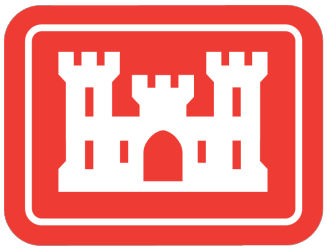
HUDSON RIVER HABITAT RESTORATION

ECOSYSTEM RESTORATION
FINAL INTEGRATED FEASIBILITY REPORT AND ENVIRONMENTAL ASSESSMENT

Appendix G3: Hazardous Toxic and Radioactive Waste



U.S. ARMY CORPS OF ENGINEERS
NEW YORK DISTRICT
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CHAPTER 1: INTRODUCTION

This Hazardous, Toxic, and Radioactive Waste (HTRW) Appendix was prepared for the Hudson River Habitat Restoration Draft Feasibility Report/Environmental Assessment (FR/EA). The U. S. Army Corps of Engineers (USACE), New York District (District) Hudson River Habitat Restoration Study covers an area in which the USACE has been active for over a century in multiple navigation projects. This FR/EA assesses ecosystem restoration actions in the Hudson River, led by the District along with its non-federal sponsor, the New York State Department of Environmental Conservation (NYSDEC). The study area (Figure 1) encompasses the Hudson River and its tributaries, from the Tappan Zee Bridge and the Troy Lock and Dam, a length of about 125 miles. The goal of this study is to identify a cost effective ecosystem restoration plan that maximizes habitat benefits while minimizing impacts to environmental, cultural, and socioeconomic resources. The study describes the federal and state interest in restoring the aquatic ecosystem along portions of the Hudson River and its tributaries based on identification of significant resources.

As required by USACE Engineering Regulation 1165-2-132, the District facilitated early identification and appropriate consideration of HTRW in the study area. The District conducted an extensive search for each project area to assess the likelihood of existing HTRW concerns. The search included state (New York State Department of Environmental Conservation, 2019) and federal (USEPA, 2019A) environmental databases, literature searches, and other relevant databases for the study sites.

1.1 STUDY OVERVIEW

The project area is bounded by the Gov. Mario M. Cuomo (former Tappan Zee) Bridge (South) and the Troy Lock and Dam (North) and generally encompasses 125 miles of Hudson River as well as the immediate tributaries and land east and west of the Hudson River between these two boundaries. Within this project area, three restoration sites were selected including (Figure 2.):

- Schodack Island
- Henry Hudson Park
- Moodna Creek including Aquatic Organism Passage (AOP)1 (Utility Crossing); AOP2 (Firth Cliff Dam); and AOP3 (Orr's Mill Dam)

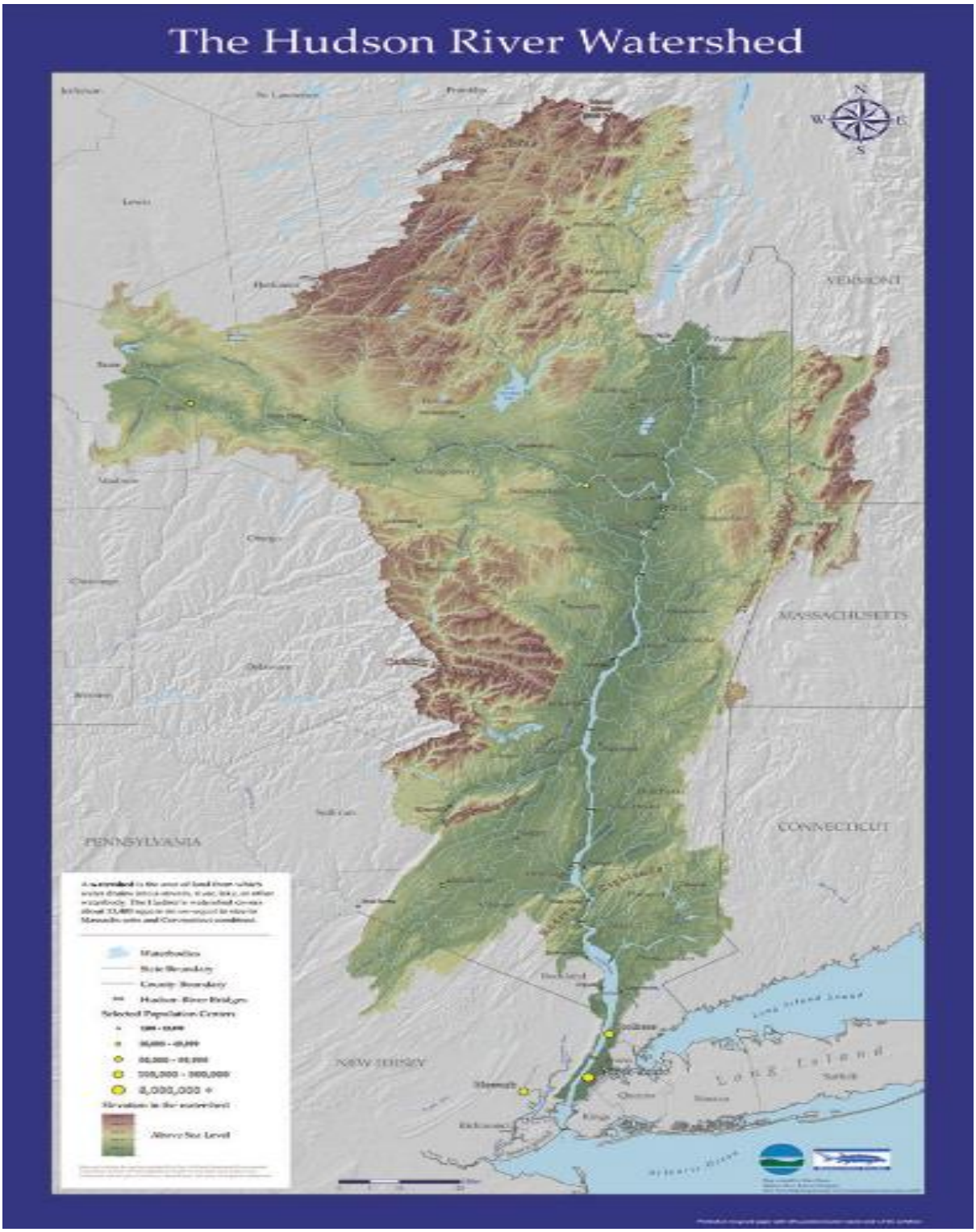

Figure 1 Hudson River Watershed

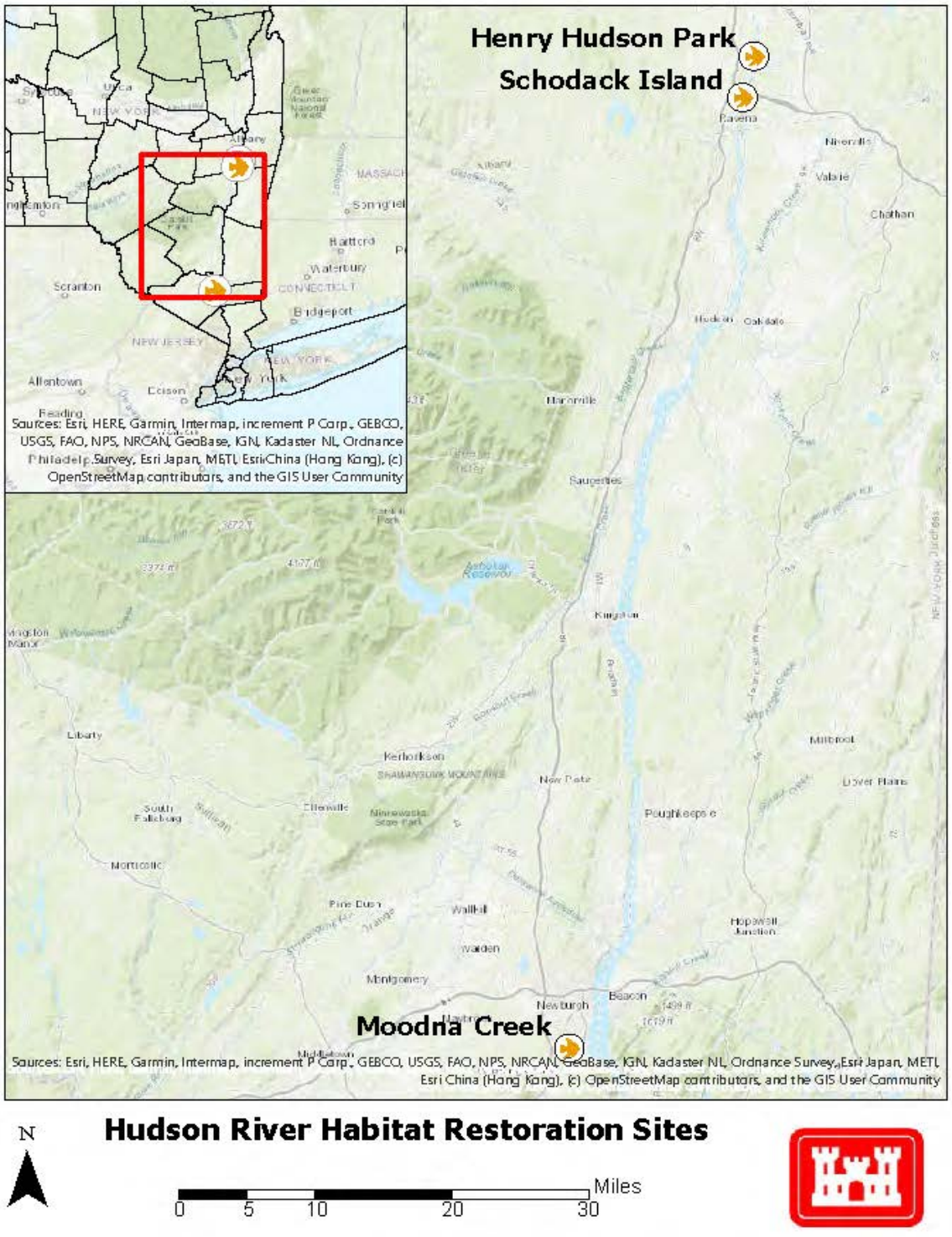

Figure 2 Final Array of Sites

Schodack Island project site is part of the Schodack Island State Park that sits off the eastern shore of the Hudson River just south of Albany. Approximately seven miles of Hudson River and Schodack Creek shoreline bound the 1,052-acre park. The park has been designated a State Estuary, and a portion of the park shelters a Bird Conservation Area that is home to bald eagles, cerulean warblers, and blue herons. Eight miles of multi-use trails wind through a variety of ecological communities. In addition, the park has 66 campsites for use, an improved bike trail, volleyball nets, horseshoe pit, and a kayak/canoe launch. Interpretive signage highlights the park's historic and environmental significance. Historically, there were six islands within the area. In the late 1800s and early 1900s the USACE connected the all but one of the islands with dredge material from the Hudson River. Proposed actions at the site consist of the restoration of wetlands and hydrological connections through the restoration of side channels.

Henry Hudson Park is located on the west shore of the Hudson River and is bisected by the Vloman Kill. The park encompasses approximately 64.2 acres of public open space owned by the Town of Bethlehem. In the late 1800's the USACE built up the shoreline utilizing Hudson River dredge material, The Hudson River shoreline consists of a dilapidated timber cribbing structure, which has either partially or completely failed along the majority of the structure. Proposed actions at the site focus on shoreline restoration and consist of shoreline stabilization using living shoreline techniques including the establishment of tidal wetlands.

Moodna Creek includes three AOP barriers:

Moodna AOP1 (Utility Crossing) is located along Moodna Creek upstream of the Forge Hill Road (Route 74) crossing. A concrete encased decommissioned sewer line crosses Moodna Creek forming a weir that creates a vertical drop of water approximately 2 feet in height during low flows. This sewer line is a potential barrier to AOP, including both migratory and inland resident fish. Proposed actions at the site seek to restore aquatic organism passage by removing the structure or installing a rock ramp.

Moodna AOP2 (Firth Cliff Dam) is located along Moodna Creek adjacent to the former textile manufacturing factory historically known as Firth Carpet Company. The factory was previously demolished but the nine-foot high dam remains, acting as a barrier to AOP. Proposed actions at the site seek to restore aquatic organism passage by removing the structure or installing a technical fishway.

Moodna AOP3 (Orr's Mill Dam) is located along Moodna Creek upstream of the Route 32 crossing. The 10-foot high dam is in poor condition and a barrier to AOP. Normal river flow passes under the spillway suggesting the structure is substantially undermined. Proposed actions at the site seek to restore aquatic organism passage by removing or breaching the structure.

CHAPTER 2: HAZARDOUS, TOXIC, AND RADIOACTIVE WASTE RESULTS

This report identifies sites that are expected to have HTRW concerns and identifies potential actions that would be required prior to restoration actions. The literature used in performing the review is described throughout the narrative text and summarized in the References section. All HTRW concerns within 1 mile of the site were investigated. Conclusions and recommendations regarding potential site-specific issues that will

influence planning of a site, including potential construction impacts due to HTRW issues associated with the project sites, are provided.

2.1 HUDSON RIVER

In September 1984, the U. S. Environmental Protection Agency (USEPA) listed the Hudson River, Identification Number NYD980763841on the CERCLA National Priorities List (NPL). This includes the Hudson River from the Village of Hudson Falls in Washington County south to the Battery in New York City. For nearly thirty years, the General Electric Company (GE) used polychlorinated biphenyls (PCBs) in its capacitor manufacturing operations at its Hudson Falls and Fort Edward, New York facilities. PCB oils were discharged both directly and indirectly from these plants into the Hudson River. Many of the PCBs discharged to the river adhered to sediments and accumulated with the sediments as they settled in the impounded pool behind the Fort Edward Dam, and other depositional areas farther downstream. The dam was removed in 1973 exposing the contaminated sediments and transporting the PCB laden sediments downstream.

Studies conducted to evaluate the extent of the problem revealed that most of the contaminated sediments were in “hot spots” situated in a 40-mile stretch of the river between the town of Fort Edward and the Troy Dam. In February 2002, the EPA issued a Record of Decision (ROD) for the Hudson River PCB Superfund Site that called for targeted environmental dredging of approximately 2.65 million cubic yards of PCB-contaminated sediments from this 40-mile section of the Upper Hudson River. A total of 2.75 million cubic yards of PCB-contaminated sediments were removed from the river bottom between 2009 and 2015 and monitoring is ongoing (USEPA, 2019B).

The U. S. Environmental Protection Agency EPA lists the Hudson River from Hudson Falls, NY to the mouth on the 2016 EPA 303(d) list, as; Part 2b - Multiple Segment/Categorical Waterbody Segments Impaired due to Fish Consumption Advisories. The fish consumption impairment extends into and include tributary waters to the first impassable barrier. This advisory is due to the GE PCB contamination.

The New York State Department of Environmental Conservation (NYSDEC) list the Hudson River on its State Superfund Program, Site Code: 546031, from Hudson River, Hudson Falls-NYC Battery The site includes the main stem of the Hudson River, as well as the associated flood plains, river banks, riverine fringing wetlands, and backwater areas. This is also due to the GE PCB contamination.

2.2 SCHODACK ISLAND

A review of the databases yields no sites within or near the Schodack Island site. The PCB laden sediments from the GE Superfund site are not anticipated to be on site as the placement of dredge material occurred prior to the GE’s manufacturing operations.

2.3 HENRY HUDSON PARK

A review of the databases yields no sites within or near the Henry Hudson Park site. The PCB laden sediments from the GE Superfund site are not anticipated to be on site

as the placement of dredge material occurred prior to the GE's manufacturing operations.

2.4 MOODNA CREEK

A review of the databases yields two state Superfund sites. The New York State Superfund Site Number: 336028 is just below AOP 2 for metals, chlorocarbons, and hydrocarbons. Remediation at the site is complete. Contamination was removed from the site and in 2016, the NYSDEC determined the site was no longer a hazard to public health or the environment and was delisted. However, sediment upstream of the dam should be sampled for contaminants prior to construction.

The New York State Superfund Site Number: 336008 is located upstream of AOP 3 about 3 miles near Woodbury Creek which flows into Moodna Creek. The site was the subject of numerous environmental investigations and remedial activities, between 1985 and 1997, including a Phase I Investigation of a former landfill and RCRA Facility Assessments and Investigations of several other on-site and off-site release areas. The site was never remediated. Contaminants of concern are lead, chlorinated VOCs, and petroleum hydrocarbons. According to the State, the concern is with groundwater and well water contamination. As the site is more than three miles from AOP 3 and not in the Moodna Creek, the site does not present a HTRW concern.

CHAPTER 3: RECOMMENDATION

Based on the information gathered and on observations made during this investigation, recommendations are to perform sediment testing behind AOP 2 Firth Cliff Dam on Moodna Creek prior to any construction work. The Henry Hudson Park, Schodack Island, and Moodna AOP 1 and 3 are not anticipated to have contaminated sediments however; they should be sampled during geotechnical analysis to confirm no contaminants.

CHAPTER 4: BIBLIOGRAPHY

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