

**Hakes C&D Landfill Expansion  
Facility ID No. 8-2648-00014**

**Town of Campbell, Steuben County, New York**

## **Wetland Mitigation Plan**

**November 2017**

**B**arton  
&**L**oguidice

**Hakes C&D Landfill Expansion**  
**Facility ID No. 8-2648-00014**  
4376 Manning Ridge Road  
Town of Campbell, Steuben County, New York

**Wetland Mitigation Plan**

**November 2017**

**Prepared For:**

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## **1.0 Introduction**

Hakes C&D Disposal, Inc. (Hakes) owns the 109-acre Hakes Construction and Demolition (C&D) debris Landfill (Hakes Landfill) on a 354-acre site (the Site) in the Town of Campbell, Steuben County, New York (Figure 1). The Hakes Landfill is nearing full capacity and Hakes is proposing to construct and operate an expansion to the existing landfill. The proposed Hakes Landfill Expansion will add 21.0 acres of permitted cell area (landfill expansion area) to the 57.9 acres of existing permitted cell area. The proposed Hakes Landfill Expansion also includes a 22.2-acre soil borrow area that will provide soil for construction and operation of the landfill expansion. Combined, these two actions make up the Proposed Project Area. The Proposed Project Area contains federal wetlands that are proposed to be filled to expand the landfill. A Joint Application for Permit (JAP) is being submitted to the U.S. Army Corps of Engineers (USACE) and the New York State Department of Environmental Conservation (NYSDEC) to obtain permits for the proposed wetland disturbances, as required under Sections 401 and 404 of the Clean Water Act. This Wetland Mitigation Plan was prepared as part of the JAP to identify the mitigation proposed by Hakes to offset the lost functions and values of the wetlands impacted by the landfill expansion.

The wetlands and streams in the Proposed Project Area were delineated and mapped by Barton & Loguidice, D.P.C. (B&L) on August 18 and 24, 2016, and a request for an Approved Jurisdictional Determination (AJD) for the identified resources was submitted to the U.S. Army Corps of Engineers (USACE) on August 22, 2017. Impacts to the identified wetlands will require a permit from USACE for the discharge of fill into Waters of the U.S. that are protected under the Section 404 of the Clean Water Act. Under Executive Order 11990, mitigation must be provided for the lost functions and values resulting from permanent loss of wetlands and other Waters of the U.S. This Wetland Mitigation Plan (WMP) presents the mitigation proposed to compensate for the lost functions and values of site wetlands. This WMP was prepared in accordance with USACE's guidance contained in 33 CFR Chapter II Part 332 – Compensatory Mitigation for Losses of Aquatic Resources.

## 2.0 Resource Impacts

The Proposed Project will result in the permanent loss of 0.672 acres of palustrine emergent wetlands. Figure 2 shows the location of the wetland impact areas and their sizes. A summary of the wetland impacts in the Proposed Project Area is provided in Table 1, below.

Table 1. Impacted Wetland Resources						
Resource Name	Cowardin Class	Size	Impact	Hydrology Source	Connectivity	Principal Functions <sup>1</sup>
Wetland K	PEM	0.35 acres	0.20 acres	Groundwater Seep	Drains to intermittent stream via channel	GW D/R FFA S/T R PE WH
Wetland L	PEM	0.02 acres	0.002 acres	Groundwater Seep	Adjacent to intermittent stream	GW D/R FFA PE WH
Wetland M	PEM	0.59 acres	0.47 acres	Groundwater Seeps	Drains to intermittent stream via channel	GW D/R FFA S/T R PE S/S S WH
Total		0.96 acres	0.672 acres			
<sup>1</sup> GW D/R – Groundwater Recharge/Discharge FFA – Floodflow Alteration S/T R – Sediment/Toxicant Retention PE – Production Export S/S S – Sediment/Shoreline Stabilization WH – Wildlife Habitat						



### **3.0 Mitigation Objectives**

The fundamental objective of compensatory mitigation is to offset environmental losses resulting from unavoidable impacts to Waters of the U. S. authorized by USACE permits. The USACE determines the compensatory mitigation required in their permit based on what is practicable and capable of compensating for the aquatic resource functions that will be lost as a result of the permitted activity. Compensatory mitigation requirements must be commensurate with the amount and type of impact that is associated with the USACE permit. Permit applicants are responsible for proposing an appropriate compensatory mitigation option to offset unavoidable impacts. Wetlands that will be impacted in the Proposed Project Area are classified as emergent wetlands that typically require 1:1 acreage replacement to offset the lost wetland functions and values. This WMP is proposing to provide 0.672 acres of mitigation for the loss of 0.672 acres of emergent wetland in the Proposed Project Area. However, final mitigation ratios and requirements will be defined by the USACE as permit conditions.

## 4.0 Mitigation Approach

When evaluating compensatory mitigation options, USACE assesses the likelihood for ecological success and sustainability, the location of the compensation site relative to the impact site and their significance within the watershed, and the costs of the compensatory mitigation project. In many cases, the environmentally preferable compensatory mitigation may be provided through mitigation banks or in-lieu fee programs because they usually involve consolidating compensatory mitigation projects where ecologically appropriate, consolidating resources, providing financial planning and scientific expertise, reducing temporal losses of functions, and reducing uncertainty over project success.

Compensatory mitigation may be performed using the methods of restoration, enhancement, establishment, and in certain circumstances preservation. When considering options for successfully providing the required compensatory mitigation, USACE considers the type and location options in the order presented below:

1. Securing Credits from an Approved Mitigation Bank;
2. Securing Credits from an Approved In-Lieu Fee (ILF) Program;
3. Permittee-responsible mitigation under a watershed approach;
4. Permittee-responsible mitigation through on-site and in-kind mitigation;
5. Permittee-responsible mitigation through off-site and/or out-of-kind mitigation;  
and
6. Watershed approach to compensatory mitigation.

The first step in developing this mitigation plan was to determine the type of mitigation best suited to the project. The alternatives for mitigation were evaluated following the recommended USACE sequence of purchasing credits from an established mitigation bank, in-lieu fee mitigation, and on-site and off-site permittee-responsible mitigation performed by Hakes. These options are discussed below:

Purchase of credits from an established mitigation bank – There are no existing mitigation banks that service the Southern Tier Region. Therefore, purchase of credits from a wetland mitigation bank is not an option for achieving mitigation for this project.

In-lieu fee mitigation – ILF programs involve the restoration, establishment, enhancement, and/or preservation of aquatic resources through funds paid to a governmental or non-profit natural resources management entity to satisfy compensatory mitigation requirements for USACE permits. Similar to a mitigation bank, an in-lieu fee program sells compensatory



mitigation credits to permittees whose obligation to provide compensatory mitigation is then transferred to the ILF program sponsor.

Stakeholder organizations such as Ducks Unlimited (DU) and The Wetland Trust (TWT) were contacted to determine if potential projects of sufficient size or type were available for funding as mitigation under their applicable in-lieu fee programs. DU has no in-lieu fee mitigation programs whose service areas include the Southern Tier. However TWT has an in-lieu fee program, recognized as the Cohocton/Chemung Service Area, which includes the Hakes C&D Landfill location. A total of 14 credits is currently available from this TWT ILF program. Therefore, the TWT's ILF program is an option for achieving mitigation for the Proposed Project.

Based on the USACE's prioritization of the ILF mitigation option over permittee-responsible mitigation and the presence of an ILF program with available credits servicing the area that includes the Proposed Project Area, Hakes has selected the ILF program as the mitigation option for this project. In accordance with the USACE guidance, permittees who intend to fulfill their compensatory mitigation obligations by securing credits from approved mitigation banks or ILF programs need include only baseline information, a determination of credits, and the name of the specific mitigation bank or ILF program to be used in the mitigation plan. This information is provided in the following sections of this Wetland Mitigation Plan.

#### **4.1 Baseline Information**

The wetland resources that will be impacted by the project (Wetlands K, L, and M) occur along a steep hillside that descends to Tributary 4 to Erwin Hollow Creek (Figure 1). Groundwater seeps discharge into these wetlands to support an herbaceous hydrophytic plant community. These wetlands discharge to the Tributary during storm events. Although limited in their ability due to their small sizes, the principal functions of these wetlands are Groundwater Recharge/Discharge, Floodflow Alteration, Sediment/Toxicant Retention, Production Export, Sediment/Shoreline Stabilization, and Wildlife Habitat. The size, location, type, and ecological characteristics of the wetlands to be impacted by the proposed project are presented in a Wetland Delineation Report prepared by B&L in 2016 for Hakes. Descriptions of existing plant communities, hydrology, and soil conditions, as well as the identified functions and values of the site wetlands are included in the Wetland Delineation Report. Figure 2 shows the locations and sizes of the wetlands that will be impacted by the proposed project. The Wetland Delineation Report is provided under separate cover.

#### **4.2 Determination of Credits**

The USACE will determine the amount of compensatory mitigation that will be required to offset unavoidable impacts to aquatic resources. The amount of required compensatory mitigation must be, to the extent practicable, sufficient to replace lost aquatic resource functions.



Wetlands to be impacted by the proposed project were emergent wetland types with limited environmental functions due to their individual small sizes and lack of vegetative diversity (B&L, 2016). The wetland impacts total 0.672 acres. The proposed mitigation for these wetland impacts is the purchase of 0.672 acres of emergent wetland credits from TWT's ILF program – Cohocton/Chemung Service Area. This credit amount resulted from a 1:1 mitigation ratio that was based on the type and functions of the wetlands to be impacted. Where permitted impacts are located within the service area of an approved ILF program, and the sponsor has the appropriate number and resource type of credits available, the permittee's compensatory mitigation requirements can be met by securing those credits from the sponsor.

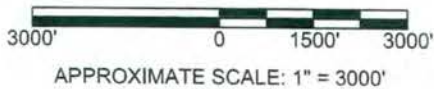
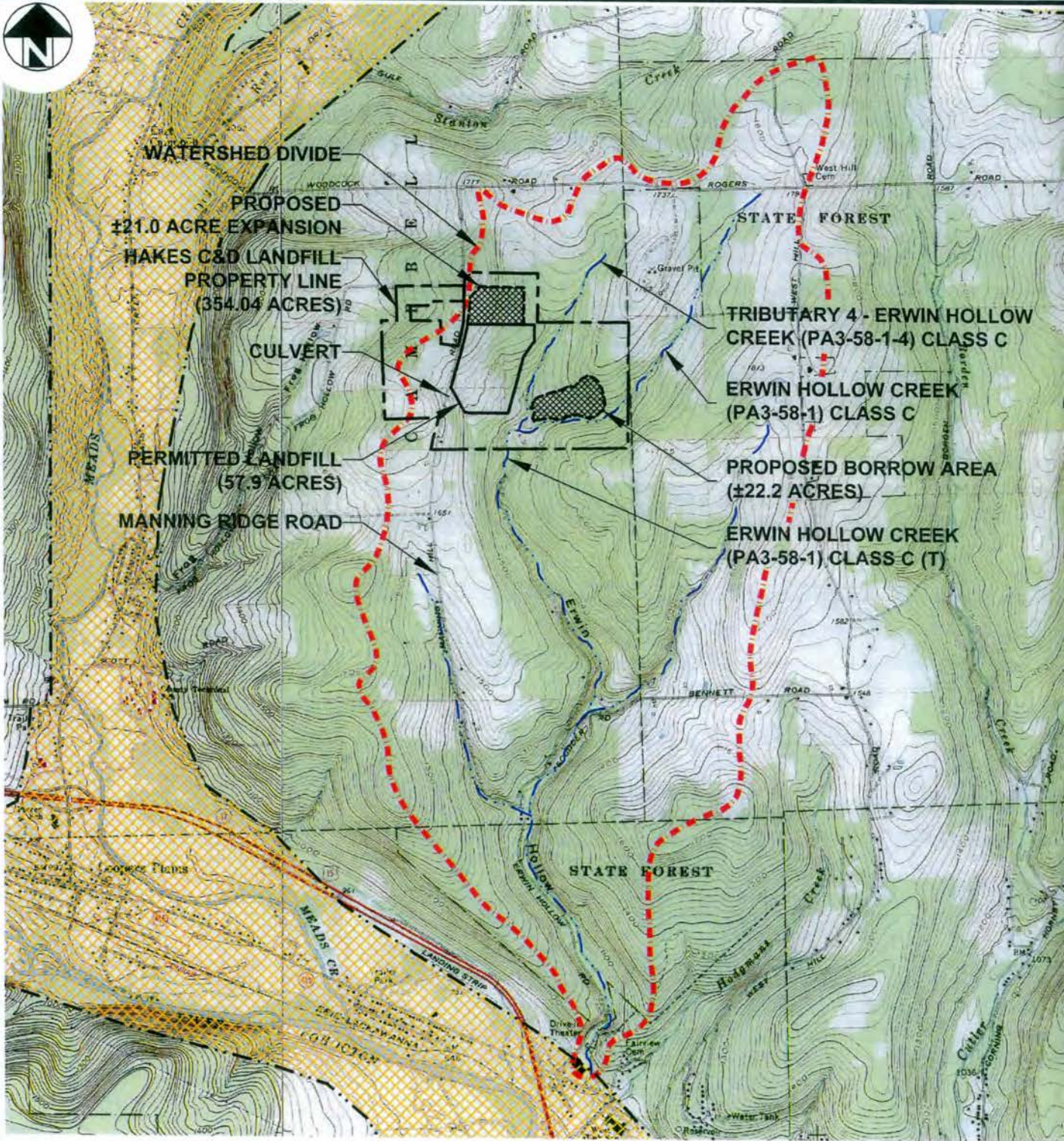
ILF projects typically involve larger, more ecologically valuable parcels, and more rigorous scientific and technical analysis, planning and implementation than permittee-responsible mitigation. They also devote significant resources to identifying and addressing high-priority resource needs on a watershed scale, as reflected in their compensation planning framework. For these reasons, USACE prefers ILF program credits over permittee-responsible mitigation. Hakes will retain responsibility for providing the compensatory mitigation until the appropriate number and resource type of credits have been secured from TWT and the USACE receives documentation that confirms that the sponsor has accepted the responsibility for providing the required compensatory mitigation.

### **4.3 In-Lieu Fee Program**

The wetland resources that will be impacted in the Proposed Project Area occur within the service area of TWT's Cohocton/Chemung ILF Program. There are currently 12.58 advanced mitigation credits available through this program. An availability of Credit letter from TWT is provided in Attachment A. TWT is located at 4729 State Route 414 in Burdett, NY. TWT's ILF program instrument indicates that TWT is responsible for the implementation, performance, and long-term management of the compensatory mitigation project(s) and that TWT agrees to assume responsibility for a permittee's compensatory mitigation requirements. The process requires Hakes to secure the appropriate number and resource type of credits from TWT and provide documentation of the purchase to the USACE. Documentation is typically provided in a credit transaction letter signed by Hakes that includes the USACE permit number and a statement indicating the number and resource type of credits that have been secured from TWT. An example credit transaction letter is provided in Attachment B. Copies of this documentation will be retained in the administrative records for both the permit and the instrument. If the sponsor fails to provide the required compensatory mitigation, the district engineer may pursue measures against the sponsor to ensure compliance.

**Figure 1**  
**Project Location Map**











NOTE:  
UNAUTHORIZED ALTERATION OR ADDITION  
TO ANY SURVEY, DRAWING, DESIGN,  
SPECIFICATION, PLAN, OR REPORT IS A  
VIOLATION OF SECTION 7209 PROVISION 2 OF  
THE NEW YORK STATE EDUCATION LAW.

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LEGEND	
	APPROXIMATE PROPERTY LINE
	PROPOSED EXPANSION AND BORROW AREA LIMIT
	PERMITTED LANDFILL LIMIT
	WATERSHED DIVIDE (ERWIN HOLLOW CREEK)
	STREAM CHANNEL
	AQUIFER BOUNDARY (SEE NOTE 2)

NOTES:

1. Base map created from Campbell and Corning USGS quadrangle maps.
2. Aquifer boundary based on map adapted from Water-Resources Investigations reported 87-4122 titled "Unconsolidated Aquifers in Upstate New York, Finger Lakes Sheet", prepared by Todd Miller.

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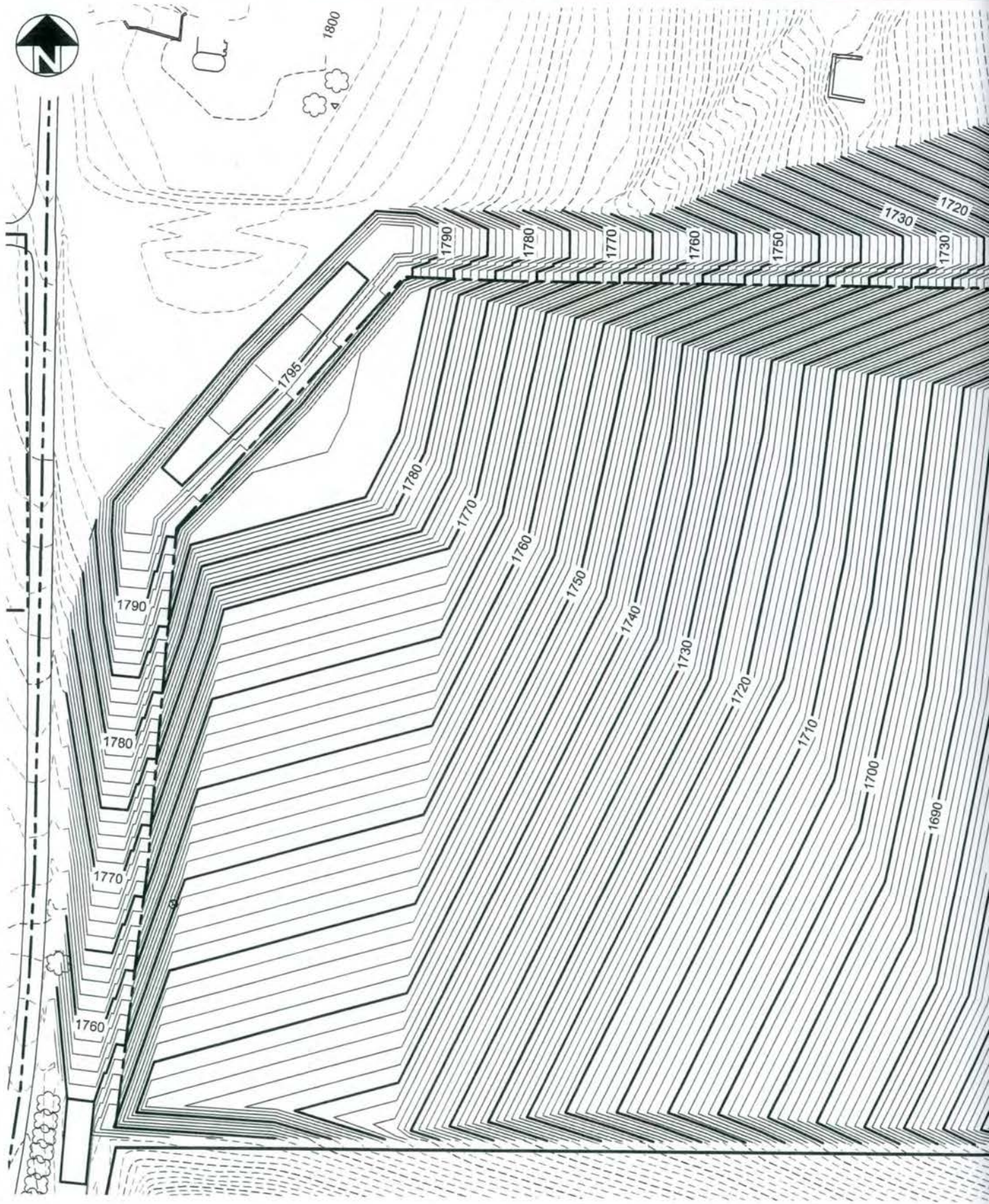
**HAKES C&D LANDFILL**  
 STEUBEN COUNTY NEW YORK

**PROJECT LOCATION MAP**  
 DWG. NO. 98047-937a FIGURE 1



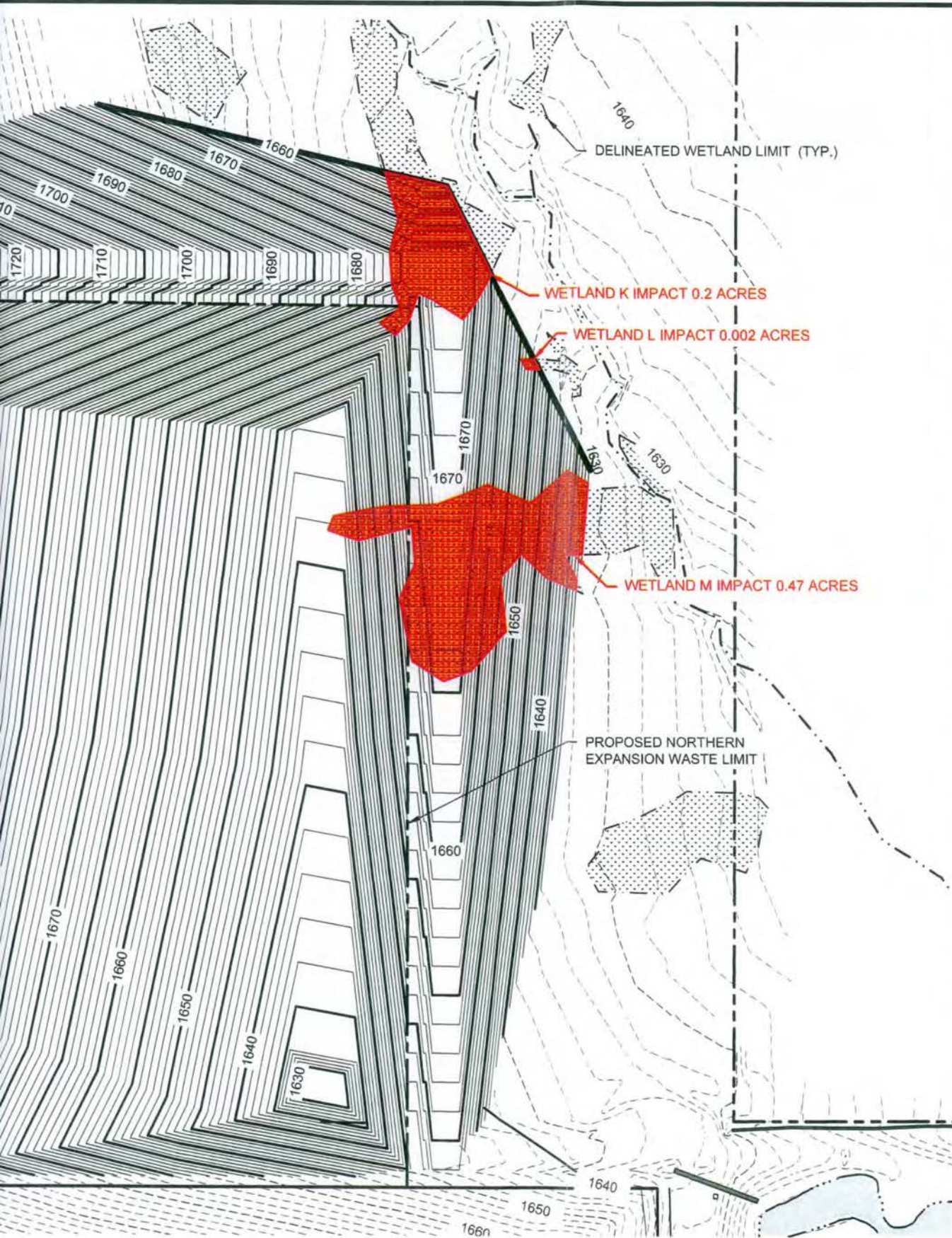
**Figure 2**

**Landfill Expansion Area  
Wetland Impact Plan**



JUNE 2017





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**HAKES C&D LANDFILL**  
 STEUBEN COUNTY NEW YORK

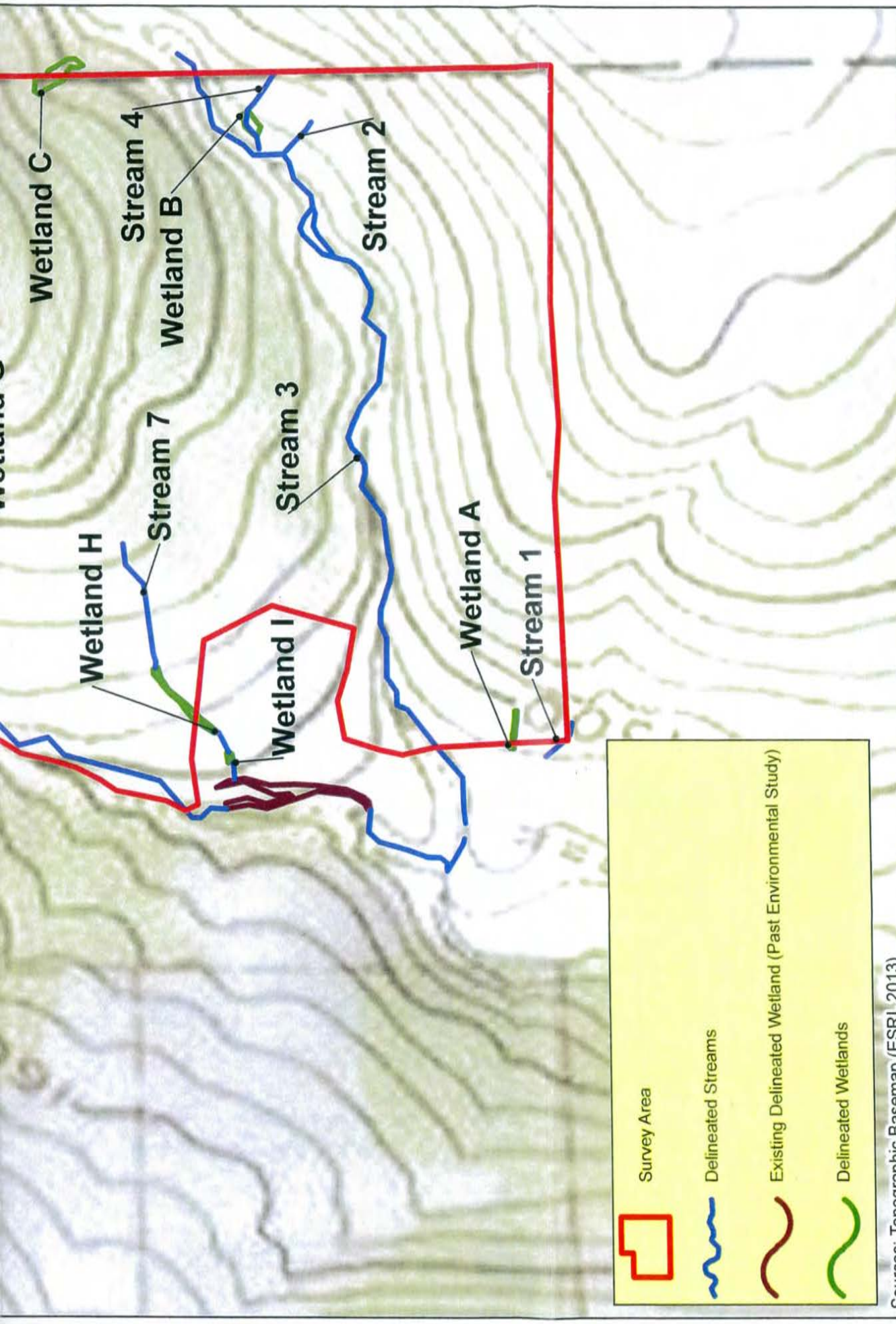
**LANDFILL EXPANSION AREA  
 WETLAND IMPACT PLAN**  
 DWG. NO. 98047-1005a  
 FIGURE 2







\*Wetland N extends to the east and Wetland O extends to the north, and Wetland C extends to the east past the depicted delineated boundaries.







	Survey Area
	Delineated Streams
	Existing Delineated Wetland (Past Environmental Study)
	Delineated Wetlands

Sources: Topographic Basemap (ESRI, 2013)



Engineers • Environmental Scientists • Planners • Landscape Architects



1 inch = 375 feet

Hakes C&D Landfill

### Delineated Resources

Steuben County      10/07/2016      New York

Figure 7  
Project No. 574.171