

*Chapter 2: Probable Impacts of Project 1,
Shaft and Bypass Tunnel Construction*

Section 2.2: Land Use, Zoning, Public Policy, and Open Space

2.2-1 INTRODUCTION

This section of Chapter 2 discusses the potential impacts to land use, zoning, public policy, and open space during construction of Project 1, Shaft and Bypass Tunnel Construction. Construction activities generally have the potential to disturb communities from increased traffic, air pollutants, and noise, which are each discussed in detail in other sections of this EIS (Sections 2.10, 2.11, and 2.13, respectively).

2.2-2 METHODOLOGY

The study area for this analysis is defined by a ¼-mile radius surrounding each component of Project 1. As discussed in Section 2.1, “Description of the Project 1 Construction Program,” construction activity for Project 1 would take place on both sides of the Hudson River. Work on the west side of the river would take place at the west connection site and along the route of the water main extension and dewatering pipeline. As described in Chapter 1 and as shown on **Figure 2.2-1**, the dewatering pipeline route options would follow Route 9W from the west connection site south to Old Post Road and River Road. Option 1 would follow River Road and then go through private property to the Hudson River. Option 2 would continue south on River Road for about 2,500 feet before entering a cove through private property. The water main extension would extend from the west connection site boundary to Old Post Road. Work on the east side of the river would take place at the east connection site (Shaft 6). Subsequent to the issuance of the DEIS, DEP advanced the design of the dewatering pipeline that would be constructed from the west connection site to the Hudson River, selecting one potential dewatering pipeline route (Option 2 in the DEIS) as the only route further evaluated for the FEIS. Within this route, the dewatering pipeline would be sited to minimize stream and wetland crossings. Where crossings are required, trenchless techniques would be used to avoid impacts to these resources.

The primary source of land use information is GIS parcel data obtained from Ulster, Orange, and Dutchess Counties. Field surveys and aerial photography were used to verify land use within the study areas. Zoning and public policy information was obtained from the Towns of Newburgh and Wappinger.

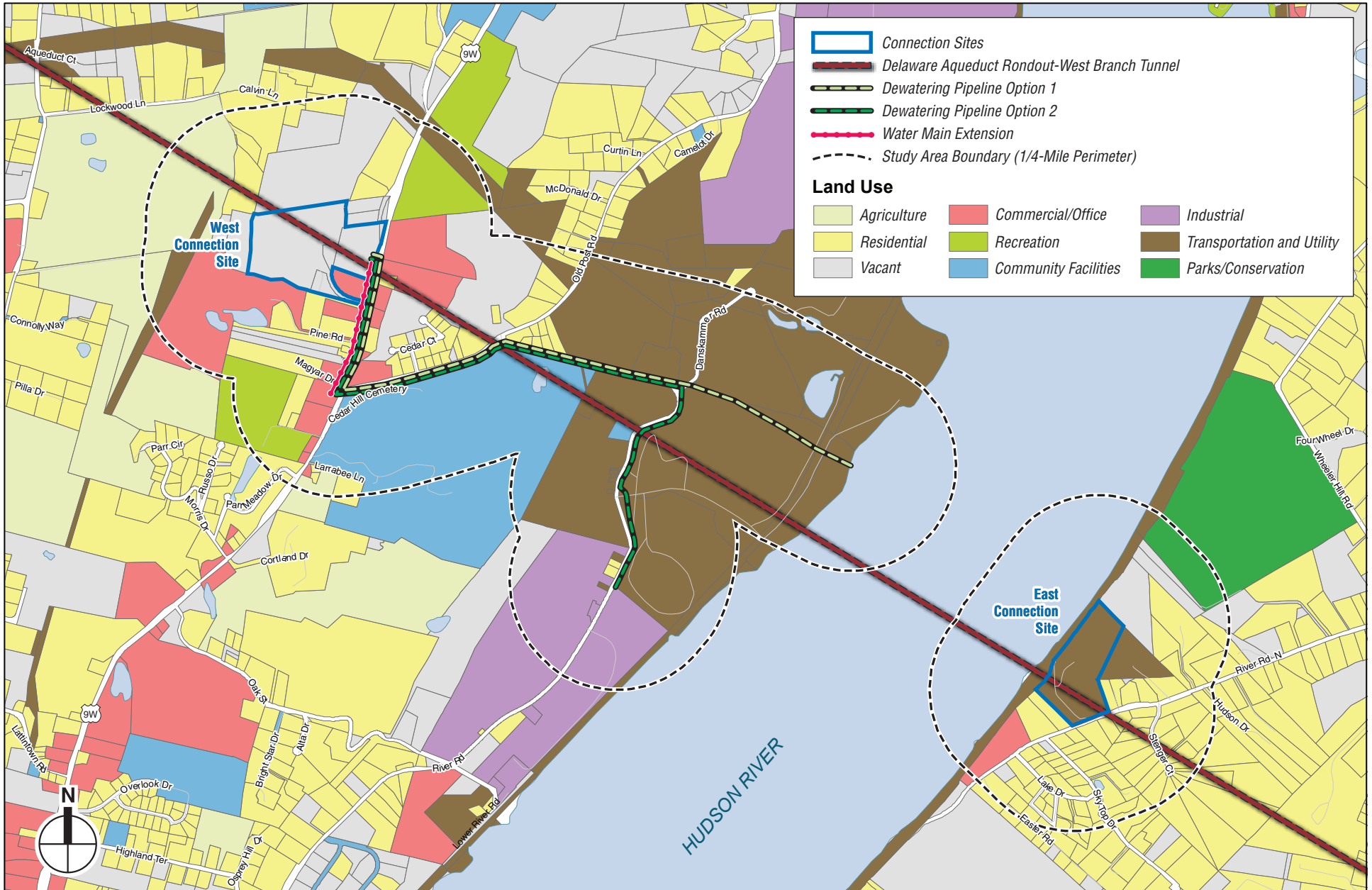


Figure 2.2-1
Existing Land Use

The zoning codes of the Towns of Wappinger and Newburgh establish use and dimensional (e.g., setbacks, coverage) standards primarily for the permanent use of land or permanent structures. Section 5.1 of this EIS discusses the operational phase of the bypass tunnel's consistency with local zoning codes. However, the zoning codes do also regulate certain aspects of construction activity. Therefore, relevant sections of the zoning codes pertaining specifically to the use of properties as water supply land and for construction are discussed in this section of the EIS (Section 2.2). Other sections of the Town Code that are relevant to construction activity are also discussed below.

To determine future conditions without Project 1, information was obtained from representatives of the Towns of Newburgh and Wappinger as well as the New York State Department of Transportation (NYSDOT).

2.2-3 WEST OF HUDSON

2.2-3.1 EXISTING CONDITIONS—WEST OF HUDSON

LAND USE AND OPEN SPACE

Figure 2.2-1 shows the location of the west connection site, the water main extension, and the dewatering pipeline options, and provides land use information within ¼-mile of the site and pipeline.

West Connection Site

Located along Route 9W in the Town of Newburgh, the approximately 32.9-acre west connection site is primarily wooded and undeveloped, and a stream runs across part of the site. However, certain parcels on the west connection site (which comprises tax parcels 8-1-15.2, 15.3, 16, 17, and 19.1) have improvements. On the eastern portion of the site, there is a former restaurant and bar, and an unoccupied single-family home with a barn, a cinderblock outbuilding, and several trailers. The western portion of the site has an unoccupied single-family home and a shed. Because all of the structures on the west connection site are currently unoccupied, the entire site is considered vacant for purposes of this EIS analysis. Land uses immediately to the north of the west connection site include primarily vacant, wooded land, but there are seven parcels containing single-family residences. To the west of the west connection site is additional vacant land, an apple orchard, and part of a utility easement. Immediately to the south of the west connection site is an approximately 37-acre parcel that contains a single-family home; the parcel is also used for storage of contractor equipment and dumpsters. Quarrying activity at one time occurred on this parcel based on review of aerial photography.

There are approximately 15 single-family homes located within ¼-mile south of the west connection site. Other uses south of the west connection site include an Elks Lodge and a small motel that rents individual cabins.

Land uses on the east side of Route 9W from the northern edge of the study area to Old Post Road include the Mill Creek Golf Club, a high-voltage electric utility easement, two motels, an ATV/power equipment dealer, two single-family homes, a diner, a bottled water distribution facility, the Cedar Hill Cemetery, and a coffee shop.

In addition to vacant land located throughout the study area, there are two recreational open spaces. These open spaces, both privately owned, are the Mill Creek Golf Club located to the north of the west connection site and Firemen's Field located to the south of the west connection site. Firemen's Field is a private park owned by the Middle Hope Fire District. Amenities at Firemen's Field include a baseball field, picnic facilities, and restrooms. While the park is not gated, signage at the park notes that use of the facilities requires permission from the fire district.

Dewatering Pipeline Route

Land uses along the dewatering pipeline route options in the vicinity of Route 9W include single-family homes, a gas station, a truck rental facility, a restaurant/bar, a hair salon, a private park, an apartment complex, and the Cedar Hill Cemetery. The south side of Old Post Road between Route 9W and River Road is occupied by the cemetery. Uses along the north side of Old Post Road include single-family homes and the bottled water distribution facility noted above. Uses along River Road include a portion of the cemetery, single-family homes, and utility property associated with a power plant and high-voltage electrical transmission lines. Option 1 would extend to the Hudson River across the privately owned utility property. Option 2, the only route further evaluated for the FEIS, would continue south on River Road past single-family homes, a church, and a bulk oil terminal.

ZONING AND CODE COMPLIANCE

Figure 2.2-2 shows zoning designations for the west connection site and study area. The west connection site is located in both the Business (B) and Agricultural Residence (AR) districts. Permitted uses vary for each district, but "public utility structures and rights-of-way" are permitted in both districts.

The following relevant sections of the Town of Newburgh Town Code would likely be applicable to Project 1:

Chapter 66, Blasting

Specific instructions, requirements, and regulations for blasting are provided in §66-9 of the Town Code. If and when blasting is conducted, the Town Code limits blasting activity to the hours of 8 AM to 7 PM.

Chapter 71, Building Construction

Chapter 71 requires all construction activity to be subject to a building permit. However, 19 NYCRR Part 1201 states that the City of New York is accountable for administration and

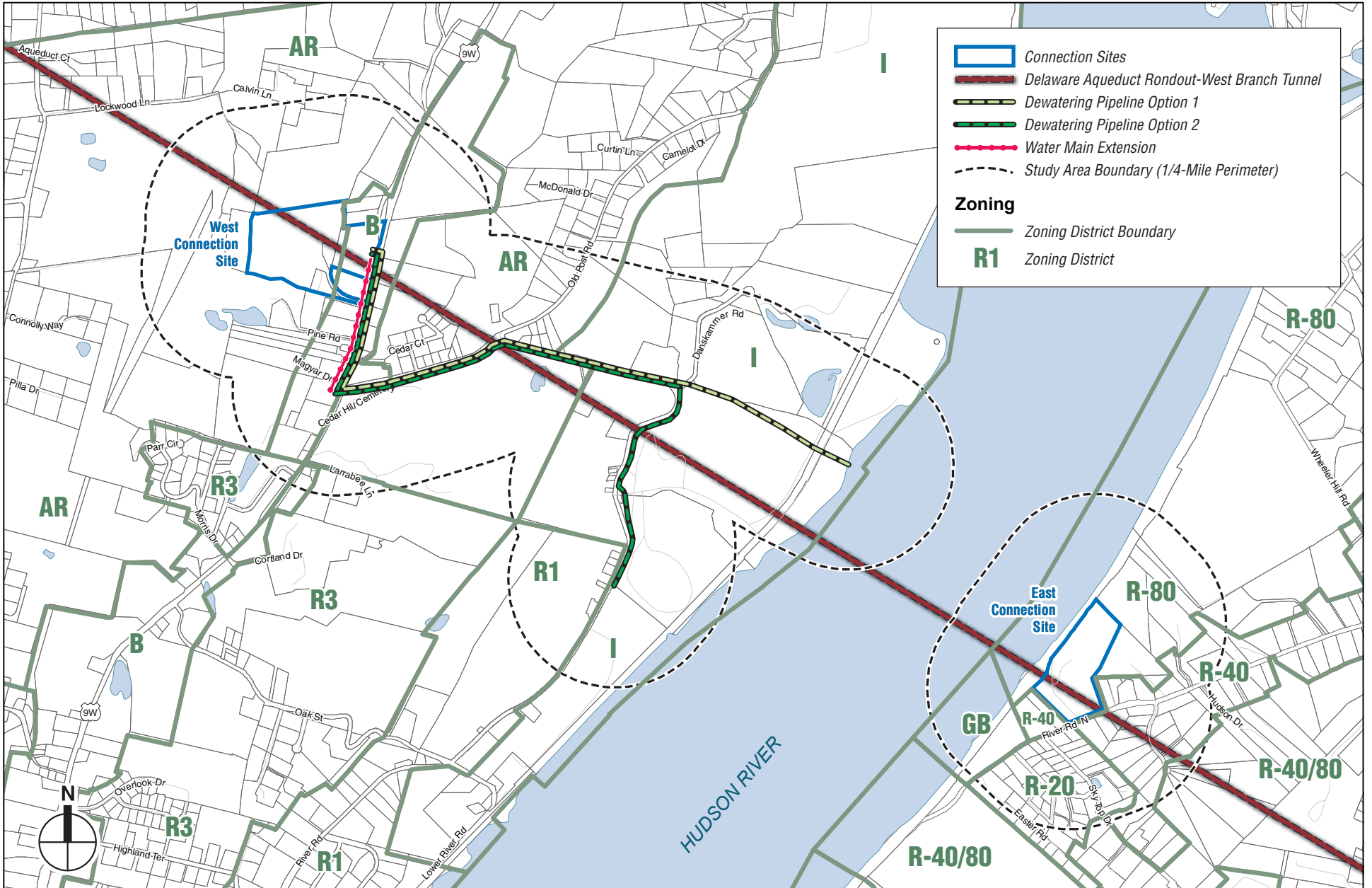


Figure 2.2-2
Existing Zoning

enforcement of the Uniform Fire Prevention and Building Code for any construction activity undertaken by the City of New York. Thus, no Town of Newburgh Building Permit would be required.

Chapter 83, Clearing and Grading

This section of the Town Code requires a permit for clearing and grading activities affecting areas of 10,000 square feet or more. DEP understands that a Clearing and Grading permit is not required for any project meeting the standards of Site Plan approval. DEP believes that it would be able to demonstrate compliance with the standards in §83-10 if a Clearing and Grading permit were to be required.

Chapter 100, Environmental Quality Review

The Town of Newburgh requires compliance with the State Environmental Quality Review Act (SEQRA).

Chapter 109, Flood Damage Prevention

A floodplain development permit is required for all construction and other development to be undertaken in areas of special flood hazard.

Chapter 125, Noise and Illumination Control

The permitted noise levels vary by time and zoning district and are discussed in detail in this EIS in Section 2.13, "Noise." The illumination standards require that illumination be the minimal amount necessary for security and safety. The standards also require shielding light and/or directing it away from residential areas. There are no specifics regarding permitted light levels.

Chapter 148, Sewers

The Town Code requires disposal of sewage in accordance with the requirements of the New York State Departments of Health (NYSDOH) and the New York State Department of Environmental Conservation (NYSDEC). Permits are required for all private treatment systems.

Chapter 157, Stormwater Management

A stormwater management plan must be issued for all developments that disturb 10,000 square feet or more. Plans must be approved by the Town Planning Board or stormwater officer.

Chapter 160, Streets and Sidewalks

The Town Code requires a permit for all construction work undertaken within Town roadways.

Chapter 185, Zoning

The zoning code of the Town of Newburgh regulates the use of land and any structures. While no permanent structures are proposed as part of Project 1, the zoning would apply to the proposed public utility use. Public utility structures and rights-of-way are permitted within both

the Agricultural Residence (AR) and Business (B) Zoning districts subject to Site Plan review and compliance with §185-46, supplementary regulations applicable to public utilities.

PUBLIC POLICY

Town of Newburgh Comprehensive Plan

The Town of Newburgh Comprehensive Plan was adopted in October 2005. The Comprehensive Plan does not refer to or make recommendations for specific parcels. Instead, the Plan broadly addresses issues related to the entire town as well as certain portions of the town.

Recommendations discussed throughout the Plan refer to both short- and long-term goals to guide development or address key issues of concern within the town.

Issues of concern discussed in the Plan are generally related to community character and livability within the community rather than to issues related to construction of individual projects. However, the Plan does discuss traffic concerns that could potentially be affected by Project 1 construction. The Plan expresses concerns about increased vehicular traffic along Route 9W, which experiences heavy traffic at times, and about parallel roadways that are used as a bypass to Route 9W. Additional concerns related to Route 9W include traffic congestion at major intersections and the number of curb cuts found along the corridor. The Plan recommends a detailed analysis of the Route 9W corridor to evaluate traffic conditions and potential improvements, infrastructure, and economic development opportunities. Specifically, the Plan recognizes the need to analyze Route 9W expansion opportunities given right-of-way and environmental constraints.

In general, the northeast part of the town, including areas along Route 9W in the study area, is targeted for potential development to ease development pressure in more rural portions. The Plan also notes that consideration should be given to the installation of sewers along Route 9W, especially if a road reconstruction or widening project presents an opportunity to place new utilities in the right-of-way. According to the Plan, the town currently has an excess water supply, but it is evaluating alternative water supply sources to accommodate future growth, including potentially connecting to the Catskill Aqueduct in New Windsor for additional and redundant supplies.

State Smart Growth Public Infrastructure Policy Act

Article 6 of the New York State Environmental Conservation Law requires any “State Infrastructure Agency” (including NYSDEC and NYSDOT) to consider the consistency of the construction, or reconstruction, of new or expanded public infrastructure with a set of Smart Growth Public Infrastructure Criteria. The law requires that the chief executive officer of a State Infrastructure Agency must provide a written “Smart Growth Impact Statement” attesting that the project, to the extent practicable, meets the Smart Growth Public Infrastructure Criteria. Where a project cannot meet these criteria, or compliance is considered to be impracticable, the Smart Growth Impact Statement shall provide a detailed statement of justification.

The Smart Growth Public Infrastructure Criteria are:

- A. To advance projects for the use, maintenance or improvement of existing infrastructure;
- B. To advance projects located in municipal centers [defined as “areas of concentrated and mixed land uses that serve as centers for various activities”];
- C. To advance projects in developed areas or areas designated for concentrated infill development in a municipally approved comprehensive land use plan, local waterfront revitalization plan and/or brownfield opportunity area plan;
- D. To protect, preserve and enhance the State’s resources, including agricultural land, forests, surface and groundwater, air quality, recreation and open space, scenic areas, and significant historic and archaeological resources;
- E. To foster mixed land uses and compact development, downtown revitalization, brownfield redevelopment, the enhancement of beauty in public spaces, the diversity and affordability of housing in proximity to places of employment, recreation and commercial development and the integration of all income and age groups;
- F. To provide mobility through transportation choices including improved public transportation and reduced automobile dependency;
- G. To coordinate between State and local government and intermunicipal and regional planning;
- H. To participate in community based planning and collaboration;
- I. To ensure predictability in building and land use codes; and
- J. To promote sustainability by strengthening existing and creating new communities which reduce greenhouse gas emissions and do not compromise the needs of future generations, by among other means encouraging broad based public involvement in developing and implementing a community plan and ensuring the governance structure is adequate to sustain its implementation.”

2.2-3.2 FUTURE WITHOUT PROJECT 1, SHAFT AND BYPASS TUNNEL CONSTRUCTION—WEST OF HUDSON

LAND USE AND OPEN SPACE

The Town of Newburgh has identified the Orchard Hill residential development and a small convenience store/gas station on Route 9W as pending projects within the study area. No other projects have been identified. While there is a possibility for some limited redevelopment activity to occur within the study area, no significant changes in land use are anticipated.

ZONING, CODE COMPLIANCE, AND PUBLIC POLICY

There are no known zoning or public policy initiatives that would affect the study area.

2.2-3.3 PROBABLE IMPACTS OF PROJECT 1, SHAFT AND BYPASS TUNNEL CONSTRUCTION—WEST OF HUDSON

LAND USE AND OPEN SPACE

The long-term use of the west connection site is considered a public utility use and is permitted within both the AR and B zoning districts. During the construction period, relevant portions of the Town of Newburgh Code would apply. During the construction period, DEP would secure the residence on tax parcel 8-1-15.3 as part of its overall plan for securing the entire project site. DEP employees and/or contractors may use the residence to support construction activities (e.g., informal meeting space or storage of project files and documents). Any use of the residence would be consistent with the character of the residence and adjoining properties as residential uses and would seek to project a pattern and frequency of use as to avoid vandalism of the property.

Construction activities would be confined to the west connection site and dewatering pipeline route and would not affect study area land uses or open space. Near the west connection site, construction activities may temporarily affect individual uses because of increases in traffic and emissions of air pollutants and noise (as described in detail in Sections 2.10, “Transportation,” 2.11 “Air Quality,” and 2.13 “Noise,” respectively), but land uses within the study area as a whole would not be affected.

Land uses within and just outside the study area include many commercial uses that define the overall land use pattern. As a result, existing land uses in the study area already produce truck traffic and noise typical of a commercial corridor. Residences located within the general vicinity of the west connection site, of which there are approximately 10, would be affected by additional noise and light emanating from the construction site and from additional construction-related traffic. There would be times during construction at the west connection site where construction activity would take place beyond normal work hours or 24 hours per day.

Additional residences may be affected by the construction of the dewatering pipeline, but the duration of this activity would be relatively short (construction of the dewatering pipeline would advance approximately 100 feet per day, after which the pipeline would be located entirely underground). It is possible that during construction a temporary lane closure may be required. However, the construction activity associated with the pipeline would not displace any businesses or residences or result in any long-term disruptions that would affect access to individual uses or properties.

With the exception of residences, the land uses typically found within the study area would not be affected or are expected to benefit from the construction activity and the increased number of workers in the area. Uses that would likely see benefits from an increased number of workers

include the restaurants, motels, and gas stations found within the study area. Other uses, such as the bottled water distribution and truck rental facilities, would not be affected.

Project 1 would not affect the existing open spaces in the study area. The Mill Creek Golf Club and Firemen's Field are both located within ¼-mile of the west connection site or the alignment of the dewatering pipeline, but neither resource would be directly affected by construction activity.

ZONING AND CODE COMPLIANCE

Chapter 66, Blasting

Prior to initiating any blasting activity, the selected contractor and/or licensed blaster would apply for a blasting permit to conduct all necessary blasting activity that would occur on the west connection site. A preconstruction survey would be undertaken for all structures and facilities located within 500 feet horizontal distance of the centerline of the west connection site shaft for shaft blasting and 500 feet horizontal distance from the location of surface blasting at the west connection site. Subsidence surveys and preconstruction inspections for these facilities would be undertaken before blasting proceeded at the west connection site. It is not anticipated that any blasting would be needed for construction of the dewatering pipeline. The Town of Newburgh Town Code limits blasting activity to the hours of 8 AM and 7 PM. During the time period when blasting would occur, one to two blasts can be expected on a given day. Based on experience with other construction projects that involve blasting, it is anticipated that blasting would typically occur during the first shift (7 AM to 3 PM). In general, blasting of the shaft would not likely occur immediately at the start of work, since it takes time to prepare for the blast. The second blast, if it occurred, would generally occur in the early afternoon.

Chapter 71, Building Construction

Review of applicable New York State Uniform Fire Prevention and Building Code provisions relating to Project 1 is the responsibility of New York City pursuant to 19 NYCRR Part 1201.2(a). Thus, a Town of Newburgh Building Permit would not be required.

Chapter 83, Clearing and Grading

DEP understands that a Clearing and Grading permit is not required for any project meeting the standards of Site Plan approval. DEP believes that it would be able to demonstrate compliance with the standards in §83-10 if a Clearing and Grading permit were to be required.

Chapter 100, Environmental Quality Review

DEP intends to comply with all requirements of SEQRA. In addition, this EIS has been prepared in conformance with applicable laws and regulations, including Executive Order No. 91, New York City Environmental Quality Review (CEQR) regulations, and follows the guidance of the *CEQR Technical Manual (January 2012)*.

Chapter 109, Flood Damage Prevention

Most of the west connection site is located outside of the flood hazard zone, but portions of the site located adjacent to Route 9W and along access driveways are within the flood area. Portions of the dewatering pipeline may also pass through the flood hazard zone. Construction activity related to Project 1 is unlikely to affect floodplain conditions. DEP would obtain a flood hazard permit for any work conducted within a flood hazard zone.

Chapter 125, Noise and Illumination Control

Project 1 would require evening work shifts and 24-hour construction at the west connection site involving use of lighting. The lighting likely required for the site includes site lighting for security and circulation (e.g., driveways and parking areas) and portable lighting units, which would be used to illuminate the work areas during construction activity. These portable units would comply with local codes and would be removed once construction is complete. Construction lighting would be oriented away from neighboring properties and would not result in any significant light spillover at the west connection site property line. All lighting would be installed to be consistent with local codes as well as the most recent editions of the Illuminating Engineering Society Handbook, and the American National Practice for Roadway Lighting (RP-8) approved by the American National Standards Institute (ANSI). While there would at times be a glow visible from the site when lighting is used, the photometric models show that light levels at the property lines would be below 0.5 footcandles. Efforts would be made to reduce spillover of light onto adjacent properties to the extent practicable.

However, the necessary extended work hours would result in the emanation of noise beyond what is ordinarily permitted by the Town Code. Sounds generated by construction activities during the period from 7 AM to 7 PM are exempt from the limitations of the Noise Code as per §125-9.D(2). In addition, per §125-6.A, “noise emanating from the operation of motor vehicles on public highways and private roads,” are regulated by the New York State Vehicle and Traffic Law and are therefore not subject to the noise regulations of the Town of Newburgh. However, analysis of potential noise generated by construction activity contained in the DEIS indicates that there would likely be exceedances of Town of Newburgh Town Code thresholds for noise between the hours of 7 PM through 7 AM, potentially for all phases of construction. DEP will apply to the Zoning Board of Appeals for a variance, as permitted by §125-10 where there are “practical difficulties or unnecessary hardships in the way of carrying out the strict letter” of the chapter.

Chapter 148, Sewers

The west connection site has existing private wastewater disposal systems associated with previous residential and commercial uses. It is unlikely that these systems would have the capacity to handle anticipated flow volumes during construction of Project 1, Shaft and Bypass Tunnel Construction (and later during construction of Project 2B). DEP is considering a pump-and-haul method of handling wastewater disposal. A wastewater collection and storage system

would be installed from which wastewater would be pumped and hauled off-site to an appropriate wastewater treatment facility on a regular basis. DEP would obtain all necessary approvals from the Orange County Department of Health.

Chapter 157, Stormwater Management

DEP has prepared a Stormwater Pollution Prevention Plan (SWPPP) in conjunction with site plan approval. Section 2.8, “Natural Resources and Water Resources,” in this EIS discusses the details of the SWPPP.

Chapter 160, Streets and Sidewalks

DEP would obtain appropriate approvals from the Highway Superintendent as necessary to accommodate work undertaken in association with the dewatering pipeline.

Chapter 185, Zoning

The Town of Newburgh has identified use of the project site by DEP as a “public utility use,” which is a permitted use within both the AR and B Zoning Districts subject to site plan approval and compliance with the supplementary regulations for public utilities at §185-46 (see also Chapter 5, Section 5-2.3).

Supplementary Regulations for Public Utilities

Text in normal type below replicates the standards for public utilities as enumerated in Chapter 185-46 of Town Code. *Italicized* text following each item describes how Project 1 would meet these standards:

“Nothing in this chapter shall restrict the construction or use of underground or overhead distribution conduits of public utilities operating under the laws of the State of New York. However, public utility structures, water supply reservoirs, wells, sewage treatment plants, water treatment facilities and transmission lines and towers for electric power, telephone and gas are subject to the following supplementary requirements:

- “A. Public necessity. These uses shall be subject to a finding that a public necessity exists for such use and that use of the particular site for which application is made is necessary from the public standpoint.”

Project 1 serves a clear public purpose: continued provision of drinking water to New York City and numerous upstate communities. The selection of the project site for Project 1 is based upon its location in proximity to the Delaware Aqueduct and the portion of the RWBT in need of repair.

- “B. Residential districts. Public utility buildings and electrical substations are permitted in a residential district only when the location within such district is necessary for the furnishing of service to customers, and provided that no business offices, warehouses, construction or repair shops or garage facilities are included, and provided that the

Planning Board approves such application in accordance with the provisions of this section and Article IX.”

Project 1 would be located partially within a residential zoning district (AR). As stated above, the location for Project 1 is dictated by its proximity to the Delaware Aqueduct. Project 1 is not intended to directly serve residential uses in the surrounding area with water, nor does a Town of Newburgh water district currently exist in this area. However, Project 1 would ensure long-term availability of water supply obtained by the Town of Newburgh from Shaft 5A of the Delaware Aqueduct. Thus, Project 1 would serve a public need within the Town of Newburgh.

- “C. Fencing. The Planning Board may require that such use be enclosed by protective fencing with a gate which shall be closed and locked except when necessary for authorized personnel to obtain access thereto.”

A security fence is proposed as part of Project 1.

- “D. Harmony with surroundings. The installation shall be so designed, enclosed, painted and screened with evergreens that it will be harmonious with the area in which it is located. The entire property shall be suitably landscaped and maintained in reasonable conformity with the standards of property maintenance of the surrounding neighborhood. All screening shall be in accordance with the standards and requirements contained in § 185-21.”

There are no permanent structures proposed on the project site. Upon completion, the new shaft would be capped and buried under soil. A security fence would surround the shaft location and the driveway would remain to allow access to the upper portion of the project site. Landscaping has been proposed during the construction period and upon completion of the project to provide for appropriate screening of the site from surrounding properties. However, it should be noted that upon completion the only structures that would be visible on the site requiring any screening from surrounding properties would be chain-link security fences. In addition, the stormwater basin will remain along with its fencing and landscaping in accordance with Town Code.

- “E. Off-street parking. Adequate off-street parking areas shall exist or be provided for maintenance, service or other vehicles.”

No permanent off-street parking areas are proposed. Any DEP vehicles accessing the site in the future would use the driveway to access the lower or upper portions of the project site and would be able to park on the driveway. During construction, adequate parking is provided for all construction workers.

- “F. Interference with reception. In appropriate cases, satisfactory evidence shall be submitted establishing that there will be no interference with radio and television reception on adjoining property in the neighborhood.”

Operation of the site as a water supply facility will not result in interference with radio and television reception on adjoining property in the neighborhood.

Site Plan Approval

Text in normal type below replicates the standards for granting site plan approval as enumerated in Chapter 185-57.I of Town Code. *Italicized* text following each item describes how Project 1 would meet these standards:

“(1) Traffic access. Proposed traffic accessways shall be:

- (a) Adequate but not excessive in number.
- (b) Adequate in width, grade, alignment and visibility.
- (c) Not located near street corners or other places of public assembly.
- (d) In conformity with other similar safety considerations that the Planning Board may deem relevant.”

One new site driveway will be provided off of Route 9W which will be used by all workers and trucks. That driveway has been designed to meet all applicable NYSDOT standards for a driveway on a State road. Related improvements will include turn lanes and a traffic signal on Route 9W.

“(2) Circulation and parking. Adequate off-street parking and loading spaces shall be provided to prevent parking in public streets of vehicles of any person connected with or visiting the use. The interior circulation system shall be adequate to provide safe accessibility to all off-street parking spaces.”

The internal site circulation and parking has been designed to accommodate all construction worker and construction truck traffic such that there would be no parking in public streets of any vehicle connected with or visiting the site.

“(3) The site shall be well drained and shall have such grades and soil as to make it suitable for the purpose intended.”

A stormwater management plan has been prepared for the site and will make the site suitable for the purpose intended.

“(4) Drainage. Storm runoff shall be controlled in such a manner that no person, property or facilities are vulnerable to injury or damage by the discharge of stormwater or its effects. Wherever possible, runoff shall be controlled on the land surface by the use of broad, gentle swales. The site plan shall provide for retention basins sufficient to maintain discharge from the site at the predevelopment rate, as calculated by the Soil Cover Complex Method outlined in Technical Release 55 (TR 55) of the United States Department of Agriculture, Soil Conservation Service. Erosion shall be strictly controlled by adequate grading, energy dissipators and ground cover. Silt basins or barriers shall be constructed where necessary to control siltation in

downstream water bodies. Whenever possible, drainage shall be piped through or diverted around construction areas to minimize erosion and transport of sediment during construction.”

A stormwater management plan has been prepared for the site and will make the site suitable for the purpose intended.

“(5) Landscaping and screening. All playgrounds, parking and service areas shall be reasonably screened at all seasons of the year from the view of the adjacent residential lots and streets, and the general landscaping of the site shall be in character with that generally prevailing in the neighborhood. Existing trees over 12 inches in diameter shall be preserved to the maximum extent possible.”

A landscape plan has been prepared for the site that would retain existing vegetation along the site boundaries to the extent possible and to create new landscaping along the Route 9W frontage. Due to the nature of the construction activity, it is necessary to remove a number of trees over 12 inches in diameter.

“(6) Character and appearance. The character and appearance of any proposed use, building or outdoor sign shall be in general harmony with the character and appearance of the Town of Newburgh and shall not adversely affect the general welfare of the inhabitants of the Town of Newburgh.”

During construction of Project 1 the site will have the appearance of a construction site, except that the landscape plan will seek to screen activity on the lower portion of the site along Route 9W. Upon completion of Project 1, a restoration plan will be implemented such that the site would not adversely affect the general welfare of residents within the Town.

“(7) Open space in residential developments. The site development plan shall make provisions for open space and recreational facilities. Existing drainage courses, water bodies and scenic features shall be preserved in residential developments to the maximum extent possible. Greenbelts and pedestrianways shall be preserved or provided wherever appropriate.”

This provision is not relevant as Project 1 is not a residential development project.

“(8) Americans with Disabilities Act. The site and structures shall comply with the requirements and standards of the "Americans with Disabilities Act," 42 U.S.C. § 12101 et seq., and any regulations promulgated thereunder. Where, however, this chapter or other applicable laws, codes, rules or regulations impose stricter requirements for accommodation for the disabled, those stricter standards shall apply.”

No public access is proposed for the project site.

PUBLIC POLICY

Town of Newburgh Comprehensive Plan

Project 1 would not conflict with the Town of Newburgh's Comprehensive Plan. Construction activity would result in additional traffic along Route 9W, which is a documented concern in the plan. However, any impacts associated with increased traffic would be temporary. (Section 2.10, "Transportation," of this EIS provides a detailed analysis of construction-related traffic.)

State Smart Growth Public Infrastructure Policy Act

DEP has prepared this statement evaluating the compliance of Project 1 within the Town of Newburgh against the Smart Growth Public Infrastructure Criteria. Text in normal type below replicates the Smart Growth Public Infrastructure Criteria. Italicized text following each item describes how Project 1 would meet these criteria.

"A. To advance projects for the use, maintenance or improvement of existing infrastructure;"

Project 1 is intended to facilitate the maintenance and improvement of existing infrastructure.

"B. To advance projects located in municipal centers [defined as "areas of concentrated and mixed land uses that serve as centers for various activities"];"

Project 1 is not located in a municipal center as defined by the Act. However, the location of Project 1 in the Town of Newburgh is dependent upon its proximity to the existing RWBT. As such, location within a municipal center is not considered practicable.

"C. To advance projects in developed areas or areas designated for concentrated infill development in a municipally approved comprehensive land use plan, local waterfront revitalization plan and/or brownfield opportunity area plan;"

Project 1 is not identified in any local comprehensive plans nor is the location of Project 1 identified in any plan as an area "designated for concentrated infill development." The location of Project 1 in the Town of Newburgh is dependent upon its proximity to the existing RWBT. As such, location within an area designated for concentrated infill development is not considered practicable.

"D. To protect, preserve and enhance the State's resources, including agricultural land, forests, surface and groundwater, air quality, recreation and open space, scenic areas, and significant historic and archaeological resources;"

This DEIS evaluates the potential impacts of Project 1 on agricultural land, forests, surface and groundwater, air quality, recreation and open space, scenic areas, and significant historic and archaeological resources. To the extent practicable, Project 1 avoids significant direct impacts on any of these resources; however, the location of Project 1 and any resources at that location is dependent upon proximity to the existing RWBT.

- “E. To foster mixed land uses and compact development, downtown revitalization, brownfield redevelopment, the enhancement of beauty in public spaces, the diversity and affordability of housing in proximity to places of employment, recreation and commercial development and the integration of all income and age groups;”

Project 1 is not a mixed-use or compact land development project. Therefore, it is not possible to comply with this criterion.

- “F. To provide mobility through transportation choices including improved public transportation and reduced automobile dependency;”

Project 1 is not an investment in transportation infrastructure. Therefore, it is not possible to comply with this criterion.

- “G. To coordinate between State and local government and intermunicipal and regional planning;”

DEP has conducted extensive outreach and coordination with State and local government in the design and development of Project 1. Implementation of Project 1 would provide for the long-term provision of water supply to a region encompassing 8 million water consumers, including residents of certain upstate communities. As such, Project 1 is considered a project of regional significance and its implementation is considered an act of regional planning.

- “H. To participate in community based planning and collaboration;”

DEP has conducted extensive outreach and collaboration with State and local government and affected residents regarding the implementation of Project 1 and the minimization of significant adverse impacts to local stakeholders.

- “I. To ensure predictability in building and land use codes; and”

Project 1 does not affect the predictability of any building and land use codes.

- “J. To promote sustainability by strengthening existing and creating new communities which reduce greenhouse gas emissions and do not compromise the needs of future generations, by among other means encouraging broad based public involvement in developing and implementing a community plan and ensuring the governance structure is adequate to sustain its implementation.”

Potential greenhouse gas emissions from Project 1 construction are described in Section 2.12, “Energy and Greenhouse Gas Emissions.” While these greenhouse gas emissions are not avoidable, the implementation of Project 1 does not create a condition that would impair the sustainability of the Town of Newburgh or the underlying ability of the Town of Newburgh government to manage its community in a sustainable manner. It should be noted that the operation of the proposed project would not result in greenhouse gas emissions or the use of energy since the Delaware Aqueduct would continue to convey water by gravity.

2.2-4 EAST OF HUDSON

2.2-4.1 EXISTING CONDITIONS—EAST OF HUDSON

LAND USE AND OPEN SPACE

Figure 2.2-1 shows the location of the east connection site and land use information within ¼-mile. The approximately 20.1 acre east connection site is located at the existing DEP Shaft 6 facility on River Road in the Town of Wappinger. The east connection site is currently used by DEP for facilities associated with the Delaware Aqueduct. Pursuant to a previous Amended Site Plan approval granted by the Town on September 13, 2007, and in preparation for Project 1 activities, several improvements have been made to the site, including parking areas, administrative buildings, and utility structures. A further amended site plan associated with investigatory borings in association with the Rondout-West Branch Tunnel Repair Program on the Shaft 6 site was issued on July 7, 2011.

The east connection site is located in a predominantly residential area, as shown in Figure 2.2-1, with residential uses to the north, east, and south of the east connection site. Single-family residential development and vacant land comprise the majority of land uses within ¼-mile of the east connection site, and approximately 70 residences are located in this area. In addition to the east connection site, the only non-residential uses within the study area include a lumberyard located along River Road, utility parcels for high-voltage electrical lines, and a portion of Carnwath Farms, a 99-acre park owned by the Town of Wappinger located at the northern end of the study area. Railroad tracks serve as the western border of the east connection site, and the Hudson River is located beyond the tracks.

ZONING AND CODE COMPLIANCE

DEP's Shaft 6 property is located within the R-80 Zoning District. Figure 2.2-2 shows zoning designations for the east connection site and study area.

The Town of Wappinger zoning code (Chapter 240) requires all site preparation, grading, or disturbance to obtain site plan approval by the Planning Board (Section 240-83). Additional sections of the zoning code pertaining to construction activity are regulation of construction trailers and performance standards for noise, vibrations, dust, odorous matter, toxic or noxious matter, fire and explosive hazards, and vehicular traffic. Section 240-27.1 regulates the placement, size, and number of construction trailers that may be located on a site.

The following relevant sections of Town Code will likely be applicable to Project 1:

Chapter 80, Blasting

The Town Code limits blasting activity to between the hours of 8:30 AM to 3 PM and requires that notice be given to adjacent property owners within 500 feet of the blasting area 7 days prior to a scheduled blast. Details of the blasting code are discussed in this EIS in Section 2.13, "Noise."

Chapter 85, Building Code Administration

Chapter 85 requires a Building Permit for all construction activity. However, 19 NYCRR Part 1201 states that the City of New York is accountable for administration and enforcement of the Uniform Fire Prevention and Building Code for any construction activity undertaken by the City of New York. Thus, no Town of Wappinger Building Permit would be required.

Chapter 114, Electrical Standards

Chapter 114 of the Wappinger Town Code regulates the installation and alteration of wiring for electric light, heat, or power and signal systems operating on 50 volts or more and authorizes inspections to ensure that installations are in compliance the National Electrical Code.

Chapter 133, Flood Damage Prevention

A floodplain development permit is required for all construction and other development to be undertaken in areas of special flood hazard.

Chapter 137, Freshwater Wetland, Waterbody, and Watercourse Protection

Chapter 137 of the Wappinger Town Code requires a permit for any work within a wetland or watercourse or within 100 feet of wetlands and watercourses.

Chapter 166, Noise

The Town Code prohibits general construction or demolition noise between the hours of 7 PM and 7 AM.

Chapter 196, Sewers

A private wastewater disposal system completed to the satisfaction of the Dutchess County Health Department is required prior to the issuance of a Certificate of Occupancy by the Town of Wappinger.

Chapter 206, Soil Erosion and Sediment Control

For anything other than a one-family dwelling, the Town of Wappinger requires site plan approval from the Planning Board prior to any grading, stripping, cutting, filling, or other site preparation.

Chapter 213, Stormwater Management

A stormwater management plan must be issued for all land development activities and associated increases in the impervious area of a site. The stormwater management officer of the town issues such approvals.

Chapter 214, Streets and Sidewalks

This section of the Wappinger Town Code requires a permit for any work or excavation occurring within the right-of-way of any roads.

Chapter 240, Zoning

The zoning code of the Town of Wappinger regulates the use of land and any structures. While no new permanent structures are proposed as part of Project 1, the Town of Wappinger requires site plan approval for any land disturbance activity.

PUBLIC POLICY

Town of Wappinger Comprehensive Plan

The Comprehensive Plan of the Town of Wappinger, adopted on September 27, 2010, presents a broad set of “Issues and Opportunities” and “Goals and Objectives” implemented by various recommendations for the following themes throughout the Town: environmental resources, population and housing, economic base, community appearance and character, transportation, water supply and sewage treatment, and land use.

Statements within the Comprehensive Plan relevant to the east connection site are:

- The east connection site property is identified as “Institutional” property but no specific recommendations are made directly related to the use of the property.
- The Plan identifies the function and appearance of the Chelsea Hamlet, located approximately one mile south of the east connection site, and includes recommendations for enhancing the community appearance of that area.
- The Plan identifies the Wheeler Hill Historic District, to the north of the east connection site, as the “only protected historic feature in the Town.” The Plan recommends adoption of a local historic preservation law.
- The Plan recommends the rezoning of the “Smart property... (as well as the property immediately to the south)” (both of which are immediately south of the west connection site) from R-80 to R-40 to be consistent with the zoning for similarly sized residential parcels along River Road to the north of the east connection site.

The Comprehensive Plan also discusses water supply throughout the Town. Currently, the United Wappinger Water District (UWWD) serves as the central water district in the Town providing water to approximately 3,400 households and some commercial establishments mainly in the eastern portions of the Town. The UWWD currently has a maximum capacity of 2.4 million gallons per day (mgd) during drought conditions and a current average demand of approximately 1.0 mgd. There are several smaller water districts that are located separately from the UWWD and serve individual residential developments. The Tall Trees Water District is located in the western portion of the Town serving homes along Amherst Lane and Bowdoin Lane (off Wheeler Hill Road north of the west connection site). The Tall Trees Water District has two private wells and the Plan notes that the residents of that district have been on water conservation restrictions for the last three to five years. The Plan does project that future Town-wide demand (based on current zoning) will be approximately 4.0 mgd. Since the future demand exceeds the current supply of the UWWD, the Plan indicates that “the Town may eventually

need to find alternative sources of drinking water for its residents outside of existing districts. The primary alternatives are to connect to the Poughkeepsie system, which draws from the Hudson River, or to the Fishkill system, which draws from the Clove Creek aquifer” (page 70). (An earlier 2008 draft of the Comprehensive Plan posted on the Town’s website had also noted that the Town could also consider negotiating with DEP for access to water from Shaft 6).

State Smart Growth Public Infrastructure Policy Act

See section 2.2-3.1, above, regarding the State Smart Growth Public Infrastructure Policy Act.

2.2-4.2 FUTURE WITHOUT PROJECT 1, SHAFT AND BYPASS TUNNEL CONSTRUCTION—EAST OF HUDSON

LAND USE AND OPEN SPACE

No planned development projects have been identified within the study area. While there is a possibility for some limited redevelopment activity to occur within the study area, no significant changes in land use are anticipated.

ZONING, CODE COMPLIANCE AND PUBLIC POLICY

Following adoption of its Comprehensive Plan in September 2010, the Town of Wappinger published a map of proposed zoning changes that affect two parcels located immediately south of the east connection site. This rezoning changed the Zoning designation of these residential parcels from R-80 to R-40 to better reflect existing and sizes of the properties but would not materially change permitted uses or intensity of use in the area. There are no other known zoning or public policy initiatives that would affect the study area.

2.2-4.3 PROBABLE IMPACTS OF PROJECT 1, SHAFT AND BYPASS TUNNEL CONSTRUCTION—EAST OF HUDSON

LAND USE AND OPEN SPACE

The continued use of the Shaft 6 property as water supply land is a permitted use within the R-80 zoning district (“Buildings, structures and uses owned or operated by the Town of Wappinger; buildings, structures, and uses of any other governmental entity or district, excluding garages and dumps”). Construction activities, which would be confined to the east connection site, may temporarily affect nearby individual uses with increased traffic, light, and noise (as described in detail in Sections 2.10, 2.4, and 2.13, respectively); however, the character of the study area as a whole would not be affected. Project 1 would result in construction of additional water supply-related uses on a site that is already used for water supply.

Residences located closest to the east connection site may be affected by additional noise and light emanating from the construction site and from additional construction-related traffic. There are approximately 70 residences within ¼ mile of the east connection site. There would be times

during construction at the east connection site when construction activity would occur during evening work shifts or 24 hours per day. The construction activity would not displace any businesses or residences or result in any long-term disruptions that affect access to individual uses or properties.

DEP is currently under negotiations to purchase two residences on the east side of River Road (lot 6056-01-302882-0000 and lot 6056-01-319891) to provide nighttime sleeping quarters for the project's construction management staff during the construction period. Use of these residences for sleeping quarters would be consistent with the character of the residence and adjoining properties as residential uses and would seek to project a pattern and frequency of use as to avoid vandalism of the property. It is anticipated that these properties would be sold as residential parcels once construction is complete.

ZONING AND CODE COMPLIANCE

Chapter 80, Blasting

Prior to initiating any blasting activity, the selected contractor and/or licensed blaster would apply for a blasting permit to conduct all necessary blasting activity. The blasting permit would include a site plan showing all structures within 500 feet of the blast site and a pre-blast condition report for all structures, wells, and septic systems both within the 500-foot required radius and including additional nearby properties ~~(as requested by the property owners)~~. A preconstruction survey would be undertaken for all structures and facilities located within 500 feet horizontal distance of the centerline of the east connection site shaft and any additional properties subject to the well monitoring program. Subsidence surveys and preconstruction inspections for these facilities would be undertaken before blasting proceeded at the east connection site. The code permits blasting activity between the hours of 8:30 AM and 3 PM. During the time period when blasting would occur, one to two blasts can be expected on a given day. Based on experience with other construction projects that involve blasting, it is expected that blasting would typically occur during the first shift (7 AM to 3 PM). In general, blasting of the shaft would not likely occur immediately at the start of work, since it takes time to prepare for the blast. The second blast, if it occurred, would generally occur in the early afternoon.

Chapter 85, Building Code Administration

Review of applicable New York State Uniform Fire Prevention and Building Code provisions relating to the proposed improvements at Shaft 6 is the responsibility of New York City pursuant to 19 NYCRR Part 1201.2(a). Thus, a Town of Wappinger Building permit would not be required.

Chapter 114, Electrical Standards

All electrical connections necessary for completion of Project 1 would be installed by a licensed electrical contractor and would be compliant with the National Electrical Code.

Chapter 133, Flood Damage Prevention

The east connection site is located near the Hudson River and portions of the railroad tracks located adjacent to the River are within a flood hazard zone. No work is anticipated within the flood hazard zone.

Chapter 137, Freshwater Wetland, Waterbody, and Watercourse Protection

There are no freshwater wetlands, waterbodies, or watercourses on the Shaft 6 site. A drainage swale running along the southern portion of the adjacent New York Power Authority (NYPA) sub-station enters the Shaft 6 property but is not considered to be a regulated watercourse. Section 2.8, “Natural Resources and Water Resources,” of this EIS provides a detailed discussion of wetlands, waterbodies, and watercourses that may be affected by Project 1.

Chapter 166, Noise

The Wappinger Town Code prohibits general construction or demolition noise between the hours of 7 PM and 7 AM. Project 1 may at times require evening work shifts and 24-hour construction at the east connection site involving use of lighting and emanation of noise beyond what is ordinarily permitted by the Town of Wappinger Town Code. Details regarding the noise code are discussed in this EIS in Section 2.13, “Noise.” DEP may seek relief from these provisions of the code where deemed necessary in order to maintain the project schedule. There are currently no specified methods for seeking relief from Chapter 166. DEP understands that the Town of Wappinger is considering amendments to Chapter 166 that would address noise from construction activities that occurs beyond normal working hours.

Chapter 196, Sewers

The east connection site has an existing septic system that would not be able to accommodate additional flows generated during construction activity. DEP is considering a pump-and-haul method of handling wastewater disposal. A wastewater collection and storage system would be installed from which wastewater would be pumped and hauled off-site to an appropriate wastewater treatment facility on a regular basis. DEP would obtain all necessary approvals from the Dutchess County Department of Health.

Chapter 206, Soil Erosion and Sediment Control

Prior to the commencement of construction activity and issuance of Site Plan Approval, DEP would prepare an erosion and sediment control plan for all Project 1 activities. This plan would be approved by the Town prior to submission to NYSDEC.

Chapter 213, Stormwater Management

DEP would prepare a SWPPP in conjunction with site plan approval. Section 2.8, “Natural Resources and Water Resources,” of this EIS discusses the details of the SWPPP.

Chapter 214, Streets and Sidewalks

The Wappinger Town Code requires a permit for all work done within roadways. In general, work is expected to be confined to the existing Shaft 6 site. However, for any work extending into public rights-of-way, DEP would obtain appropriate approvals from the Highway Superintendent and other jurisdictional agencies as necessary. DEP has committed to roadway pavement monitoring on local roads accessed by trucks for the east connection site. DEP would require its contractor to videotape and assess roadway pavement conditions on both River and Chelsea Roads before Project 1 construction, and would conduct annual meetings after the winter with town and county roadway representatives to determine the need for pavement repairs as a result of Project 1 traffic; based on this consultation, DEP would make the necessary pavement repairs.

Chapter 240, Zoning

The proposed use is a continuation of the water supply use. The existing facility is a “use of a governmental entity” and is a permitted use in the R-80 district. Construction activity associated with Project 1 requires an amended site plan approval pursuant to Section 240-82 of the zoning code. Project 1 would include construction trailers similar to the construction trailers approved as part of earlier approvals for previous and ongoing work undertaken by DEP at Shaft 6. The existing contractor trailers on the east connection site may be removed and replaced with new trailers for Project 1-related construction pursuant to Section 240-27.1 of the code. DEP may seek relief from §240-27.1.C, which limits development projects to no more than one (1) construction trailer, and §240-27.1.I, which limits placement of a construction trailer for no more than two (2) years. DEP understands that the Town of Wappinger is considering various amendments to its Zoning Code that may include allowance for more than one construction trailer on a construction site and allowance for extended durations. If not, DEP will appeal to the Zoning Board of Appeals for an area variance to permit the additional construction trailers and/or storage trailers and will apply to the Town Board for a resolution authorizing a duration in excess of two (2) years. No new permanent structures are proposed for the east connection site at this time. Following construction, certain improvements, such as driveways, may be retained during the operations phase (see Section 5.1 for a discussion of the operational phase and the potential code compliance and public policy impacts of any permanent structures on the site).

In its review of the application for site plan approval, the Planning Board must find that the plan conforms to the requirements of §240-86, “Standards for site development plan approval.” DEP believes that the drawings and technical studies submitted in compliance with §240-84.B and the Draft Environmental Impact Statement demonstrate full satisfaction of all the applicable standards.

Text in normal type below replicates the relevant provisions of §240-86. Italicized text following each item describes how Project 1 would meet each standard.

- “A. Traffic access. The number, location and design of all proposed driveways, in terms of their width, length, grade, alignment, visibility and relationship to the street system and neighboring properties and land uses, shall be such that maximum safety and function will be achieved.”

The existing driveway on the Shaft 6 property would continue to be used for access to the site for all construction worker and truck deliveries. The location, width, and grade of the existing driveway are currently proposed to remain as approved and constructed pursuant to the 2007 Site Plan Approval; however, DEP is evaluating how large deliveries would be accommodated on the site and may have to modify the driveway internal to the site.

- “B. Traffic. The effect of the proposed development on traffic conditions on existing streets.”

A Traffic Impact Assessment for each phase of the construction process is included in the DEIS (see Section 2.10, “Transportation”). This assessment includes estimates of workers and truck trips through the various phases of construction.

- “C. On-site circulation and parking. Adequate and convenient off-street parking and loading spaces shall be provided to prevent parking in public streets of vehicles belonging to any persons connected with or visiting the proposed use. The interior circulation system shall be adequate to provide safe access to all buildings, structures and required off-street parking, including access for fire fighting and for the handicapped. The interconnection of parking facilities via access drives between adjacent lots, designed to provide maximum safety, convenience and efficiency of traffic circulation and to minimize curb cuts on neighboring streets, shall be provided where practicable.”

The existing layout of site driveways and parking are currently proposed to remain as approved and constructed pursuant to the 2007 Site Plan Approval. However, to access the location of the new shaft, a separate internal driveway would be constructed to permit access by trucks delivering building materials and hauling debris from the shaft construction. The internal driveway is designed to allow for two-way traffic flow to reduce the number of trucks backing up and activating back-up alarms.

- “D. Pedestrian circulation. An adequate and safe pedestrian circulation system shall be provided to permit safe access to uses on the site from the street and from all parking areas, including consideration of the location, arrangement and adequacy of facilities for the physically handicapped, such as ramps, depressed curbs and reserved parking spaces.”

This provision of the standards is less applicable to a construction site where unrestricted public access is not allowed; but DEP would make all necessary design provisions to ensure the safety of construction workers on the site.

- “E. Landscaping and buffering. All parking, loading and service areas shall be screened in a reasonable manner at all seasons of the year from the view of adjacent residential lots and streets. The general landscaping of the site shall be designed in an attractive manner and,

wherever possible, desirable natural features existing on the site shall be protected and retained.”

DEP would maintain a buffer of existing vegetation along the eastern property line to shield, to the extent practicable, the work area from adjacent residential uses. Measures to reduce noise impacts during construction, such as construction fencing with noise blankets and/or the use of storage containers are under evaluation. These fences would also serve to screen work areas from view.

- “F. Lighting. Outdoor lighting shall be provided on the site to assure the safe movement of vehicles and persons and for security purposes. Such lighting shall be properly designed and shielded so as to avoid glare, prevent visibility of the source of the light from areas off site and other undesirable impacts on neighboring properties and streets.”

Lighting of the work area would be required to ensure security and safety of construction activities. All lighting used would be temporary during the construction period and would be removed at the conclusion of construction work. Temporary/mobile lighting fixtures (such as those used on highway construction projects) may be used during the construction period to provide illumination for work sites where fixtures mounted on utility poles would not be practicable. Lighting will be designed to avoid glare and direct visibility of the source of light from off-site locations; however, due to the nature of the construction activity, some glare may be evident from off-site locations.

- “G. Protection of natural and cultural resources. The Planning Board shall endeavor to adequately protect any resources of local, state and/or national significance.”

There are no cultural resources of note on the Shaft 6 property. The Shaft 6 property contains potential habitat for Indiana bat (see Section 2.8, “Natural Resources”). However, given that the site lacks favorable foraging and roosting habitat with the exception of the portion of the site near the Hudson River, the loss of these trees is not expected to have any significant impacts on local Indiana bat populations. The Hudson River is located west of the railroad tracks that form the western boundary of the Shaft 6 property. An existing stormwater and dewatering outfall may be used during different phases of construction. Such use would be subject to a NYSDEC SPDES permit. There are no regulated freshwater wetlands or waterbodies on the Shaft 6 property. A drainage swale running along the southern portion of the adjacent New York Power Authority (NYPA) sub-station enters the Shaft 6 property but is not considered to be a regulated watercourse. A small portion of the Shaft 6 property lies within the 100-year floodplain adjacent to the railroad tracks. No work is contemplated at this time within the 100-year floodplain.

- “H. Drainage. The proposed stormwater drainage system shall be adequate to properly drain the site, maximize groundwater recharge, prevent downstream flooding and prevent the degradation of water quality.”

DEP would prepare a Stormwater Pollution Prevention Plan (SWPPP) in compliance with NYSDEC State Pollutant Discharge Elimination System (SPDES) General Permit for Construction Activities (GP-0-10-001) and would submit the SWPPP for Town review as part of the site plan approval process.

- “I. Water and sewage. The proposed systems for water supply and sewage disposal shall be adequate to serve the needs of all proposed uses on the site without adversely impacting off-site facilities, neighboring properties or uses.”

Currently, potable water is supplied to the Shaft 6 property in bottles delivered by truck. Non-potable water is obtained from the Shaft itself. During the initial phases of construction when the Delaware Aqueduct remains active, non-potable water would continue to be provided from the Shaft and potable water in bottles delivered by truck. Other options for water supply during construction are being evaluated. Options under consideration for potable water include trucking water and storing it on-site, treatment and disinfection of Delaware Aqueduct water, and a connection to the Town of Wappinger water supply system ~~In addition, during the time that the Delaware Aqueduct is shutdown for connection of the bypass tunnel, under Project 2B, options for non-potable water supply during construction, such as intake from the Hudson River, would be evaluated.~~ Sanitary wastewater would be collected in an on-site holding tank from which it would be pumped and hauled off-site on a regular basis.

- “J. Solid waste. Adequate provisions shall be made for the storage, collection, recycling and disposal of solid waste. Such facilities shall not be permitted to adversely affect neighboring properties or public facilities.”

Solid waste is currently collected and stored in receptacles on the Shaft 6 site and hauled away by a private waste hauler. During construction, the selected contractor would be required to handle solid waste according to all applicable local and state regulations. Storage and collection receptacles would be screened from view from adjacent residential properties.

- “K. Building design. The height, location and size of the proposed buildings shall be in conformity with the requirements of this chapter. All such buildings, utilities and other structures shall harmoniously relate to each other, the site and neighboring properties.”

There are no proposed modifications to existing permanent structures (e.g., Shaft 6 superstructure or Hudson River Pumping Station) as part of this Amended Site Plan approval request. A new DEP Field Office would be used for management of proposed construction activities. The temporary construction trailers associated with the ongoing rehabilitation of Shaft 6 would be removed at the completion of the project. Construction trailers for the selected contractor would likely be placed approximately in the same location as the existing construction trailers. There may be a time of overlap between the ongoing construction project and the proposed project when both sets of construction trailers would

be present on the site. There is adequate room in areas currently cleared and graded to accommodate the new DEP Field Office and both sets of construction trailers.

- “L. Signage. All proposed signs, including on-site directional signs and building signs, shall meet the requirements of this chapter and shall be adequate to convey reasonable information to the public and shall be in harmony with the design of the site and buildings and with neighboring properties.”

There is currently a sign adjacent to the gates opposite the Shaft 6 superstructure identifying the tunnel and shaft rehabilitation project that is currently underway at the site. A sign of similar size and design would replace this sign.

- “M. Hours of operation. For uses that could create negative impacts to neighboring properties by reason of noise, traffic, lighting or other impacts, the Planning Board may limit the hours of operation to mitigate such impacts.”

Given the time sensitive nature of certain construction activities and the need to progress construction over three (3) standard construction shifts (e.g., 24 hours per day) during certain critical phases of construction, DEP recognizes that the Planning Board would be concerned about construction hours of operation to minimize impacts to neighboring properties. DEP intends to take every reasonable measure to minimize all impacts to adjoining residential properties from construction activities (including from noise, lights, traffic) and would work with the Town to establish appropriate controls on construction activity.

- “N. Performance standards. The applicant shall demonstrate conformance with the performance standards.” (*Editor’s Note: The full text of §240-103, “Standards,” has not been provided herein to aid in the reader’s ability to follow the substantive discussion. The reader is referred to that section of the Town of Wappinger Town Code for specific language.*)

DEP believes that the provisions of Article XI, “Performance Standards,” are applicable to the on-going operation of business or industrial uses, and not to the construction of same. However, DEP understands that the Town of Wappinger enforces the standards of §204-103 for all construction activity:

- A. “Noise” – *DEP recognizes that the Town of Wappinger restricts noise from construction or demolition activity between the hours of 7:00 PM to 7:00 AM pursuant to Chapter 166, “Noise.” It is also noted that the provisions of §240-103.A (“Performance Standards”) would be applicable to construction activities “between 8:00 AM and sunset.” DEP understands that the Town is currently considering various Code amendments that would address permitted levels of noise and would clarify inconsistencies between different Code chapters. DEP intends to take every reasonable measure to minimize noise impacts to adjoining residential properties and has integrated noise mitigation measures into the design of the*

Amended Site Plan. DEP would work with the Town to identify any additional mitigation measures that would be required.

- B. “Vibration” – Blasting associated with construction of the shaft is not anticipated to result in vibrations noticeable off-site. DEP would require its selected contractor to comply with all provisions of Chapter 80, “Blasting.” Vibrations from the tunnel boring machine are not anticipated to be felt at the surface because the tunnel boring machine would be operating several hundred feet below the surface. Therefore, it is unlikely that vibrations in excess of the standards of §240-103.B would be experienced.*
- C. “Smoke, dust and other atmospheric pollutants” – Construction equipment operating with diesel fuel would emit particulate matter in small quantities. Appropriate controls would be used on equipment to minimize particulate matter. Per NYC Local Law 77, ultra-low sulfur diesel fuel and Best Available Technology would be specified in the construction specifications to minimize emissions of sulfur and particulate matter. DEP would require dust suppression best management practices as part of its contractor specifications. Dust suppression techniques would be identified in the erosion and sediment control plan.*
- D. “Odorous matter” – It is not anticipated that construction activity would generate any significant odors.*
- E. “Toxic or noxious matter” – DEP would take all appropriate measures to ensure that no dissemination or inappropriate release of such materials occurs. A construction Health and Safety Plan (HASp) would be established and the selected contractor will be required to ensure compliance with the HASp.*
- F. “Radiation” – No radioactive substances are proposed to be used during the construction process.*
- G. “Electromagnetic interference” – With the exception of personal electronic communication devices (e.g., mobile telephones, pagers, or walkie-talkies), no electronic equipment is proposed that would cause any interference with normal radio or television reception.*
- H. “Fire and explosive hazard” – Any storage of explosives required for blasting would be done in consultation with the Town and consideration of Chapter 80, “Blasting.”*
- I. “Heat” – It is not anticipated that construction activity would generate a temperature increase in excess of one (1) degree Fahrenheit at any adjoining lot line.*

J. *“Liquid or solid wastes” – Dewatering of the shaft during construction would be subject to a NYSDEC SPDES permit. Solid waste storage and collection receptacles would be screened from view from adjacent residential properties.*

K. *“Vehicular traffic” – A Traffic Impact Assessment and air quality analysis for each phase of the construction process has been prepared and included in this DEIS.*

“O. Park reservations.

- (1) General standards. The Planning Board may require that land be reserved within site plans containing residential units for a park or parks suitably located for playground or other recreational purposes. Such locations shall be as designated on the Town Development Plan or Official Map or as otherwise deemed appropriate by the Planning Board. Each reservation shall be of suitable size, dimensions, topography and general character and shall have adequate street access for the particular purpose or purposes envisioned by the Planning Board, taking into consideration the recommendations of the Recreation Commission. The area shall be shown and marked on the plat as "Reserved for Park Purposes."
- (2) Land for park, playground or other recreational purposes may not be required until the Planning Board has made a finding that a proper case exists for requiring that a park or parks be suitably located for playgrounds or other recreational purposes within the Town. Such findings shall include an evaluation of the present and anticipated future needs for park and recreational facilities in the Town based on projected population growth to which the particular site plan will contribute.
- (3) Minimum size. The Planning Board may require the reservation of up to 10% of the area of the site plan for recreation purposes. In general, it is desirable that land reserved for park and playground purposes have an area of at least three acres. The Board may require that such areas be located at a suitable place on the edge of the site plan so that additional land may be added at such time as the adjacent land is developed.
- (4) Ownership of park areas. The ownership of reservations for park purposes shall be clearly indicated on the site plan and established in a manner satisfactory to the Planning Board so as to assure their proper future continuation and maintenance.
- (5) Cash payment in lieu of reservation. Where the Planning Board makes a finding pursuant to Subsection O(2) of this section that the proposed site plan presents a proper case for requiring a park or parks suitably located for playgrounds or other recreational purposes but determines that a suitable park or parks of adequate size to meet the requirement cannot be properly located on such site plan, the Board may require, as a condition to approval of any such site plan, a payment to the Town in an amount set forth in Chapter 122, Article IV, § 122-16N(3) of the Code. In making such determination of suitability, the Board shall assess the size and suitability of lands shown on the site plan which could be possible locations for park or recreational facilities, as well as practical factors, including whether there is a need

for additional facilities in the immediate neighborhood. Any monies required by the Planning Board in lieu of land for park, playground or other recreational purposes, pursuant to the provisions of this section, shall be deposited into a trust fund to be used by the Town exclusively for park, playground or other recreational purposes, including the acquisition of property.

- (6) Notwithstanding the foregoing provisions of this section, if the land included in a site plan under review is a portion of a subdivision plat which has been reviewed and approved pursuant to Chapter 217, Subdivision of Land, of the Town Code, the Planning Board shall credit the applicant for any land set aside or money donated in lieu thereof under such subdivision plat approval. In the event of resubdivision of such plat, nothing shall preclude the additional reservation of parkland or money donated in lieu thereof.”

This provision of the Zoning Code only applies to residential development projects.

- “P. Other public needs. The Planning Board shall assure that other public needs, including other needed services, are adequately and properly met.”

This provision of the Zoning Code allows the Planning Board to “assure that other public needs, including other needed services, are adequately and properly met.”

PUBLIC POLICY

Town of Wappinger Comprehensive Plan

Project 1 would not conflict with the Town of Wappinger’s Comprehensive Plan:

- Project 1 would not conflict with the Town’s proposed enhancements to the character of the Chelsea Hamlet.
- Project 1 would not conflict with historic character of the Wheeler Hill Historic District, or with the Town’s proposed historic preservation law.
- Project 1 would not conflict with the rezoning proposed, and implemented, on the two residential properties just to the south of the west connection site.
- Upon completion of Projects 1, 2A, and 2B, DEP would make available to the Town of Wappinger a connection to the RWBT. ~~This would consist of a tap only.~~ As noted in Chapter 1, “Program Description”, an alternate option to provide a reliable potable water supply to the east connection site would involve the potential installation of a water main between the site and the Town of Wappinger water supply (United Wappinger Water District [UWWD]) prior to construction of the east connection shaft under Project 1. This water main could potentially provide the town with a connection to the RWBT and a long-term source of potable water. The Town of Wappinger will conduct its own environmental analyses, including an analysis of the impact of construction and use of any distribution lines, additional piping, or treatment necessary for the distribution of water within the Town of Wappinger.

State Smart Growth Public Infrastructure Act

DEP has prepared this statement evaluating the compliance of Project 1 within the Town of Wappinger against the Smart Growth Public Infrastructure Criteria.

Text in normal type below replicates the Smart Growth Public Infrastructure Criteria. Italicized text following each item describes how Project 1 would meet these criteria.

“A. To advance projects for the use, maintenance or improvement of existing infrastructure;”

Project 1 is intended to facilitate the maintenance and improvement of existing infrastructure.

“B. To advance projects located in municipal centers [defined as “areas of concentrated and mixed land uses that serve as centers for various activities”];”

Project 1 is not located in a municipal center as defined by the Act. However, the location of Project 1 in the Town of Wappinger is dependent upon its proximity to the existing RWBT. As such, location within a municipal center is not considered practicable.

“C. To advance projects in developed areas or areas designated for concentrated infill development in a municipally approved comprehensive land use plan, local waterfront revitalization plan and/or brownfield opportunity area plan;”

Project 1 is not identified in any local comprehensive plans nor is the location of Project 1 identified in any plan as an area “designated for concentrated infill development.” The location of Project 1 in the Town of Wappinger is dependent upon its proximity to the existing RWBT. As such, location within an area designated for concentrated infill development is not considered practicable.

“D. To protect, preserve and enhance the State’s resources, including agricultural land, forests, surface and groundwater, air quality, recreation and open space, scenic areas, and significant historic and archaeological resources;”

This DEIS evaluates the potential impacts of Project 1 on agricultural land, forests, surface and groundwater, air quality, recreation and open space, scenic areas, and significant historic and archaeological resources. To the extent practicable, Project 1 avoids significant direct impacts on any of these resources; however, the location of Project 1 and any resources at that location is dependent upon proximity to the existing RWBT.

“E. To foster mixed land uses and compact development, downtown revitalization, brownfield redevelopment, the enhancement of beauty in public spaces, the diversity and affordability of housing in proximity to places of employment, recreation and commercial development and the integration of all income and age groups;”

Project 1 is not a mixed-use or compact land development project. Therefore, it is not possible to comply with this criterion.

- “F. To provide mobility through transportation choices including improved public transportation and reduced automobile dependency;”

Project 1 is not an investment in transportation infrastructure. Therefore, it is not possible to comply with this criterion.

- “G. To coordinate between State and local government and intermunicipal and regional planning;”

DEP has conducted extensive outreach and coordination with State and local government in the design and development of Project 1. Implementation of Project 1 would provide for the long-term provision of water supply to a region encompassing 8 million water consumers, including residents of certain upstate communities. As such, Project 1 is considered a project of regional significance and its implementation is considered an act of regional planning.

- “H. To participate in community based planning and collaboration;”

DEP has conducted extensive outreach and collaboration with State and local government and affected residents regarding the implementation of Project 1 and the minimization of significant adverse impacts to local stakeholders.

- “I. To ensure predictability in building and land use codes; and”

Project 1 does not affect the predictability of any building and land use codes.

- “J. To promote sustainability by strengthening existing and creating new communities which reduce greenhouse gas emissions and do not compromise the needs of future generations, by among other means encouraging broad based public involvement in developing and implementing a community plan and ensuring the governance structure is adequate to sustain its implementation.”

Potential greenhouse gas emissions from Project 1 construction are described in Section 2.12, “Energy and Greenhouse Gas Emissions.” While these greenhouse gas emissions are not avoidable, the implementation of Project 1 does not create a condition that would impair the sustainability of the Town of Wappinger or the underlying ability of the Town of Wappinger government to manage its community in a sustainable manner. It should be noted that the operation of the proposed project would not result in greenhouse gas emissions or the use of energy since the Delaware Aqueduct would continue to convey water by gravity.

2.2-5 CONCLUSIONS

2.2-5.1 WEST OF HUDSON

Construction of Project 1 on the west side of the Hudson River, including activity at the west connection site and along the dewatering pipeline route, would not result in any permanent

impacts to surrounding land uses. The proposed public utility use is permitted within the AR Zoning District and is considered compatible with both residential and commercial uses. While the site would change from a vacant/undeveloped property into a public utility use, this change would not cause any significant change to the land use or character of the surrounding area. The approximately 7½ years of construction activities may temporarily affect the single-family residences near the west connection site and dewatering pipeline route, but any impacts would be temporary and would not eliminate access to individual residences. Temporary impacts within the study area may include increased traffic, light, and noise. Existing land uses in the study area include several commercial uses, such as gas stations, restaurants, and motels. These businesses can potentially expect increased patronage by construction workers. Construction activity would not be inconsistent with the Town of Newburgh's Comprehensive Plan.

Construction of Project 1 would not be inconsistent with the town's zoning code or public policy, but relief from some sections of the code may be necessary to allow for evening work and 24-hour construction. Construction-related traffic is not expected to have a significant adverse impact on land use or open space in the surrounding community.

2.2-5.2 EAST OF HUDSON

Construction activity at the east connection site would not result in any changes or permanent impacts to land use, open space, or zoning at the east connection site; however, temporary changes may occur during the approximately 7½ years of construction. The proposed use is a continuation of an existing water supply use that is permitted within the R-80 Zoning District and is considered compatible with surrounding residential properties as well as the lumberyard property to the south. Construction activities may temporarily affect the single-family residences near the east connection site, but any impacts would not affect access to individual residences, would not be permanent, and would end after construction is complete. Temporary impacts within the study area may include increased traffic, emission of air pollutants, and noise. Construction activity on the site would not be inconsistent with the Town of Wappinger's Comprehensive Plan.

Project 1 may require relief from certain sections of the Town Code including for construction outside of normally permitted work hours, which would be obtained from the Town of Wappinger if deemed necessary. Construction-related traffic is not expected have a significant adverse impact on land use or open space in the surrounding community. *