Environmental Protection

Water for the Future:
Rondout-West Branch Tunnel Repair
Draft Environmental Impact Statement

Town of Newburgh

January 23, 2012

Agenda

- Introductions by Sean McAndrew
- Overview of Proposed Project by Ted Dowey (15 min)
- EIS and Public Review Process by Mark Page (5 min)
- Draft EIS Assessment and Conclusions by Mark Page (10 min)
- Informal Question and Answer by DEP Team (15 min)
- Public Comments facilitated by Mark Page (until 9 PM)

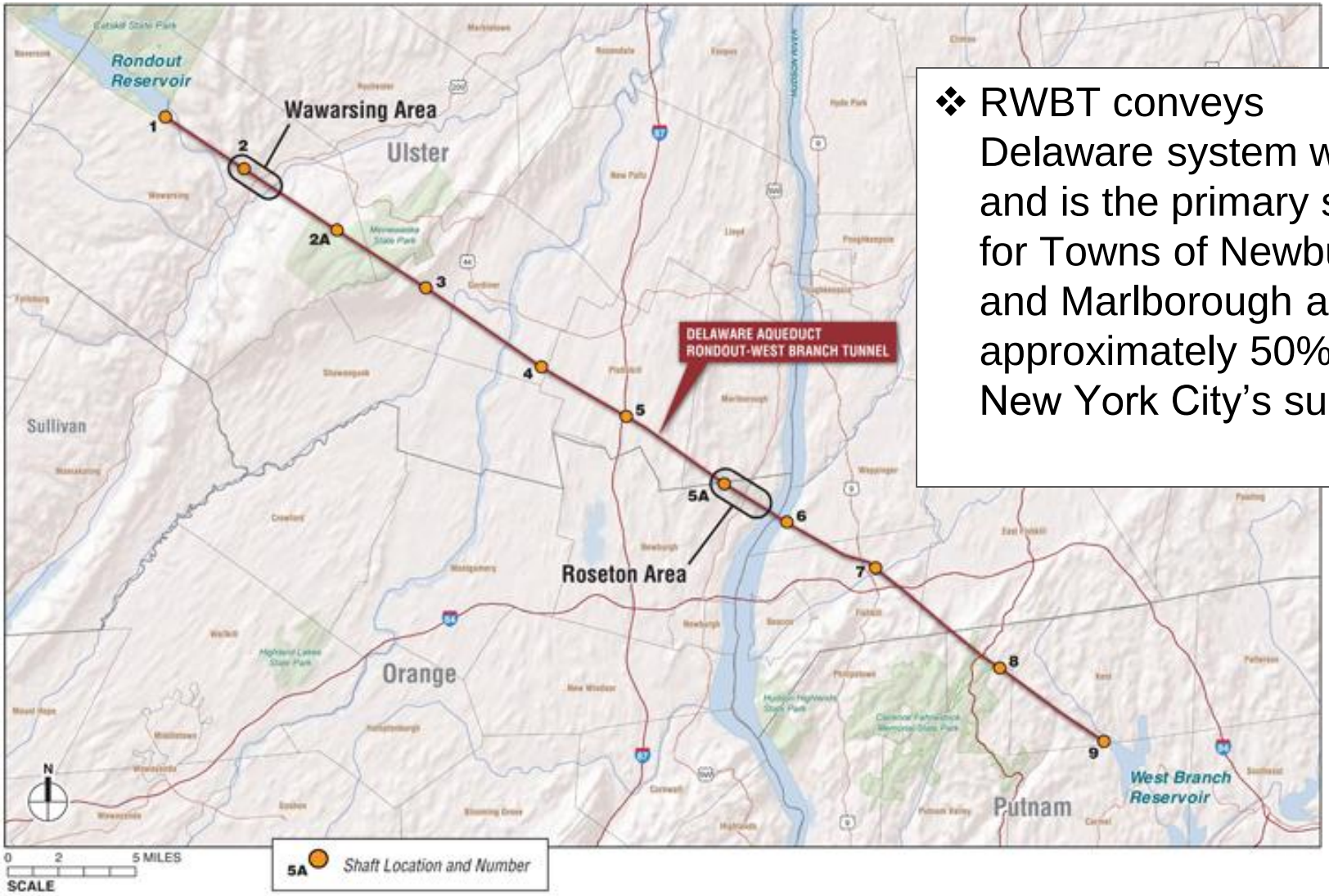
Program Overview

- NYC Water Supply System
- RWBT Primary Areas of Concern
- Proposed Program:
  - Bypass tunnel construction and connection
  - Water supply system augmentation

Water Supply System

- RWBT currently leaking between 15 and 35 million gallons per day
- Proposed program would ensure the safe and reliable transmission of drinking water

RWBT Primary Areas of Concern



- RWBT conveys Delaware system water and is the primary source for Towns of Newburgh and Marlborough and approximately 50% of New York City's supply

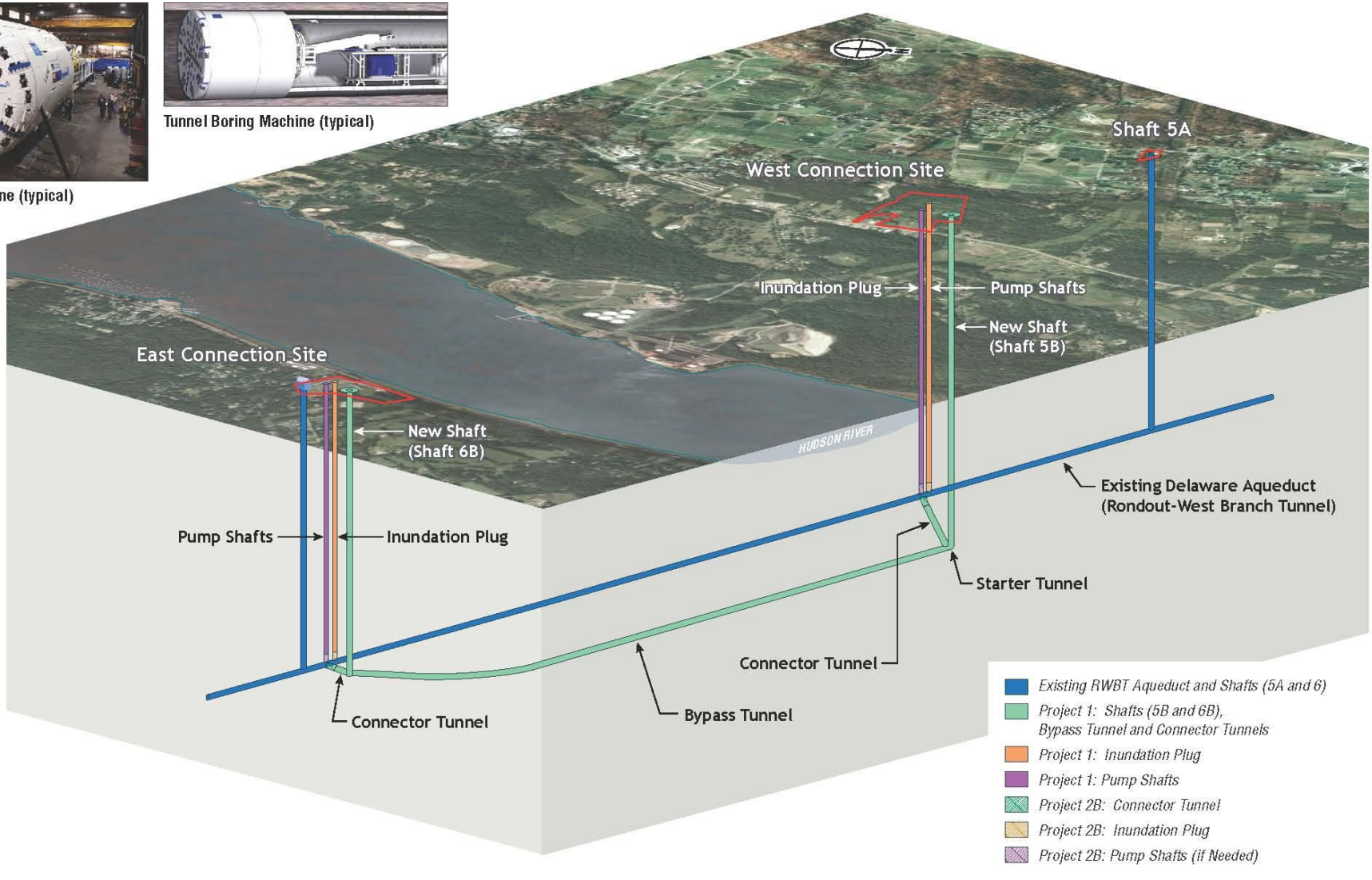
Proposed Program

- DEP plans to address the leaks in the RWBT by undertaking the Rondout-West Branch Tunnel Repair Program, which consists of two projects:
  - Constructing a bypass tunnel around the leaking areas in Roseton
  - Repair of Aqueduct in Wawarsing
  - Developing water supply augmentation projects
- The two projects are phased as follows:
  - Project 1: Shaft and Tunnel Construction
  - Project 2A: Water Supply System Augmentation
  - Project 2B: Bypass Tunnel Connection and RWBT Inspection and Repair, Including Wawarsing

Bypass Tunnel Construction

Tunnel Boring Machine (typical)

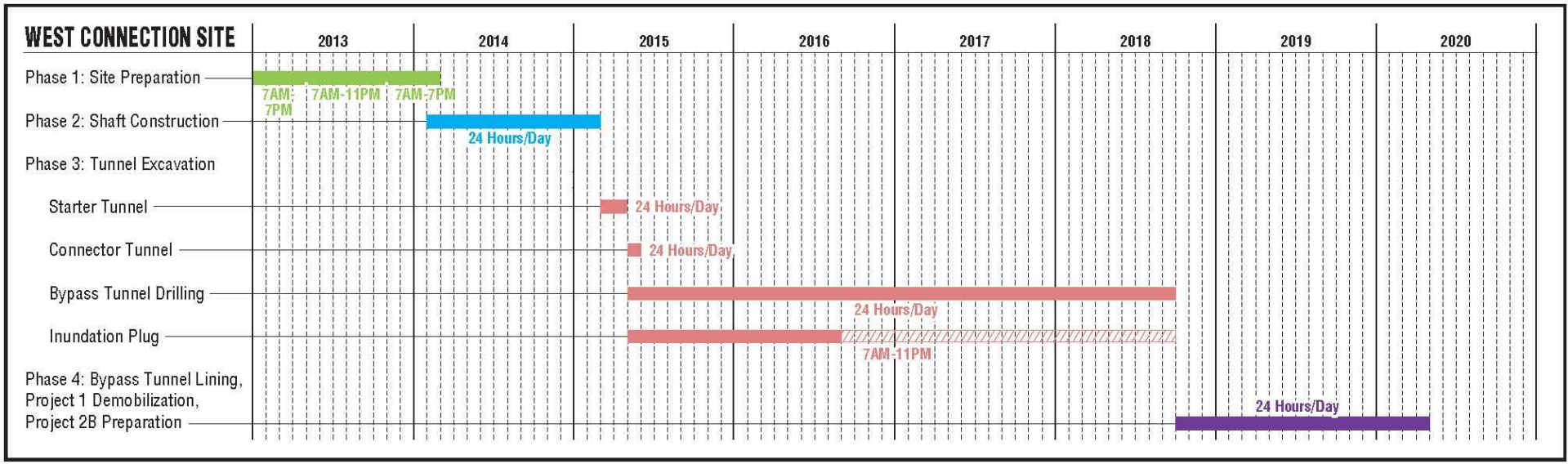
Tunnel Boring Machine (typical)



Project 1

Proposed Program: West Connection Site

- Construction in the Town of Newburgh would consist of the following:
  - Site preparation (7 AM – 11 PM, six days/week)
  - Shaft construction (24/5)
  - Starter tunnel (24/5)
  - Connector tunnel (24/5)
  - Delivery of Tunnel Boring Machine (based on road restrictions)
  - Bypass tunnel (24/5)
  - Inundation plugs (7 AM – 11 PM, five days/week)
  - Bypass tunnel lining (24/5)
  - Bypass tunnel connection (24/7)



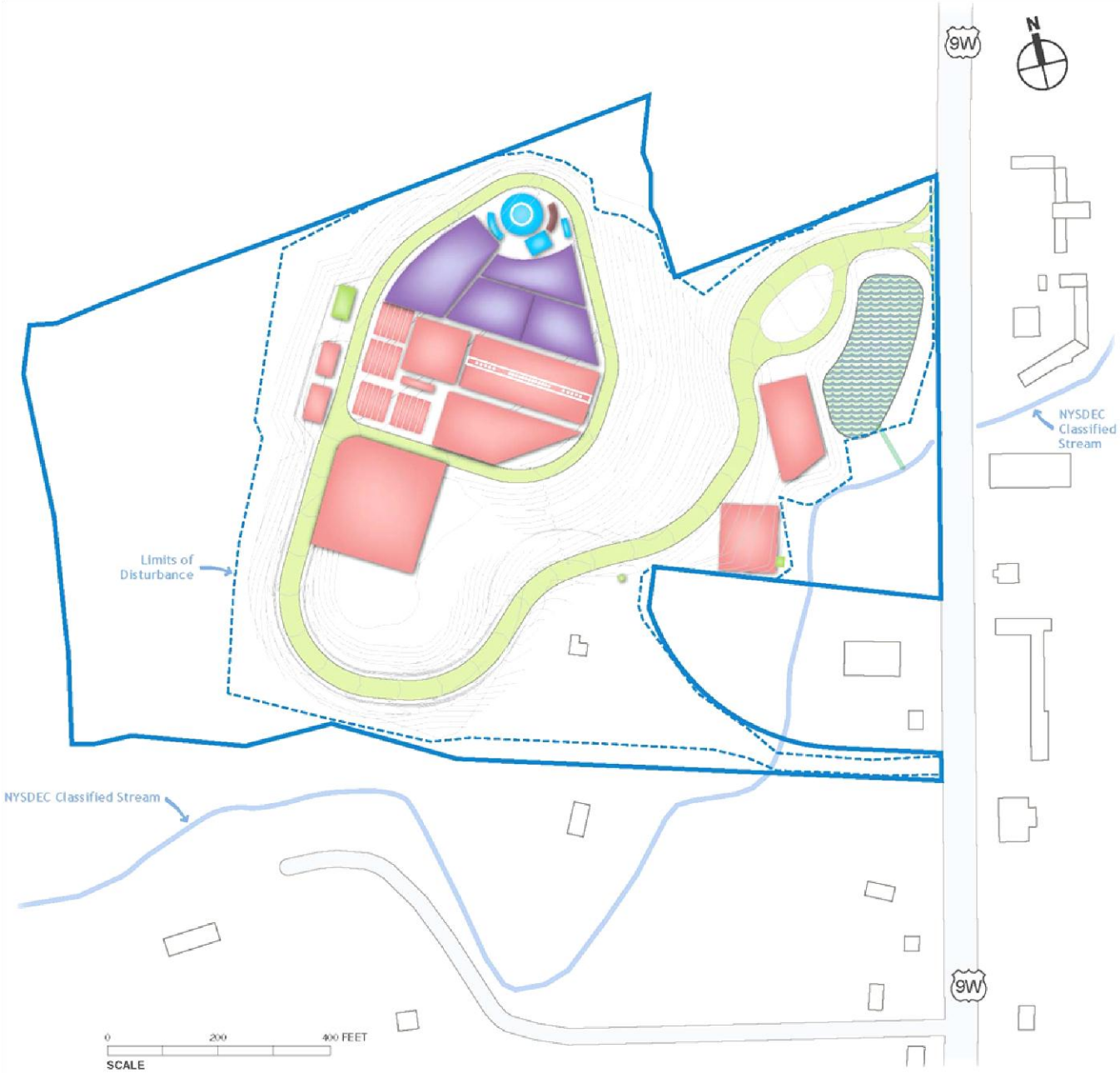
West Connection Site

- Current Site

View of West Connection Site (looking southwest) 1

View of West Connection Site (looking northwest) 2

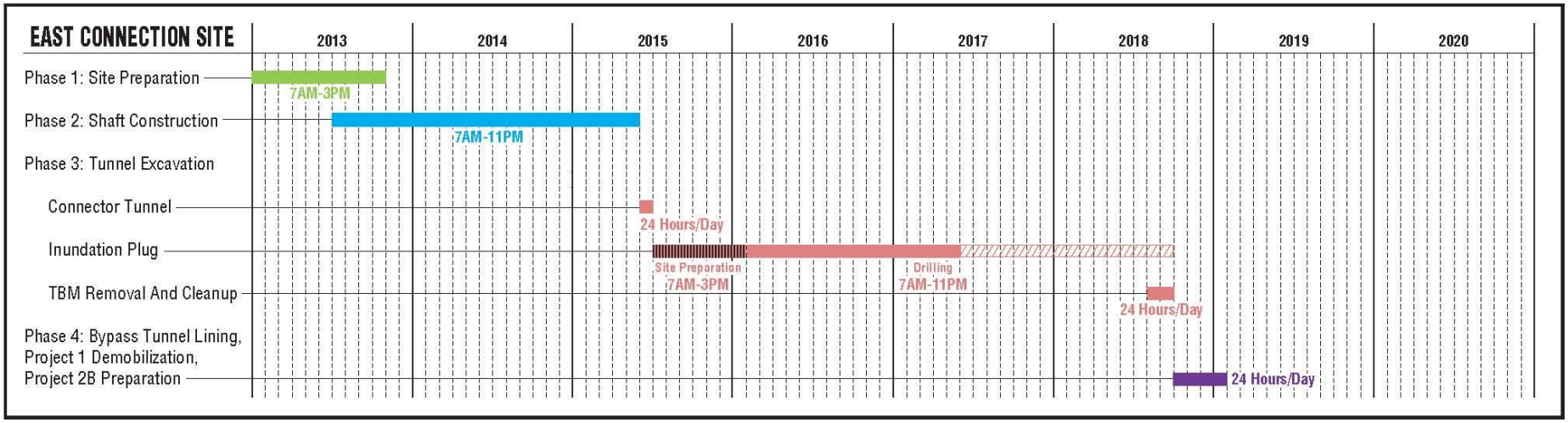
West Connection Site



West Connection Site

Proposed Program: East Connection Site

- Construction in the Town of Wappinger would consist of the following:
  - Site preparation (7 AM – 3 PM, five days/week)
  - Shaft construction (7 AM – 11 PM, five days/week)
  - Construction of connector tunnel (24/5)
  - Inundation plugs (7 AM – 11 PM, five days/week)
  - Removal of Tunnel Boring Machine (based on road restrictions)
  - Bypass tunnel lining (24/5)
  - Bypass tunnel connection (24/7)

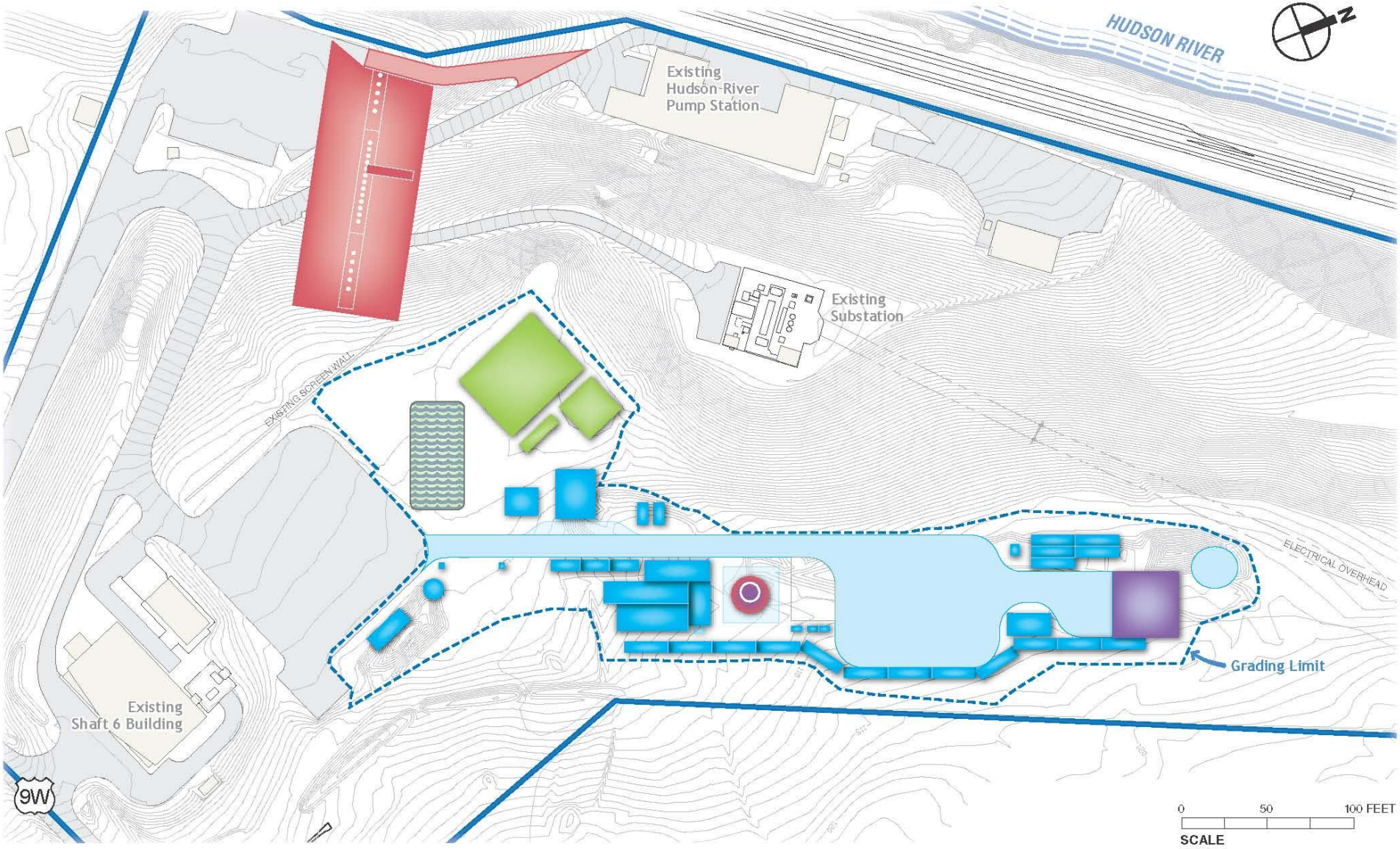


East Connection Site

❖ Current Site

View of East Connection Site (looking northwest)

East Connection Site

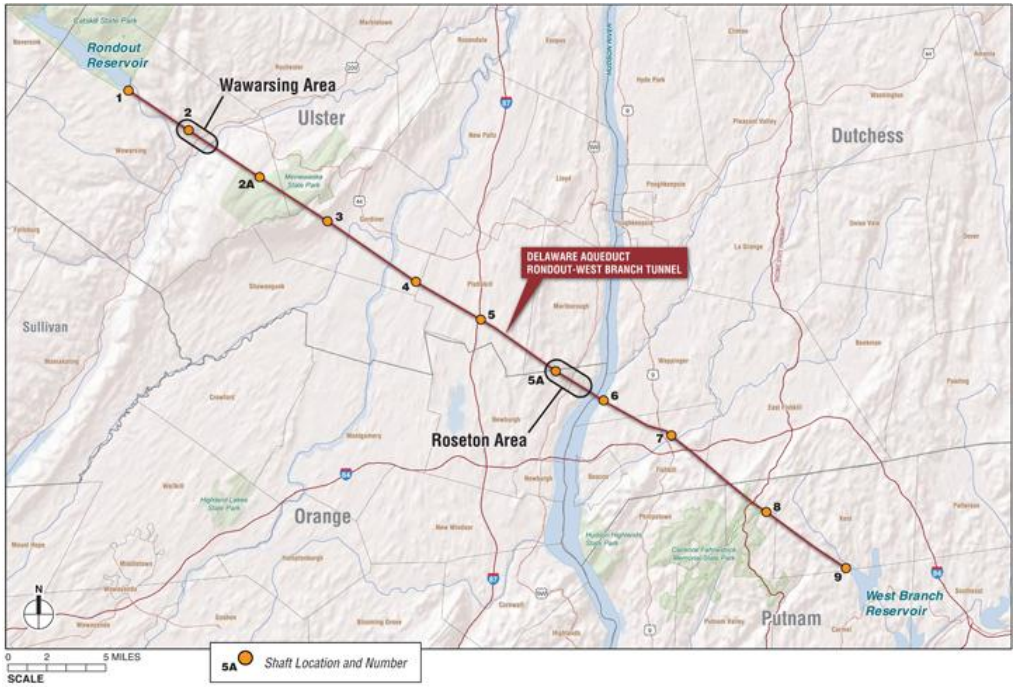


East Connection Site

Project 2

Bypass Connection and RWBT Repair

- Bypass Connection to RWBT, East and West Sites:
  - Unwatering of RWBT
  - Complete inundation plugs (only if necessary)
  - Complete connector tunnels and connection of bypass to RWBT
  - Demobilization and site restoration
- Repairs in Wawarsing
  - Access through Shaft 2A
  - Grouting, Lining, Patching
  - Steel reinforcements
  - Unwatering



Water Supply System Augmentation and Improvement

- Conservation
- Upper Catskill Aqueduct Optimization
- Queens Groundwater Rehabilitation
- NJ-NYC Interconnection
- Nassau County Interconnection

Bypass Operation

Post-Construction Operation of RWBT

- West Connection Site:
  - No above-grade structures
  - Temporary traffic light removed
  - Limited DEP operational activity
  - Tree and vegetation plantings, site restoration
- East Connection Site
  - All existing facilities to remain (including Shaft 6 building and Hudson River Pump station)
  - No new above-grade structures
  - Limited DEP operational activity
  - Site restoration

EIS and Public Review Process

EIS Process

- Meeting is being held in accordance with State and City legal requirements*
- DEIS must:
  - Disclose any potential significant adverse impacts, temporary or permanent, and develop mitigation to the greatest extent practicable
  - Disclose any potential significant adverse impacts that are not mitigated
  - Assess alternatives to the proposed project
- Public comments will be accepted into the record
  - DEP will respond to all comments in the Final EIS
  - All comments will be considered, and the Final EIS will be adjusted accordingly
  - A formal response to comments will be included in the Final EIS

*New York City's Environmental Quality Review (CEQR) as set forth in Executive Order 91 of 1977 and its amendments and the State Environmental Quality Review Act (SEQRA) and its implementing regulations (6NYCRR Part 617)

Public Outreach

- A notification of the Draft EIS was sent to:
  - Every member of the public who commented on the Draft Scope of Work
  - Involved agencies (Local, State, and Federal)
  - Residents near the project site
  - General public:
    - Sentinel
    - Mid-Hudson Times
    - Poughkeepsie Journal
    - Southern Dutchess News
    - Middletown Times Herald Recorder
    - Kingston Daily Freeman
    - Shawangunk Journal

Planned EIS Schedule

Draft Scope of Analysis	May 3, 2011
Public Scoping Meetings	June & July 2011
Final Scope of Analysis	August 31, 2011
Draft EIS	December 20, 2011
Public Hearings: Draft EIS	January 23, 2012 (Newburgh) January 24, 2012 (Wappinger) January 25, 2012 (Wawarsing)
Final EIS	March 2012
Second Draft EIS	Early 2014
Second Final EIS	Fall 2014

Draft EIS Assessment and Conclusions

DEIS Methodology

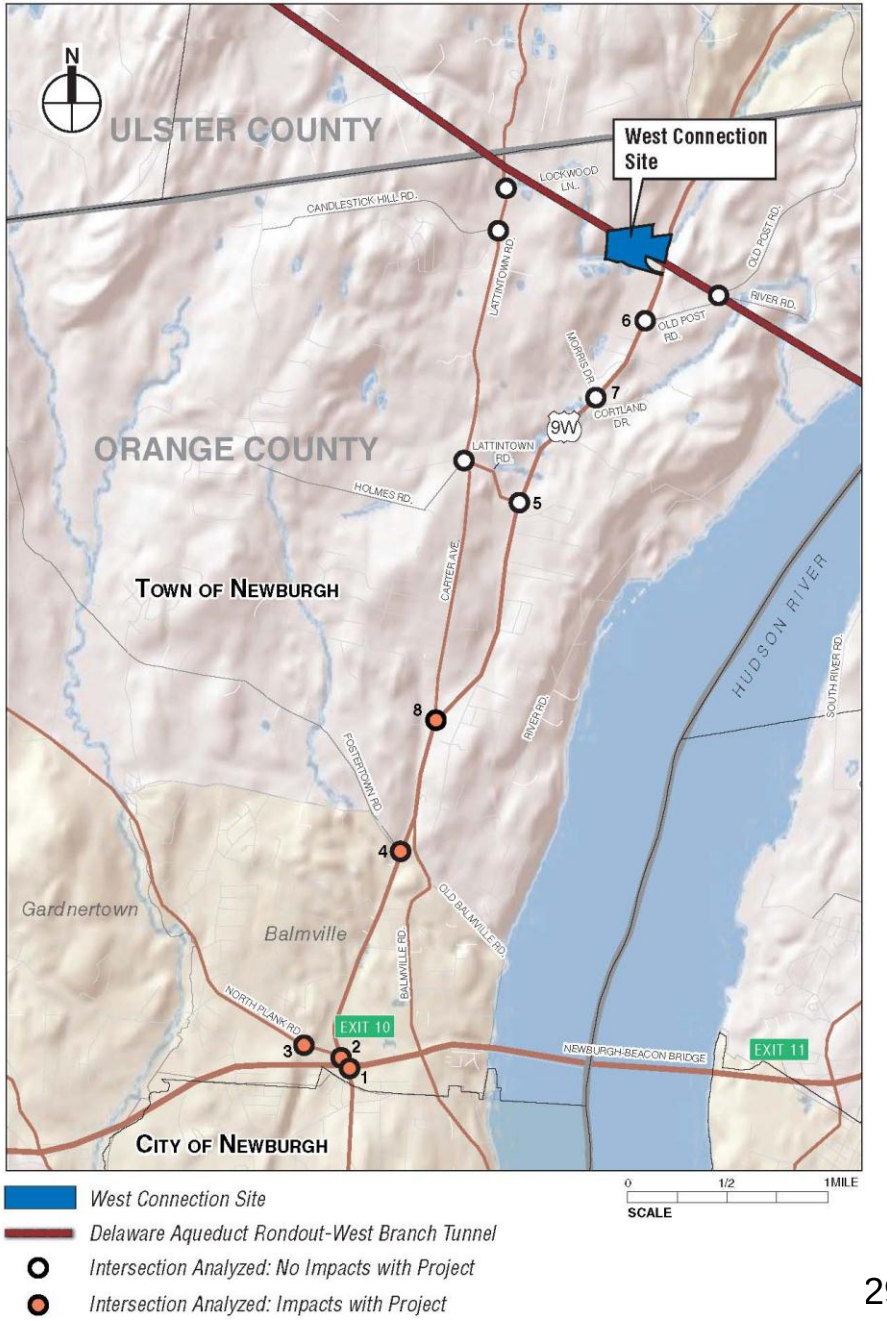
- Each technical area of the DEIS includes an analysis of:
  - Existing conditions
  - Conditions in the future without the proposed project
  - Conditions in the future with the proposed project
  - A comparison of the future without the project to the future with the project
- Any significant adverse impacts predicted are minimized or mitigated to the greatest extent practicable

Draft Environmental Impact Statement

- This DEIS assessed the following impact categories:
  - Land Use
  - **Neighborhood Character**
  - Visual Character
  - Historic and Archeological Resources
  - Socioeconomic
  - Community Facilities
  - Natural Resources
  - Hazardous Materials
  - **Transportation**
  - Air Quality
  - Energy and Greenhouse Gas
  - **Noise**
  - Infrastructure
  - Solid Waste
  - Coastal Zone
  - Public Health
  - Growth Inducement

Transportation – West Connection Site

- Traffic was monitored at 8 intersections throughout Orange County
- Five intersections are predicted to experience temporary significant adverse impacts:
  - Route 9W & I-84 Eastbound Ramps
  - North Plank Road & I-84 Westbound Ramps
  - Route 9W & North Plank Road/I-84 Westbound Off-Ramp
  - Route 9W & Fostertown Road
  - Route 9W & Carter Avenue
- All impacts can be mitigated with signal retimings and upgrading traffic signal controllers and detectors <u>except Route 9W and Fostertown Road</u>



Transportation – East Connection Site

- Traffic was monitored at 23 intersections throughout Dutchess County
- Four intersections are predicted to experience temporary significant adverse impacts:
  - Route 9D & I-84 (eastbound ramps)
  - Route 9D & Red School House Road
  - Route 9D and Chelsea Road/Baxtertown Road
  - Route 9D and New Hamburg Road/Old Hopewell Road
- All impacts can be mitigated with signal retimings and upgrading traffic signal controllers and detectors

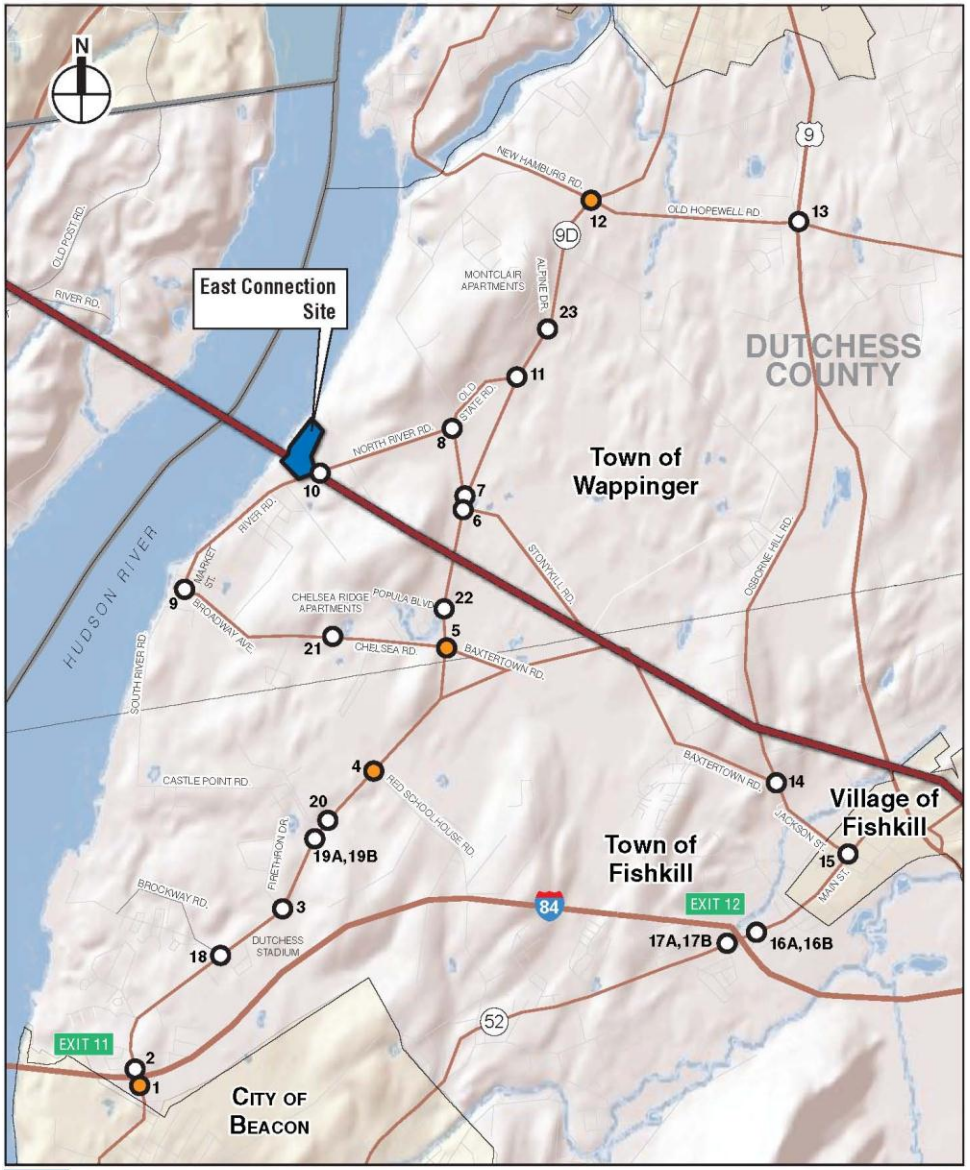


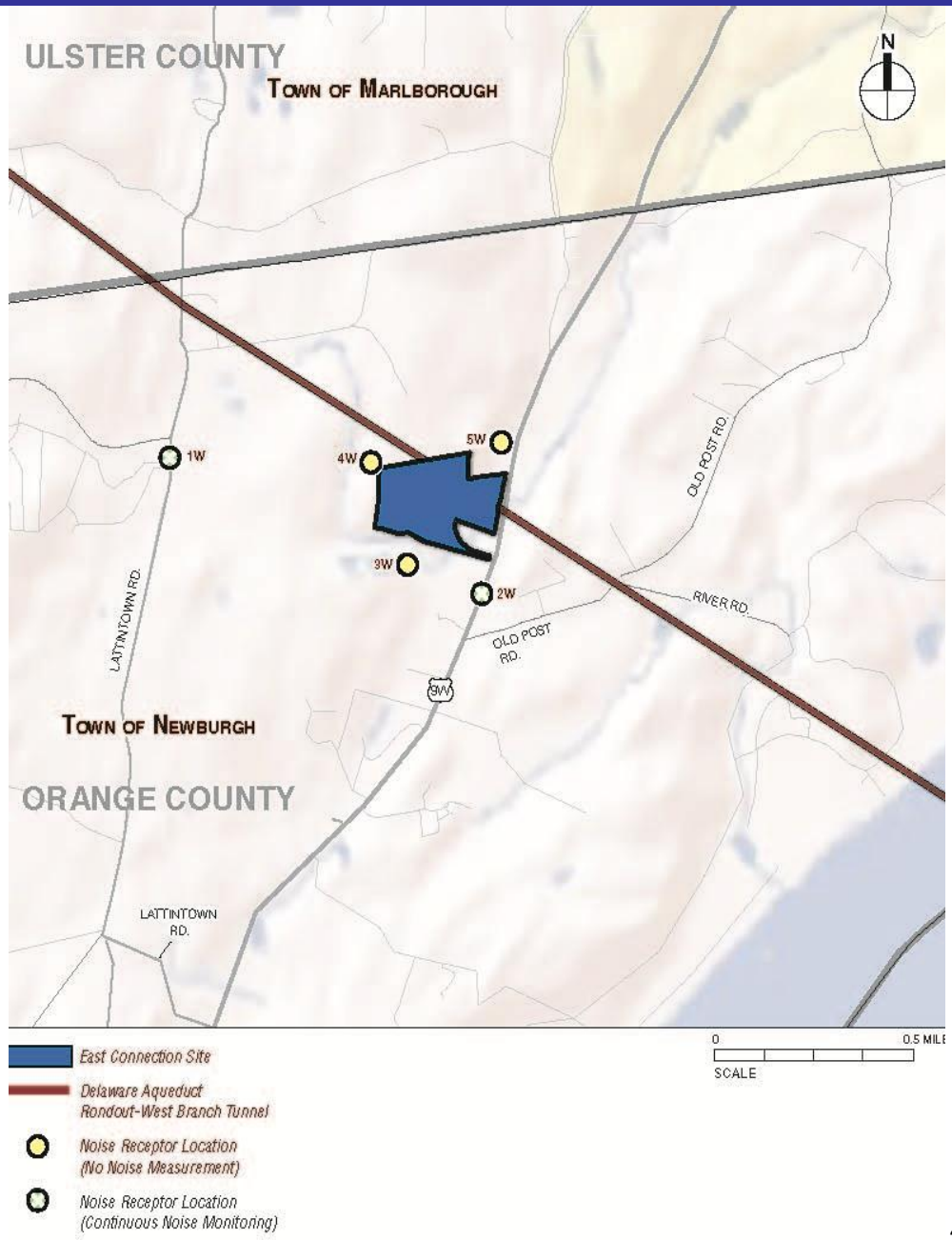
Figure 2.10-2
Traffic Study Area
East of Hudson Study Area

Noise – Methodology

- The noise modeling program incorporates topography, background noise levels, on-site equipment and vehicles
- The model also accounted for traffic entering and exiting the site
- The model predicts 1-hour Leq noise levels
- A noise impact under CEQR occurs when there is an increase of 3-5 dBA during daytime hours or 3 dBA at night

Noise – West Connection Site

- Noise measurements were taken at four locations throughout the area
- The results indicate there are two locations where temporary significant adverse impacts cannot be fully mitigated
- Analysis shows that with windows closed, each of these locations would have interior noise levels below 45 dBA between 11 PM and 7 AM, as recommended by CEQR



Noise – East Connection Site

- Noise measurements were taken at six locations throughout the area
- Noise levels during construction would not exceed 70 dBA
- Potential noise exceedances at receptors further from the project site would only occur for approximately 7 total months and are not considered a significant impact
- There are locations where temporary significant adverse impacts cannot be fully mitigated
- Analysis shows that with windows closed, each of these locations would have interior noise levels below 45 dBA between 11 PM and 7 AM, as recommended by CEQR

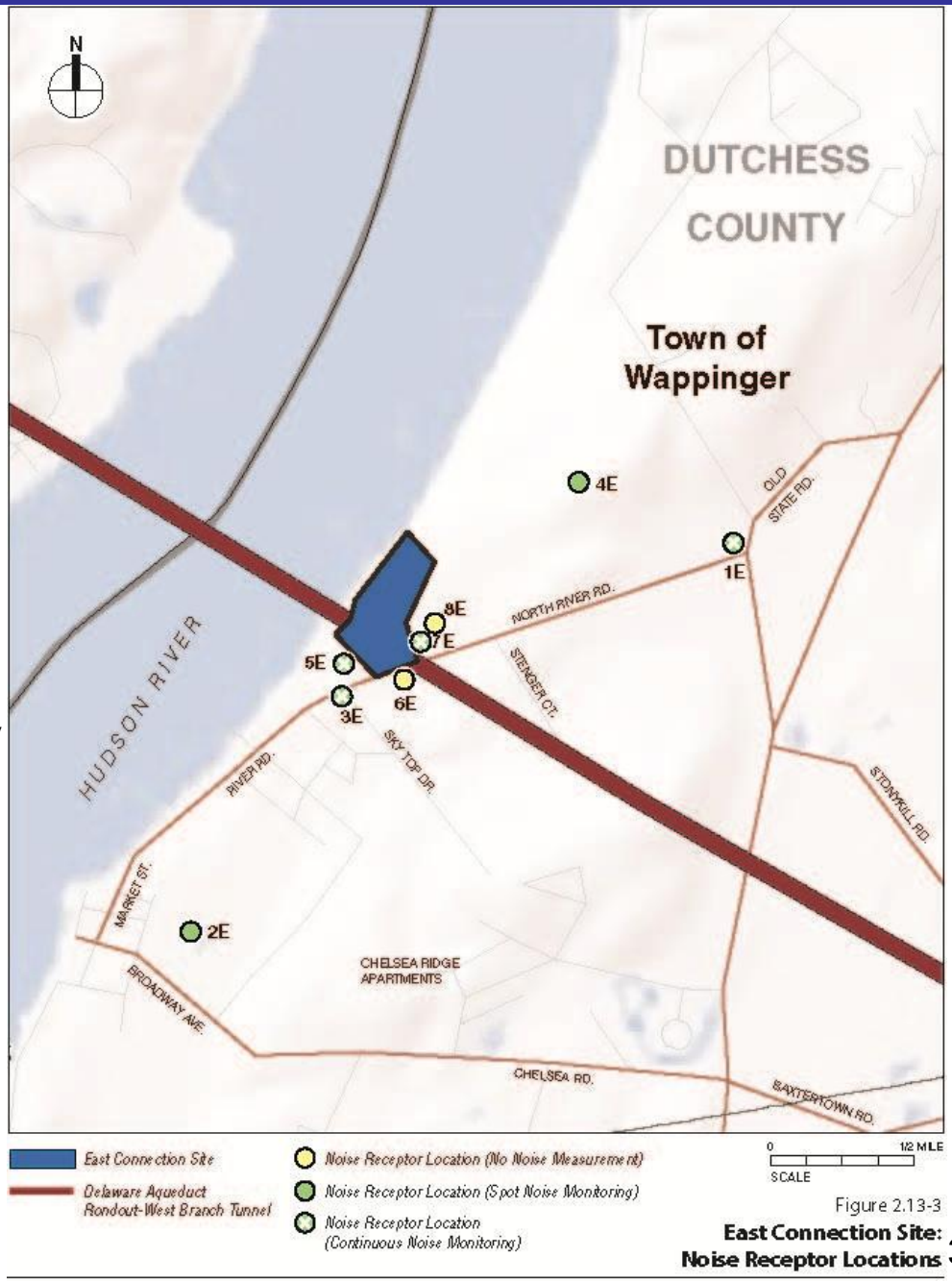
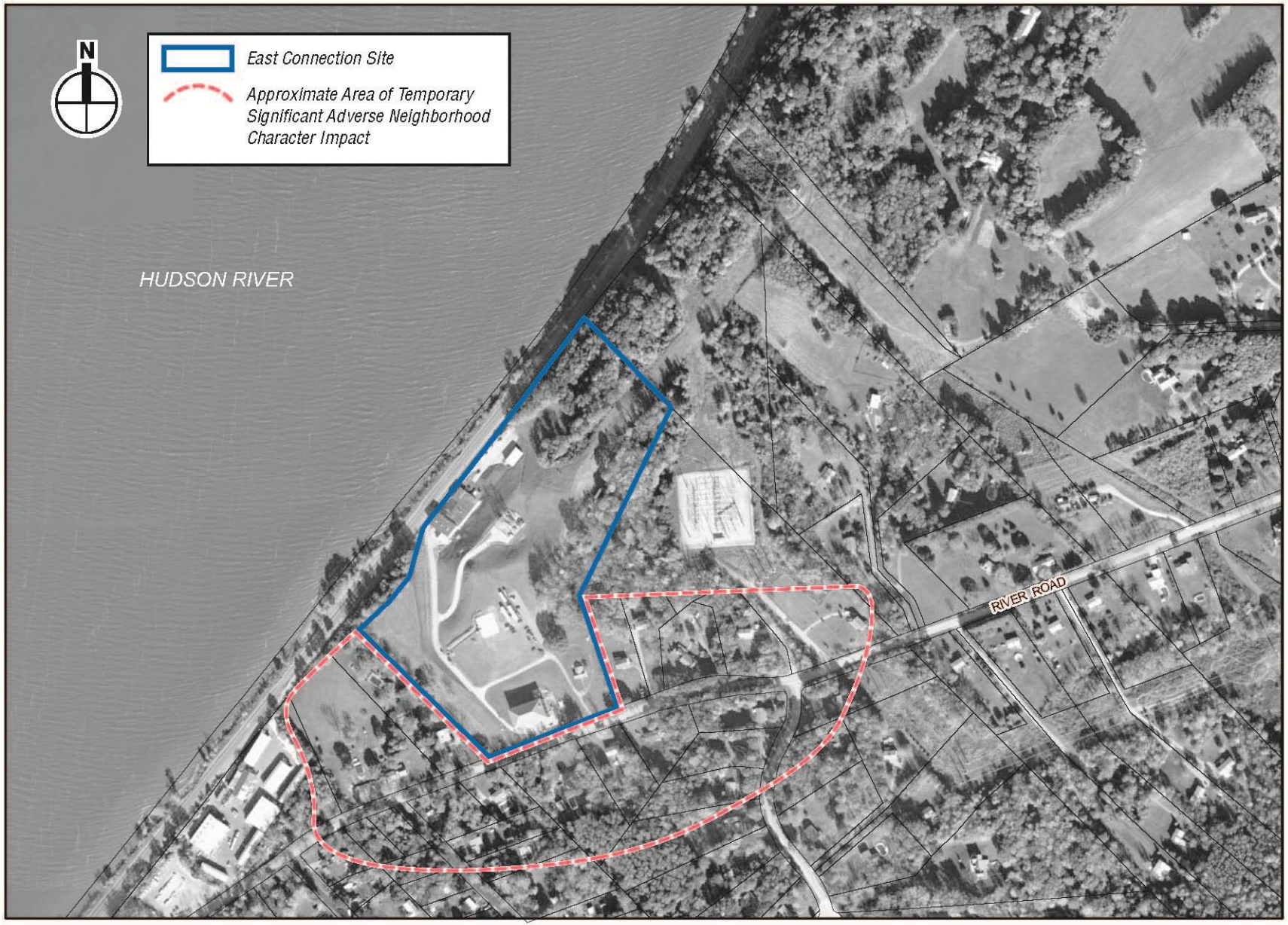


Figure 2.13-3
East Connection Site: Noise Receptor Locations

Neighborhood Character – East Connection Site

- This assessment is based on potential impacts to multiple technical areas:
  - Land use, zoning, and public policy
  - Socioeconomic conditions
  - Historic and cultural resources
  - Urban design and visual resources
  - Shadows
  - **Noise**
  - Open space
  - **Transportation**

Neighborhood Character – East Connection Site



Oral Comments

Comments

- Draft EIS available at the Town of Newburgh Town Hall or online at www.nyc.gov/dep
- Draft EIS issued on December 20, 2011
- Written comments will be accepted until February 17, 2012
- Send comments to:

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Bureau of Environmental Planning and Analysis
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