94	195	441	647	959	1133	1316	1390	1443	1408	1369	1242	1182	1130	1060	952	806	693	540	290	18,682
7/18/2021	SUNDAY	191	97	68	43	69	152	295	384	592	813	1162	1324	1518	1481	1461	1333	1226	1128	1048	988	764	524	380	235	17,276
7/19/2021	MONDAY	125	58	43	37	82	274	629	868	1035	1013	1204	1454	1565	1552	1446	1385	1336	1237	1178	960	870	567	402	197	19,517
7/20/2021	TUESDAY	97	54	49	31	86	278	703	926	1040	1057	1195	1443	1527	1472	1403	1330	1222	1238	1144	1021	860	588	422	185	19,371
7/21/2021	WEDNESDAY	123	62	36	46	70	259	687	895	1061	1066	1270	1426	1455	1344	1454	1310	1329	1209	1107	975	884	569	379	229	19,245
7/22/2021	THURSDAY	113	53	41	34	73	311	705	983	1052	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Location ..... 1. CR-58 EB, 500' E. of Harrison Ave
Location Code 1
Jurisdiction ..... Riverhead, NY
Recorder Set 07/08/21 06:37
Recording Start ... 07/08/21 07:00
Recording End 07/22/21 09:00
Sample Time ..... 15 Minutes
Operator Number ...
Machine Number 128
Channel 1
Recorder Mode ..... Volume

CR 58 ATR COUNTS

WESTBOUND

DATE	DAY	AM												PM											
		12 AM TO 1 AM	1 AM TO 2 AM	2 AM TO 3 AM	3 AM TO 4 AM	4 AM TO 5 AM	5 AM TO 6 AM	6 AM TO 7 AM	7 AM TO 8 AM	8 AM TO 9 AM	9 AM TO 10 AM	10 AM TO 11 AM	11 AM TO 12 PM	12 PM TO 1 PM	1 PM TO 2 PM	2 PM TO 3 PM	3 PM TO 4 PM	4 PM TO 5 PM	5 PM TO 6 PM	6 PM TO 7 PM	7 PM TO 8 PM	8 PM TO 9 PM	9 PM TO 10 PM	10 PM TO 11 PM	11 PM TO 12 AM	WB DAILY TOTAL
7/8/2021	THURSDAY	-	-	-	-	-	-	-	595	733	951	1165	1274	1403	1266	1346	1363	1318	1257	1022	810	610	480	288	196	-
7/9/2021	FRIDAY	104	59	37	34	93	165	314	466	557	684	982	1143	1224	1298	1287	1315	1315	1165	1003	952	771	665	400	310	16,343
7/10/2021	SATURDAY	142	78	67	50	75	124	315	420	571	881	1081	1165	1270	1229	1217	1202	1200	1211	1139	1064	909	730	493	352	16,985
7/11/2021	SUNDAY	201	123	85	54	51	106	180	362	497	812	1134	1190	1301	1373	1307	1294	1240	1128	1119	1044	873	654	427	199	16,754
7/12/2021	MONDAY	99	49	37	44	106	224	425	553	738	937	1174	1242	1316	1292	1385	1293	1345	1257	1048	896	731	455	247	159	17,052
7/13/2021	TUESDAY	105	45	27	50	94	217	405	607	667	876	1135	1260	1315	1345	1330	1353	1345	1238	1077	903	657	523	311	173	17,058
7/14/2021	WEDNESDAY	98	52	36	42	116	220	387	542	659	860	1072	1216	1258	1274	1245	1285	1294	1194	1002	933	748	554	337	189	16,613
7/15/2021	THURSDAY	92	45	36	34	92	200	377	561	667	934	1122	1164	1266	1224	1275	1263	1367	1249	1087	1001	793	732	494	196	17,271
7/16/2021	FRIDAY	124	56	51	35	118	213	376	519	695	925	1151	1189	1303	1227	1236	1215	1266	1240	1026	1089	805	633	435	300	17,227
7/17/2021	SATURDAY	156	68	78	45	84	128	289	415	615	963	1064	1167	1137	1163	1161	1153	1147	1216	1189	1004	879	733	532	390	16,776
7/18/2021	SUNDAY	191	109	77	31	58	80	168	367	504	815	1167	1345	1345	1283	1372	1293	1228	1249	1127	1041	939	788	415	238	17,230
7/19/2021	MONDAY	92	49	24	52	110	275	447	577	730	953	1179	1338	1314	1314	1350	1259	1291	1233	1107	922	729	583	333	167	17,428
7/20/2021	TUESDAY	88	42	24	51	109	216	400	581	708	905	1043	1244	1267	1296	1337	1252	1175	1229	1088	915	738	599	327	172	16,806
7/21/2021	WEDNESDAY	86	51	28	38	110	216	388	557	702	915	1106	1284	1249	1241	1317	1312	1220	1158	1029	823	683	542	333	193	16,581
7/22/2021	THURSDAY	93	45	35	53	117	198	380	554	702	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Location ..... 1. CR-58 EB, 500' E. of Harrison Ave
Location Code 1
Jurisdiction ..... Riverhead, NY
Recorder Set 07/08/21 06:37
Recording Start ... 07/08/21 07:00
Recording End 07/22/21 09:00
Sample Time ..... 15 Minutes
Operator Number ...
Machine Number 128
Channel 1
Recorder Mode ..... Volume

CR 58 ATR COUNTS

COMBINED TOTAL

DATE	DAY	AM												PM												
		12 AM TO 1 AM	1 AM TO 2 AM	2 AM TO 3 AM	3 AM TO 4 AM	4 AM TO 5 AM	5 AM TO 6 AM	6 AM TO 7 AM	7 AM TO 8 AM	8 AM TO 9 AM	9 AM TO 10 AM	10 AM TO 11 AM	11 AM TO 12 PM	12 PM TO 1 PM	1 PM TO 2 PM	2 PM TO 3 PM	3 PM TO 4 PM	4 PM TO 5 PM	5 PM TO 6 PM	6 PM TO 7 PM	7 PM TO 8 PM	8 PM TO 9 PM	9 PM TO 10 PM	10 PM TO 11 PM	11 PM TO 12 AM	DAILY TOTAL
7/8/2021	THURSDAY	-	-	-	-	-	-	-	1616	1815	2066	2424	2630	2845	2703	2770	2707	2600	2461	2064	1695	1411	1100	703	423	-
7/9/2021	FRIDAY	242	107	80	81	155	404	777	1120	1348	1524	1958	2310	2623	2758	2744	2706	2721	2514	2142	2064	1860	1442	912	657	35,249
7/10/2021	SATURDAY	341	185	142	117	152	328	749	1085	1494	2002	2449	2548	2687	2607	2558	2491	2485	2373	2197	2027	1729	1418	1027	685	35,876
7/11/2021	SUNDAY	436	233	163	109	154	391	529	767	1144	1686	2289	2597	2691	2771	2728	2550	2420	2251	2171	1963	1596	1155	791	404	33,989
7/12/2021	MONDAY	219	108	82	72	171	463	1072	1443	1750	1963	2327	2618	2745	2716	2712	2677	2641	2452	2109	1833	1559	953	587	345	35,617
7/13/2021	TUESDAY	196	96	62	86	168	510	1116	1505	1634	1846	2284	2587	2816	2741	2717	2685	2615	2484	2207	1864	1477	1115	679	382	35,872
7/14/2021	WEDNESDAY	224	118	66	87	180	494	1140	1475	1672	1936	2236	2394	2659	2643	2577	2574	2487	2399	2103	1928	1673	1157	792	428	35,442
7/15/2021	THURSDAY	219	117	73	73	177	486	1084	1485	1681	1987	2365	2537	2752	2555	2632	2552	2669	2478	2234	2061	1789	1580	1079	508	37,173
7/16/2021	FRIDAY	293	116	95	83	195	515	1103	1421	1737	2084	2446	2636	2526	2360	2510	2534	2528	2473	2217	2266	1850	1415	957	620	36,980
7/17/2021	SATURDAY	341	181	128	89	178	323	730	1062	1574	2096	2380	2557	2580	2571	2530	2395	2329	2346	2249	1956	1685	1426	1072	680	35,458
7/18/2021	SUNDAY	382	206	145	74	127	232	463	751	1096	1628	2329	2669	2863	2764	2833	2626	2454	2377	2175	2029	1703	1312	795	473	34,506
7/19/2021	MONDAY	217	107	67	89	192	549	1076	1445	1765	1966	2383	2792	2879	2866	2796	2644	2627	2470	2285	1882	1599	1150	735	364	36,945
7/20/2021	TUESDAY	185	96	73	82	195	494	1103	1507	1748	1962	2238	2687	2794	2768	2740	2582	2397	2467	2232	1936	1598	1187	749	357	36,177
7/21/2021	WEDNESDAY	209	113	64	84	180	475	1075	1452	1763	1981	2376	2710	2704	2585	2771	2622	2549	2367	2136	1798	1567	1111	712	422	35,826
7/22/2021	THURSDAY	206	98	76	87	190	509	1085	1537	1754	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Weekday Avg	36,142
Weekend Avg	34,957
AADT	35,778

NYSDOT Weekday Average	221	108	74	82	180	490	1063	1455	1697	1932	2304	2590	2734	2670	2697	2628	2583	2457	2173	1933	1638	1221	791	451	36172
NYSDOT Weekend Average	375	201	145	97	153	319	618	916	1327	1853	2362	2593	2705	2678	2662	2516	2422	2337	2198	1994	1678	1328	921	561	34959

Location ..... 3. CR-58 EB, 300' E. of Oliver St.
Location Code 3
Jurisdiction ..... Riverhead, NY
Recorder Set 07/08/21 07:23
Recording Start ... 07/08/21 08:00
Recording End 07/22/21 09:15
Sample Time ..... 15 Minutes
Operator Number ...
Machine Number 144
Channel 1
Recorder Mode ..... Volume

CR 58 ATR COUNTS

EASTBOUND

DATE	DAY	AM												PM												
		12 AM TO 1 AM	1 AM TO 2 AM	2 AM TO 3 AM	3 AM TO 4 AM	4 AM TO 5 AM	5 AM TO 6 AM	6 AM TO 7 AM	7 AM TO 8 AM	8 AM TO 9 AM	9 AM TO 10 AM	10 AM TO 11 AM	11 AM TO 12 PM	12 PM TO 1 PM	1 PM TO 2 PM	2 PM TO 3 PM	3 PM TO 4 PM	4 PM TO 5 PM	5 PM TO 6 PM	6 PM TO 7 PM	7 PM TO 8 PM	8 PM TO 9 PM	9 PM TO 10 PM	10 PM TO 11 PM	11 PM TO 12 AM	EB DAILY TOTAL
7/8/2021	THURSDAY	-	-	-	-	-	-	-	-	757	818	923	1025	1051	1071	1058	1068	987	990	858	768	663	585	327	200	-
7/9/2021	FRIDAY	94	36	32	29	51	209	299	478	599	644	784	868	1045	1109	1151	1131	1116	1106	916	913	894	755	456	290	15,005
7/10/2021	SATURDAY	158	88	48	51	69	175	334	520	711	860	1066	1024	1050	1031	1055	976	1038	923	769	751	697	557	427	260	14,638
7/11/2021	SUNDAY	189	84	60	33	91	259	223	311	473	669	894	1020	1063	1025	1018	1051	896	855	882	741	614	419	295	152	13,317
7/12/2021	MONDAY	96	45	22	17	54	217	474	642	705	743	815	1022	1023	1020	979	995	1003	978	842	770	725	459	250	137	14,033
7/13/2021	TUESDAY	65	42	25	30	57	240	515	701	670	727	820	972	1064	1046	1049	1056	1008	956	910	796	670	519	321	160	14,419
7/14/2021	WEDNESDAY	85	36	20	32	50	229	544	685	711	809	890	946	1007	1039	1030	1022	912	952	859	816	775	541	370	193	14,553
7/15/2021	THURSDAY	92	50	33	24	56	240	522	707	714	759	936	1028	1041	1024	1040	1086	997	966	876	835	868	818	528	254	15,494
7/16/2021	FRIDAY	132	47	29	36	63	269	541	695	738	883	994	1096	927	835	938	1094	969	991	948	908	872	724	463	264	15,456
7/17/2021	SATURDAY	144	85	47	38	80	160	338	493	706	875	992	1094	1087	1083	1084	999	912	878	836	804	605	585	406	261	14,592
7/18/2021	SUNDAY	148	66	53	38	51	121	179	275	421	638	783	997	1062	1127	1077	1018	992	880	828	783	657	439	306	172	13,111
7/19/2021	MONDAY	92	48	28	22	69	217	437	631	695	724	842	1006	1044	1049	1030	1039	1027	931	890	749	716	518	293	156	14,253
7/20/2021	TUESDAY	70	32	27	18	79	233	503	704	746	777	887	999	1023	1022	1044	979	930	944	815	794	708	530	320	168	14,352
7/21/2021	WEDNESDAY	99	48	25	24	59	217	472	663	725	754	882	1021	1037	946	1014	1036	1006	937	826	698	751	489	317	181	14,227
7/22/2021	THURSDAY	87	47	31	22	58	250	487	761	726	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Location ..... 3. CR-58 EB, 300' E. of Oliver St.
Location Code 3
Jurisdiction ..... Riverhead, NY
Recorder Set 07/08/21 07:23
Recording Start ... 07/08/21 08:00
Recording End 07/22/21 09:15
Sample Time ..... 15 Minutes
Operator Number ...
Machine Number 144
Channel 1
Recorder Mode ..... Volume

CR 58 ATR COUNTS

WESTBOUND

DATE	DAY	AM												PM												
		12 AM TO 1 AM	1 AM TO 2 AM	2 AM TO 3 AM	3 AM TO 4 AM	4 AM TO 5 AM	5 AM TO 6 AM	6 AM TO 7 AM	7 AM TO 8 AM	8 AM TO 9 AM	9 AM TO 10 AM	10 AM TO 11 AM	11 AM TO 12 PM	12 PM TO 1 PM	1 PM TO 2 PM	2 PM TO 3 PM	3 PM TO 4 PM	4 PM TO 5 PM	5 PM TO 6 PM	6 PM TO 7 PM	7 PM TO 8 PM	8 PM TO 9 PM	9 PM TO 10 PM	10 PM TO 11 PM	11 PM TO 12 AM	WB DAILY TOTAL
7/8/2021	THURSDAY	-	-	-	-	-	-	-	-	643	834	902	951	932	923	921	932	927	889	786	588	489	348	238	131	-
7/9/2021	FRIDAY	60	41	20	23	76	134	295	404	516	651	835	897	865	897	889	881	908	789	726	693	551	447	292	231	12,121
7/10/2021	SATURDAY	116	54	47	38	54	106	268	362	532	732	784	839	890	883	876	819	852	964	880	815	671	575	409	276	12,842
7/11/2021	SUNDAY	169	113	61	34	43	98	175	265	479	708	914	906	952	953	940	957	951	824	907	832	716	536	339	143	13,015
7/12/2021	MONDAY	74	28	24	38	80	206	373	507	684	807	921	906	874	865	911	912	876	909	789	628	463	303	142	83	12,403
7/13/2021	TUESDAY	56	25	18	38	76	200	355	565	630	771	902	921	914	942	899	957	919	865	792	656	508	344	226	85	12,664
7/14/2021	WEDNESDAY	42	31	15	25	102	198	329	475	621	772	851	876	905	890	868	907	902	858	738	675	523	399	233	110	12,345
7/15/2021	THURSDAY	70	34	20	33	70	176	293	515	597	795	849	829	868	868	904	975	969	920	835	730	649	494	317	130	12,940
7/16/2021	FRIDAY	85	40	29	32	96	184	318	482	598	831	917	889	883	882	915	846	896	872	748	785	598	453	308	213	12,900
7/17/2021	SATURDAY	138	53	55	40	64	121	246	343	529	791	831	826	815	797	777	824	874	917	949	793	666	579	461	288	12,777
7/18/2021	SUNDAY	164	93	54	24	45	70	150	298	459	718	934	975	932	922	970	905	956	963	938	802	794	572	312	161	13,211
7/19/2021	MONDAY	69	25	18	34	99	236	391	519	669	823	920	933	909	930	908	870	917	845	815	684	533	354	250	82	12,833
7/20/2021	TUESDAY	48	22	18	41	97	191	330	540	603	788	866	883	847	918	915	888	857	859	792	667	492	406	236	90	12,394
7/21/2021	WEDNESDAY	61	29	19	29	84	199	309	486	640	810	911	965	862	930	936	905	889	802	695	530	509	374	287	114	12,375
7/22/2021	THURSDAY	55	34	16	38	88	177	311	511	655	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Location ..... 3. CR-58 EB, 300' E. of Oliver St.
Location Code 3
Jurisdiction ..... Riverhead, NY
Recorder Set 07/08/21 07:23
Recording Start ... 07/08/21 08:00
Recording End 07/22/21 09:15
Sample Time ..... 15 Minutes
Operator Number ...
Machine Number 144
Channel 1
Recorder Mode ..... Volume

CR 58 ATR COUNTS

COMBINED TOTAL

DATE	DAY	AM												PM												
		12 AM TO 1 AM	1 AM TO 2 AM	2 AM TO 3 AM	3 AM TO 4 AM	4 AM TO 5 AM	5 AM TO 6 AM	6 AM TO 7 AM	7 AM TO 8 AM	8 AM TO 9 AM	9 AM TO 10 AM	10 AM TO 11 AM	11 AM TO 12 PM	12 PM TO 1 PM	1 PM TO 2 PM	2 PM TO 3 PM	3 PM TO 4 PM	4 PM TO 5 PM	5 PM TO 6 PM	6 PM TO 7 PM	7 PM TO 8 PM	8 PM TO 9 PM	9 PM TO 10 PM	10 PM TO 11 PM	11 PM TO 12 AM	DAILY TOTAL
7/8/2021	THURSDAY	-	-	-	-	-	-	-	-	1400	1652	1825	1976	1983	1994	1979	2000	1914	1879	1644	1356	1152	933	565	331	-
7/9/2021	FRIDAY	154	77	52	52	127	343	594	882	1115	1295	1619	1765	1910	2006	2040	2012	2024	1895	1642	1606	1445	1202	748	521	27,126
7/10/2021	SATURDAY	274	142	95	89	123	281	602	882	1243	1592	1850	1863	1940	1914	1931	1795	1890	1887	1649	1566	1368	1132	836	536	27,480
7/11/2021	SUNDAY	358	197	121	67	134	357	398	576	952	1377	1808	1926	2015	1978	1958	2008	1847	1679	1789	1573	1330	955	634	295	26,332
7/12/2021	MONDAY	170	73	46	55	134	423	847	1149	1389	1550	1736	1928	1897	1885	1890	1907	1879	1887	1631	1398	1188	762	392	220	26,436
7/13/2021	TUESDAY	121	67	43	68	133	440	870	1266	1300	1498	1722	1893	1978	1988	1948	2013	1927	1821	1702	1452	1178	863	547	245	27,083
7/14/2021	WEDNESDAY	127	67	35	57	152	427	873	1160	1332	1581	1741	1822	1912	1929	1898	1929	1814	1810	1597	1491	1298	940	603	303	26,898
7/15/2021	THURSDAY	162	84	53	57	126	416	815	1222	1311	1554	1785	1857	1909	1892	1944	2061	1966	1886	1711	1565	1517	1312	845	384	28,434
7/16/2021	FRIDAY	217	87	58	68	159	453	859	1177	1336	1714	1911	1985	1810	1717	1853	1940	1865	1863	1696	1693	1470	1177	771	477	28,356
7/17/2021	SATURDAY	282	138	102	78	144	281	584	836	1235	1666	1823	1920	1902	1880	1861	1823	1786	1795	1785	1597	1271	1164	867	549	27,369
7/18/2021	SUNDAY	312	159	107	62	96	191	329	573	880	1356	1717	1972	1994	2049	2047	1923	1948	1843	1766	1585	1451	1011	618	333	26,322
7/19/2021	MONDAY	161	73	46	56	168	453	828	1150	1364	1547	1762	1939	1953	1979	1938	1909	1944	1776	1705	1433	1249	872	543	238	27,086
7/20/2021	TUESDAY	118	54	45	59	176	424	833	1244	1349	1565	1753	1882	1870	1940	1959	1867	1787	1803	1607	1461	1200	936	556	258	26,746
7/21/2021	WEDNESDAY	160	77	44	53	143	416	781	1149	1365	1564	1793	1986	1899	1876	1950	1941	1895	1739	1521	1228	1260	863	604	295	26,602
7/22/2021	THURSDAY	142	81	47	60	146	427	798	1272	1381	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Weekday Avg	27,196
Weekend Avg	26,876
AADT	27,098

NYSDOT Weekday Average	153	74	47	59	146	422	810	1167	1331	1552	1765	1903	1912	1921	1940	1958	1902	1836	1646	1468	1296	986	617	327	27238
NYSDOT Weekend Average	307	159	106	74	124	278	478	717	1078	1498	1800	1920	1963	1955	1949	1887	1868	1801	1747	1580	1355	1066	739	428	26877

Location ..... 5. CR-105 NB, 1400' S. of CR-43
Location Code 5
Jurisdiction ..... Riverhead, NY
Recorder Set 07/08/21 08:45
Recording Start ... 07/08/21 09:00
Recording End 07/22/21 09:30
Sample Time ..... 15 Minutes
Operator Number ...
Machine Number 502
Channel 1
Recorder Mode ..... Volume

CR 105 ATR COUNTS

NORTHBOUND

DATE	DAY	AM												PM												
		12 AM TO 1 AM	1 AM TO 2 AM	2 AM TO 3 AM	3 AM TO 4 AM	4 AM TO 5 AM	5 AM TO 6 AM	6 AM TO 7 AM	7 AM TO 8 AM	8 AM TO 9 AM	9 AM TO 10 AM	10 AM TO 11 AM	11 AM TO 12 PM	12 PM TO 1 PM	1 PM TO 2 PM	2 PM TO 3 PM	3 PM TO 4 PM	4 PM TO 5 PM	5 PM TO 6 PM	6 PM TO 7 PM	7 PM TO 8 PM	8 PM TO 9 PM	9 PM TO 10 PM	10 PM TO 11 PM	11 PM TO 12 AM	EB DAILY TOTAL
7/8/2021	THURSDAY	-	-	-	-	-	-	-	-	-	184	181	222	210	236	220	206	213	187	155	121	49	38	31	16	-
7/9/2021	FRIDAY	6	1	3	3	2	25	68	82	85	86	116	136	149	199	205	238	217	201	187	123	82	63	50	24	2,351
7/10/2021	SATURDAY	16	5	5	4	9	38	96	172	182	194	251	270	264	293	265	223	227	175	121	116	82	60	39	38	3,145
7/11/2021	SUNDAY	26	12	2	5	8	26	68	476	105	126	180	207	217	215	200	172	124	132	126	110	62	42	27	12	2,680
7/12/2021	MONDAY	8	4	3	3	8	24	117	182	185	147	154	140	283	523	411	275	220	191	163	180	108	74	71	15	3,489
7/13/2021	TUESDAY	11	2	3	0	3	47	121	154	181	190	152	203	196	159	174	184	202	182	139	77	65	37	31	13	2,526
7/14/2021	WEDNESDAY	7	1	0	1	9	42	89	180	181	164	154	189	211	179	216	197	195	185	133	113	74	46	31	15	2,612
7/15/2021	THURSDAY	14	9	5	3	8	34	129	155	177	196	192	227	182	237	208	240	276	282	169	152	120	74	40	18	3,147
7/16/2021	FRIDAY	11	4	1	5	6	38	117	196	219	216	209	206	243	364	241	234	239	217	184	144	102	61	50	20	3,327
7/17/2021	SATURDAY	21	8	9	4	6	31	100	157	167	182	212	230	232	238	212	189	190	184	151	119	85	60	52	34	2,873
7/18/2021	SUNDAY	20	10	10	4	8	22	61	89	79	124	159	182	212	232	186	206	161	130	114	88	63	64	37	10	2,271
7/19/2021	MONDAY	10	1	4	2	2	33	120	164	177	142	172	167	183	205	212	219	165	180	133	99	65	42	19	12	2,528
7/20/2021	TUESDAY	9	2	0	2	8	26	118	179	188	149	167	177	184	194	206	191	195	188	157	86	52	40	33	17	2,568
7/21/2021	WEDNESDAY	8	2	5	2	8	44	120	168	187	181	189	160	164	195	182	164	192	184	139	96	77	44	31	20	2,562
7/22/2021	THURSDAY	14	3	2	1	9	36	110	185	203	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Location ..... 5. CR-105 NB, 1400' S. of CR-43
Location Code 5
Jurisdiction ..... Riverhead, NY
Recorder Set 07/08/21 08:45
Recording Start ... 07/08/21 09:00
Recording End 07/22/21 09:30
Sample Time ..... 15 Minutes
Operator Number ...
Machine Number 502
Channel 1
Recorder Mode ..... Volume

CR 105 ATR COUNTS

SOUTHBOUND

DATE	DAY	AM												PM												
		12 AM TO 1 AM	1 AM TO 2 AM	2 AM TO 3 AM	3 AM TO 4 AM	4 AM TO 5 AM	5 AM TO 6 AM	6 AM TO 7 AM	7 AM TO 8 AM	8 AM TO 9 AM	9 AM TO 10 AM	10 AM TO 11 AM	11 AM TO 12 PM	12 PM TO 1 PM	1 PM TO 2 PM	2 PM TO 3 PM	3 PM TO 4 PM	4 PM TO 5 PM	5 PM TO 6 PM	6 PM TO 7 PM	7 PM TO 8 PM	8 PM TO 9 PM	9 PM TO 10 PM	10 PM TO 11 PM	11 PM TO 12 AM	WB DAILY TOTAL
7/8/2021	THURSDAY	-	-	-	-	-	-	-	-	-	-	155	169	170	178	217	219	247	245	199	95	70	56	28	15	-
7/9/2021	FRIDAY	6	2	3	3	5	31	37	77	96	79	109	141	118	168	167	200	224	203	126	105	80	65	39	25	2,109
7/10/2021	SATURDAY	8	5	6	3	4	28	61	77	104	119	155	192	325	205	204	256	255	241	176	103	89	76	60	39	2,791
7/11/2021	SUNDAY	13	6	3	9	6	17	36	66	96	108	143	154	170	186	198	202	195	256	199	109	86	79	44	22	2,403
7/12/2021	MONDAY	4	3	0	2	11	40	78	144	149	147	166	151	189	199	211	250	212	225	125	76	73	53	19	12	2,539
7/13/2021	TUESDAY	7	1	3	1	8	37	70	126	127	105	143	142	142	157	195	215	253	213	137	83	66	35	26	13	2,305
7/14/2021	WEDNESDAY	4	4	4	6	10	52	65	125	148	144	134	153	189	196	192	203	239	217	140	98	77	60	34	13	2,507
7/15/2021	THURSDAY	4	7	4	3	10	76	86	133	159	157	158	178	186	197	194	217	234	220	146	98	104	60	47	21	2,699
7/16/2021	FRIDAY	7	2	3	1	7	40	70	150	155	164	198	195	231	212	223	217	257	249	157	117	97	59	63	45	2,919
7/17/2021	SATURDAY	17	8	4	1	7	33	53	92	92	116	147	190	196	191	187	231	238	207	164	112	73	73	43	35	2,510
7/18/2021	SUNDAY	17	7	2	2	4	7	15	33	64	93	117	163	144	200	190	204	272	166	147	85	67	57	47	32	2,135
7/19/2021	MONDAY	6	1	2	0	5	43	72	128	148	137	158	174	186	190	219	252	234	232	138	108	87	42	35	9	2,606
7/20/2021	TUESDAY	6	4	2	6	6	58	78	125	159	151	142	158	188	145	173	212	236	216	123	90	67	42	29	9	2,425
7/21/2021	WEDNESDAY	6	7	0	3	9	63	84	143	167	145	137	162	172	186	228	207	245	245	144	156	88	54	30	5	2,686
7/22/2021	THURSDAY	4	4	1	2	6	65	66	125	163	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Location ..... 5. CR-105 NB, 1400' S. of CR-43
Location Code 5
Jurisdiction ..... Riverhead, NY
Recorder Set 07/08/21 08:45
Recording Start ... 07/08/21 09:00
Recording End 07/22/21 09:30
Sample Time ..... 15 Minutes
Operator Number ...
Machine Number 502
Channel 1
Recorder Mode ..... Volume

CR 105 ATR COUNTS

COMBINED TOTAL

DATE	DAY	AM												PM												
		12 AM TO 1 AM	1 AM TO 2 AM	2 AM TO 3 AM	3 AM TO 4 AM	4 AM TO 5 AM	5 AM TO 6 AM	6 AM TO 7 AM	7 AM TO 8 AM	8 AM TO 9 AM	9 AM TO 10 AM	10 AM TO 11 AM	11 AM TO 12 PM	12 PM TO 1 PM	1 PM TO 2 PM	2 PM TO 3 PM	3 PM TO 4 PM	4 PM TO 5 PM	5 PM TO 6 PM	6 PM TO 7 PM	7 PM TO 8 PM	8 PM TO 9 PM	9 PM TO 10 PM	10 PM TO 11 PM	11 PM TO 12 AM	DAILY TOTAL
7/8/2021	THURSDAY	-	-	-	-	-	-	-	0	0	184	336	391	380	414	437	425	460	432	354	216	119	94	59	31	-
7/9/2021	FRIDAY	12	3	6	6	7	56	105	159	181	165	225	277	267	367	372	438	441	404	313	228	162	128	89	49	4,460
7/10/2021	SATURDAY	24	10	11	7	13	66	157	249	286	313	406	462	589	498	469	479	482	416	297	219	171	136	99	77	5,936
7/11/2021	SUNDAY	39	18	5	14	14	43	104	542	201	234	323	361	387	401	398	374	319	388	325	219	148	121	71	34	5,083
7/12/2021	MONDAY	12	7	3	5	19	64	195	326	334	294	320	291	472	722	622	525	432	416	288	256	181	127	90	27	6,028
7/13/2021	TUESDAY	18	3	6	1	11	84	191	280	308	295	295	345	338	316	369	399	455	395	276	160	131	72	57	26	4,831
7/14/2021	WEDNESDAY	11	5	4	7	19	94	154	305	329	308	288	342	400	375	408	400	434	402	273	211	151	106	65	28	5,119
7/15/2021	THURSDAY	18	16	9	6	18	110	215	288	336	353	350	405	368	434	402	457	510	502	315	250	224	134	87	39	5,846
7/16/2021	FRIDAY	18	6	4	6	13	78	187	346	374	380	407	401	474	576	464	451	496	466	341	261	199	120	113	65	6,246
7/17/2021	SATURDAY	38	16	13	5	13	64	153	249	259	298	359	420	428	429	399	420	428	391	315	231	158	133	95	69	5,383
7/18/2021	SUNDAY	37	17	12	6	12	29	76	122	143	217	276	345	356	432	376	410	433	296	261	173	130	121	84	42	4,406
7/19/2021	MONDAY	16	2	6	2	7	76	192	292	325	279	330	341	369	395	431	471	399	412	271	207	152	84	54	21	5,134
7/20/2021	TUESDAY	15	6	2	8	14	84	196	304	347	300	309	335	372	339	379	403	431	404	280	176	119	82	62	26	4,993
7/21/2021	WEDNESDAY	14	9	5	5	17	107	204	311	354	326	326	322	336	381	410	371	437	429	283	252	165	98	61	25	5,248
7/22/2021	THURSDAY	18	7	3	3	15	101	176	310	366	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Weekday Avg	5,323
Weekend Avg	5,202
AADT	5,286

NYSDOT Weekday Average	15	6	5	5	14	85	182	266	296	288	319	345	378	432	429	434	450	426	299	222	160	105	74	34	5269
NYSDOT Weekend Average	35	15	10	8	13	51	123	291	222	266	341	397	440	440	411	421	416	373	300	211	152	128	87	56	5207

Location ..... 7. CR-43 EB, 1400' E. of CR-105
Location Code 7
Jurisdiction ..... Riverhead, NY
Recorder Set 07/08/21 09:09
Recording Start ... 07/08/21 10:00
Recording End 07/22/21 09:45
Sample Time ..... 15 Minutes
Operator Number ...
Machine Number 137
Channel 1
Recorder Mode ..... Volume

CR 43 ATR COUNTS

EASTBOUND

DATE	DAY	AM												PM												
		12 AM TO 1 AM	1 AM TO 2 AM	2 AM TO 3 AM	3 AM TO 4 AM	4 AM TO 5 AM	5 AM TO 6 AM	6 AM TO 7 AM	7 AM TO 8 AM	8 AM TO 9 AM	9 AM TO 10 AM	10 AM TO 11 AM	11 AM TO 12 PM	12 PM TO 1 PM	1 PM TO 2 PM	2 PM TO 3 PM	3 PM TO 4 PM	4 PM TO 5 PM	5 PM TO 6 PM	6 PM TO 7 PM	7 PM TO 8 PM	8 PM TO 9 PM	9 PM TO 10 PM	10 PM TO 11 PM	11 PM TO 12 AM	EB DAILY TOTAL
7/8/2021	THURSDAY	-	-	-	-	-	-	-	-	-	-	407	435	461	466	450	417	450	376	323	258	142	173	104	38	-
7/9/2021	FRIDAY	26	3	8	6	6	68	166	191	213	180	256	315	394	485	513	569	553	469	406	295	283	214	160	77	5,856
7/10/2021	SATURDAY	51	26	15	21	23	84	245	337	398	441	611	555	725	470	541	442	427	338	257	247	186	141	98	82	6,761
7/11/2021	SUNDAY	59	21	22	17	17	57	128	502	220	278	396	485	468	460	402	388	303	227	243	216	157	79	81	40	5,266
7/12/2021	MONDAY	24	10	8	6	21	82	309	397	343	294	329	382	489	629	536	443	375	356	286	248	170	135	98	36	6,006
7/13/2021	TUESDAY	12	8	4	7	14	102	337	428	316	293	303	351	419	393	371	375	381	366	272	197	132	107	81	43	5,312
7/14/2021	WEDNESDAY	22	6	2	9	19	100	331	419	384	318	350	435	412	368	445	411	405	332	288	213	195	140	112	56	5,772
7/15/2021	THURSDAY	23	8	11	7	11	82	359	400	324	339	428	501	488	448	462	454	433	411	340	271	261	253	170	72	6,556
7/16/2021	FRIDAY	39	8	6	13	9	114	354	407	361	402	415	466	409	510	413	562	474	440	419	350	280	235	148	85	6,919
7/17/2021	SATURDAY	48	21	16	13	30	74	245	306	332	407	523	609	516	607	527	473	395	348	323	233	148	139	108	57	6,498
7/18/2021	SUNDAY	36	18	7	16	21	56	105	155	176	250	384	408	550	540	453	404	300	249	245	204	176	99	78	32	4,962
7/19/2021	MONDAY	11	12	7	11	10	95	324	371	338	305	337	406	441	373	398	447	353	346	300	177	156	111	71	32	5,432
7/20/2021	TUESDAY	22	7	6	10	25	88	352	441	389	321	364	398	412	349	375	401	367	312	269	239	159	118	66	45	5,535
7/21/2021	WEDNESDAY	16	10	9	10	19	95	345	400	347	322	384	332	424	396	413	395	395	364	307	220	196	142	80	52	5,673
7/22/2021	THURSDAY	18	5	11	3	14	90	325	462	397																-

Location ..... 7. CR-43 EB, 1400' E. of CR-105
Location Code 7
Jurisdiction ..... Riverhead, NY
Recorder Set 07/08/21 09:09
Recording Start ... 07/08/21 10:00
Recording End 07/22/21 09:45
Sample Time ..... 15 Minutes
Operator Number ...
Machine Number 137
Channel 1
Recorder Mode ..... Volume

CR 43 ATR COUNTS

WESTBOUND

DATE	DAY	AM												PM												
		12 AM TO 1 AM	1 AM TO 2 AM	2 AM TO 3 AM	3 AM TO 4 AM	4 AM TO 5 AM	5 AM TO 6 AM	6 AM TO 7 AM	7 AM TO 8 AM	8 AM TO 9 AM	9 AM TO 10 AM	10 AM TO 11 AM	11 AM TO 12 PM	12 PM TO 1 PM	1 PM TO 2 PM	2 PM TO 3 PM	3 PM TO 4 PM	4 PM TO 5 PM	5 PM TO 6 PM	6 PM TO 7 PM	7 PM TO 8 PM	8 PM TO 9 PM	9 PM TO 10 PM	10 PM TO 11 PM	11 PM TO 12 AM	WB DAILY TOTAL
7/8/2021	THURSDAY	-	-	-	-	-	-	-	-	-	-	360	371	422	394	448	500	557	521	364	289	199	137	99	35	-
7/9/2021	FRIDAY	15	5	7	5	23	40	98	166	178	201	295	288	296	364	389	382	439	417	292	290	227	173	86	88	4,764
7/10/2021	SATURDAY	48	24	17	8	21	50	102	155	210	254	339	323	513	339	429	432	524	637	522	400	314	268	255	120	6,304
7/11/2021	SUNDAY	71	50	34	23	13	27	78	161	241	290	398	404	487	502	486	505	538	541	538	424	361	305	194	81	6,752
7/12/2021	MONDAY	17	10	10	16	34	92	165	279	348	394	387	365	407	453	456	511	489	541	387	246	199	165	46	39	6,056
7/13/2021	TUESDAY	19	8	8	7	32	66	92	136	182	166	296	346	359	377	417	448	540	507	369	259	172	120	80	38	5,044
7/14/2021	WEDNESDAY	13	4	6	7	31	112	133	245	315	312	320	366	386	358	426	419	537	470	351	281	210	168	75	49	5,594
7/15/2021	THURSDAY	17	10	3	11	23	100	142	241	279	363	381	352	383	413	446	489	547	485	406	272	267	196	124	41	5,991
7/16/2021	FRIDAY	24	9	8	8	36	68	153	246	277	391	373	368	391	372	411	460	494	479	397	340	257	187	145	111	6,005
7/17/2021	SATURDAY	32	16	18	15	19	45	93	163	206	309	294	372	335	313	375	430	533	490	539	408	317	291	268	145	6,026
7/18/2021	SUNDAY	98	51	28	10	16	18	55	122	194	263	393	444	426	433	492	524	597	551	543	394	419	303	170	101	6,645
7/19/2021	MONDAY	18	5	10	12	37	90	176	276	361	352	369	394	439	406	441	495	505	549	380	310	201	140	109	34	6,109
7/20/2021	TUESDAY	23	6	10	16	32	96	157	274	305	301	320	349	359	340	429	454	496	497	383	289	230	129	79	27	5,601
7/21/2021	WEDNESDAY	16	6	3	3	33	97	127	293	326	345	338	384	308	364	449	482	479	485	375	396	272	133	76	36	5,826
7/22/2021	THURSDAY	19	5	4	11	26	90	131	248	326	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Location ..... 7. CR-43 EB, 1400' E. of CR-105
Location Code 7
Jurisdiction ..... Riverhead, NY
Recorder Set 07/08/21 09:09
Recording Start ... 07/08/21 10:00
Recording End 07/22/21 09:45
Sample Time ..... 15 Minutes
Operator Number ...
Machine Number 137
Channel 1
Recorder Mode ..... Volume

CR 43 ATR COUNTS

COMBINED TOTAL

DATE	DAY	AM												PM												DAILY TOTAL
		12 AM TO 1 AM	1 AM TO 2 AM	2 AM TO 3 AM	3 AM TO 4 AM	4 AM TO 5 AM	5 AM TO 6 AM	6 AM TO 7 AM	7 AM TO 8 AM	8 AM TO 9 AM	9 AM TO 10 AM	10 AM TO 11 AM	11 AM TO 12 PM	12 PM TO 1 PM	1 PM TO 2 PM	2 PM TO 3 PM	3 PM TO 4 PM	4 PM TO 5 PM	5 PM TO 6 PM	6 PM TO 7 PM	7 PM TO 8 PM	8 PM TO 9 PM	9 PM TO 10 PM	10 PM TO 11 PM	11 PM TO 12 AM	
7/8/2021	THURSDAY	-	-	-	-	-	-	-	-	-	-	767	806	883	860	898	917	1007	897	687	547	341	310	203	73	-
7/9/2021	FRIDAY	41	8	15	11	29	108	264	357	391	381	551	603	690	849	902	951	992	886	698	585	510	387	246	165	10,620
7/10/2021	SATURDAY	99	50	32	29	44	134	347	492	608	695	950	878	1238	809	970	874	951	975	779	647	500	409	353	202	13,065
7/11/2021	SUNDAY	130	71	56	40	30	84	206	663	461	568	794	889	955	962	888	893	841	768	781	640	518	384	275	121	12,018
7/12/2021	MONDAY	41	20	18	22	55	174	474	676	691	688	716	747	896	1082	992	954	864	897	673	494	369	300	144	75	12,062
7/13/2021	TUESDAY	31	16	12	14	46	168	429	564	498	459	599	697	778	770	788	823	921	873	641	456	304	227	161	81	10,356
7/14/2021	WEDNESDAY	35	10	8	16	50	212	464	664	699	630	670	801	798	726	871	830	942	802	639	494	405	308	187	105	11,366
7/15/2021	THURSDAY	40	18	14	18	34	182	501	641	603	702	809	853	871	861	908	943	980	896	746	543	528	449	294	113	12,547
7/16/2021	FRIDAY	63	17	14	21	45	182	507	653	638	793	788	834	800	882	824	1022	968	919	816	690	537	422	293	196	12,924
7/17/2021	SATURDAY	80	37	34	28	49	119	338	469	538	716	817	981	851	920	902	903	928	838	862	641	465	430	376	202	12,524
7/18/2021	SUNDAY	134	69	35	26	37	74	160	277	370	513	777	852	976	973	945	928	897	800	788	598	595	402	248	133	11,607
7/19/2021	MONDAY	29	17	17	23	47	185	500	647	699	657	706	800	880	779	839	942	858	895	680	487	357	251	180	66	11,541
7/20/2021	TUESDAY	45	13	16	26	57	184	509	715	694	622	684	747	771	689	804	855	863	809	652	528	389	247	145	72	11,136
7/21/2021	WEDNESDAY	32	16	12	13	52	192	472	693	673	667	722	716	732	760	862	877	874	849	682	616	468	275	156	88	11,499
7/22/2021	THURSDAY	37	10	15	14	40	180	456	710	723	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Weekday Avg	11,561
Weekend Avg	12,304
AADT	11,790

NYSDOT Weekday Average	39	15	14	18	46	177	458	632	631	622	701	760	810	826	869	911	927	872	691	544	421	318	201	103	11606
NYSDOT Weekend Average	111	57	39	31	40	103	263	475	494	623	835	900	1005	916	926	900	904	845	803	632	520	406	313	165	12306

Location ..... 9. Sound Ave EB, 385' E. of Rt. 25A
Location Code 9
Jurisdiction ..... Riverhead, NY
Recorder Set 07/08/21 10:02
Recording Start ... 07/08/21 11:00
Recording End 07/22/21 08:15
Sample Time ..... 15 Minutes
Operator Number ...
Machine Number 31
Channel 1
Recorder Mode ..... Volume

SOUND AVENUE ATR COUNTS

EASTBOUND

DATE	DAY	AM												PM												
		12 AM TO 1 AM	1 AM TO 2 AM	2 AM TO 3 AM	3 AM TO 4 AM	4 AM TO 5 AM	5 AM TO 6 AM	6 AM TO 7 AM	7 AM TO 8 AM	8 AM TO 9 AM	9 AM TO 10 AM	10 AM TO 11 AM	11 AM TO 12 PM	12 PM TO 1 PM	1 PM TO 2 PM	2 PM TO 3 PM	3 PM TO 4 PM	4 PM TO 5 PM	5 PM TO 6 PM	6 PM TO 7 PM	7 PM TO 8 PM	8 PM TO 9 PM	9 PM TO 10 PM	10 PM TO 11 PM	11 PM TO 12 AM	EB DAILY TOTAL
7/8/2021	THURSDAY	-	-	-	-	-	-	-	-	-	-	-	383	410	352	349	357	103	319	256	144	132	84	49	28	-
7/9/2021	FRIDAY	22	8	3	2	9	31	96	112	144	156	169	208	280	293	363	360	382	363	313	216	169	130	73	51	3,953
7/10/2021	SATURDAY	29	17	4	7	15	42	101	155	238	352	468	493	523	481	465	437	370	321	279	203	193	119	107	63	5,482
7/11/2021	SUNDAY	32	15	8	5	13	49	79	116	152	275	371	495	505	504	418	385	341	236	202	163	153	91	59	33	4,700
7/12/2021	MONDAY	18	5	3	5	7	54	163	218	275	244	266	313	323	315	287	309	288	287	236	173	161	76	30	25	4,081
7/13/2021	TUESDAY	14	3	3	4	11	59	169	230	229	254	284	260	338	286	314	333	317	319	240	159	146	100	66	26	4,164
7/14/2021	WEDNESDAY	14	9	6	7	15	50	147	221	315	263	316	351	371	329	306	326	351	371	284	204	150	119	68	29	4,622
7/15/2021	THURSDAY	22	11	8	6	18	50	186	244	288	274	328	344	377	341	346	330	354	341	285	214	153	103	72	41	4,736
7/16/2021	FRIDAY	19	10	3	5	12	52	170	240	258	310	380	410	477	534	425	382	370	365	320	222	163	160	78	35	5,400
7/17/2021	SATURDAY	29	28	5	3	20	56	87	171	241	373	413	489	463	476	434	370	377	288	280	187	154	125	86	55	5,210
7/18/2021	SUNDAY	28	13	8	6	10	44	56	106	162	218	371	500	534	532	453	427	293	221	203	164	135	106	60	34	4,684
7/19/2021	MONDAY	14	7	7	2	16	53	159	236	266	308	260	329	338	354	333	331	315	320	260	199	163	106	46	32	4,454
7/20/2021	TUESDAY	15	5	5	4	14	61	170	261	288	268	242	294	355	299	300	313	337	291	268	214	149	107	53	27	4,340
7/21/2021	WEDNESDAY	20	5	4	6	20	59	170	251	292	271	312	345	324	347	299	319	320	332	273	202	154	113	49	36	4,523
7/22/2021	THURSDAY	20	5	5	1	12	52	153	261	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Location ..... 9. Sound Ave EB, 385' E. of Rt. 25A
Location Code 9
Jurisdiction ..... Riverhead, NY
Recorder Set 07/08/21 10:02
Recording Start ... 07/08/21 11:00
Recording End 07/22/21 08:15
Sample Time ..... 15 Minutes
Operator Number ...
Machine Number 31
Channel 1
Recorder Mode ..... Volume

SOUND AVENUE ATR COUNTS

WESTBOUND

DATE	DAY	AM												PM												
		12 AM TO 1 AM	1 AM TO 2 AM	2 AM TO 3 AM	3 AM TO 4 AM	4 AM TO 5 AM	5 AM TO 6 AM	6 AM TO 7 AM	7 AM TO 8 AM	8 AM TO 9 AM	9 AM TO 10 AM	10 AM TO 11 AM	11 AM TO 12 PM	12 PM TO 1 PM	1 PM TO 2 PM	2 PM TO 3 PM	3 PM TO 4 PM	4 PM TO 5 PM	5 PM TO 6 PM	6 PM TO 7 PM	7 PM TO 8 PM	8 PM TO 9 PM	9 PM TO 10 PM	10 PM TO 11 PM	11 PM TO 12 AM	WB DAILY TOTAL
7/8/2021	THURSDAY	-	-	-	-	-	-	-	-	-	-	-	286	369	368	339	427	662	387	290	192	134	94	55	29	-
7/9/2021	FRIDAY	10	12	9	2	13	44	58	101	68	82	195	197	215	224	272	349	352	381	284	209	168	162	98	59	3,564
7/10/2021	SATURDAY	38	17	11	9	7	17	60	130	152	227	286	333	356	395	365	423	522	429	388	339	279	206	124	79	5,192
7/11/2021	SUNDAY	47	16	16	8	9	16	47	94	124	205	297	298	385	438	448	470	518	397	329	291	209	143	113	48	4,966
7/12/2021	MONDAY	17	13	6	8	15	52	89	198	224	240	254	250	268	279	319	387	393	404	237	208	138	75	46	21	4,141
7/13/2021	TUESDAY	17	5	5	7	12	43	102	164	213	210	220	246	298	287	295	399	378	377	257	182	131	90	56	32	4,026
7/14/2021	WEDNESDAY	16	4	6	4	18	48	94	193	256	216	262	264	297	308	339	383	411	442	296	198	184	124	71	39	4,473
7/15/2021	THURSDAY	23	11	2	5	11	53	112	190	216	251	261	292	304	328	315	395	402	386	303	256	205	172	90	36	4,619
7/16/2021	FRIDAY	20	6	4	7	13	45	104	195	213	245	282	305	350	352	361	367	395	383	307	284	199	175	112	68	4,792
7/17/2021	SATURDAY	42	21	8	7	10	26	61	116	171	274	271	369	343	368	339	428	407	413	320	314	222	178	165	118	4,991
7/18/2021	SUNDAY	44	38	22	6	5	16	39	83	125	163	278	356	387	444	447	482	442	469	337	295	233	136	89	66	5,002
7/19/2021	MONDAY	32	9	10	5	9	45	113	204	236	230	269	247	305	319	352	376	427	391	313	226	151	102	55	31	4,457
7/20/2021	TUESDAY	12	4	3	7	17	47	107	183	242	201	228	261	294	282	334	362	363	407	281	227	181	119	64	35	4,261
7/21/2021	WEDNESDAY	14	3	6	5	17	48	109	200	227	264	272	301	304	355	401	336	372	354	267	195	158	103	48	23	4,382
7/22/2021	THURSDAY	17	6	3	4	9	41	106	211	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Location ..... 9. Sound Ave EB, 385' E. of Rt. 25A
Location Code 9
Jurisdiction ..... Riverhead, NY
Recorder Set 07/08/21 10:02
Recording Start ... 07/08/21 11:00
Recording End 07/22/21 08:15
Sample Time ..... 15 Minutes
Operator Number ...
Machine Number 31
Channel 1
Recorder Mode ..... Volume

SOUND AVENUE ATR COUNTS

COMBINED TOTAL

DATE	DAY	AM												PM											
		12 AM TO 1 AM	1 AM TO 2 AM	2 AM TO 3 AM	3 AM TO 4 AM	4 AM TO 5 AM	5 AM TO 6 AM	6 AM TO 7 AM	7 AM TO 8 AM	8 AM TO 9 AM	9 AM TO 10 AM	10 AM TO 11 AM	11 AM TO 12 PM	12 PM TO 1 PM	1 PM TO 2 PM	2 PM TO 3 PM	3 PM TO 4 PM	4 PM TO 5 PM	5 PM TO 6 PM	6 PM TO 7 PM	7 PM TO 8 PM	8 PM TO 9 PM	9 PM TO 10 PM	10 PM TO 11 PM	11 PM TO 12 AM	DAILY TOTAL
7/8/2021	THURSDAY	-	-	-	-	-	-	-	-	-	-	-	669	779	720	688	784	765	706	546	336	266	178	104	57	-
7/9/2021	FRIDAY	32	20	12	4	22	75	154	213	212	238	364	405	495	517	635	709	734	744	597	425	337	292	171	110	7,517
7/10/2021	SATURDAY	67	34	15	16	22	59	161	285	390	579	754	826	879	876	830	860	892	750	667	542	472	325	231	142	10,674
7/11/2021	SUNDAY	79	31	24	13	22	65	126	210	276	480	668	793	890	942	866	855	859	633	531	454	362	234	172	81	9,666
7/12/2021	MONDAY	35	18	9	13	22	106	252	416	499	484	520	563	591	594	606	696	681	691	473	381	299	151	76	46	8,222
7/13/2021	TUESDAY	31	8	8	11	23	102	271	394	442	464	504	506	636	573	609	732	695	696	497	341	277	190	122	58	8,190
7/14/2021	WEDNESDAY	30	13	12	11	33	98	241	414	571	479	578	615	668	637	645	709	762	813	580	402	334	243	139	68	9,095
7/15/2021	THURSDAY	45	22	10	11	29	103	298	434	504	525	589	636	681	669	661	725	756	727	588	470	358	275	162	77	9,355
7/16/2021	FRIDAY	39	16	7	12	25	97	274	435	471	555	662	715	827	886	786	749	765	748	627	506	362	335	190	103	10,192
7/17/2021	SATURDAY	71	49	13	10	30	82	148	287	412	647	684	858	806	844	773	798	784	701	600	501	376	303	251	173	10,201
7/18/2021	SUNDAY	72	51	30	12	15	60	95	189	287	381	649	856	921	976	900	909	735	690	540	459	368	242	149	100	9,686
7/19/2021	MONDAY	46	16	17	7	25	98	272	440	502	538	529	576	643	673	685	707	742	711	573	425	314	208	101	63	8,911
7/20/2021	TUESDAY	27	9	8	11	31	108	277	444	530	469	470	555	649	581	634	675	700	698	549	441	330	226	117	62	8,601
7/21/2021	WEDNESDAY	34	8	10	11	37	107	279	451	519	535	584	646	628	702	700	655	692	686	540	397	312	216	97	59	8,905
7/22/2021	THURSDAY	37	11	8	5	21	93	259	472	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Weekday Avg	8,776
Weekend Avg	10,057
AADT	9,170

NYSDOT Weekday Average	36	14	10	10	27	99	258	411	472	476	533	589	660	655	665	714	729	722	557	412	319	231	128	70	8797
NYSDOT Weekend Average	72	41	21	13	22	67	133	243	341	522	689	833	874	910	842	856	818	694	585	489	395	276	201	124	10061

Location ..... 11. Sound Ave EB, 515' W. of Philips Ln
Location Code 11
Jurisdiction ..... Riverhead, NY
Recorder Set 07/08/21 09:29
Recording Start ... 07/08/21 10:00
Recording End 07/22/21 10:00
Sample Time ..... 15 Minutes
Operator Number ...
Machine Number 300
Channel 1
Recorder Mode ..... Volume

SOUND AVENUE ATR COUNTS

EASTBOUND

DATE	DAY	AM												PM											
		12 AM TO 1 AM	1 AM TO 2 AM	2 AM TO 3 AM	3 AM TO 4 AM	4 AM TO 5 AM	5 AM TO 6 AM	6 AM TO 7 AM	7 AM TO 8 AM	8 AM TO 9 AM	9 AM TO 10 AM	10 AM TO 11 AM	11 AM TO 12 PM	12 PM TO 1 PM	1 PM TO 2 PM	2 PM TO 3 PM	3 PM TO 4 PM	4 PM TO 5 PM	5 PM TO 6 PM	6 PM TO 7 PM	7 PM TO 8 PM	8 PM TO 9 PM	9 PM TO 10 PM	10 PM TO 11 PM	11 PM TO 12 AM	EB DAILY TOTAL
7/8/2021	THURSDAY	-	-	-	-	-	-	-	-	-	-	644	724	754	751	688	655	695	572	427	346	202	229	128	54	-
7/9/2021	FRIDAY	38	4	11	5	17	89	240	307	323	251	397	488	596	730	799	847	835	723	608	413	369	281	181	100	8,652
7/10/2021	SATURDAY	73	30	22	18	41	119	355	526	564	718	991	1011	893	971	913	762	690	535	411	380	287	189	144	109	10,752
7/11/2021	SUNDAY	74	29	20	22	34	93	195	603	326	479	663	768	753	802	730	628	494	357	384	301	227	132	103	54	8,271
7/12/2021	MONDAY	35	14	13	7	29	136	467	652	585	470	495	604	702	846	756	676	599	522	425	329	254	180	118	47	8,961
7/13/2021	TUESDAY	19	17	4	8	20	155	488	652	407	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1,770
7/14/2021	WEDNESDAY	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	203	438	324	261	177	135	52	1,591
7/15/2021	THURSDAY	36	14	13	8	29	146	533	671	601	589	715	781	782	756	711	702	694	595	534	410	334	294	230	92	10,270
7/16/2021	FRIDAY	45	10	10	15	17	190	503	658	631	659	741	776	740	921	787	834	755	705	609	492	395	302	197	120	11,112
7/17/2021	SATURDAY	61	28	27	17	46	132	347	505	576	718	851	994	1119	1007	948	800	651	499	462	320	240	182	152	87	10,769
7/18/2021	SUNDAY	53	22	14	15	32	90	164	230	274	415	596	727	939	909	818	688	501	385	375	317	244	137	96	57	8,098
7/19/2021	MONDAY	19	16	9	12	25	148	483	621	596	495	552	642	705	615	628	634	577	545	436	270	232	157	99	39	8,555
7/20/2021	TUESDAY	32	8	10	11	40	138	511	728	650	524	584	673	649	586	583	640	602	476	438	311	240	153	95	50	8,732
7/21/2021	WEDNESDAY	28	13	11	9	37	142	511	626	614	550	598	589	638	636	651	554	596	578	459	326	272	174	106	59	8,777
7/22/2021	THURSDAY	25	8	10	3	29	139	495	731	678	582	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Location ..... 11. Sound Ave EB, 515' W. of Philips Ln
Location Code 11
Jurisdiction ..... Riverhead, NY
Recorder Set 07/08/21 09:29
Recording Start ... 07/08/21 10:00
Recording End 07/22/21 10:00
Sample Time ..... 15 Minutes
Operator Number ...
Machine Number 300
Channel 1
Recorder Mode ..... Volume

SOUND AVENUE ATR COUNTS

WESTBOUND

DATE	DAY	AM												PM												
		12 AM TO 1 AM	1 AM TO 2 AM	2 AM TO 3 AM	3 AM TO 4 AM	4 AM TO 5 AM	5 AM TO 6 AM	6 AM TO 7 AM	7 AM TO 8 AM	8 AM TO 9 AM	9 AM TO 10 AM	10 AM TO 11 AM	11 AM TO 12 PM	12 PM TO 1 PM	1 PM TO 2 PM	2 PM TO 3 PM	3 PM TO 4 PM	4 PM TO 5 PM	5 PM TO 6 PM	6 PM TO 7 PM	7 PM TO 8 PM	8 PM TO 9 PM	9 PM TO 10 PM	10 PM TO 11 PM	11 PM TO 12 AM	WB DAILY TOTAL
7/8/2021	THURSDAY	-	-	-	-	-	-	-	-	-	-	593	717	713	721	811	943	1016	934	581	441	292	219	142	52	-
7/9/2021	FRIDAY	29	11	11	8	22	66	144	239	273	295	460	491	470	558	662	715	798	731	509	459	353	265	175	142	7,886
7/10/2021	SATURDAY	68	35	27	16	22	66	161	232	304	443	579	599	683	690	772	830	967	1021	859	682	531	423	365	182	10,557
7/11/2021	SUNDAY	97	65	54	29	16	49	117	272	380	450	617	670	850	851	904	907	985	960	868	645	541	440	270	123	11,160
7/12/2021	MONDAY	32	14	15	21	40	130	257	439	569	619	650	628	732	700	814	846	929	902	608	391	307	227	74	56	10,000
7/13/2021	TUESDAY	25	11	12	11	33	92	142	201	336	261	510	587	642	660	699	880	930	851	632	389	270	189	128	61	8,552
7/14/2021	WEDNESDAY	23	6	5	10	41	149	219	385	473	517	558	574	635	646	701	812	934	816	632	529	378	283	108	85	9,519
7/15/2021	THURSDAY	39	16	11	16	31	142	245	432	484	601	663	651	806	801	950	934	1039	963	692	487	445	319	216	80	11,063
7/16/2021	FRIDAY	54	22	12	14	65	157	330	529	574	715	783	763	721	673	785	901	949	822	760	626	460	330	271	194	11,510
7/17/2021	SATURDAY	68	24	37	24	38	77	209	346	412	618	577	694	682	604	718	940	977	930	910	697	595	511	481	282	11,451
7/18/2021	SUNDAY	181	94	45	13	18	35	84	178	324	435	663	785	848	827	1003	1033	1192	1147	1023	807	744	533	292	164	12,468
7/19/2021	MONDAY	38	14	13	19	59	149	292	489	613	633	683	712	826	778	874	1071	1141	1078	659	527	367	264	172	50	11,521
7/20/2021	TUESDAY	35	12	9	15	49	149	283	460	532	575	645	643	776	749	964	975	1008	992	671	535	441	239	135	47	10,939
7/21/2021	WEDNESDAY	30	8	2	10	30	145	272	451	580	642	684	784	700	742	947	937	910	864	619	615	434	231	125	58	10,820
7/22/2021	THURSDAY	35	11	10	15	33	156	247	474	535	622	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Location ..... 11. Sound Ave EB, 515' W. of Philips Ln
Location Code 11
Jurisdiction ..... Riverhead, NY
Recorder Set 07/08/21 09:29
Recording Start ... 07/08/21 10:00
Recording End 07/22/21 10:00
Sample Time ..... 15 Minutes
Operator Number ...
Machine Number 300
Channel 1
Recorder Mode ..... Volume

SOUND AVENUE ATR COUNTS

COMBINED TOTAL

DATE	DAY	AM												PM												
		12 AM TO 1 AM	1 AM TO 2 AM	2 AM TO 3 AM	3 AM TO 4 AM	4 AM TO 5 AM	5 AM TO 6 AM	6 AM TO 7 AM	7 AM TO 8 AM	8 AM TO 9 AM	9 AM TO 10 AM	10 AM TO 11 AM	11 AM TO 12 PM	12 PM TO 1 PM	1 PM TO 2 PM	2 PM TO 3 PM	3 PM TO 4 PM	4 PM TO 5 PM	5 PM TO 6 PM	6 PM TO 7 PM	7 PM TO 8 PM	8 PM TO 9 PM	9 PM TO 10 PM	10 PM TO 11 PM	11 PM TO 12 AM	DAILY TOTAL
7/8/2021	THURSDAY	-	-	-	-	-	-	-	-	-	-	1237	1441	1467	1472	1499	1598	1711	1506	1008	787	494	448	270	106	-
7/9/2021	FRIDAY	67	15	22	13	39	155	384	546	596	546	857	979	1066	1288	1461	1562	1633	1454	1117	872	722	546	356	242	16,538
7/10/2021	SATURDAY	141	65	49	34	63	185	516	758	868	1161	1570	1610	1576	1661	1685	1592	1657	1556	1270	1062	818	612	509	291	21,309
7/11/2021	SUNDAY	171	94	74	51	50	142	312	875	706	929	1280	1438	1603	1653	1634	1535	1479	1317	1252	946	768	572	373	177	19,431
7/12/2021	MONDAY	67	28	28	28	69	266	724	1091	1154	1089	1145	1232	1434	1546	1570	1522	1528	1424	1033	720	561	407	192	103	18,961
7/13/2021	TUESDAY	44	28	16	19	53	247	630	853	743	261	510	587	642	660	699	880	930	851	632	389	270	189	128	61	10,322
7/14/2021	WEDNESDAY	23	6	5	10	41	149	219	385	473	518	558	574	635	646	701	812	934	1019	1070	853	639	460	243	137	11,110
7/15/2021	THURSDAY	75	30	24	24	60	288	778	1103	1085	1190	1378	1432	1588	1557	1661	1636	1733	1558	1226	897	779	613	446	172	21,333
7/16/2021	FRIDAY	99	32	22	29	82	347	833	1187	1205	1374	1524	1539	1461	1594	1572	1735	1704	1527	1369	1118	855	632	468	314	22,622
7/17/2021	SATURDAY	129	52	64	41	84	209	556	851	988	1336	1428	1688	1801	1611	1666	1740	1628	1429	1372	1017	835	693	633	369	22,220
7/18/2021	SUNDAY	234	116	59	28	50	125	248	408	598	850	1259	1512	1787	1736	1821	1721	1693	1532	1398	1124	988	670	388	221	20,566
7/19/2021	MONDAY	57	30	22	31	84	297	775	1110	1209	1128	1235	1354	1531	1393	1502	1705	1718	1623	1095	797	599	421	271	89	20,076
7/20/2021	TUESDAY	67	20	19	26	89	287	794	1188	1182	1099	1229	1316	1425	1335	1547	1615	1610	1468	1109	846	681	392	230	97	19,671
7/21/2021	WEDNESDAY	58	21	13	19	67	287	783	1077	1194	1192	1282	1373	1338	1378	1598	1491	1506	1442	1078	941	706	405	231	117	19,597
7/22/2021	THURSDAY	60	19	20	18	62	295	742	1205	1213	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Weekday Avg	19,828
Weekend Avg	20,882
AADT	20,211

NYSDOT Weekday Average	86	35	26	23	65	250	654	966	1029	1013	1203	1330	1455	1463	1582	1606	1642	1501	1133	873	691	488	298	143	19555
NYSDOT Weekend Average	169	82	62	39	62	165	408	723	790	1069	1384	1562	1692	1665	1702	1647	1614	1459	1323	1037	852	637	476	265	20884

Location ..... 13. NYS-25 EB, 1000' E. of River Rd.
Location Code 13
Jurisdiction ..... Riverhead, NY
Recorder Set 07/08/21 06:08
Recording Start ... 07/08/21 07:00
Recording End 07/22/21 08:30
Sample Time ..... 15 Minutes
Operator Number ...
Machine Number 142
Channel 1
Recorder Mode ..... Volume

NYS ROUTE 25 ATR COUNTS

EASTBOUND

DATE	DAY	AM												PM												
		12 AM TO 1 AM	1 AM TO 2 AM	2 AM TO 3 AM	3 AM TO 4 AM	4 AM TO 5 AM	5 AM TO 6 AM	6 AM TO 7 AM	7 AM TO 8 AM	8 AM TO 9 AM	9 AM TO 10 AM	10 AM TO 11 AM	11 AM TO 12 PM	12 PM TO 1 PM	1 PM TO 2 PM	2 PM TO 3 PM	3 PM TO 4 PM	4 PM TO 5 PM	5 PM TO 6 PM	6 PM TO 7 PM	7 PM TO 8 PM	8 PM TO 9 PM	9 PM TO 10 PM	10 PM TO 11 PM	11 PM TO 12 AM	EB DAILY TOTAL
7/8/2021	THURSDAY	-	-	-	-	-	-	-	318	350	375	374	429	425	434	381	384	332	317	234	169	136	94	61	45	-
7/9/2021	FRIDAY	23	10	18	16	26	73	135	240	282	275	281	321	355	415	383	385	358	370	308	193	185	114	97	52	4,915
7/10/2021	SATURDAY	53	32	22	23	23	61	134	184	212	313	427	518	555	535	518	388	429	377	316	219	164	114	74	79	5,770
7/11/2021	SUNDAY	37	33	21	19	32	40	43	99	144	257	357	438	468	499	448	334	310	267	233	209	152	95	59	43	4,637
7/12/2021	MONDAY	28	15	16	17	32	88	198	278	344	337	330	375	337	390	362	374	352	315	277	156	101	71	44	39	4,876
7/13/2021	TUESDAY	23	18	12	21	36	112	195	330	360	327	365	387	392	420	334	367	346	344	277	169	121	91	58	28	5,133
7/14/2021	WEDNESDAY	26	14	11	29	44	103	206	286	371	348	345	354	422	408	379	374	380	378	285	225	134	93	70	48	5,333
7/15/2021	THURSDAY	22	7	19	23	30	116	208	281	387	340	368	373	404	330	380	378	386	346	409	280	172	106	68	49	5,482
7/16/2021	FRIDAY	33	35	16	21	44	94	196	282	325	355	383	361	462	585	514	394	366	395	357	228	171	119	92	50	5,878
7/17/2021	SATURDAY	37	24	31	24	34	60	124	162	211	313	414	466	514	526	468	444	397	368	292	239	137	111	80	70	5,546
7/18/2021	SUNDAY	46	30	23	20	21	28	48	79	133	242	364	460	507	463	412	375	336	268	265	217	145	98	67	52	4,699
7/19/2021	MONDAY	27	24	19	19	43	85	172	280	365	310	352	371	392	378	359	359	359	346	291	195	135	84	55	33	5,053
7/20/2021	TUESDAY	23	13	15	18	47	90	167	269	363	380	378	331	418	343	328	348	329	336	309	195	145	88	63	28	5,024
7/21/2021	WEDNESDAY	22	10	16	19	38	98	185	281	360	350	405	358	401	375	376	330	326	340	261	192	133	116	81	37	5,110
7/22/2021	THURSDAY	24	10	10	20	39	99	216	273	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Location ..... 13. NYS-25 EB, 1000' E. of River Rd.
Location Code 13
Jurisdiction ..... Riverhead, NY
Recorder Set 07/08/21 06:08
Recording Start ... 07/08/21 07:00
Recording End 07/22/21 08:30
Sample Time ..... 15 Minutes
Operator Number ...
Machine Number 142
Channel 1
Recorder Mode ..... Volume

NYS ROUTE 25 ATR COUNTS

WESTBOUND

DATE	DAY	AM												PM												
		12 AM TO 1 AM	1 AM TO 2 AM	2 AM TO 3 AM	3 AM TO 4 AM	4 AM TO 5 AM	5 AM TO 6 AM	6 AM TO 7 AM	7 AM TO 8 AM	8 AM TO 9 AM	9 AM TO 10 AM	10 AM TO 11 AM	11 AM TO 12 PM	12 PM TO 1 PM	1 PM TO 2 PM	2 PM TO 3 PM	3 PM TO 4 PM	4 PM TO 5 PM	5 PM TO 6 PM	6 PM TO 7 PM	7 PM TO 8 PM	8 PM TO 9 PM	9 PM TO 10 PM	10 PM TO 11 PM	11 PM TO 12 AM	WB DAILY TOTAL
7/8/2021	THURSDAY	-	-	-	-	-	-	-	185	156	214	199	275	306	352	344	389	497	433	307	260	205	142	66	40	-
7/9/2021	FRIDAY	30	14	15	8	23	57	80	129	99	130	162	221	243	277	351	398	477	458	313	273	219	211	133	61	4,382
7/10/2021	SATURDAY	51	24	10	7	21	38	81	117	138	167	196	283	271	334	384	422	378	404	364	316	253	298	334	163	5,054
7/11/2021	SUNDAY	83	31	16	17	21	22	39	96	92	126	175	223	339	384	378	401	383	377	349	295	203	119	57	38	4,264
7/12/2021	MONDAY	34	11	13	11	25	56	121	162	192	207	219	265	286	282	374	419	432	441	300	268	199	113	58	37	4,525
7/13/2021	TUESDAY	27	10	5	8	30	62	140	174	182	185	234	206	335	326	341	367	494	420	320	261	227	119	68	34	4,575
7/14/2021	WEDNESDAY	16	11	3	13	23	64	119	168	185	208	235	271	325	374	329	417	502	406	307	257	242	131	81	45	4,732
7/15/2021	THURSDAY	20	13	10	14	22	68	149	160	180	205	221	244	267	303	338	373	448	419	298	289	291	248	147	66	4,793
7/16/2021	FRIDAY	34	19	13	17	31	66	136	167	156	181	247	229	267	255	371	469	471	408	317	299	234	225	104	51	4,767
7/17/2021	SATURDAY	86	22	14	14	28	35	89	120	103	172	212	248	290	322	372	370	366	348	366	279	280	274	265	103	4,778
7/18/2021	SUNDAY	54	30	10	10	14	29	40	83	68	118	179	268	314	360	437	362	410	374	301	275	243	173	86	41	4,279
7/19/2021	MONDAY	25	16	7	14	34	60	141	158	179	172	206	241	235	244	289	366	480	431	289	251	245	134	61	39	4,317
7/20/2021	TUESDAY	28	11	10	4	34	59	134	145	188	167	215	227	277	301	266	329	474	396	311	293	249	134	69	38	4,359
7/21/2021	WEDNESDAY	17	12	9	12	26	58	124	169	165	174	224	270	268	347	349	377	425	416	297	255	226	130	93	45	4,488
7/22/2021	THURSDAY	26	9	8	15	24	58	129	169	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Location ..... 13. NYS-25 EB, 1000' E. of River Rd.
Location Code 13
Jurisdiction ..... Riverhead, NY
Recorder Set 07/08/21 06:08
Recording Start ... 07/08/21 07:00
Recording End 07/22/21 08:30
Sample Time ..... 15 Minutes
Operator Number ...
Machine Number 142
Channel 1
Recorder Mode ..... Volume

NYS ROUTE 25 ATR COUNTS

COMBINED TOTAL

DATE	DAY	AM												PM												
		12 AM TO 1 AM	1 AM TO 2 AM	2 AM TO 3 AM	3 AM TO 4 AM	4 AM TO 5 AM	5 AM TO 6 AM	6 AM TO 7 AM	7 AM TO 8 AM	8 AM TO 9 AM	9 AM TO 10 AM	10 AM TO 11 AM	11 AM TO 12 PM	12 PM TO 1 PM	1 PM TO 2 PM	2 PM TO 3 PM	3 PM TO 4 PM	4 PM TO 5 PM	5 PM TO 6 PM	6 PM TO 7 PM	7 PM TO 8 PM	8 PM TO 9 PM	9 PM TO 10 PM	10 PM TO 11 PM	11 PM TO 12 AM	DAILY TOTAL
7/8/2021	THURSDAY	-	-	-	-	-	-	-	503	506	589	573	704	731	786	725	773	829	750	541	429	341	236	127	85	-
7/9/2021	FRIDAY	53	24	33	24	49	130	215	369	381	405	443	542	598	692	734	783	835	828	621	466	404	325	230	113	9,297
7/10/2021	SATURDAY	104	56	32	30	44	99	215	301	350	480	623	801	826	869	902	810	807	781	680	535	417	412	408	242	10,824
7/11/2021	SUNDAY	120	64	37	36	53	62	82	195	236	383	532	661	807	883	826	735	693	644	582	504	355	214	116	81	8,901
7/12/2021	MONDAY	62	26	29	28	57	144	319	440	536	544	549	640	623	672	736	793	784	756	577	424	300	184	102	76	9,401
7/13/2021	TUESDAY	50	28	17	29	66	174	335	504	542	512	599	593	727	746	675	734	840	764	597	430	348	210	126	62	9,708
7/14/2021	WEDNESDAY	42	25	14	42	67	167	325	454	556	556	580	625	747	782	708	791	882	784	592	482	376	224	151	93	10,065
7/15/2021	THURSDAY	42	20	29	37	52	184	357	441	567	545	589	617	671	633	718	751	834	765	707	569	463	354	215	115	10,275
7/16/2021	FRIDAY	67	54	29	38	75	160	332	449	481	536	630	590	729	840	885	863	837	803	674	527	405	344	196	101	10,645
7/17/2021	SATURDAY	123	46	45	38	62	95	213	282	314	485	626	714	804	848	840	814	763	716	658	518	417	385	345	173	10,324
7/18/2021	SUNDAY	100	60	33	30	35	57	88	162	201	360	543	728	821	823	849	737	746	642	566	492	388	271	153	93	8,978
7/19/2021	MONDAY	52	40	26	33	77	145	313	438	544	482	558	612	627	622	648	725	839	777	580	446	380	218	116	72	9,370
7/20/2021	TUESDAY	51	24	25	22	81	149	301	414	551	547	593	558	695	644	594	677	803	732	620	488	394	222	132	66	9,383
7/21/2021	WEDNESDAY	39	22	25	31	64	156	309	450	525	524	629	628	669	722	725	707	751	756	558	447	359	246	174	82	9,598
7/22/2021	THURSDAY	50	19	18	35	63	157	345	442	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Weekday Avg	9,749
Weekend Avg	9,757
AADT	9,751

NYSDOT Weekday Average	51	28	25	32	65	157	315	446	472	524	574	611	682	714	715	760	823	772	607	471	377	256	157	87	9721
NYSDOT Weekend Average	112	57	37	34	49	78	150	235	275	427	581	726	815	856	854	774	752	696	622	512	394	321	256	147	9760

Location ..... 15. NYS-25 EB, 630' E. of Linda Ave
Location Code 15
Jurisdiction ..... Riverhead, NY
Recorder Set 07/08/21 07:48
Recording Start ... 07/08/21 08:00
Recording End 07/22/21 09:15
Sample Time ..... 15 Minutes
Operator Number ...
Machine Number 239
Channel 1
Recorder Mode ..... Volume

NYS ROUTE 25 ATR COUNTS

EASTBOUND

DATE	DAY	AM												PM												
		12 AM TO 1 AM	1 AM TO 2 AM	2 AM TO 3 AM	3 AM TO 4 AM	4 AM TO 5 AM	5 AM TO 6 AM	6 AM TO 7 AM	7 AM TO 8 AM	8 AM TO 9 AM	9 AM TO 10 AM	10 AM TO 11 AM	11 AM TO 12 PM	12 PM TO 1 PM	1 PM TO 2 PM	2 PM TO 3 PM	3 PM TO 4 PM	4 PM TO 5 PM	5 PM TO 6 PM	6 PM TO 7 PM	7 PM TO 8 PM	8 PM TO 9 PM	9 PM TO 10 PM	10 PM TO 11 PM	11 PM TO 12 AM	EB DAILY TOTAL
7/8/2021	THURSDAY	-	-	-	-	-	-	-	-	837	708	794	837	860	863	808	841	891	828	715	593	475	403	235	143	-
7/9/2021	FRIDAY	61	28	24	19	40	180	366	552	639	579	585	702	837	848	943	873	891	868	731	625	541	489	295	215	11,931
7/10/2021	SATURDAY	121	64	30	33	44	169	407	556	622	806	987	1027	975	949	881	897	790	754	655	548	492	396	348	225	12,776
7/11/2021	SUNDAY	148	80	46	33	84	319	297	292	408	604	817	883	942	918	831	772	586	598	548	428	407	330	208	140	10,719
7/12/2021	MONDAY	73	36	27	18	43	200	589	688	745	717	675	775	726	535	642	669	833	797	631	487	363	257	170	127	10,823
7/13/2021	TUESDAY	53	31	21	20	52	215	609	775	768	718	708	801	865	832	831	821	852	782	710	529	443	376	223	152	12,187
7/14/2021	WEDNESDAY	58	29	24	21	50	222	643	770	782	688	771	776	872	783	781	828	841	814	685	609	532	433	295	158	12,465
7/15/2021	THURSDAY	73	35	20	24	72	236	587	828	798	695	752	888	930	840	841	855	848	843	730	669	567	496	398	189	13,214
7/16/2021	FRIDAY	101	32	24	24	55	235	627	785	830	809	810	910	893	853	879	885	886	873	735	645	579	459	364	204	13,497
7/17/2021	SATURDAY	119	56	32	37	55	182	412	517	630	793	958	1021	1017	937	961	857	787	704	601	540	414	400	329	232	12,591
7/18/2021	SUNDAY	118	81	46	36	45	115	183	298	359	543	705	891	959	959	900	757	710	633	558	462	425	322	234	130	10,469
7/19/2021	MONDAY	65	29	22	19	61	204	579	731	771	630	690	772	853	783	825	787	777	772	681	516	503	328	220	132	11,750
7/20/2021	TUESDAY	67	34	21	15	45	216	588	792	759	682	673	790	818	788	819	848	893	773	720	592	481	413	228	144	12,199
7/21/2021	WEDNESDAY	82	30	15	18	55	218	606	795	797	688	761	802	809	742	788	807	875	849	781	519	449	381	217	151	12,235
7/22/2021	THURSDAY	65	30	25	20	63	223	616	818	764	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Location ..... 15. NYS-25 EB, 630' E. of Linda Ave
Location Code 15
Jurisdiction ..... Riverhead, NY
Recorder Set 07/08/21 07:48
Recording Start ... 07/08/21 08:00
Recording End 07/22/21 09:15
Sample Time ..... 15 Minutes
Operator Number ...
Machine Number 239
Channel 1
Recorder Mode ..... Volume

NYS ROUTE 25 ATR COUNTS

WESTBOUND

DATE	DAY	AM												PM												
		12 AM TO 1 AM	1 AM TO 2 AM	2 AM TO 3 AM	3 AM TO 4 AM	4 AM TO 5 AM	5 AM TO 6 AM	6 AM TO 7 AM	7 AM TO 8 AM	8 AM TO 9 AM	9 AM TO 10 AM	10 AM TO 11 AM	11 AM TO 12 PM	12 PM TO 1 PM	1 PM TO 2 PM	2 PM TO 3 PM	3 PM TO 4 PM	4 PM TO 5 PM	5 PM TO 6 PM	6 PM TO 7 PM	7 PM TO 8 PM	8 PM TO 9 PM	9 PM TO 10 PM	10 PM TO 11 PM	11 PM TO 12 AM	WB DAILY TOTAL
7/8/2021	THURSDAY	-	-	-	-	-	-	-	-	758	780	756	788	797	773	905	918	841	854	721	428	406	284	218	93	-
7/9/2021	FRIDAY	49	33	14	16	60	199	329	430	602	606	696	716	808	844	755	752	800	790	623	547	495	371	298	202	11,035
7/10/2021	SATURDAY	85	41	30	28	36	111	302	396	514	640	698	758	814	796	832	798	867	841	773	675	693	639	382	224	11,973
7/11/2021	SUNDAY	107	82	50	18	39	96	175	222	408	654	728	844	847	820	811	833	827	771	770	607	578	417	250	102	11,056
7/12/2021	MONDAY	52	18	16	39	81	282	429	584	774	769	810	740	499	260	132	567	825	809	448	27	23	33	33	52	8,302
7/13/2021	TUESDAY	49	21	23	36	84	289	478	786	928	934	806	788	776	816	785	830	900	845	650	458	362	267	175	64	12,150
7/14/2021	WEDNESDAY	32	14	19	31	96	261	425	600	765	707	676	757	791	755	781	818	926	814	670	527	412	329	208	94	11,508
7/15/2021	THURSDAY	51	23	15	23	80	272	394	589	766	752	742	707	764	752	794	882	869	907	708	576	510	364	236	105	11,881
7/16/2021	FRIDAY	75	22	20	32	82	274	383	560	735	729	742	719	766	811	799	838	844	809	692	628	493	389	314	175	11,931
7/17/2021	SATURDAY	109	37	30	36	42	131	287	373	523	691	773	730	767	692	783	885	860	892	826	666	591	544	405	236	11,909
7/18/2021	SUNDAY	152	64	44	35	30	71	144	267	381	550	766	789	815	817	818	901	887	898	755	641	591	483	227	112	11,238
7/19/2021	MONDAY	60	22	17	29	101	288	471	596	772	758	731	790	813	761	799	795	874	830	670	481	387	287	170	68	11,570
7/20/2021	TUESDAY	34	23	17	39	87	266	422	634	737	819	703	717	746	693	821	800	883	896	688	518	381	358	214	84	11,580
7/21/2021	WEDNESDAY	46	27	14	35	93	277	412	563	776	760	713	762	796	809	844	845	846	776	511	225	409	410	286	117	11,352
7/22/2021	THURSDAY	46	26	15	24	98	242	404	567	771	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Location ..... 15. NYS-25 EB, 630' E. of Linda Ave
Location Code 15
Jurisdiction ..... Riverhead, NY
Recorder Set 07/08/21 07:48
Recording Start ... 07/08/21 08:00
Recording End 07/22/21 09:15
Sample Time ..... 15 Minutes
Operator Number ...
Machine Number 239
Channel 1
Recorder Mode ..... Volume

NYS ROUTE 25 ATR COUNTS

COMBINED TOTAL

DATE	DAY	AM												PM											
		12 AM TO 1 AM	1 AM TO 2 AM	2 AM TO 3 AM	3 AM TO 4 AM	4 AM TO 5 AM	5 AM TO 6 AM	6 AM TO 7 AM	7 AM TO 8 AM	8 AM TO 9 AM	9 AM TO 10 AM	10 AM TO 11 AM	11 AM TO 12 PM	12 PM TO 1 PM	1 PM TO 2 PM	2 PM TO 3 PM	3 PM TO 4 PM	4 PM TO 5 PM	5 PM TO 6 PM	6 PM TO 7 PM	7 PM TO 8 PM	8 PM TO 9 PM	9 PM TO 10 PM	10 PM TO 11 PM	11 PM TO 12 AM	DAILY TOTAL
7/8/2021	THURSDAY	-	-	-	-	-	-	-	0	1595	1488	1550	1625	1657	1636	1713	1759	1732	1682	1436	1021	881	687	453	236	-
7/9/2021	FRIDAY	110	61	38	35	100	379	695	982	1241	1185	1281	1418	1645	1692	1698	1625	1691	1658	1354	1172	1036	860	593	417	22,966
7/10/2021	SATURDAY	206	105	60	61	80	280	709	952	1136	1446	1685	1785	1789	1745	1713	1695	1657	1595	1428	1223	1185	1035	730	449	24,749
7/11/2021	SUNDAY	255	162	96	51	123	415	472	514	816	1258	1545	1727	1789	1738	1642	1605	1413	1369	1318	1035	985	747	458	242	21,775
7/12/2021	MONDAY	125	54	43	57	124	482	1018	1272	1519	1486	1485	1515	1225	795	774	1236	1658	1606	1079	514	386	290	203	179	19,125
7/13/2021	TUESDAY	102	52	44	56	136	504	1087	1561	1696	1652	1514	1589	1641	1648	1616	1651	1752	1627	1360	987	805	643	398	216	24,337
7/14/2021	WEDNESDAY	90	43	43	52	146	483	1068	1370	1547	1395	1447	1533	1663	1538	1562	1646	1767	1628	1355	1136	944	762	503	252	23,973
7/15/2021	THURSDAY	124	58	35	47	152	508	981	1417	1564	1447	1494	1595	1694	1592	1635	1737	1717	1750	1438	1245	1077	860	634	294	25,095
7/16/2021	FRIDAY	176	54	44	56	137	509	1010	1345	1565	1538	1552	1629	1659	1664	1678	1723	1730	1682	1427	1273	1072	848	678	379	25,428
7/17/2021	SATURDAY	228	93	62	73	97	313	699	890	1153	1484	1731	1751	1784	1629	1744	1742	1647	1596	1427	1206	1005	944	734	468	24,500
7/18/2021	SUNDAY	270	145	90	71	75	186	327	565	740	1093	1471	1680	1774	1776	1718	1658	1597	1531	1313	1103	1016	805	461	242	21,707
7/19/2021	MONDAY	125	51	39	48	162	492	1050	1327	1543	1388	1421	1562	1666	1544	1624	1582	1651	1602	1351	997	890	615	390	200	23,320
7/20/2021	TUESDAY	101	57	38	54	132	482	1010	1426	1496	1501	1376	1507	1564	1481	1640	1648	1776	1669	1408	1110	862	771	442	228	23,779
7/21/2021	WEDNESDAY	128	57	29	53	148	495	1018	1358	1573	1448	1474	1564	1605	1551	1632	1652	1721	1625	1292	744	858	791	503	268	23,587
7/22/2021	THURSDAY	111	56	40	44	161	465	1020	1385	1535	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Weekday Avg	23,512
Weekend Avg	23,183
AADT	23,411

NYSDOT Weekday Average	119	54	39	50	140	480	996	1222	1534	1453	1459	1554	1602	1514	1557	1626	1720	1653	1350	1020	881	713	480	267	23483
NYSDOT Weekend Average	240	126	77	64	94	299	552	730	961	1320	1608	1736	1784	1722	1704	1675	1579	1523	1372	1142	1048	883	596	350	23185

Location ..... 17. NYS-25 EB, 820' E. of Franklinville
Location Code 17
Jurisdiction ..... Riverhead, NY
Recorder Set 07/08/21 08:17
Recording Start ... 07/08/21 09:00
Recording End 07/24/21 07:15
Sample Time ..... 15 Minutes
Operator Number ...
Machine Number 398
Channel 1
Recorder Mode ..... Volume

NYS ROUTE 25 ATR COUNTS

EASTBOUND

DATE	DAY	AM												PM												
		12 AM TO 1 AM	1 AM TO 2 AM	2 AM TO 3 AM	3 AM TO 4 AM	4 AM TO 5 AM	5 AM TO 6 AM	6 AM TO 7 AM	7 AM TO 8 AM	8 AM TO 9 AM	9 AM TO 10 AM	10 AM TO 11 AM	11 AM TO 12 PM	12 PM TO 1 PM	1 PM TO 2 PM	2 PM TO 3 PM	3 PM TO 4 PM	4 PM TO 5 PM	5 PM TO 6 PM	6 PM TO 7 PM	7 PM TO 8 PM	8 PM TO 9 PM	9 PM TO 10 PM	10 PM TO 11 PM	11 PM TO 12 AM	EB DAILY TOTAL
7/8/2021	THURSDAY	-	-	-	-	-	-	-	-	-	553	583	606	622	680	613	612	660	611	475	385	300	276	165	106	-
7/9/2021	FRIDAY	41	17	11	13	33	145	277	399	456	450	461	484	563	589	691	671	676	597	532	383	372	347	189	155	8,552
7/10/2021	SATURDAY	63	36	24	19	36	131	266	418	455	603	664	807	778	795	776	645	577	491	484	335	332	326	259	180	9,500
7/11/2021	SUNDAY	90	50	21	20	37	82	128	193	305	448	503	622	632	638	646	554	428	404	376	287	281	226	145	84	7,200
7/12/2021	MONDAY	55	28	16	14	27	162	414	542	531	508	507	573	430	335	390	512	561	572	424	239	215	162	98	89	7,404
7/13/2021	TUESDAY	35	15	12	14	35	176	462	694	593	650	559	625	605	647	545	632	607	597	487	349	318	257	150	94	9,158
7/14/2021	WEDNESDAY	39	14	12	14	30	168	449	581	564	511	554	544	590	556	546	581	580	583	468	429	359	310	220	85	8,787
7/15/2021	THURSDAY	52	14	15	16	50	177	419	678	577	549	537	597	649	581	612	607	625	590	523	414	381	321	266	149	9,399
7/16/2021	FRIDAY	72	19	15	19	40	180	414	625	606	614	590	665	621	613	610	645	622	637	485	440	406	328	254	141	9,661
7/17/2021	SATURDAY	85	40	22	19	44	114	279	384	494	599	633	766	734	689	772	584	583	490	411	379	267	271	225	141	9,025
7/18/2021	SUNDAY	73	43	26	26	31	83	132	202	243	378	477	613	680	697	641	611	475	418	377	321	307	221	167	97	7,339
7/19/2021	MONDAY	47	26	10	15	30	165	389	593	538	494	522	560	586	547	571	599	576	579	480	347	306	226	161	74	8,441
7/20/2021	TUESDAY	43	21	11	8	29	177	387	599	529	527	515	572	618	548	589	617	598	536	471	375	334	273	167	85	8,629
7/21/2021	WEDNESDAY	50	18	10	13	37	182	414	616	599	540	536	565	574	565	558	586	575	509	366	97	240	303	178	96	8,227
7/22/2021	THURSDAY	51	23	9	14	38	187	430	631	566	572	591	606	674	587	596	687	649	599	498	419	393	343	265	128	9,556
7/23/2021	FRIDAY	69	19	24	13	44	194	441	617	572	629	605	699	695	672	721	650	652	554	535	487	391	351	296	164	10,094
7/24/2021	SATURDAY	73	38	23	22	39	131	254	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Location ..... 17. NYS-25 EB, 820' E. of Franklinville
Location Code 17
Jurisdiction ..... Riverhead, NY
Recorder Set 07/08/21 08:17
Recording Start ... 07/08/21 09:00
Recording End 07/24/21 07:15
Sample Time ..... 15 Minutes
Operator Number ...
Machine Number 398
Channel 1
Recorder Mode ..... Volume

NYS ROUTE 25 ATR COUNTS

WESTBOUND

DATE	DAY	AM												PM												
		12 AM TO 1 AM	1 AM TO 2 AM	2 AM TO 3 AM	3 AM TO 4 AM	4 AM TO 5 AM	5 AM TO 6 AM	6 AM TO 7 AM	7 AM TO 8 AM	8 AM TO 9 AM	9 AM TO 10 AM	10 AM TO 11 AM	11 AM TO 12 PM	12 PM TO 1 PM	1 PM TO 2 PM	2 PM TO 3 PM	3 PM TO 4 PM	4 PM TO 5 PM	5 PM TO 6 PM	6 PM TO 7 PM	7 PM TO 8 PM	8 PM TO 9 PM	9 PM TO 10 PM	10 PM TO 11 PM	11 PM TO 12 AM	WB DAILY TOTAL
7/8/2021	THURSDAY	-	-	-	-	-	-	-	-	-	514	541	517	582	552	630	620	671	608	459	291	267	198	118	52	-
7/9/2021	FRIDAY	30	14	10	9	39	114	204	298	364	419	452	494	570	549	530	560	605	527	417	385	309	265	185	110	7,459
7/10/2021	SATURDAY	45	26	19	19	23	71	178	259	332	445	495	546	549	603	602	629	667	621	564	469	426	439	250	135	8,412
7/11/2021	SUNDAY	62	38	19	16	27	77	115	151	255	378	448	569	656	563	571	645	642	545	529	444	348	286	133	73	7,590
7/12/2021	MONDAY	26	14	11	26	44	159	247	369	498	514	540	483	522	519	580	631	650	549	377	289	221	147	85	39	7,540
7/13/2021	TUESDAY	32	10	5	28	54	183	364	616	780	827	582	536	582	543	538	620	628	599	458	322	271	185	95	49	8,907
7/14/2021	WEDNESDAY	18	11	16	14	67	152	243	376	477	460	518	530	556	514	525	622	639	604	467	335	288	229	138	68	7,867
7/15/2021	THURSDAY	26	14	10	17	50	143	258	368	503	467	481	494	541	516	564	630	666	630	481	380	314	253	146	65	8,017
7/16/2021	FRIDAY	31	20	16	17	48	148	202	373	472	496	491	501	560	552	578	564	648	605	489	393	350	310	195	114	8,173
7/17/2021	SATURDAY	53	25	18	18	30	90	158	250	352	489	538	544	555	545	619	585	679	645	555	428	374	380	243	161	8,334
7/18/2021	SUNDAY	90	34	20	21	19	41	70	144	222	423	527	547	591	557	612	633	655	612	526	455	420	334	116	75	7,744
7/19/2021	MONDAY	42	16	8	22	60	162	273	365	474	487	525	534	521	516	595	618	672	604	460	335	266	214	101	38	7,908
7/20/2021	TUESDAY	22	11	9	24	52	136	262	400	496	539	523	508	507	485	564	652	613	593	466	387	260	227	84	64	7,884
7/21/2021	WEDNESDAY	25	12	13	23	58	149	246	328	499	498	531	501	570	578	595	635	617	644	471	265	202	212	107	53	7,832
7/22/2021	THURSDAY	31	8	8	19	57	138	245	364	467	506	505	535	511	608	572	682	662	628	545	384	308	274	169	63	8,289
7/23/2021	FRIDAY	20	13	18	27	45	134	248	333	491	524	529	564	596	571	616	649	650	596	498	403	373	277	195	140	8,510
7/24/2021	SATURDAY	49	29	21	15	29	78	167	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Location ..... 17. NYS-25 EB, 820' E. of Franklinville
Location Code 17
Jurisdiction ..... Riverhead, NY
Recorder Set 07/08/21 08:17
Recording Start ... 07/08/21 09:00
Recording End 07/24/21 07:15
Sample Time ..... 15 Minutes
Operator Number ...
Machine Number 398
Channel 1
Recorder Mode ..... Volume

NYS ROUTE 25 ATR COUNTS

COMBINED TOTAL

DATE	DAY	AM												PM											
		12 AM TO 1 AM	1 AM TO 2 AM	2 AM TO 3 AM	3 AM TO 4 AM	4 AM TO 5 AM	5 AM TO 6 AM	6 AM TO 7 AM	7 AM TO 8 AM	8 AM TO 9 AM	9 AM TO 10 AM	10 AM TO 11 AM	11 AM TO 12 PM	12 PM TO 1 PM	1 PM TO 2 PM	2 PM TO 3 PM	3 PM TO 4 PM	4 PM TO 5 PM	5 PM TO 6 PM	6 PM TO 7 PM	7 PM TO 8 PM	8 PM TO 9 PM	9 PM TO 10 PM	10 PM TO 11 PM	11 PM TO 12 AM	DAILY TOTAL
7/8/2021	THURSDAY	-	-	-	-	-	-	-	-	-	1067	1124	1123	1204	1232	1243	1232	1331	1219	934	676	567	474	283	158	-
7/9/2021	FRIDAY	71	31	21	22	72	259	481	697	820	869	913	978	1133	1138	1221	1231	1281	1124	949	768	681	612	374	265	16,011
7/10/2021	SATURDAY	108	62	43	38	59	202	444	677	787	1048	1159	1353	1327	1398	1378	1274	1244	1112	1048	804	758	765	509	315	17,912
7/11/2021	SUNDAY	152	88	40	36	64	159	243	344	560	826	951	1191	1288	1201	1217	1199	1070	949	905	731	629	512	278	157	14,790
7/12/2021	MONDAY	81	42	27	40	71	321	661	911	1029	1022	1047	1056	952	854	970	1143	1211	1121	801	528	436	309	183	128	14,944
7/13/2021	TUESDAY	67	25	17	42	89	359	826	1310	1373	1477	1141	1161	1187	1190	1083	1252	1235	1196	945	671	589	442	245	143	18,065
7/14/2021	WEDNESDAY	57	25	28	28	97	320	692	957	1041	971	1072	1074	1146	1070	1071	1203	1219	1187	935	764	647	539	358	153	16,654
7/15/2021	THURSDAY	78	28	25	33	100	320	677	1046	1080	1016	1018	1091	1190	1097	1176	1237	1291	1220	1004	794	695	574	412	214	17,416
7/16/2021	FRIDAY	103	39	31	36	88	328	616	998	1078	1110	1081	1166	1181	1165	1188	1209	1270	1242	974	833	756	638	449	255	17,834
7/17/2021	SATURDAY	138	65	40	37	74	204	437	634	846	1088	1171	1310	1289	1234	1391	1169	1262	1135	966	807	641	651	468	302	17,359
7/18/2021	SUNDAY	163	77	46	47	50	124	202	346	465	801	1004	1160	1271	1254	1253	1244	1130	1030	903	776	727	555	283	172	15,083
7/19/2021	MONDAY	89	42	18	37	90	327	662	958	1012	981	1047	1094	1107	1063	1166	1217	1248	1183	940	682	572	440	262	112	16,349
7/20/2021	TUESDAY	65	32	20	32	81	313	649	999	1025	1066	1038	1080	1125	1033	1153	1269	1211	1129	937	762	594	500	251	149	16,513
7/21/2021	WEDNESDAY	75	30	23	36	95	331	660	944	1098	1038	1067	1066	1144	1143	1153	1221	1192	1153	837	362	442	515	285	149	16,059
7/22/2021	THURSDAY	82	31	17	33	95	325	675	995	1033	1078	1096	1141	1185	1195	1168	1369	1311	1227	1043	803	701	617	434	191	17,845
7/23/2021	FRIDAY	89	32	42	40	89	328	689	950	1063	1153	1134	1263	1291	1243	1337	1299	1302	1150	1033	890	764	628	491	304	18,604
7/24/2021	SATURDAY	122	67	44	37	68	209	421	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Weekday Avg	16,936
Weekend Avg	16,286
AADT	16,763

NYSDOT Weekday Average	78	32	24	34	88	321	663	979	1059	1071	1065	1108	1154	1119	1161	1240	1259	1179	944	711	620	524	336	185	16954
NYSDOT Weekend Average	137	72	43	39	63	180	349	500	665	941	1071	1254	1294	1272	1310	1222	1177	1057	956	780	689	621	385	237	16314

Reference 1.5:

Institute of Tranportation Engineers Trip Generation Manual, 12th Edition, Volume 3, Land Use Code 320 (Motel)

Motel
(320)

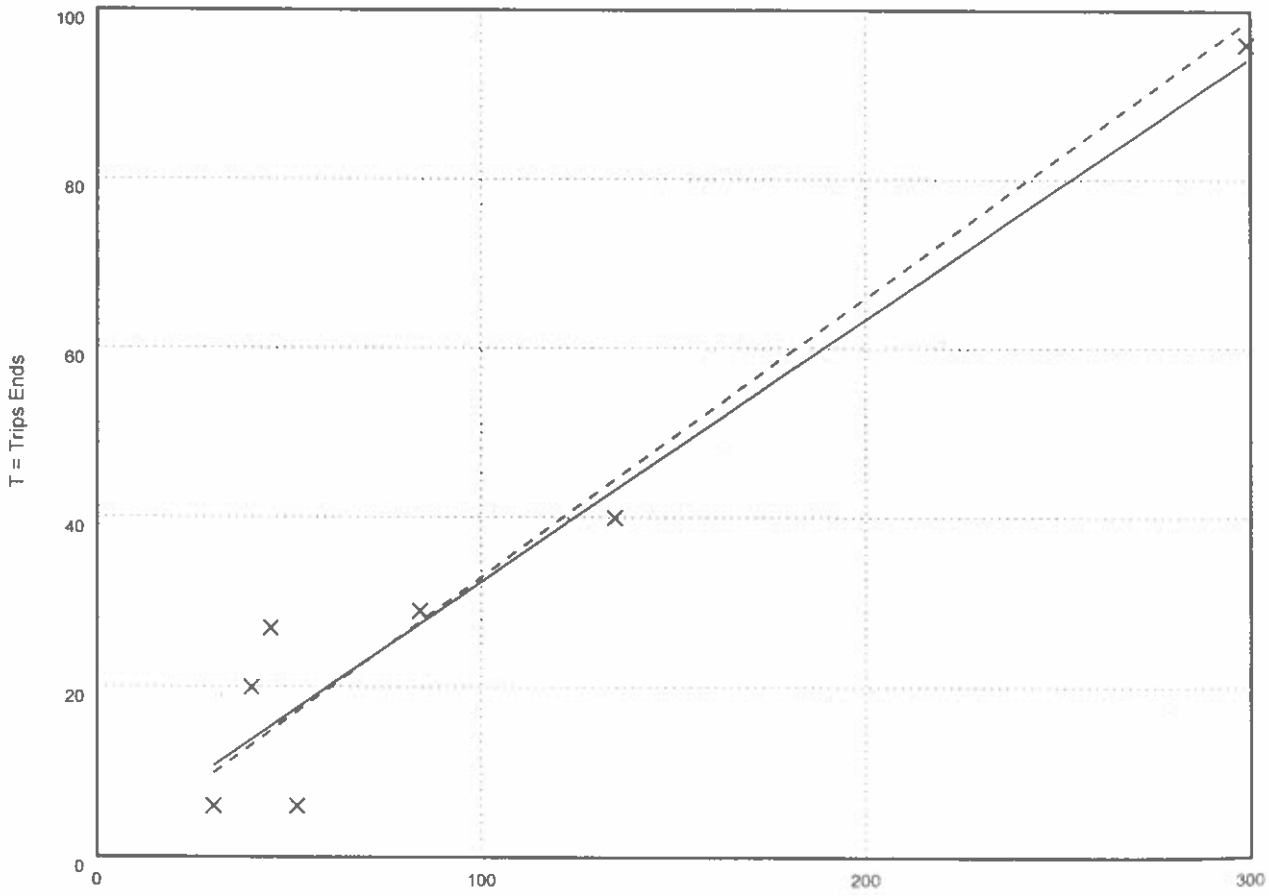
Vehicle Trip Ends vs: **Rooms**
On a: **Weekday,**
AM Peak Hour of Generator

Setting/Location: **General Urban/Suburban**
Number of Studies: 7
Avg. Num. of Rooms: 98
Directional Distribution: 44% entering, 56% exiting

Vehicle Trip Generation per Room

Average Rate	Range of Rates	Standard Deviation
0.33	0.12 - 0.60	0.11

Data Plot and Equation



Fitted Curve Equation: T = 0.31(X) + 1.46

R^2= 0.94

Motel
(320)

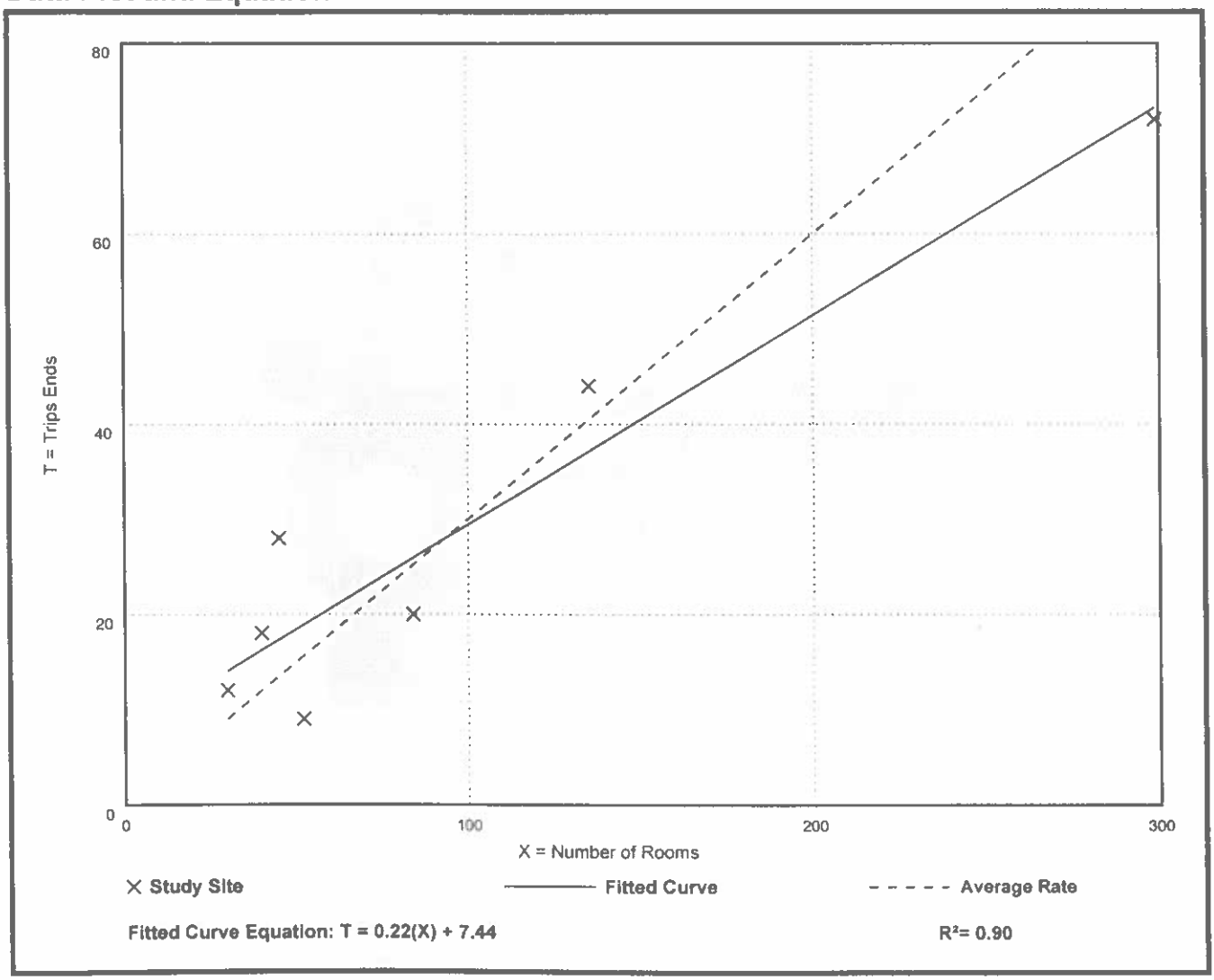
Vehicle Trip Ends vs: **Rooms**
On a: **Weekday,**
PM Peak Hour of Generator

Setting/Location: **General Urban/Suburban**
Number of Studies: 7
Avg. Num. of Rooms: 98
Directional Distribution: 57% entering, 43% exiting

Vehicle Trip Generation per Room

Average Rate	Range of Rates	Standard Deviation
0.30	0.17 - 0.62	0.12

Data Plot and Equation



8.0

FIGURES

Figure 1.1:
Existing Town Zoning Map

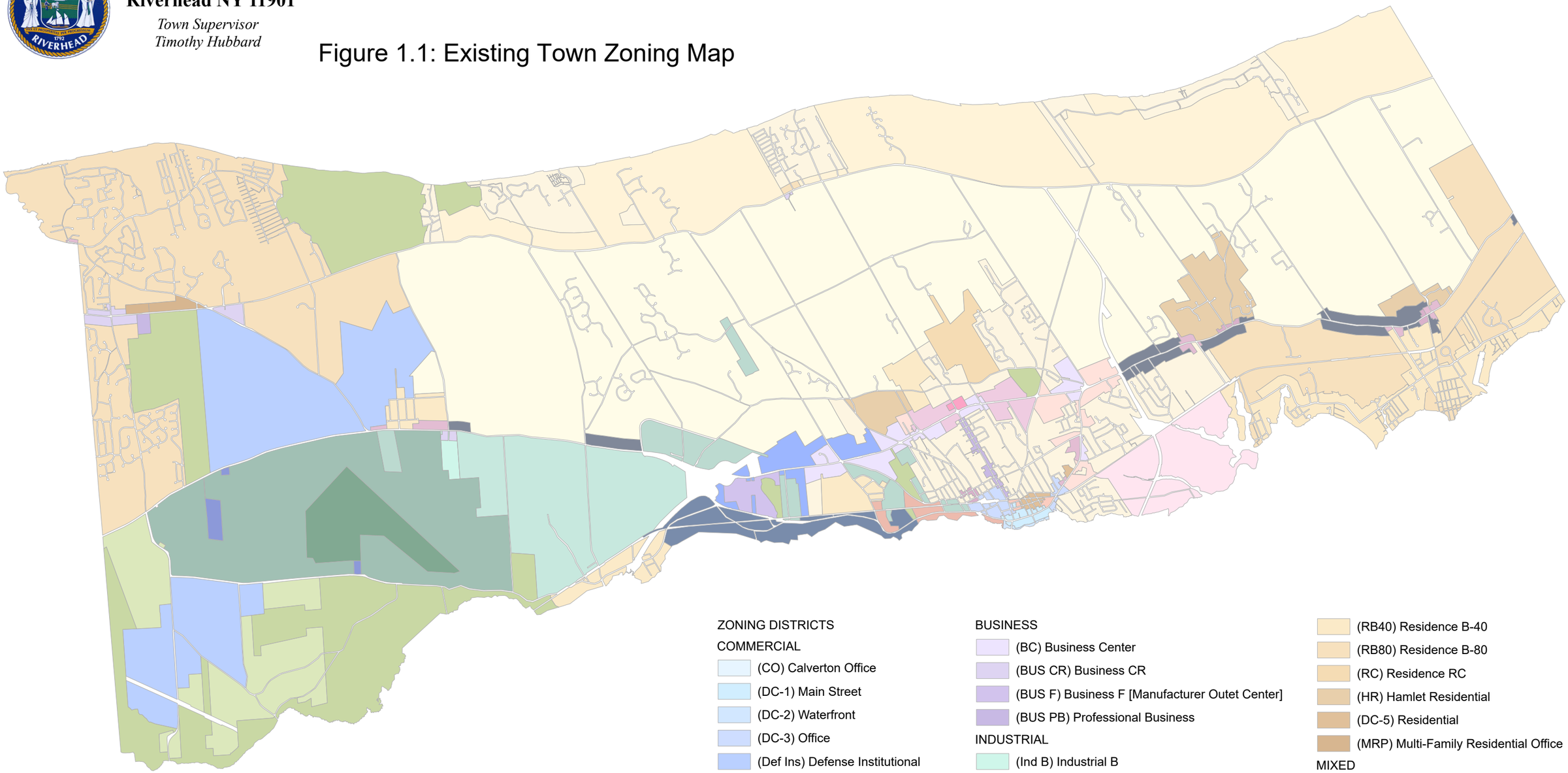
Town of Riverhead

4 West 2nd Street,
Riverhead NY 11901

Town Supervisor
Timothy Hubbard

2025 ZONING USE DISTRICTS

Figure 1.1: Existing Town Zoning Map



ZONING DISTRICTS

COMMERCIAL
- (CO) Calverton Office
- (DC-1) Main Street
- (DC-2) Waterfront
- (DC-3) Office
- (Def Ins) Defense Institutional
- (DRC) Destination Retail Center
- (PRP) Planned Recreational Park
- (RFC) Riverfront Corridor
- (RLC) Rural Corridor
- (TRC) Tourism\Resort Campus
- (SC) Shopping Center
- (HC) Hamlet Center
- (VC) Village Center

BUSINESS
- (BC) Business Center
- (BUS CR) Business CR
- (BUS F) Business F [Manufacturer Outet Center]
- (BUS PB) Professional Business

INDUSTRIAL
- (Ind B) Industrial B
- (CI) Calverton Industrial
- (LI) Light Industrial
- (PD) Planned Development
- (PIP) Planned Industrial Park

RESIDENTIAL
- (APZ) Agricultural Protection
- (RA40) Residence A-40
- (RA80) Residence A-80
- (RB40) Residence B-40
- (RB80) Residence B-80
- (RC) Residence RC
- (HR) Hamlet Residential
- (DC-5) Residential
- (MRP) Multi-Family Residential Office

MIXED
- (CRC) Commercial/Residential Campus
- (DC-4) Office/Residential Transition
- (PRC) Peconic River Community

OTHER
- (NRP) Natural Resources Protection
- (OSC) Open Space Conservation
- (H) Hospital

0 0.5 1 2 3 Miles

N

Source: Property lines - Suffolk County Real Property Tax Service

Depicted illustrations should not be considered a final agency determination. The Town of Riverhead, not any of it's agencies, make no guarantees as to the accuracy or the content of the information, and is not responsible for the results of any defects or misinformation that may be found to exist. Please verify with the Town of Riverhead codes and regulations for all information and illustrations herein.

Figure 1.2:

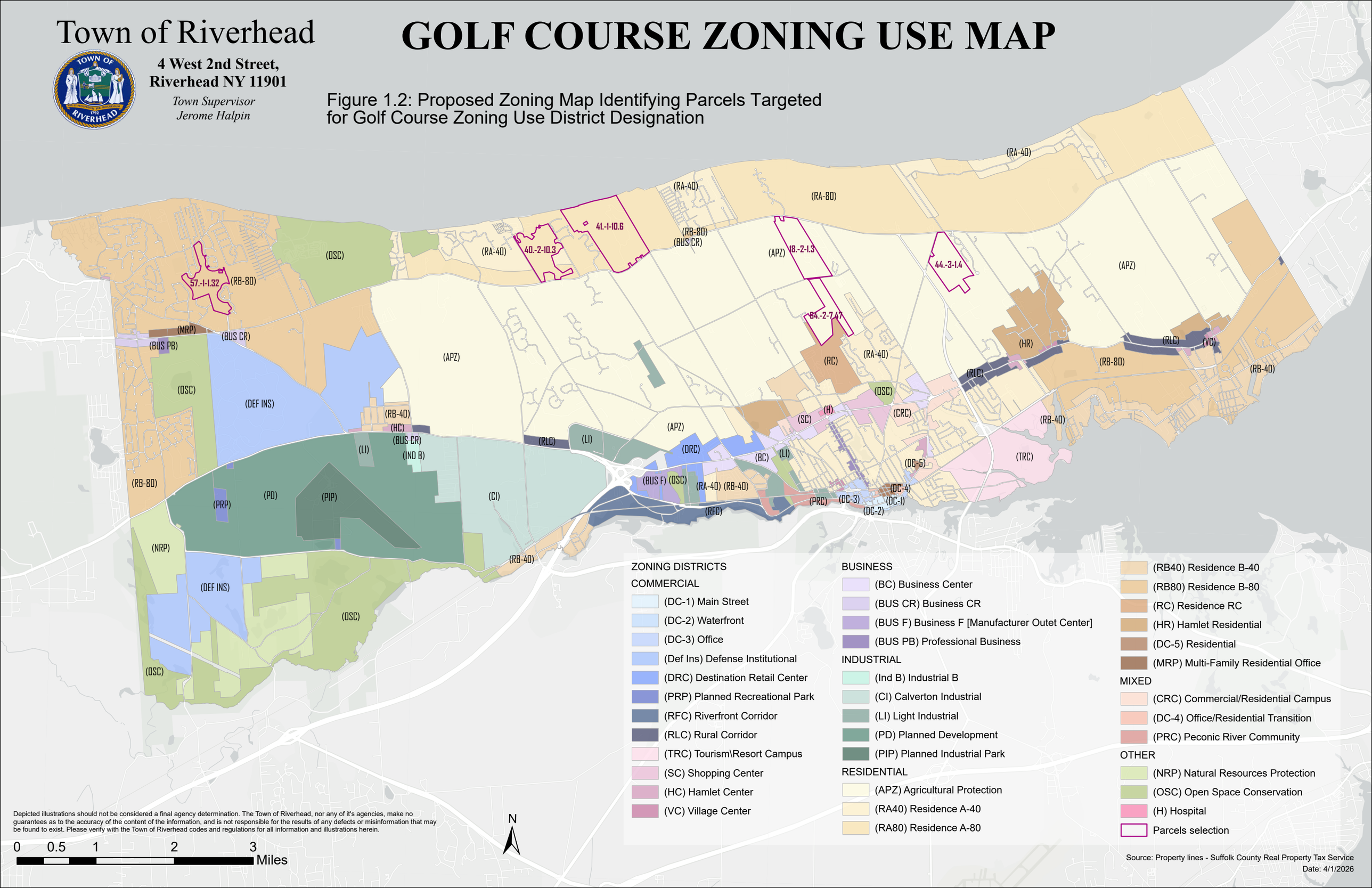
Proposed Zoning Map Identifying Parcels Targeted for Golf Course Zoning Use Designation

Town of Riverhead

4 West 2nd Street,
Riverhead NY 11901
Town Supervisor
Jerome Halpin

GOLF COURSE ZONING USE MAP

Figure 1.2: Proposed Zoning Map Identifying Parcels Targeted for Golf Course Zoning Use District Designation



ZONING DISTRICTS

COMMERCIAL
- (DC-1) Main Street
- (DC-2) Waterfront
- (DC-3) Office
- (Def Ins) Defense Institutional
- (DRC) Destination Retail Center
- (PRP) Planned Recreational Park
- (RFC) Riverfront Corridor
- (RLC) Rural Corridor
- (TRC) Tourism\Resort Campus
- (SC) Shopping Center
- (HC) Hamlet Center
- (VC) Village Center

BUSINESS
- (BC) Business Center
- (BUS CR) Business CR
- (BUS F) Business F [Manufacturer Outet Center]
- (BUS PB) Professional Business

INDUSTRIAL
- (Ind B) Industrial B
- (CI) Calverton Industrial
- (LI) Light Industrial
- (PD) Planned Development
- (PIP) Planned Industrial Park

RESIDENTIAL
- (APZ) Agricultural Protection
- (RA40) Residence A-40
- (RA80) Residence A-80
- (RB40) Residence B-40
- (RB80) Residence B-80
- (RC) Residence RC
- (HR) Hamlet Residential
- (DC-5) Residential
- (MRP) Multi-Family Residential Office

MIXED
- (CRC) Commercial/Residential Campus
- (DC-4) Office/Residential Transition
- (PRC) Peconic River Community

OTHER
- (NRP) Natural Resources Protection
- (OSC) Open Space Conservation
- (H) Hospital
- Parcels selection

Depicted illustrations should not be considered a final agency determination. The Town of Riverhead, nor any of it's agencies, make no guarantees as to the accuracy of the content of the information, and is not responsible for the results of any defects or misinformation that may be found to exist. Please verify with the Town of Riverhead codes and regulations for all information and illustrations herein.

0 0.5 1 2 3 Miles

N

Source: Property lines - Suffolk County Real Property Tax Service
Date: 4/1/2026

Figure 1.3:

Town GIS Layer Showing Suffolk County Groundwater Management Zones

Figure 1.3: Town GIS Layer Showing Suffolk County Groundwater Management Zones

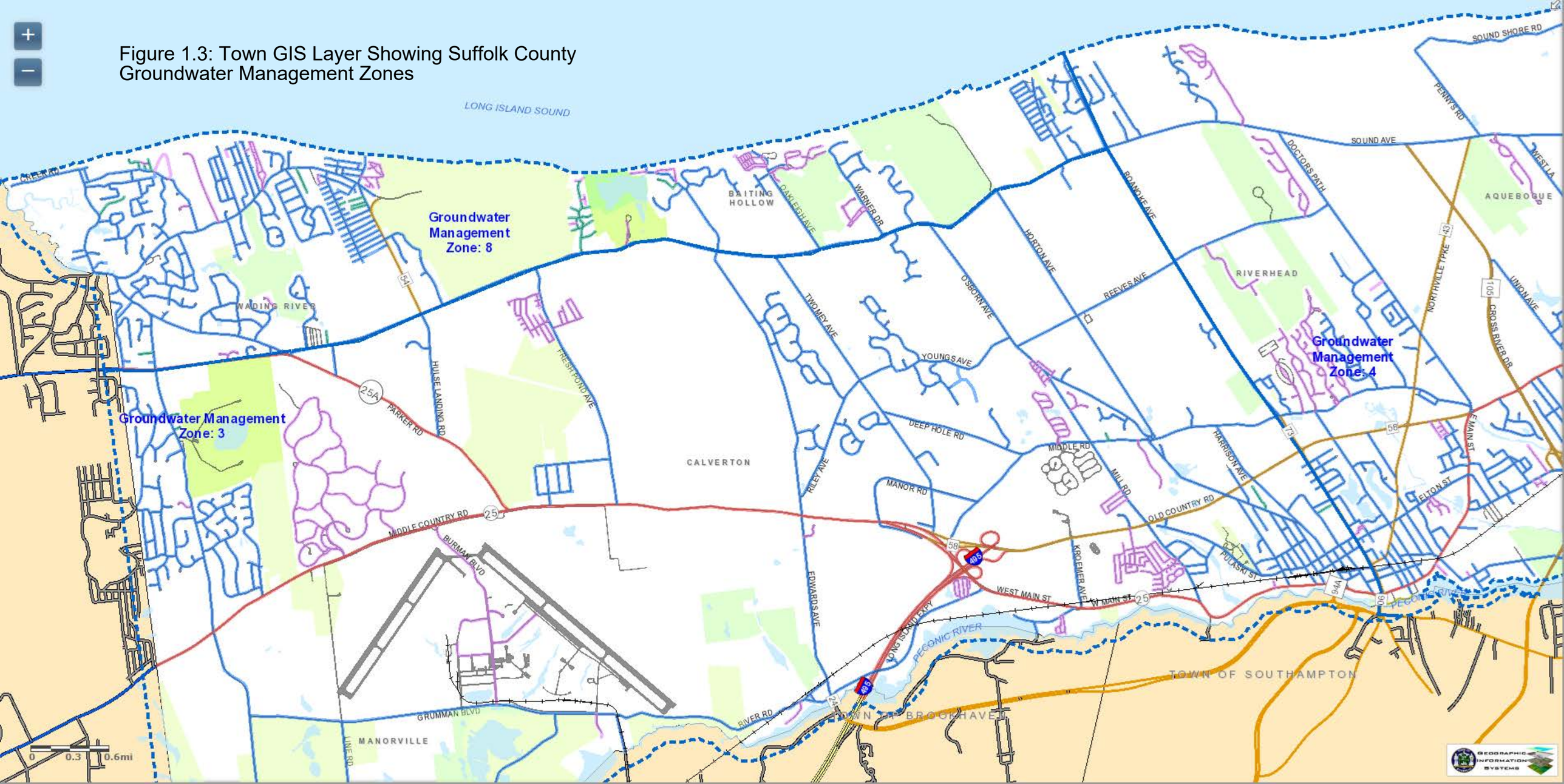


Figure 1.4:

Town GIS Layer Showing Existing Riverhead Water District Extensions

Figure 1.4: Town GIS Layer Showing Existing Riverhead Water District Extensions

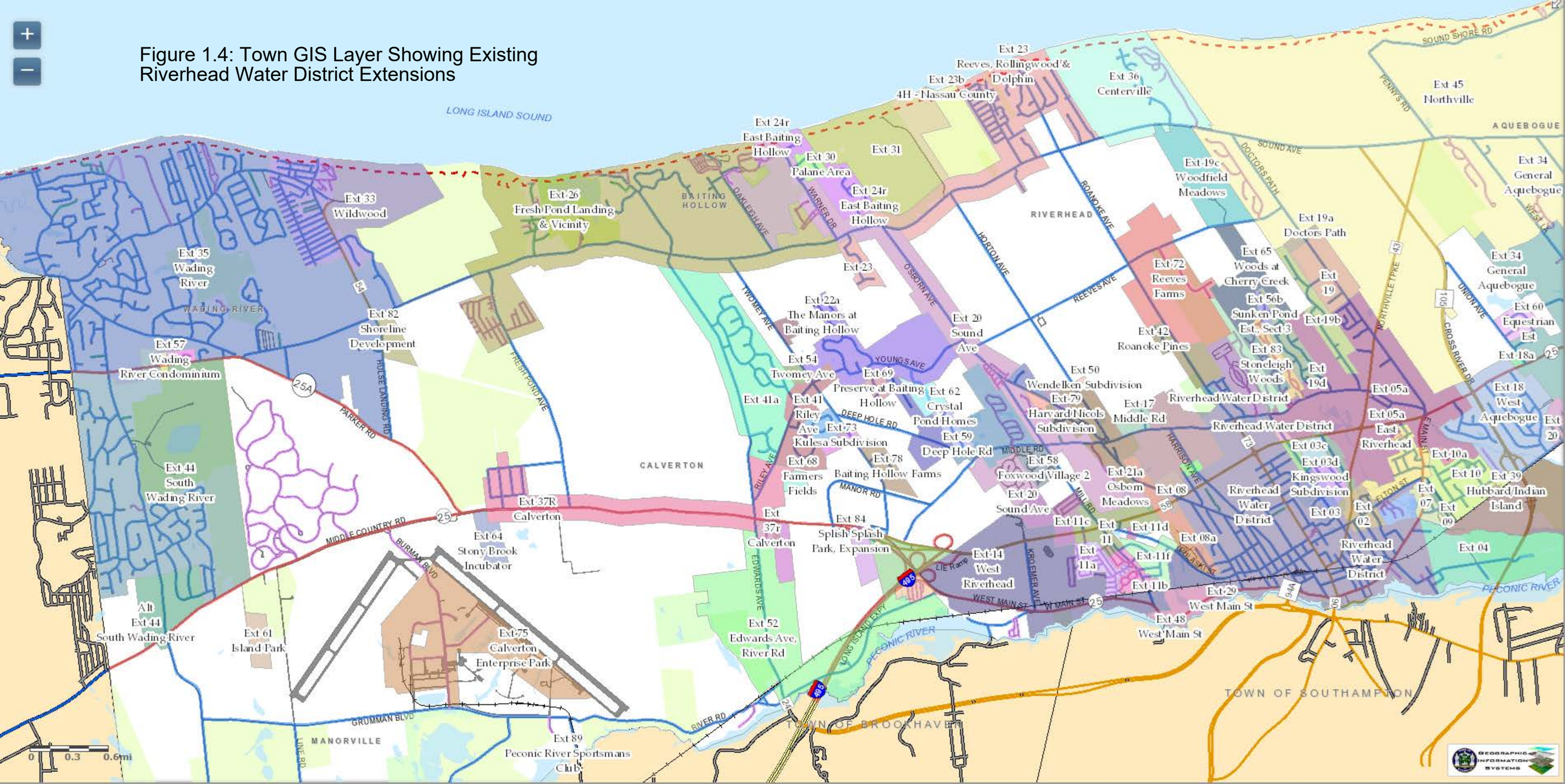


Figure 1.5:
Aerial Image of The Rock Golf Club



Figure 1.5: Aerial Image of
The Rock Golf Club in Wading River

Figure 1.6:
Aerial Image of the Baiting Hollow Club



Figure 1.6: Aerial Image of Baiting Hollow Club in Baiting Hollow

Figure 1.7:
Aerial Image of Friar's Head



Figure 1.7: Aerial Image of Friar's Head in Riverhead

Figure 1.8:
Aerial Image of Cherry Creek



Figure 1.7: Aerial Image of Cherry Creek in Riverhead

Figure 1.9:
Aerial Image of the Woods at Cherry Creek



Figure 1.8: Aerial Image of the Woods at Cherry Creek in Riverhead

Figure 1.10:
Aerial Image of the
Long Island National Golf Club



Figure 1.10: Aerial Image of the Long Island National Golf Course in Riverhead

9.0

APPENDICES

Appendix 1.1.A:
Full Environmental Assessment Form
Part 1

Full Environmental Assessment Form
Part 1 - Project and Setting

Instructions for Completing Part 1

Part 1 is to be completed by the applicant or project sponsor. Responses become part of the application for approval or funding, are subject to public review, and may be subject to further verification.

Complete Part 1 based on information currently available. If additional research or investigation would be needed to fully respond to any item, please answer as thoroughly as possible based on current information; indicate whether missing information does not exist, or is not reasonably available to the sponsor; and, when possible, generally describe work or studies which would be necessary to update or fully develop that information.

Applicants/sponsors must complete all items in Sections A & B. In Sections C, D & E, most items contain an initial question that must be answered either "Yes" or "No". If the answer to the initial question is "Yes", complete the sub-questions that follow. If the answer to the initial question is "No", proceed to the next question. Section F allows the project sponsor to identify and attach any additional information. Section G requires the name and signature of the applicant or project sponsor to verify that the information contained in Part 1is accurate and complete.

A. Project and Applicant/Sponsor Information.

Name of Action or Project: Golf Course (GC) Zoning Amendments		
Project Location (describe, and attach a general location map): Town of Riverhead		
Brief Description of Proposed Action (include purpose or need): The proposed suite of amendments to Town Code Chapter 301 involve several actions in order to implement a regulatory framework to establish golf cottages at existing golf courses in Riverhead. Code amendments include creation of a new zoning district entitled "Golf Course (GC) Zoning Use District;"amending the official Zoning Map opf the Town of Riverhead to re-zone six (6) existing golf courses to new GC zoning use designation; amending Town Code 301-3 to include a definition of "Golf Cottage," and amending definition of "Standard Golf Course;" amending Town Code 301-208 to include new GC zoning use district as a receiving area, identify redemption formula for the redemption of TDR's as it relates to golf cottages; amending Town Code 301, Attachment 2 to include dimensional regulations for new GC zoning use district.		
Name of Applicant/Sponsor: Riverhead Town Board	Telephone: 631-727-3200 Ext 264 E-Mail: bergman@townofriverheadny.gov	
Address: Town of Riverhead		
City/PO:	State: NY	Zip Code:
Project Contact (if not same as sponsor; give name and title/role): Greg Bergman, Senior Planner	Telephone: 631-727-3200 Ext 264 E-Mail: bergman@townofriverheadny.gov	
Address: 4 W. 2nd Street		
City/PO: Riverhead	State: NY	Zip Code: 11901
Property Owner (if not same as sponsor):	Telephone: E-Mail:	
Address:		
City/PO:	State:	Zip Code:

B. Government Approvals

B. Government Approvals, Funding, or Sponsorship. ("Funding" includes grants, loans, tax relief, and any other forms of financial assistance.)

Government Entity	If Yes: Identify Agency and Approval(s) Required	Application Date (Actual or projected)
a. City Council, Town Board, or Village Board of Trustees ☑Yes ☐No	Adoption of Local Laws to Amend Town Code	pending
b. City, Town or Village Planning Board or Commission ☐Yes ☐No		
c. City, Town or Village Zoning Board of Appeals ☐Yes ☐No		
d. Other local agencies ☐Yes ☐No		
e. County agencies ☑Yes ☐No	Suffolk County Planning Commission	GML 239 referral
f. Regional agencies ☐Yes ☐No		
g. State agencies ☐Yes ☐No		
h. Federal agencies ☐Yes ☐No		

i. Coastal Resources.

i. Is the project site within a Coastal Area, or the waterfront area of a Designated Inland Waterway? ☐Yes ☑No

ii. Is the project site located in a community with an approved Local Waterfront Revitalization Program? ☐Yes ☑No

iii. Is the project site within a Coastal Erosion Hazard Area? ☐Yes ☑No

C. Planning and Zoning

C.1. Planning and zoning actions.

Will administrative or legislative adoption, or amendment of a plan, local law, ordinance, rule or regulation be the only approval(s) which must be granted to enable the proposed action to proceed? ☑Yes ☐No

- **If Yes,** complete sections C, F and G.
- **If No,** proceed to question C.2 and complete all remaining sections and questions in Part 1

C.2. Adopted land use plans.

a. Do any municipally- adopted (city, town, village or county) comprehensive land use plan(s) include the site where the proposed action would be located? ☑Yes ☐No

If Yes, does the comprehensive plan include specific recommendations for the site where the proposed action would be located? ☑Yes ☐No

b. Is the site of the proposed action within any local or regional special planning district (for example: Greenway; Brownfield Opportunity Area (BOA); designated State or Federal heritage area; watershed management plan; or other?) ☐Yes ☑No

If Yes, identify the plan(s):

_____

_____

_____

c. Is the proposed action located wholly or partially within an area listed in an adopted municipal open space plan, or an adopted municipal farmland protection plan? ☐Yes ☑No

If Yes, identify the plan(s):

_____

_____

_____

C.3. Zoning

a. Is the site of the proposed action located in a municipality with an adopted zoning law or ordinance. ☑ Yes ☐ No
If Yes, what is the zoning classification(s) including any applicable overlay district?
Multiple existing zoning use districts, including APZ and RB80.

b. Is the use permitted or allowed by a special or conditional use permit? ☐ Yes ☑ No

c. Is a zoning change requested as part of the proposed action? ☑ Yes ☐ No
If Yes,
i. What is the proposed new zoning for the site? Town initiated re-zoning

C.4. Existing community services.

a. In what school district is the project site located? Riverhead Central School District,

b. What police or other public protection forces serve the project site?
Riverhead Police Department, New York State Police

c. Which fire protection and emergency medical services serve the project site?
Riverhead Fire Department, Wading River Fire Department

d. What parks serve the project site?
Veterans Memorial Park, Grangebel Park, Wildwood State Park, others.

D. Project Details

D.1. Proposed and Potential Development

a. What is the general nature of the proposed action (e.g., residential, industrial, commercial, recreational; if mixed, include all components)?

b. a. Total acreage of the site of the proposed action? _____ acres
b. Total acreage to be physically disturbed? _____ acres
c. Total acreage (project site and any contiguous properties) owned or controlled by the applicant or project sponsor? _____ acres

c. Is the proposed action an expansion of an existing project or use? ☐ Yes ☐ No
i. If Yes, what is the approximate percentage of the proposed expansion and identify the units (e.g., acres, miles, housing units, square feet)? % _____ Units: _____

d. Is the proposed action a subdivision, or does it include a subdivision? ☐ Yes ☐ No
If Yes,
i. Purpose or type of subdivision? (e.g., residential, industrial, commercial; if mixed, specify types)

ii. Is a cluster/conservation layout proposed? ☐ Yes ☐ No
iii. Number of lots proposed? _____
iv. Minimum and maximum proposed lot sizes? Minimum _____ Maximum _____

e. Will the proposed action be constructed in multiple phases? ☐ Yes ☐ No
i. If No, anticipated period of construction: _____ months
ii. If Yes:
- Total number of phases anticipated _____
- Anticipated commencement date of phase 1 (including demolition) _____ month _____ year
- Anticipated completion date of final phase _____ month _____year
- Generally describe connections or relationships among phases, including any contingencies where progress of one phase may determine timing or duration of future phases: _____

f. Does the project include new residential uses? ☐Yes ☐No

If Yes, show numbers of units proposed.

	One Family	Two Family	Three Family	Multiple Family (four or more)
Initial Phase	_____	_____	_____	_____
At completion of all phases	_____	_____	_____	_____

g. Does the proposed action include new non-residential construction (including expansions)? ☐Yes ☐No

If Yes,

i. Total number of structures _____

ii. Dimensions (in feet) of largest proposed structure: _____height; _____width; and _____ length

iii. Approximate extent of building space to be heated or cooled: _____ square feet

h. Does the proposed action include construction or other activities that will result in the impoundment of any liquids, such as creation of a water supply, reservoir, pond, lake, waste lagoon or other storage? ☐Yes ☐No

If Yes,

i. Purpose of the impoundment: _____

ii. If a water impoundment, the principal source of the water: ☐ Ground water ☐ Surface water streams ☐Other specify:

_____

iii. If other than water, identify the type of impounded/contained liquids and their source.

_____

iv. Approximate size of the proposed impoundment. Volume: _____ million gallons; surface area: _____ acres

v. Dimensions of the proposed dam or impounding structure: _____ height; _____ length

vi. Construction method/materials for the proposed dam or impounding structure (e.g., earth fill, rock, wood, concrete):

_____

D.2. Project Operations

a. Does the proposed action include any excavation, mining, or dredging, during construction, operations, or both? (Not including general site preparation, grading or installation of utilities or foundations where all excavated materials will remain onsite) ☐Yes ☐No

If Yes:

i .What is the purpose of the excavation or dredging? _____

ii. How much material (including rock, earth, sediments, etc.) is proposed to be removed from the site?

- Volume (specify tons or cubic yards): _____
- Over what duration of time? _____

iii. Describe nature and characteristics of materials to be excavated or dredged, and plans to use, manage or dispose of them.

_____

_____

iv. Will there be onsite dewatering or processing of excavated materials? ☐Yes ☐No

If yes, describe. _____

_____

v. What is the total area to be dredged or excavated? _____acres

vi. What is the maximum area to be worked at any one time? _____ acres

vii. What would be the maximum depth of excavation or dredging? _____ feet

viii. Will the excavation require blasting? ☐Yes ☐No

ix. Summarize site reclamation goals and plan: _____

_____

_____

b. Would the proposed action cause or result in alteration of, increase or decrease in size of, or encroachment into any existing wetland, waterbody, shoreline, beach or adjacent area? ☐Yes ☐No

If Yes:

i. Identify the wetland or waterbody which would be affected (by name, water index number, wetland map number or geographic description): _____

_____

ii. Describe how the proposed action would affect that waterbody or wetland, e.g. excavation, fill, placement of structures, or alteration of channels, banks and shorelines. Indicate extent of activities, alterations and additions in square feet or acres:

_____

_____

_____

_____

iii. Will the proposed action cause or result in disturbance to bottom sediments? ☐Yes ☐No

If Yes, describe: _____

iv. Will the proposed action cause or result in the destruction or removal of aquatic vegetation? ☐Yes ☐No

If Yes:

- acres of aquatic vegetation proposed to be removed: _____
- expected acreage of aquatic vegetation remaining after project completion:_____
- purpose of proposed removal (e.g. beach clearing, invasive species control, boat access): _____

_____

- proposed method of plant removal: _____
- if chemical/herbicide treatment will be used, specify product(s): _____

v. Describe any proposed reclamation/mitigation following disturbance: _____

_____

c. Will the proposed action use, or create a new demand for water? ☐Yes ☐No

If Yes:

i. Total anticipated water usage/demand per day: _____ gallons/day

ii. Will the proposed action obtain water from an existing public water supply? ☐Yes ☐No

If Yes:

- Name of district or service area: _____
- Does the existing public water supply have capacity to serve the proposal? ☐Yes ☐No
- Is the project site in the existing district? ☐Yes ☐No
- Is expansion of the district needed? ☐Yes ☐No
- Do existing lines serve the project site? ☐Yes ☐No

iii. Will line extension within an existing district be necessary to supply the project? ☐Yes ☐No

If Yes:

- Describe extensions or capacity expansions proposed to serve this project: _____

_____

- Source(s) of supply for the district: _____

iv. Is a new water supply district or service area proposed to be formed to serve the project site? ☐Yes ☐No

If, Yes:

- Applicant/sponsor for new district: _____
- Date application submitted or anticipated: _____
- Proposed source(s) of supply for new district: _____

v. If a public water supply will not be used, describe plans to provide water supply for the project: _____

_____

vi. If water supply will be from wells (public or private), what is the maximum pumping capacity: _____ gallons/minute.

d. Will the proposed action generate liquid wastes? ☐Yes ☐No

If Yes:

i. Total anticipated liquid waste generation per day: _____ gallons/day

ii. Nature of liquid wastes to be generated (e.g., sanitary wastewater, industrial; if combination, describe all components and approximate volumes or proportions of each): _____

_____

_____

iii. Will the proposed action use any existing public wastewater treatment facilities? ☐Yes ☐No

If Yes:

- Name of wastewater treatment plant to be used: _____
- Name of district: _____
- Does the existing wastewater treatment plant have capacity to serve the project? ☐Yes ☐No
- Is the project site in the existing district? ☐Yes ☐No
- Is expansion of the district needed? ☐Yes ☐No

- Do existing sewer lines serve the project site? ☐Yes ☐No
- Will a line extension within an existing district be necessary to serve the project? ☐Yes ☐No

If Yes:

- Describe extensions or capacity expansions proposed to serve this project: _____

_____

_____

iv. Will a new wastewater (sewage) treatment district be formed to serve the project site? ☐Yes ☐No

If Yes:

- Applicant/sponsor for new district: _____
- Date application submitted or anticipated: _____
- What is the receiving water for the wastewater discharge? _____

v. If public facilities will not be used, describe plans to provide wastewater treatment for the project, including specifying proposed receiving water (name and classification if surface discharge or describe subsurface disposal plans):

_____

_____

vi. Describe any plans or designs to capture, recycle or reuse liquid waste: _____

_____

_____

e. Will the proposed action disturb more than one acre and create stormwater runoff, either from new point sources (i.e. ditches, pipes, swales, curbs, gutters or other concentrated flows of stormwater) or non-point source (i.e. sheet flow) during construction or post construction? ☐Yes ☐No

If Yes:

i. How much impervious surface will the project create in relation to total size of project parcel?

_____ Square feet or _____ acres (impervious surface)

_____ Square feet or _____ acres (parcel size)

ii. Describe types of new point sources. _____

_____

iii. Where will the stormwater runoff be directed (i.e. on-site stormwater management facility/structures, adjacent properties, groundwater, on-site surface water or off-site surface waters)?

_____

_____

- If to surface waters, identify receiving water bodies or wetlands: _____

_____

_____

- Will stormwater runoff flow to adjacent properties? ☐Yes ☐No

iv. Does the proposed plan minimize impervious surfaces, use pervious materials or collect and re-use stormwater? ☐Yes ☐No

f. Does the proposed action include, or will it use on-site, one or more sources of air emissions, including fuel combustion, waste incineration, or other processes or operations? ☐Yes ☐No

If Yes, identify:

i. Mobile sources during project operations (e.g., heavy equipment, fleet or delivery vehicles)

_____

ii. Stationary sources during construction (e.g., power generation, structural heating, batch plant, crushers)

_____

iii. Stationary sources during operations (e.g., process emissions, large boilers, electric generation)

_____

g. Will any air emission sources named in D.2.f (above), require a NY State Air Registration, Air Facility Permit, or Federal Clean Air Act Title IV or Title V Permit? ☐Yes ☐No

If Yes:

i. Is the project site located in an Air quality non-attainment area? (Area routinely or periodically fails to meet ambient air quality standards for all or some parts of the year) ☐Yes ☐No

ii. In addition to emissions as calculated in the application, the project will generate:

- _____Tons/year (short tons) of Carbon Dioxide (CO_2)
- _____Tons/year (short tons) of Nitrous Oxide (N_2O)
- _____Tons/year (short tons) of Perfluorocarbons (PFCs)
- _____Tons/year (short tons) of Sulfur Hexafluoride (SF_6)
- _____Tons/year (short tons) of Carbon Dioxide equivalent of Hydroflourocarbons (HFCs)
- _____Tons/year (short tons) of Hazardous Air Pollutants (HAPs)

h. Will the proposed action generate or emit methane (including, but not limited to, sewage treatment plants, landfills, composting facilities)? ☐Yes ☐No

If Yes:

i. Estimate methane generation in tons/year (metric): _____

ii. Describe any methane capture, control or elimination measures included in project design (e.g., combustion to generate heat or electricity, flaring): _____

_____

i. Will the proposed action result in the release of air pollutants from open-air operations or processes, such as quarry or landfill operations? ☐Yes ☐No

If Yes: Describe operations and nature of emissions (e.g., diesel exhaust, rock particulates/dust):

_____

_____

j. Will the proposed action result in a substantial increase in traffic above present levels or generate substantial new demand for transportation facilities or services? ☐Yes ☐No

If Yes:

i. When is the peak traffic expected (Check all that apply): ☐ Morning ☐ Evening ☐Weekend ☐ Randomly between hours of _____ to _____.

ii. For commercial activities only, projected number of truck trips/day and type (e.g., semi trailers and dump trucks): _____

_____

iii. Parking spaces: Existing _____ Proposed _____ Net increase/decrease _____

iv. Does the proposed action include any shared use parking? ☐Yes ☐No

v. If the proposed action includes any modification of existing roads, creation of new roads or change in existing access, describe:

_____

vi. Are public/private transportation service(s) or facilities available within ½ mile of the proposed site? ☐Yes ☐No

vii Will the proposed action include access to public transportation or accommodations for use of hybrid, electric or other alternative fueled vehicles? ☐Yes ☐No

viii. Will the proposed action include plans for pedestrian or bicycle accommodations for connections to existing pedestrian or bicycle routes? ☐Yes ☐No

k. Will the proposed action (for commercial or industrial projects only) generate new or additional demand for energy? ☐Yes ☐No

If Yes:

i. Estimate annual electricity demand during operation of the proposed action: _____

_____

ii. Anticipated sources/suppliers of electricity for the project (e.g., on-site combustion, on-site renewable, via grid/local utility, or other):

_____

iii. Will the proposed action require a new, or an upgrade, to an existing substation? ☐Yes ☐No

l. Hours of operation. Answer all items which apply.

i. During Construction:

- Monday - Friday: _____
- Saturday: _____
- Sunday: _____
- Holidays: _____

ii. During Operations:

- Monday - Friday: _____
- Saturday: _____
- Sunday: _____
- Holidays: _____

m. Will the proposed action produce noise that will exceed existing ambient noise levels during construction, operation, or both? ☐ Yes ☐ No

If yes:

i. Provide details including sources, time of day and duration:

_____

_____

ii. Will the proposed action remove existing natural barriers that could act as a noise barrier or screen? ☐ Yes ☐ No

Describe: _____

_____

n. Will the proposed action have outdoor lighting? ☐ Yes ☐ No

If yes:

i. Describe source(s), location(s), height of fixture(s), direction/aim, and proximity to nearest occupied structures:

_____

_____

ii. Will proposed action remove existing natural barriers that could act as a light barrier or screen? ☐ Yes ☐ No

Describe: _____

_____

o. Does the proposed action have the potential to produce odors for more than one hour per day? ☐ Yes ☐ No

If Yes, describe possible sources, potential frequency and duration of odor emissions, and proximity to nearest occupied structures: _____

_____

_____

p. Will the proposed action include any bulk storage of petroleum (combined capacity of over 1,100 gallons) or chemical products 185 gallons in above ground storage or any amount in underground storage? ☐ Yes ☐ No

If Yes:

i. Product(s) to be stored _____

ii. Volume(s) _____ per unit time _____ (e.g., month, year)

iii. Generally, describe the proposed storage facilities:_____

_____

q. Will the proposed action (commercial, industrial and recreational projects only) use pesticides (i.e., herbicides, insecticides) during construction or operation? ☐ Yes ☐ No

If Yes:

i. Describe proposed treatment(s):

_____

_____

_____

_____

ii. Will the proposed action use Integrated Pest Management Practices? ☐ Yes ☐ No

r. Will the proposed action (commercial or industrial projects only) involve or require the management or disposal of solid waste (excluding hazardous materials)? ☐ Yes ☐ No

If Yes:

i. Describe any solid waste(s) to be generated during construction or operation of the facility:

- Construction: _____ tons per _____ (unit of time)
- Operation : _____ tons per _____ (unit of time)

ii. Describe any proposals for on-site minimization, recycling or reuse of materials to avoid disposal as solid waste:

- Construction: _____

  _____
- Operation: _____

  _____

iii. Proposed disposal methods/facilities for solid waste generated on-site:

- Construction: _____

  _____
- Operation: _____

  _____

s. Does the proposed action include construction or modification of a solid waste management facility? ☐ Yes ☐ No

If Yes:

i. Type of management or handling of waste proposed for the site (e.g., recycling or transfer station, composting, landfill, or other disposal activities): _____

ii. Anticipated rate of disposal/processing:

- _____ Tons/month, if transfer or other non-combustion/thermal treatment, or
- _____ Tons/hour, if combustion or thermal treatment

iii. If landfill, anticipated site life: _____ years

t. Will the proposed action at the site involve the commercial generation, treatment, storage, or disposal of hazardous waste? ☐ Yes ☐ No

If Yes:

i. Name(s) of all hazardous wastes or constituents to be generated, handled or managed at facility: _____

_____

_____

ii. Generally describe processes or activities involving hazardous wastes or constituents: _____

_____

_____

iii. Specify amount to be handled or generated _____ tons/month

iv. Describe any proposals for on-site minimization, recycling or reuse of hazardous constituents: _____

_____

_____

v. Will any hazardous wastes be disposed at an existing offsite hazardous waste facility? ☐ Yes ☐ No

If Yes: provide name and location of facility: _____

_____

If No: describe proposed management of any hazardous wastes which will not be sent to a hazardous waste facility:

_____

_____

E. Site and Setting of Proposed Action

E.1. Land uses on and surrounding the project site

a. Existing land uses.

i. Check all uses that occur on, adjoining and near the project site.

☐ Urban ☐ Industrial ☐ Commercial ☐ Residential (suburban) ☐ Rural (non-farm)

☐ Forest ☐ Agriculture ☐ Aquatic ☐ Other (specify): _____

ii. If mix of uses, generally describe:

_____

_____

b. Land uses and covertypes on the project site.

Land use or Covertype	Current Acreage	Acreage After Project Completion	Change (Acres +/-)
• Roads, buildings, and other paved or impervious surfaces			
• Forested			
• Meadows, grasslands or brushlands (non-agricultural, including abandoned agricultural)			
• Agricultural (includes active orchards, field, greenhouse etc.)			
• Surface water features (lakes, ponds, streams, rivers, etc.)			
• Wetlands (freshwater or tidal)			
• Non-vegetated (bare rock, earth or fill)			
• Other Describe: _____ _____			

c. Is the project site presently used by members of the community for public recreation? ☐Yes ☐No

i. If Yes: explain: _____

d. Are there any facilities serving children, the elderly, people with disabilities (e.g., schools, hospitals, licensed day care centers, or group homes) within 1500 feet of the project site? ☐Yes ☐No

If Yes,

i. Identify Facilities:

_____

_____

e. Does the project site contain an existing dam? ☐Yes ☐No

If Yes:

i. Dimensions of the dam and impoundment:

- Dam height: _____ feet
- Dam length: _____ feet
- Surface area: _____ acres
- Volume impounded: _____ gallons OR acre-feet

ii. Dam's existing hazard classification: _____

iii. Provide date and summarize results of last inspection:

_____

_____

f. Has the project site ever been used as a municipal, commercial or industrial solid waste management facility, or does the project site adjoin property which is now, or was at one time, used as a solid waste management facility? ☐Yes ☐No

If Yes:

i. Has the facility been formally closed? ☐Yes ☐ No

- If yes, cite sources/documentation: _____

ii. Describe the location of the project site relative to the boundaries of the solid waste management facility:

_____

_____

iii. Describe any development constraints due to the prior solid waste activities: _____

_____

g. Have hazardous wastes been generated, treated and/or disposed of at the site, or does the project site adjoin property which is now or was at one time used to commercially treat, store and/or dispose of hazardous waste? ☐Yes ☐No

If Yes:

i. Describe waste(s) handled and waste management activities, including approximate time when activities occurred:

_____

_____

h. Potential contamination history. Has there been a reported spill at the proposed project site, or have any remedial actions been conducted at or adjacent to the proposed site? ☐Yes ☐ No

If Yes:

i. Is any portion of the site listed on the NYSDEC Spills Incidents database or Environmental Site Remediation database? Check all that apply: ☐Yes ☐No

☐ Yes – Spills Incidents database Provide DEC ID number(s): _____

☐ Yes – Environmental Site Remediation database Provide DEC ID number(s): _____

☐ Neither database

ii. If site has been subject of RCRA corrective activities, describe control measures:_____

_____

_____

iii. Is the project within 2000 feet of any site in the NYSDEC Environmental Site Remediation database? ☐Yes ☐No

If yes, provide DEC ID number(s): _____

iv. If yes to (i), (ii) or (iii) above, describe current status of site(s):

_____

_____

v. Is the project site subject to an institutional control limiting property uses? ☐ Yes ☐ No

- If yes, DEC site ID number: _____
- Describe the type of institutional control (e.g., deed restriction or easement): _____
- Describe any use limitations: _____
- Describe any engineering controls: _____
- Will the project affect the institutional or engineering controls in place? ☐ Yes ☐ No
- Explain: _____

E.2. Natural Resources On or Near Project Site

a. What is the average depth to bedrock on the project site? _____ feet

b. Are there bedrock outcroppings on the project site? ☐ Yes ☐ No
If Yes, what proportion of the site is comprised of bedrock outcroppings? _____%

c. Predominant soil type(s) present on project site: _____ _____%
_____ _____%
_____ _____%

d. What is the average depth to the water table on the project site? Average: _____ feet

e. Drainage status of project site soils: ☐ Well Drained: _____% of site
☐ Moderately Well Drained: _____% of site
☐ Poorly Drained _____% of site

f. Approximate proportion of proposed action site with slopes: ☐ 0-10%: _____% of site
☐ 10-15%: _____% of site
☐ 15% or greater: _____% of site

g. Are there any unique geologic features on the project site? ☐ Yes ☐ No
If Yes, describe: _____

h. Surface water features.

i. Does any portion of the project site contain wetlands or other waterbodies (including streams, rivers, ponds or lakes)? ☐ Yes ☐ No

ii. Do any wetlands or other waterbodies adjoin the project site? ☐ Yes ☐ No

If Yes to either *i* or *ii*, continue. If No, skip to E.2.i.

iii. Are any of the wetlands or waterbodies within or adjoining the project site regulated by any federal, state or local agency? ☐ Yes ☐ No

iv. For each identified regulated wetland and waterbody on the project site, provide the following information:

- Streams: Name _____ Classification _____
- Lakes or Ponds: Name _____ Classification _____
- Wetlands: Name _____ Approximate Size _____
- Wetland No. (if regulated by DEC) _____

v. Are any of the above water bodies listed in the most recent compilation of NYS water quality-impaired waterbodies? ☐ Yes ☐ No

If yes, name of impaired water body/bodies and basis for listing as impaired: _____

i. Is the project site in a designated Floodway? ☐ Yes ☐ No

j. Is the project site in the 100-year Floodplain? ☐ Yes ☐ No

k. Is the project site in the 500-year Floodplain? ☐ Yes ☐ No

l. Is the project site located over, or immediately adjoining, a primary, principal or sole source aquifer? ☐ Yes ☐ No
If Yes:

i. Name of aquifer: _____

m. Identify the predominant wildlife species that occupy or use the project site: _____

_____ _____ _____

_____ _____ _____

n. Does the project site contain a designated significant natural community? ☐ Yes ☐ No

If Yes:

i. Describe the habitat/community (composition, function, and basis for designation): _____

_____

ii. Source(s) of description or evaluation: _____

iii. Extent of community/habitat:

- Currently: _____ acres
- Following completion of project as proposed: _____ acres
- Gain or loss (indicate + or -): _____ acres

o. Does project site contain any species of plant or animal that is listed by the federal government or NYS as endangered or threatened, or does it contain any areas identified as habitat for an endangered or threatened species? ☐ Yes ☐ No

If Yes:

i. Species and listing (endangered or threatened): _____

_____

_____

p. Does the project site contain any species of plant or animal that is listed by NYS as rare, or as a species of special concern? ☐ Yes ☐ No

If Yes:

i. Species and listing: _____

_____

q. Is the project site or adjoining area currently used for hunting, trapping, fishing or shell fishing? ☐ Yes ☐ No

If yes, give a brief description of how the proposed action may affect that use: _____

_____

E.3. Designated Public Resources On or Near Project Site

a. Is the project site, or any portion of it, located in a designated agricultural district certified pursuant to Agriculture and Markets Law, Article 25-AA, Section 303 and 304? ☐ Yes ☐ No

If Yes, provide county plus district name/number: _____

b. Are agricultural lands consisting of highly productive soils present? ☐ Yes ☐ No

i. If Yes: acreage(s) on project site? _____

ii. Source(s) of soil rating(s): _____

c. Does the project site contain all or part of, or is it substantially contiguous to, a registered National Natural Landmark? ☐ Yes ☐ No

If Yes:

i. Nature of the natural landmark: ☐ Biological Community ☐ Geological Feature

ii. Provide brief description of landmark, including values behind designation and approximate size/extent: _____

_____

_____

d. Is the project site located in or does it adjoin a state listed Critical Environmental Area? ☐ Yes ☐ No

If Yes:

i. CEA name: _____

ii. Basis for designation: _____

iii. Designating agency and date: _____

e. Does the project site contain, or is it substantially contiguous to, a building, archaeological site, or district which is listed on the National or State Register of Historic Places, or that has been determined by the Commissioner of the NYS Office of Parks, Recreation and Historic Preservation to be eligible for listing on the State Register of Historic Places? ☐ Yes ☐ No

If Yes:

i. Nature of historic/archaeological resource: ☐ Archaeological Site ☐ Historic Building or District

ii. Name: _____

iii. Brief description of attributes on which listing is based:

_____

f. Is the project site, or any portion of it, located in or adjacent to an area designated as sensitive for archaeological sites on the NY State Historic Preservation Office (SHPO) archaeological site inventory? ☐ Yes ☐ No

g. Have additional archaeological or historic site(s) or resources been identified on the project site? ☐ Yes ☐ No

If Yes:

i. Describe possible resource(s): _____

ii. Basis for identification: _____

h. Is the project site within fives miles of any officially designated and publicly accessible federal, state, or local scenic or aesthetic resource? ☐ Yes ☐ No

If Yes:

i. Identify resource: _____

ii. Nature of, or basis for, designation (e.g., established highway overlook, state or local park, state historic trail or scenic byway, etc.): _____

iii. Distance between project and resource: _____ miles.

i. Is the project site located within a designated river corridor under the Wild, Scenic and Recreational Rivers Program 6 NYCRR 666? ☐ Yes ☐ No

If Yes:

i. Identify the name of the river and its designation: _____

ii. Is the activity consistent with development restrictions contained in 6NYCRR Part 666? ☐ Yes ☐ No

F. Additional Information

Attach any additional information which may be needed to clarify your project.

If you have identified any adverse impacts which could be associated with your proposal, please describe those impacts plus any measures which you propose to avoid or minimize them.

G. Verification

I certify that the information provided is true to the best of my knowledge.

Applicant/Sponsor Name Greg Bergman for Riverhead Town Board Date 7/20/2026

Signature _____ Title Senior Planner

PRINT FORM

Appendix 1.1.B:
Full Environmental Assessment Form
Part 2

Full Environmental Assessment Form
Part 2 - Identification of Potential Project Impacts

Agency Use Only [If applicable]

Project : Golf Course (GC) Zoning Amendments

Date : 7/20/2026

Part 2 is to be completed by the lead agency. Part 2 is designed to help the lead agency inventory all potential resources that could be affected by a proposed project or action. We recognize that the lead agency's reviewer(s) will not necessarily be environmental professionals. So, the questions are designed to walk a reviewer through the assessment process by providing a series of questions that can be answered using the information found in Part 1. To further assist the lead agency in completing Part 2, the form identifies the most relevant questions in Part 1 that will provide the information needed to answer the Part 2 question. When Part 2 is completed, the lead agency will have identified the relevant environmental areas that may be impacted by the proposed activity.

If the lead agency is a state agency **and** the action is in any Coastal Area, complete the Coastal Assessment Form before proceeding with this assessment.

Tips for completing Part 2:

- Review all of the information provided in Part 1.
- Review any application, maps, supporting materials and the Full EAF Workbook.
- Answer each of the 18 questions in Part 2.
- If you answer "**Yes"** to a numbered question, please complete all the questions that follow in that section.
- If you answer "**No"** to a numbered question, move on to the next numbered question.
- Check appropriate column to indicate the anticipated size of the impact.
- Proposed projects that would exceed a numeric threshold contained in a question should result in the reviewing agency checking the box "Moderate to large impact may occur."
- The reviewer is not expected to be an expert in environmental analysis.
- If you are not sure or undecided about the size of an impact, it may help to review the sub-questions for the general question and consult the workbook.
- When answering a question consider all components of the proposed activity, that is, the "whole action".
- Consider the possibility for long-term and cumulative impacts as well as direct impacts.
- Answer the question in a reasonable manner considering the scale and context of the project.

1. Impact on Land

Proposed action may involve construction on, or physical alteration of, the land surface of the proposed site. (See Part 1. D.1)

☐ NO ☑ YES

If "Yes", answer questions a - j. If "No", move on to Section 2.

	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. The proposed action may involve construction on land where depth to water table is less than 3 feet.	E2d	☑	☐
b. The proposed action may involve construction on slopes of 15% or greater.	E2f	☑	☐
c. The proposed action may involve construction on land where bedrock is exposed, or generally within 5 feet of existing ground surface.	E2a	☑	☐
d. The proposed action may involve the excavation and removal of more than 1,000 tons of natural material.	D2a	☑	☐
e. The proposed action may involve construction that continues for more than one year or in multiple phases.	D1e	☑	☐
f. The proposed action may result in increased erosion, whether from physical disturbance or vegetation removal (including from treatment by herbicides).	D2e, D2q	☑	☐
g. The proposed action is, or may be, located within a Coastal Erosion hazard area.	B1i	☑	☐
h. Other impacts: _____		☐	☐

2. Impact on Geological Features

The proposed action may result in the modification or destruction of, or inhibit access to, any unique or unusual land forms on the site (e.g., cliffs, dunes, minerals, fossils, caves). (See Part 1. E.2.g)

☑ NO ☐ YES

If "Yes", answer questions a - c. If "No", move on to Section 3.

	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. Identify the specific land form(s) attached: _____ _____	E2g	☐	☐
b. The proposed action may affect or is adjacent to a geological feature listed as a registered National Natural Landmark. Specific feature: _____	E3c	☐	☐
c. Other impacts: _____ _____		☐	☐

3. Impacts on Surface Water

The proposed action may affect one or more wetlands or other surface water bodies (e.g., streams, rivers, ponds or lakes). (See Part 1. D.2, E.2.h)

☑ NO ☐ YES

If "Yes", answer questions a - l. If "No", move on to Section 4.

	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. The proposed action may create a new water body.	D2b, D1h	☐	☐
b. The proposed action may result in an increase or decrease of over 10% or more than a 10 acre increase or decrease in the surface area of any body of water.	D2b	☐	☐
c. The proposed action may involve dredging more than 100 cubic yards of material from a wetland or water body.	D2a	☐	☐
d. The proposed action may involve construction within or adjoining a freshwater or tidal wetland, or in the bed or banks of any other water body.	E2h	☐	☐
e. The proposed action may create turbidity in a waterbody, either from upland erosion, runoff or by disturbing bottom sediments.	D2a, D2h	☐	☐
f. The proposed action may include construction of one or more intake(s) for withdrawal of water from surface water.	D2c	☐	☐
g. The proposed action may include construction of one or more outfall(s) for discharge of wastewater to surface water(s).	D2d	☐	☐
h. The proposed action may cause soil erosion, or otherwise create a source of stormwater discharge that may lead to siltation or other degradation of receiving water bodies.	D2e	☐	☐
i. The proposed action may affect the water quality of any water bodies within or downstream of the site of the proposed action.	E2h	☐	☐
j. The proposed action may involve the application of pesticides or herbicides in or around any water body.	D2q, E2h	☐	☐
k. The proposed action may require the construction of new, or expansion of existing, wastewater treatment facilities.	D1a, D2d	☐	☐

l. Other impacts: _____ _____		□	□

4. Impact on groundwater

The proposed action may result in new or additional use of ground water, or may have the potential to introduce contaminants to ground water or an aquifer. (See Part 1. D.2.a, D.2.c, D.2.d, D.2.p, D.2.q, D.2.t)

☐ NO ☑ YES

If "Yes", answer questions a - h. If "No", move on to Section 5.

	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. The proposed action may require new water supply wells, or create additional demand on supplies from existing water supply wells.	D2c	☑	☐
b. Water supply demand from the proposed action may exceed safe and sustainable withdrawal capacity rate of the local supply or aquifer. Cite Source: _____	D2c	☑	☐
c. The proposed action may allow or result in residential uses in areas without water and sewer services.	D1a, D2c	☑	☐
d. The proposed action may include or require wastewater discharged to groundwater.	D2d, E2l	☑	☐
e. The proposed action may result in the construction of water supply wells in locations where groundwater is, or is suspected to be, contaminated.	D2c, E1f, E1g, E1h	☑	☐
f. The proposed action may require the bulk storage of petroleum or chemical products over ground water or an aquifer.	D2p, E2l	☑	☐
g. The proposed action may involve the commercial application of pesticides within 100 feet of potable drinking water or irrigation sources.	E2h, D2q, E2l, D2c	☑	☐
h. Other impacts: Pursuant to New York Town Law 261-A(2)(a), a GEIS is required, as the action involves the mapping of a TDR receiving district. The Town Board must evaluate the impacts to public water supply, sewage disposal.		☐	☑

5. Impact on Flooding

The proposed action may result in development on lands subject to flooding. (See Part 1. E.2)

☑ NO ☐ YES

If "Yes", answer questions a - g. If "No", move on to Section 6.

	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. The proposed action may result in development in a designated floodway.	E2i	□	□
b. The proposed action may result in development within a 100 year floodplain.	E2j	□	□
c. The proposed action may result in development within a 500 year floodplain.	E2k	□	□
d. The proposed action may result in, or require, modification of existing drainage patterns.	D2b, D2e	□	□
e. The proposed action may change flood water flows that contribute to flooding.	D2b, E2i, E2j, E2k	□	□
f. If there is a dam located on the site of the proposed action, is the dam in need of repair, or upgrade?	E1e	□	□

g. Other impacts: _____ _____		☐	☐

6. Impacts on Air

The proposed action may include a state regulated air emission source. (See Part 1. D.2.f., D.2.h, D.2.g) ☑ NO ☐ YES

If "Yes", answer questions a - f. If "No", move on to Section 7.

	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. If the proposed action requires federal or state air emission permits, the action may also emit one or more greenhouse gases at or above the following levels:			
i. More than 1000 tons/year of carbon dioxide (CO_2)	D2g	☐	☐
ii. More than 3.5 tons/year of nitrous oxide (N_2O)	D2g	☐	☐
iii. More than 1000 tons/year of carbon equivalent of perfluorocarbons (PFCs)	D2g	☐	☐
iv. More than .045 tons/year of sulfur hexafluoride (SF_6)	D2g	☐	☐
v. More than 1000 tons/year of carbon dioxide equivalent of hydrochloroflourocarbons (HFCs) emissions	D2g	☐	☐
vi. 43 tons/year or more of methane	D2h	☐	☐
b. The proposed action may generate 10 tons/year or more of any one designated hazardous air pollutant, or 25 tons/year or more of any combination of such hazardous air pollutants.	D2g	☐	☐
c. The proposed action may require a state air registration, or may produce an emissions rate of total contaminants that may exceed 5 lbs. per hour, or may include a heat source capable of producing more than 10 million BTU's per hour.	D2f, D2g	☐	☐
d. The proposed action may reach 50% of any of the thresholds in "a" through "c", above.	D2g	☐	☐
e. The proposed action may result in the combustion or thermal treatment of more than 1 ton of refuse per hour.	D2s	☐	☐
f. Other impacts: _____		☐	☐

7. Impact on Plants and Animals

The proposed action may result in a loss of flora or fauna. (See Part 1. E.2. m.-q.) ☑ NO ☐ YES

If "Yes", answer questions a - j. If "No", move on to Section 8.

	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. The proposed action may cause reduction in population or loss of individuals of any threatened or endangered species, as listed by New York State or the Federal government, that use the site, or are found on, over, or near the site.	E2o	☐	☐
b. The proposed action may result in a reduction or degradation of any habitat used by any rare, threatened or endangered species, as listed by New York State or the federal government.	E2o	☐	☐
c. The proposed action may cause reduction in population, or loss of individuals, of any species of special concern or conservation need, as listed by New York State or the Federal government, that use the site, or are found on, over, or near the site.	E2p	☐	☐
d. The proposed action may result in a reduction or degradation of any habitat used by any species of special concern and conservation need, as listed by New York State or the Federal government.	E2p	☐	☐

e. The proposed action may diminish the capacity of a registered National Natural Landmark to support the biological community it was established to protect.	E3c	☐	☐
f. The proposed action may result in the removal of, or ground disturbance in, any portion of a designated significant natural community. Source: _____	E2n	☐	☐
g. The proposed action may substantially interfere with nesting/breeding, foraging, or over-wintering habitat for the predominant species that occupy or use the project site.	E2m	☐	☐
h. The proposed action requires the conversion of more than 10 acres of forest, grassland or any other regionally or locally important habitat. Habitat type & information source: _____ _____	E1b	☐	☐
i. Proposed action (commercial, industrial or recreational projects, only) involves use of herbicides or pesticides.	D2q	☐	☐
j. Other impacts: _____ _____		☐	☐

8. Impact on Agricultural Resources

The proposed action may impact agricultural resources. (See Part 1. E.3.a. and b.) ☑ NO ☐ YES

If "Yes", answer questions a - h. If "No", move on to Section 9.

	Relevant Part I Question(s)	**No, or small impact may occur**	**Moderate to large impact may occur**
a. The proposed action may impact soil classified within soil group 1 through 4 of the NYS Land Classification System.	E2c, E3b	☐	☐
b. The proposed action may sever, cross or otherwise limit access to agricultural land (includes cropland, hayfields, pasture, vineyard, orchard, etc).	E1a, Elb	☐	☐
c. The proposed action may result in the excavation or compaction of the soil profile of active agricultural land.	E3b	☐	☐
d. The proposed action may irreversibly convert agricultural land to non-agricultural uses, either more than 2.5 acres if located in an Agricultural District, or more than 10 acres if not within an Agricultural District.	E1b, E3a	☐	☐
e. The proposed action may disrupt or prevent installation of an agricultural land management system.	El a, E1b	☐	☐
f. The proposed action may result, directly or indirectly, in increased development potential or pressure on farmland.	C2c, C3, D2c, D2d	☐	☐
g. The proposed project is not consistent with the adopted municipal Farmland Protection Plan.	C2c	☐	☐
h. Other impacts: _____		☐	☐

9. Impact on Aesthetic Resources
The land use of the proposed action are obviously different from, or are in sharp contrast to, current land use patterns between the proposed project and a scenic or aesthetic resource. (Part 1. E.1.a, E.1.b, E.3.h.)
If "Yes", answer questions a - g. If "No", go to Section 10.

☐ NO ☑ YES

	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. Proposed action may be visible from any officially designated federal, state, or local scenic or aesthetic resource.	E3h	☐	☑
b. The proposed action may result in the obstruction, elimination or significant screening of one or more officially designated scenic views.	E3h, C2b	☑	☐
c. The proposed action may be visible from publicly accessible vantage points: i. Seasonally (e.g., screened by summer foliage, but visible during other seasons) ii. Year round	E3h	 ☑ ☑	 ☐ ☐
d. The situation or activity in which viewers are engaged while viewing the proposed action is: i. Routine travel by residents, including travel to and from work ii. Recreational or tourism based activities	E3h E2q, E1c	 ☑ ☑	 ☐ ☐
e. The proposed action may cause a diminishment of the public enjoyment and appreciation of the designated aesthetic resource.	E3h	☑	☐
f. There are similar projects visible within the following distance of the proposed project: 0-1/2 mile ½ -3 mile 3-5 mile 5+ mile	D1a, E1a, D1f, D1g	☑	☐
g. Other impacts: _____ _____		☐	☐

10. Impact on Historic and Archeological Resources
The proposed action may occur in or adjacent to a historic or archaeological resource. (Part 1. E.3.e, f. and g.)
If "Yes", answer questions a - e. If "No", go to Section 11.

☑ NO ☐ YES

	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. The proposed action may occur wholly or partially within, or substantially contiguous to, any buildings, archaeological site or district which is listed on the National or State Register of Historical Places, or that has been determined by the Commissioner of the NYS Office of Parks, Recreation and Historic Preservation to be eligible for listing on the State Register of Historic Places.	E3e	☐	☐
b. The proposed action may occur wholly or partially within, or substantially contiguous to, an area designated as sensitive for archaeological sites on the NY State Historic Preservation Office (SHPO) archaeological site inventory.	E3f	☐	☐
c. The proposed action may occur wholly or partially within, or substantially contiguous to, an archaeological site not included on the NY SHPO inventory. Source: _____	E3g	☐	☐

d. Other impacts: _____ _____		□	□
e. If any of the above (a-d) are answered "Moderate to large impact may occur", continue with the following questions to help support conclusions in Part 3:			
i. The proposed action may result in the destruction or alteration of all or part of the site or property.	E3e, E3g, E3f	□	□
ii. The proposed action may result in the alteration of the property's setting or integrity.	E3e, E3f, E3g, E1a, E1b	□	□
iii. The proposed action may result in the introduction of visual elements which are out of character with the site or property, or may alter its setting.	E3e, E3f, E3g, E3h, C2, C3	□	□

11. Impact on Open Space and Recreation

The proposed action may result in a loss of recreational opportunities or a reduction of an open space resource as designated in any adopted municipal open space plan.
(See Part 1. C.2.c, E.1.c., E.2.q.)
If "Yes", answer questions a - e. If "No", go to Section 12.

☑ NO ☐ YES

	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. The proposed action may result in an impairment of natural functions, or "ecosystem services", provided by an undeveloped area, including but not limited to stormwater storage, nutrient cycling, wildlife habitat.	D2e, E1b E2h, E2m, E2o, E2n, E2p	□	□
b. The proposed action may result in the loss of a current or future recreational resource.	C2a, E1c, C2c, E2q	□	□
c. The proposed action may eliminate open space or recreational resource in an area with few such resources.	C2a, C2c E1c, E2q	□	□
d. The proposed action may result in loss of an area now used informally by the community as an open space resource.	C2c, E1c	□	□
e. Other impacts: _____ _____		□	□

12. Impact on Critical Environmental Areas

The proposed action may be located within or adjacent to a critical environmental area (CEA). (See Part 1. E.3.d)
If "Yes", answer questions a - c. If "No", go to Section 13.

☑ NO ☐ YES

	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. The proposed action may result in a reduction in the quantity of the resource or characteristic which was the basis for designation of the CEA.	E3d	□	□
b. The proposed action may result in a reduction in the quality of the resource or characteristic which was the basis for designation of the CEA.	E3d	□	□
c. Other impacts: _____ _____		□	□

13. Impact on Transportation
The proposed action may result in a change to existing transportation systems. ☐ NO ☑ YES
(See Part 1. D.2.j)
If "Yes", answer questions a - f. If "No", go to Section 14.

	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. Projected traffic increase may exceed capacity of existing road network.	D2j	☑	☐
b. The proposed action may result in the construction of paved parking area for 500 or more vehicles.	D2j	☑	☐
c. The proposed action will degrade existing transit access.	D2j	☑	☐
d. The proposed action will degrade existing pedestrian or bicycle accommodations.	D2j	☑	☐
e. The proposed action may alter the present pattern of movement of people or goods.	D2j	☑	☐
f. Other impacts: Town Board must evaluate impacts to transportation for creating of new TDR receiving district, pursuant to Town Law 261-A(2)(a).		☐	☐

14. Impact on Energy
The proposed action may cause an increase in the use of any form of energy. ☑ NO ☐ YES
(See Part 1. D.2.k)
If "Yes", answer questions a - e. If "No", go to Section 15.

	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. The proposed action will require a new, or an upgrade to an existing, substation.	D2k	☐	☐
b. The proposed action will require the creation or extension of an energy transmission or supply system to serve more than 50 single or two-family residences or to serve a commercial or industrial use.	D1f, D1q, D2k	☐	☐
c. The proposed action may utilize more than 2,500 MWhrs per year of electricity.	D2k	☐	☐
d. The proposed action may involve heating and/or cooling of more than 100,000 square feet of building area when completed.	D1g	☐	☐
e. Other Impacts: _____			

15. Impact on Noise, Odor, and Light
The proposed action may result in an increase in noise, odors, or outdoor lighting. ☑ NO ☐ YES
(See Part 1. D.2.m., n., and o.)
If "Yes", answer questions a - f. If "No", go to Section 16.

	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. The proposed action may produce sound above noise levels established by local regulation.	D2m	☐	☐
b. The proposed action may result in blasting within 1,500 feet of any residence, hospital, school, licensed day care center, or nursing home.	D2m, E1d	☐	☐
c. The proposed action may result in routine odors for more than one hour per day.	D2o	☐	☐

d. The proposed action may result in light shining onto adjoining properties.	D2n	☐	☐
e. The proposed action may result in lighting creating sky-glow brighter than existing area conditions.	D2n, E1a	☐	☐
f. Other impacts: _____ _____		☐	☐

16. Impact on Human Health

The proposed action may have an impact on human health from exposure to new or existing sources of contaminants. (See Part 1.D.2.q., E.1. d. f. g. and h.) ☑ NO ☐ YES

If "Yes", answer questions a - m. If "No", go to Section 17.

	Relevant Part I Question(s)	No,or small impact may cccur	Moderate to large impact may occur
a. The proposed action is located within 1500 feet of a school, hospital, licensed day care center, group home, nursing home or retirement community.	E1d	☐	☐
b. The site of the proposed action is currently undergoing remediation.	E1g, E1h	☐	☐
c. There is a completed emergency spill remediation, or a completed environmental site remediation on, or adjacent to, the site of the proposed action.	E1g, E1h	☐	☐
d. The site of the action is subject to an institutional control limiting the use of the property (e.g., easement or deed restriction).	E1g, E1h	☐	☐
e. The proposed action may affect institutional control measures that were put in place to ensure that the site remains protective of the environment and human health.	E1g, E1h	☐	☐
f. The proposed action has adequate control measures in place to ensure that future generation, treatment and/or disposal of hazardous wastes will be protective of the environment and human health.	D2t	☐	☐
g. The proposed action involves construction or modification of a solid waste management facility.	D2q, E1f	☐	☐
h. The proposed action may result in the unearthing of solid or hazardous waste.	D2q, E1f	☐	☐
i. The proposed action may result in an increase in the rate of disposal, or processing, of solid waste.	D2r, D2s	☐	☐
j. The proposed action may result in excavation or other disturbance within 2000 feet of a site used for the disposal of solid or hazardous waste.	E1f, E1g E1h	☐	☐
k. The proposed action may result in the migration of explosive gases from a landfill site to adjacent off site structures.	E1f, E1g	☐	☐
l. The proposed action may result in the release of contaminated leachate from the project site.	D2s, E1f, D2r	☐	☐
m. Other impacts: _____ _____			

17. Consistency with Community Plans

The proposed action is not consistent with adopted land use plans. ☑ NO ☐ YES

(See Part 1. C.1, C.2. and C.3.)

If "Yes", answer questions a - h. If "No", go to Section 18.

	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. The proposed action's land use components may be different from, or in sharp contrast to, current surrounding land use pattern(s).	C2, C3, D1a E1a, E1b	☐	☐
b. The proposed action will cause the permanent population of the city, town or village in which the project is located to grow by more than 5%.	C2	☐	☐
c. The proposed action is inconsistent with local land use plans or zoning regulations.	C2, C2, C3	☐	☐
d. The proposed action is inconsistent with any County plans, or other regional land use plans.	C2, C2	☐	☐
e. The proposed action may cause a change in the density of development that is not supported by existing infrastructure or is distant from existing infrastructure.	C3, D1c, D1d, D1f, D1d, Elb	☐	☐
f. The proposed action is located in an area characterized by low density development that will require new or expanded public infrastructure.	C4, D2c, D2d D2j	☐	☐
g. The proposed action may induce secondary development impacts (e.g., residential or commercial development not included in the proposed action)	C2a	☐	☐
h. Other: _____		☐	☐

18. Consistency with Community Character

The proposed project is inconsistent with the existing community character. ☑ NO ☐ YES

(See Part 1. C.2, C.3, D.2, E.3)

If "Yes", answer questions a - g. If "No", proceed to Part 3.

	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. The proposed action may replace or eliminate existing facilities, structures, or areas of historic importance to the community.	E3e, E3f, E3g	☐	☐
b. The proposed action may create a demand for additional community services (e.g. schools, police and fire)	C4	☐	☐
c. The proposed action may displace affordable or low-income housing in an area where there is a shortage of such housing.	C2, C3, D1f D1g, E1a	☐	☐
d. The proposed action may interfere with the use or enjoyment of officially recognized or designated public resources.	C2, E3	☐	☐
e. The proposed action is inconsistent with the predominant architectural scale and character.	C2, C3	☐	☐
f. Proposed action is inconsistent with the character of the existing natural landscape.	C2, C3 E1a, E1b E2g, E2h	☐	☐
g. Other impacts: _____		☐	☐

PRINT FULL FORM

Appendix 1.1.C:
Full Environmental Assessment Form
Part 3

Agency Use Only [IfApplicable]

Project : Golf Course (GC) Zoning Amendments

Date : 7/20/2026

Full Environmental Assessment Form
Part 3 - Evaluation of the Magnitude and Importance of Project Impacts
and
Determination of Significance

Part 3 provides the reasons in support of the determination of significance. The lead agency must complete Part 3 for every question in Part 2 where the impact has been identified as potentially moderate to large or where there is a need to explain why a particular element of the proposed action will not, or may, result in a significant adverse environmental impact.

Based on the analysis in Part 3, the lead agency must decide whether to require an environmental impact statement to further assess the proposed action or whether available information is sufficient for the lead agency to conclude that the proposed action will not have a significant adverse environmental impact. By completing the certification on the next page, the lead agency can complete its determination of significance.

Reasons Supporting This Determination:

To complete this section:

- Identify the impact based on the Part 2 responses and describe its magnitude. Magnitude considers factors such as severity, size or extent of an impact.
- Assess the importance of the impact. Importance relates to the geographic scope, duration, probability of the impact occurring, number of people affected by the impact and any additional environmental consequences if the impact were to occur.
- The assessment should take into consideration any design element or project changes.
- Repeat this process for each Part 2 question where the impact has been identified as potentially moderate to large or where there is a need to explain why a particular element of the proposed action will not, or may, result in a significant adverse environmental impact.
- Provide the reason(s) why the impact may, or will not, result in a significant adverse environmental impact
- For Conditional Negative Declarations identify the specific condition(s) imposed that will modify the proposed action so that no significant adverse environmental impacts will result.
- Attach additional sheets, as needed.

Pursuant to New York Town Law Section 261-A(2)(a), a Generic Environmental Impact Statement (GEIS) must be prepared for the proposed action, as it involves the creating and mapping of a new Transfer of Development Rights (TDR) receiving district. The Town Board must evaluate the impacts to public water supply, sewage disposal, transportation, and fire protection.

Determination of Significance - Type 1 and Unlisted Actions

SEQR Status: ☑ Type 1 ☐ Unlisted

Identify portions of EAF completed for this Project: ☑ Part 1 ☑ Part 2 ☑ Part 3

Upon review of the information recorded on this EAF, as noted, plus this additional support information

Pursuant to New York Town Law Section 261-A(2)(a), a Generic Environmental Impact Statement (GEIS) must be prepared for the proposed action, as it involves the creating and mapping of a new Transfer of Development Rights (TDR) receiving district.

and considering both the magnitude and importance of each identified potential impact, it is the conclusion of the _____ as lead agency that:

☑ A. This project will result in no significant adverse impacts on the environment, and, therefore, an environmental impact statement need not be prepared. Accordingly, this negative declaration is issued.

☐ B. Although this project could have a significant adverse impact on the environment, that impact will be avoided or substantially mitigated because of the following conditions which will be required by the lead agency:

There will, therefore, be no significant adverse impacts from the project as conditioned, and, therefore, this conditioned negative declaration is issued. A conditioned negative declaration may be used only for UNLISTED actions (see 6 NYCRR 617.7(d)).

☐ C. This Project may result in one or more significant adverse impacts on the environment, and an environmental impact statement must be prepared to further assess the impact(s) and possible mitigation and to explore alternatives to avoid or reduce those impacts. Accordingly, this positive declaration is issued.

Name of Action: Golf Course (GC) Zoning Amendments

Name of Lead Agency: Riverhead Town Board

Name of Responsible Officer in Lead Agency: Greg Bergman

Title of Responsible Officer: Senior Planner

Signature of Responsible Officer in Lead Agency: Date: 7/20/2026

Signature of Preparer (if different from Responsible Officer) Date:

For Further Information:

Contact Person: Greg Bergman, Senior Planner

Address: 4 W. 2nd Street, Riverhead, NY 11901

Telephone Number: 631-727-3200 Ext 264

E-mail: bergman@townofriverheadny.gov

For Type 1 Actions and Conditioned Negative Declarations, a copy of this Notice is sent to:

Chief Executive Officer of the political subdivision in which the action will be principally located (e.g., Town / City / Village of)
Other involved agencies (if any)
Applicant (if any)
Environmental Notice Bulletin: http://www.dec.ny.gov/enb/enb.html

PRINT FULL FORM

Appendix 1.1.D:
Town Board Resolution No. 2026-747

ADOPTED

TOWN OF RIVERHEAD

TB Resolution 2026-747

ASSUMES LEAD AGENCY, ISSUES POSITIVE DECLARATION FOR PROPOSED GOLF COURSE ZONING AMENDMENTS

Councilwoman Waski offered the following resolution,
which was seconded by Councilman Rothwell

WHEREAS, the Riverhead Planning Department has prepared a series of draft amendments to Riverhead Town Code Chapter 301, hereby collectively referred to as "the proposed action" in order to implement the recommendations of the 2024 Town of Riverhead Comprehensive Plan Update as it relates to the construction of accessory golf cottages on existing golf courses within the Town of Riverhead; and

WHEREAS, the proposed action includes the following:

1. Creation of a new zoning district entitled "Golf Course (GC) Zoning Use District";
2. Amending the official Zoning Map of the Town of Riverhead to re-zone six (6) existing golf courses to the new GC zoning use designation;
3. Amending Town Code Chapter 301-3 to include a definition of "Golf Cottage," as well as amend the definition of "Standard Golf Course";
4. Amending Town Code Chapter 301-208 to include new GC zoning use district as a Transfer of Development Rights receiving area;
5. Amend Town Code Chapter 301-208 to identify redemption formula for TDR's as it relates to golf cotttages;
6. Amend Town Code Chapter 301, Attachment 2 to include dimensional regulations for new GC zoning use district; and

WHEREAS, the proposed action constitutes a Type 1 Action pursuant to 6NYCRR Part 617.4(b)(2), as it involves the adoption of changes in the allowable uses within any zoning district, affecting 25 or more acres of the district; and

WHEREAS, pursuant to New York Town Law Section 261-A(2)(a), a Generic Environmental Impact Statement (GEIS) must be prepared in order to establish a new TDR receiving district; and

WHEREAS, the Town Board has not identified any other involved agencies for the proposed action, and as such, SEQRA regulations state that in cases in which there is only one involved agency, in this case the Riverhead Town Board, coordinated review is not required and said agency must assume the responsibilities of Lead Agency; and

WHEREAS, the Planning Department has prepared the draft code amendments, as well as the SEQRA Full Environmental Assessment Form (FEAF) Parts 1, 2 and 3 (attached). Now, therefore be it

RESOLVED, that the Town Board hereby assumes Lead Agency status for the purposes

of SEQRA review; and be it further,

RESOLVED, that the Town Board hereby issues a Positive Declaration pursuant to SEQRA, requiring the preparation of a Draft Generic Environmental Impact Statement for the proposed action; and be it further,

RESOLVED, the Planning Department be directed to prepare a draft Scope pursuant to SEQRA for review by the Lead Agency; and be it further,

RESOLVED, the requisite SEQRA Notice of Determination/Positive Declaration be filed with the NYSDEC Environmental News Bulletin (ENB) and all relevant information be filed with the Town Clerk; and be it further,

RESOLVED, upon submission of a Draft Scope by the applicant, the public will have the opportunity to comment on the Draft Scope for a prescribed amount of time in accordance with 6NYCRR Part 617.8; and be it further,

RESOLVED, that those interested parties seeking additional information on this application may contact Gregory Bergman, Senior Planner, Town of Riverhead, at 631-727-3200 Ext. 264; and be it further,

RESOLVED, that the Town Clerk is hereby authorized to forward a copy of this resolution to the Planning Department, the Office of the Town Attorney; the Planning Board Attorney; and be it further,

RESOLVED, that all Town Hall Departments may review and obtain a copy of this resolution from the electronic storage device and if needed, a certified copy of same may be obtained from the Office of the Town Clerk.

THE VOTE

RESULT:	**Adopted**
MOVER:	Councilwoman Joann Waski
SECONDER:	Councilman Kenneth Rothwell
AYES:	Jerry Halpin, Kenneth Rothwell, Robert Kern, Denise Merrifield, Joann Waski
NAYS:	None

Appendix 1.1.E:

Town Board Resolution No. 2026-748

Resolution Setting Comment Period for Submission of Comments on Draft Scope

8/4/2026 IX.33.

ADOPTED

TOWN OF RIVERHEAD

TB Resolution 2026-748

ACCEPTS DRAFT SCOPE ON PROPOSED GOLF COURSE ZONING AMENDMENTS AND SETS TIME PERIOD FOR SUBMISSION OF WRITTEN COMMENTS ON DRAFT SCOPE

Councilman Rothwell offered the following resolution,
which was seconded by Councilman Kern

WHEREAS, by Resolution adopted on August 4, 2026, the Riverhead Town Board assumed Lead Agency status and issued a Positive Declaration pursuant to SEQRA for a series of proposed amendments to Riverhead Town Code Chapter 301, hereby collectively referred to as "the proposed action," in order to implement the recommendations of the 2024 Town of Riverhead Comprehensive Plan Update as it relates to the construction of accessory golf cottages on existing golf courses within the Town of Riverhead; and

WHEREAS, the Planning Department has prepared a Draft Scope to be used for the preparation of a Draft Generic Environmental Impact Statement (DGEIS) to analyze the proposed action (attached); and

WHEREAS, pursuant to 6NYCRR Part 617.8(d), scoping must include an opportunity for public participation. The Lead Agency may either provide a period of time for the public review and provide written comments on the draft scope, or provide for public input through the use of meetings, exchanges of written material, or other means. Now, therefore be it

RESOLVED, that that Town Board hereby accepts the Draft Scope and makes the Draft Scope available for public consumption on the Town of Riverhead's website under the Planning Department page, the Office of the Town Clerk, and the Planning Department; and be it further,

RESOLVED, that the Town Board hereby sets a twenty-one (21) day time period for the submission of written comments on the Draft Scope, which can be submitted to Gregory Bergman, Senior Planner, by email at Bergman@townofriverheadny.gov or by mail at 4 W. 2nd Street, Riverhead, NY 11901; and be it further,

RESOLVED, that the period for the submission of written comments shall conclude at 4:30 p.m. on Tuesday, August 25, 2026; and be it further,

RESOLVED, that those interested parties seeking additional information on this application can contact Gregory Bergman, Senior Planner, Town of Riverhead, at 631-727-3200 Ext. 264; and be it further,

RESOLVED, that the Town Clerk is hereby authorized to forward a copy of this resolution to the Planning Department, the Office of the Town Attorney; and be it further,

RESOLVED, that all Town Hall Departments may review and obtain a copy of this resolution from the electronic storage device and if needed, a certified copy of same may be obtained from the Office of the Town Clerk.

THE VOTE

RESULT:	**Adopted**
MOVER:	Councilman Kenneth Rothwell
SECONDER:	Councilman Robert Kern
AYES:	Jerry Halpin, Kenneth Rothwell, Robert Kern, Denise Merrifield, Joann Waski
NAYS:	None

Appendix 1.2.A:

Proposed Town Code Article XXIV: Golf Course Zoning Use District

ARTICLE XXIV

Golf Course (GC) Zoning Use District

§ 301-117. Purpose and intent.

The intent of the Golf Course (GC) Zoning Use District is to allow for the flexibility to support the continued economic success of existing golf courses operating within the Town of Riverhead by creating a regulatory framework to allow for the creation of accessory golf cottages, with the use of Transfer of Development Rights (TDR), while continuing to allow for low-density, clustered residential development in the event of golf course redevelopment.

§ 301-118. Uses.

In the GC Zoning Use District, no building, structure or premises shall be used or arranged or designed to be used, and no building or structure shall be hereafter erected, reconstructed or altered, unless otherwise provided in this chapter, except for the following permitted uses or specially permitted uses and their customary accessory uses:

A. Permitted uses:

(1) Agricultural production, including but not limited to the following:

(a) Field crops, including corn, wheat, oats, rye, barley, hay, potatoes, and dry beans.

(b) Fruits, including apples, peaches, grapes, cherries and berries.

(c) Vegetables, including tomatoes, snap beans, cabbage, carrots, beets and onions.

(d) Horticultural specialties, including nursery stock, ornamental shrubs, ornamental trees and flowers.

(e) Livestock and livestock products, including cattle, sheep, hogs, goats, horses, poultry, farmed deer, farmed buffalo, fur-bearing animals, milk, eggs and furs.

(f) Christmas trees grown in a managed Christmas tree operation, whether dug for transplanting or cut from the stump.

(g) Commercial horse-boarding operations.

(2) Dwelling, one-family.

(3) Attached single-family dwelling units within a cluster development.

(4) Golf course (standard), with or without clubhouse.

(5) Riding academy, corral and training of horses, including but not limited to private polo chukkers.

(6) Greenhouse, provided that the subject parcel is a minimum of five acres. A permanent greenhouse to be used for retail sales shall be subject to site plan review and approval.

B. Specially permitted uses, by special use permit of the Town Board:

(1) Bed-and-breakfast.

(2) Overhead electrical power transmission and distribution lines in excess of 13 kilovolts.

(3) Educational institution without boarding facilities or dormitories, private.

C. Accessory uses. Accessory uses shall include those uses customarily incidental to any of the above permitted uses or specially permitted uses when located on the same lot. Specifically permitted are the following:

(1) Home occupations or professions conducted within the dwelling by the residents thereof.

(2) The sale at retail of homegrown or homemade products, provided that all retail uses shall be subject to site plan approval pursuant to Article LVI, Site Plan Review, and the other provisions of this chapter. The farmer may sell supporting farm products and farm products not grown by the farmer, provided that the area devoted to the sale of said products at no time exceeds 40% of the total merchandising area.

(3) Agricultural worker housing pursuant to the requirements of § 301-239.

(4) Golf cottages, subject to the use of preservation credits as outlined in §301-208. Golf cottages shall be limited to 600 square feet per of gross floor area per unit, and shall be limited to one golf cottage per hole, for a maximum of eighteen cottages per standard golf course.

§ 301-119. Accessory buildings and structures.

A. Location.

(1) No accessory building or structure shall be erected, reconstructed or altered so as to be situate as follows:

(a) In a front yard.

(b) In a side yard, unless the accessory building is 60 feet from a side street line, 25 feet from a property line and 10 feet from any other building.

(c) In a rear yard, unless the accessory building is 20 feet from a property line, 10 feet from any other building and 60 feet from a side street line and rear street line.

(d) One accessory building with a maximum floor area of 144 square feet or less, a maximum height of 12 feet or less, located in the rear yard, shall be excepted from the provisions of Subsection A(1)(c) and additionally shall not require a permit. It shall be permitted five feet from a property line, 10 feet from any other building and 60 feet from a side street line and rear street line.

(2) Golf cottages shall adhere to the following standards:

(a) Golf cottages shall be sited in such a manner that minimizes visibility of structures from public roadways and neighboring properties

(b) No golf cottage shall be constructed unless the cottage is a minimum of 125 feet from any property line.

(c) For golf courses which have frontage along Sound Avenue, the minimum setback for golf cottages and related improvements, including parking areas, shall be 300 feet from Sound Avenue.

(d) Golf cottages can be freestanding structures, or attached units, with no more than two attached cottages with common walls separating individual units.

(3) Excepted from Subsection A(1)(a), (b) and (c) of this section are fences not exceeding four feet in height which may be erected on the lot lines of the front yard or any existing street line of a one-family dwelling, and fences not exceeding six feet in height which may be erected on other lot lines of a one-family dwelling. Fences on a corner lot must comply with § 301-245. On lots used for other than one-family dwellings, wire strand or open woven wire fences up to six feet in height may be erected on all lot lines. If such fence is erected along any street, the permitted height thereof shall be measured from the existing elevation of the center line of such street.

B. Where an accessory building is constructed as a building subordinate to the use of a park or playground, the building shall be erected, reconstructed or altered in conformity to the requirements hereof for a main building.

§ 301-120. Lot, yard, bulk and height requirements.

No buildings shall be erected nor any lot or land area utilized unless in conformity with the Zoning Schedule[2] incorporated into this chapter by reference and made a part hereof with the same force and effect as if such requirements were herein set forth in full as specified in said schedule, except as may be hereafter specifically modified.

§ 301-120.1. Cluster development and additional subdivision requirements.

A. Purpose and intent. It is the purpose of this article to require cluster development pursuant to § 278 of the Town Law in order to allow for maximum flexibility in achieving a compatible arrangement of agricultural and residential land uses and to protect prime agricultural soils, scenic vistas, and significant natural features.

B. In order to accomplish the clustering of residential lots within the GC Zoning Use District, an applicant for subdivision shall provide a standard yield plan and a cluster plat which succeeds in preserving agricultural land for agricultural use to the greatest extent practicable. In its review of a cluster subdivision plat, the Planning Board shall consider the following:[3]

(1) The location and extent of prime agricultural soils;

(2) The location of wooded areas;

(3) The location and extent of natural features;

(4) The general topography and the location and extent of sloped areas;

(5) The spatial relationship of the property to contiguous or neighboring preserved agricultural land;

(6) The general stormwater tributary area and the extent and direction of overland drainage.

C. Cluster development in this article shall require that a minimum of 70% of Class I or Class II prime agricultural soils are preserved through the creation of farm lots or preservation of 70% of land as open space, recording of agricultural or open space easements which restrict division of said lot(s), coverage and such other items as the Planning Board deems appropriate to preserve the agriculture and scenic vistas created by the farm lot or open space area.

D. The Planning Board may approve a cluster subdivision with a reduced percentage of preserved prime agricultural soils or open space based upon unique characteristics of land such that public utilities, streets, arrangement of lots or existence of natural features require development with less than 70% preservation of prime agriculture soils or open space. In the event that the Planning Board approves a cluster subdivision that preserves less than 70% of prime agricultural soils or open space, the Planning Board must set forth all considerations, practical difficulties, and/or reasons supporting a decision to approve the cluster plat within the resolution approving the preliminary plat. In no event may the Planning Board approve a cluster subdivision plat with less than 50% of the area of the tract being preserved as prime soils or open spaces area.

§ 301-120.2. Guidelines for cluster development.

The Planning Board shall apply the following guidelines in addition to Article LIII, Subdivision Regulations, and Article LIV, Cluster Development, of this chapter, for all cluster subdivisions:

A. The cluster subdivision plat shall be designated so as to situate the agricultural lots or open space along an existing highway or roadway or adjacent to existing agricultural lots or preserved land or such other location such that maximum preservation of agricultural and scenic vistas are achieved.

B. The agricultural lot shall be laid out so as to provide for one building area, and said building area shall be counted towards yield. The Planning Board shall describe the square footage of the building area, and the Planning Board may, in its discretion, require that the building area be plotted on the subdivision map. The Planning Board shall require covenants and restrictions to enforce dimensional requirements, lot coverage, impervious surface limits, retention or plan for all stormwater runoff for both the residential and agricultural components of the subject property as set forth in the Town Code, and such other items the Planning Board deems appropriate to conform with the intent of the cluster regulations, including, but not limited to, location and limitation of parking, outdoor storage, clearing limits, and means of ingress and egress. The Planning Board shall require covenants and restrictions to be filed affecting the aforestated prior to issuance of final plat approval.

C. The agricultural lot must be laid out so as to provide a minimum lot size of 10 acres. An agricultural lot with a lot size greater than 20 acres shall only be divided if required to ensure appropriate arrangement of lots, streets and public utilities or preserve or highlight existence of natural features. An agricultural lot shall prohibit erection, construction, or placement of any structures, permanent or temporary, without prior approval of the Planning Board.

D. Within the GC Zoning Use District, no more than 53% of wooded areas existing upon a tract shall be cleared.

E. The Planning Board shall not cluster lots in order to create golf courses, playgrounds, tennis courts, swimming pools or any other amenity as required open space. The sole purpose of the cluster plat is to preserve agricultural land for agricultural use and other natural features and open space to the greatest extent practicable.[4]

Appendix 1.2.B:

Proposed Amendments to Town Code Chapter 301-3: Definition; word usage

§ 301-3. Definitions; word usage

B. Except as set forth in other articles of this chapter, as used in this chapter, certain terms and words are herewith defined as follows:

STANDARD GOLF COURSE — Standard golf courses have eighteen holes, and may include a clubhouse and golf cottages as accessory uses. Standard golf courses have a minimum size of ~~a minimum par of 70 and a minimum of 6,000 yards as measured from the middle tees, and are~~ no less than 125 acres.

GOLF COTTAGE – A permitted accessory use to a standard golf course, subject to the use of preservation credits as noted in §301-208, intended to provide convenient lodging options for golfers or visitors wishing to stay on a golf course. Golf cottages are not to exceed 600 square feet of gross floor area per unit, and shall be limited to one golf cottage per hole, for a maximum of eighteen cottages per standard golf course. Golf cottages can be freestanding structures, or attached units, with no more than two attached cottages with common walls separating units. Nothing contained within this definition shall be construed to permit the construction of restaurants, spas, or other types of amenities related to golf cottages. Golf cottages shall remain under the ownership and operation of the golf course upon which they are located, and shall not be subdivided or placed into a condominium ownership for the purposes of transfer. Golf cottages shall not be used for the purposes of establishing residency within the Town of Riverhead.

Appendix 1.2.C:

Proposed Amendments to Town Code Chapter 301-208: Redemption of Preservation Credits

§ 301-208. Redemption of preservation credits. [Amended 12-17-2024 by L.L. No. 43-2024]

Preservation credits may be used to increase the development yields within mapped receiving areas according to the procedures set forth herein. In its determination of the total development yield of a particular property upon which development rights are to be applied, the Board responsible for review shall consider the extent of natural features existing on the site, including, but not limited to, water surfaces, tidal wetlands, freshwater wetlands, horizontal area of escarpments, bluffs, woodlands and beaches below mean high water.

A. Residence A-80 (RA80) Zoning Use District. Preservation credits may be used to increase lot yield within the RA80 Zoning Use District. However, in no instance shall such lot yield exceed one lot per 40,000 square feet after subtracting for that land area required for infrastructure and public improvements. In its review and approval of subdivision within the RA80 Zoning Use District utilizing preservation credits, the Planning Board shall condition the final map approval upon the redemption of the appropriate number of credits, with the signature and recording of the subdivision predicated upon the redemption and retiring of the appropriate number of preservation credits.

B. Residence A-40 (RA40) Zoning Use District. Preservation credits may be used to increase lot yield within the RA40 Zoning Use District. However, in no instance shall such lot yield exceed one lot per 20,000 square feet after subtracting for that land area required for infrastructure and public improvements. In its review and approval of subdivision within the RA40 Zoning Use District utilizing preservation credits, the Planning Board shall condition the final map approval upon the redemption of the appropriate number of credits, with the signature and recording of the subdivision predicated upon the redemption and retiring of the appropriate number of preservation credits.

C. Hamlet Residential (HR) Zoning Use District. Preservation credits may be used to increase lot yield within the HR Zoning Use District. However, in no instance shall such lot yield exceed one lot per 40,000 square feet after subtracting for that land area required for infrastructure and public improvements. In its review and approval of subdivision within the HR Zoning Use District utilizing preservation credits, the Planning Board shall condition the final map approval upon the redemption of the appropriate number of credits, with the signature and recording of the subdivision predicated upon the redemption and retiring of the appropriate number of preservation credits.

D. Retirement Community (RC) Zoning Use District. Preservation credits may be used to increase the development yield associated with site plan applications made to the Town pursuant to Article VIII, Residence RC (RC) Zoning Use District (Retirement Community), of this chapter. In its review and approval of such site plan applications, the Board responsible for review may increase the allowable development yield at a rate of one dwelling unit per preservation credit redeemed, not to exceed four dwelling units per 40,000 square feet. In its review and approval of subdivisions within the RC Zoning Use District utilizing preservation credits, the Planning Board shall condition the final map approval upon the redemption of the appropriate number of credits, with the signature and recording of the subdivision predicated upon the redemption and retiring of the appropriate number of preservation credits.

E. Commercial/Residential Campus (CRC) Zoning Use District. Two-family residences shall

Downloaded from https://ecode360.com/RI0508 on 2026-04-22

require a lot of 40,000 square feet and shall employ the use of one preservation credit for the second dwelling unit. However, in no instance shall the number of dwelling units exceed two dwelling units per 40,000 square feet after subtracting for that land area required for infrastructure and public improvements. In its review and approval of subdivision within the CRC Zoning Use District utilizing preservation credits, the Planning Board shall condition the final map approval upon the redemption of the appropriate number of credits, with the signature and recording of the subdivision predicated upon the redemption and retiring of the appropriate number of preservation credits.

F. Business Center (BC) Zoning Use District. Preservation credits may be used to increase the development yield associated with site plan applications made to the Town pursuant to Article LVI, Site Plan Review, of this chapter. In its review and approval of such site plan applications, the Board responsible for review may increase the allowable development yield at a rate of an additional 3,000 square feet of floor area per preservation credit redeemed to a maximum 0.3 floor area ratio.

G. Shopping Center (SC) Zoning Use District. Preservation credits may be used to increase the development yield associated with site plan applications made to the Town pursuant to Article LVI, Site Plan Review, of this chapter. In its review and approval of such site plan applications, the Board responsible for review may increase the allowable development yield at a rate of an additional 3,000 square feet of floor area per preservation credit redeemed to a maximum 0.3 floor area ratio.

H. Destination Retail Center (DRC) Zoning Use District. Preservation credits may be used to increase the development yield associated with site plan applications made to the Town pursuant to Article LVI, Site Plan Review, of this chapter. In its review and approval of such site plan applications, the Board responsible for review may increase the allowable development yield at a rate of an additional 3,000 square feet of floor area per preservation credit redeemed to a maximum 0.3 floor area ratio.

I. Business F Zoning Use District. Preservation credits may be used to increase the development yield associated with site plan applications made to the Town pursuant to Article LVI, Site Plan Review, of this chapter. In its review and approval of such site plan applications, the Board responsible for review may increase the allowable development yield at a rate of an additional 3,000 square feet of floor area per preservation credit redeemed to a maximum of 0.3 floor area ratio.

J. Planned Recreational Park (PRP) Zoning Use District. Preservation credits may be used to increase the development yield associated with site plan applications made to the Town pursuant to Article LVI, Site Plan Review, of this chapter. In its review and approval of such site plan applications, the Board responsible for review may increase the allowable development yield at a rate of an additional 1,500 square feet of floor area per preservation credit redeemed to a maximum of 0.2 floor area ratio.

K. Calverton Industrial (CI). Preservation credits may be used to increase the development yield for site plan applications made to the Town pursuant to Article LVI, Site Plan Review, of this chapter. In its review and approval of such site plan application, the Board responsible for review may increase the development yield at a rate of an additional 5,000 square feet of floor area per preservation credit redeemed to a maximum 0.30 floor area ratio.

L. Golf Course (GC) Zoning Use District. Preservation credits may be used for the

Downloaded from https://ecode360.com/RI0508 on 2026-04-22

development of golf cottages, as accessory uses to standard golf courses, as a rate of 1,200 sq. ft. of floor area for golf cottage use per preservation credit redeemed.

Downloaded from https://ecode360.com/RI0508 on 2026-04-22

Appendix 1.2.D:

Proposed Amendments to Town Code Chapter 301, Attachment 2: Residence Districts Schedule of Dimensional Regulations

301 Attachment 2

Town of Riverhead

Residence Districts Schedule of Dimensional Regulations
[Added 7-6-2004; amended 3-15-2005 by L.L. No. 5-2005; 8-1-2006 by L.L. No. 28-2006; 6-19-2012 by L.L. No. 9-2012; 6-7-2016 by L.L. No. 18-2016; 4-4-2023 by L.L. No. 9-2023]

Zoning Use District	Minimum Lot Area (square feet)	Minimum Lot Width (feet)	Maximum Impervious Surface (%)	Maximum Height of Residential Buildings (feet)	Minimum Front Yard Depth (feet)	Minimum Either Side Yard Width (feet)	Minimum Both Side Yards, Total Width (feet)	Minimum Side Yard Abutting Side Street (feet)	Minimum Rear Yard Depth (feet)
Agricultural Protection (APZ)[3 4]	80,000	175	15%	35	60	30	65	60	75
Golf Course (GC)	80,000	175	15%	35	60	30	65	60	75
Residence A-80 (RA80)[3 4]	80,000	175	15%	35	60	30	65	60	75
Residence A-40 (RA40):									
As-of-right subdivision	40,000	150	15%	35	50	25	55	50	60
Workforce housing option[1]	20,000	100	15%	35	40	10	25	40	40
Hamlet Residential (HR)	80,000	175	15%	35	60	30	65	60	75
Residence B-80 (RB80)[3]	80,000	175	15%	35	60	30	65	60	75
Residence B-40 (RB40)	40,000	150	15%	35	50	25	55	50	60
Retirement Community (RC):	15 acres[2]	150	15%	35	25	10	25	25	40
One-family dwelling units	15 acres[2]	150	15%	35	25	10	25	25	40
Independent-living retirement community, assisted-living retirement community, continuing-care retirement community, independent congregate-living residence	15 acres[2]	150	70%	45	25	10	25	25	40

Zoning Use District	Minimum Lot Area (square feet)	Minimum Lot Width (feet)	Maximum Impervious Surface (%)	Maximum Height of Residential Buildings (feet)	Minimum Front Yard Depth (feet)	Minimum Either Side Yard Width (feet)	Minimum Both Side Yards, Total Width (feet)	Minimum Side Yard Abutting Side Street (feet)	Minimum Rear Yard Depth (feet)
Multifamily Residential Professional Office Zone (MRP)	See § 301-73 of this chapter								

NOTES:

[1] The workforce housing option allows an increased development yield of 100%, provided that 100% of the increased development yield within the subdivision is reserved exclusively for workforce housing.

[2] The minimum parcel area to be considered for inclusion within the Residence RC Zoning Use District shall be 15 acres with development yield of one unit per 40,000 square feet.

[3] Agricultural worker housing development yields not to exceed one unit per 80,000 square feet of real property.

[4] Tier II battery energy storage systems shall be subject to the standards set forth in § 301-283.31.