

PUBLIC MEETING PHASE II LANDFILL EXPANSION JUNIPER RIDGE LANDFILL OLD TOWN, MAINE

September 29, 2025



ENVIRONMENTAL • CIVIL • GEOTECHNICAL • WATER • COMPLIANCE

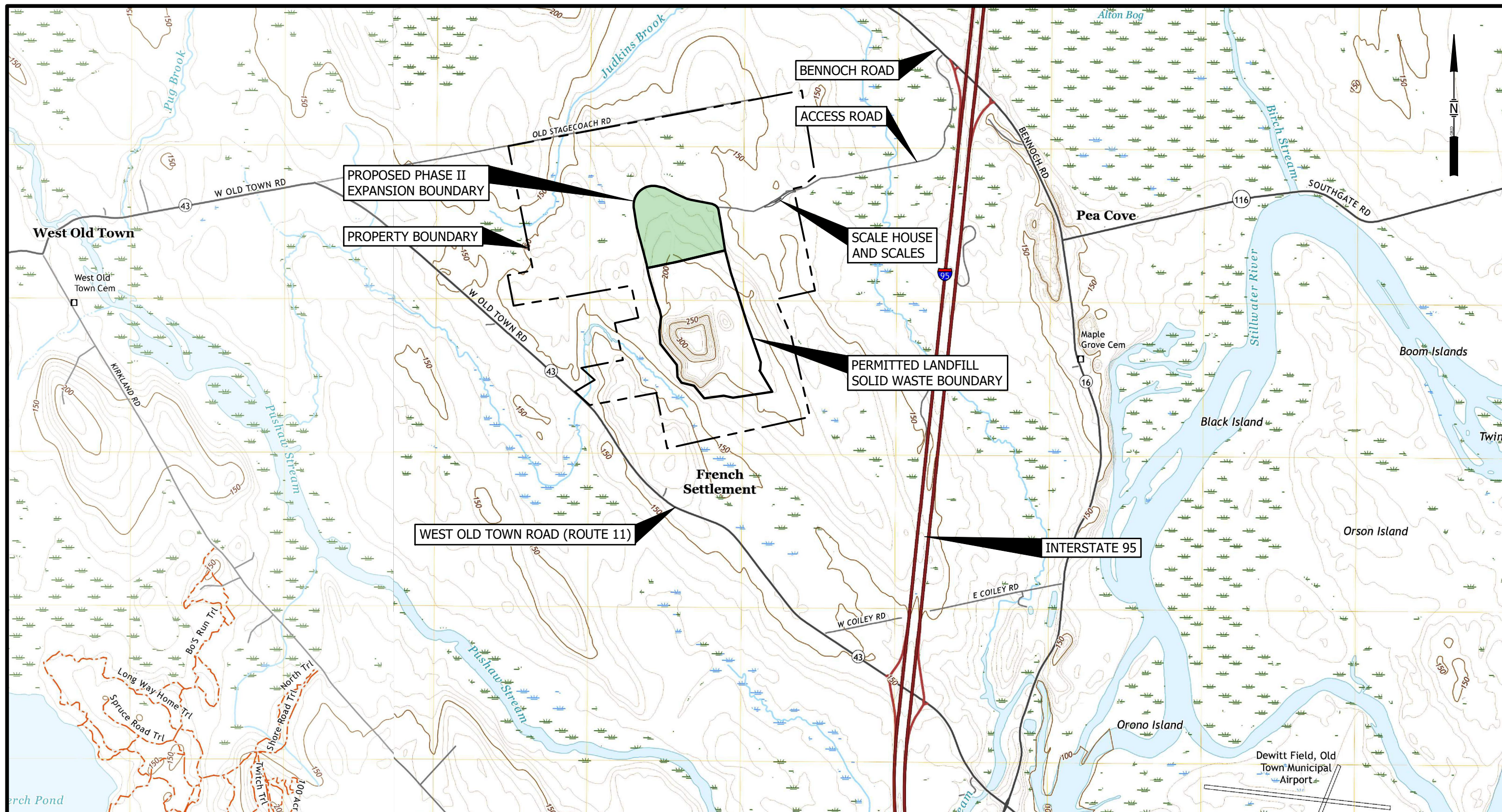
Brian Pierce, P.E.
Chief Engineer/Principal
Sevee & Maher Engineers, Inc.

TONIGHTS AGENDA

- Project Overview
- Project Liner System
- Permits Required for the Project
- Anticipated Impacts from the Project
- Schedule for Application Submittal
- Public Participation
- Questions and Comments

Project Overview

- Expansion of landfill by 57-acres to
- Provide 11.9 MCY additional capacity
- Assumes 880,000 Tons/Year waste acceptance
- Anticipated lifespan 10-12 years
- Additional Leachate Storage Tank
- 4 Stormwater Detention Ponds
- Perimeter Access Road
- Same waste streams
- Design Based on
 - Site Conditions
 - Solid Waste Rules
 - Good Engineering Practices



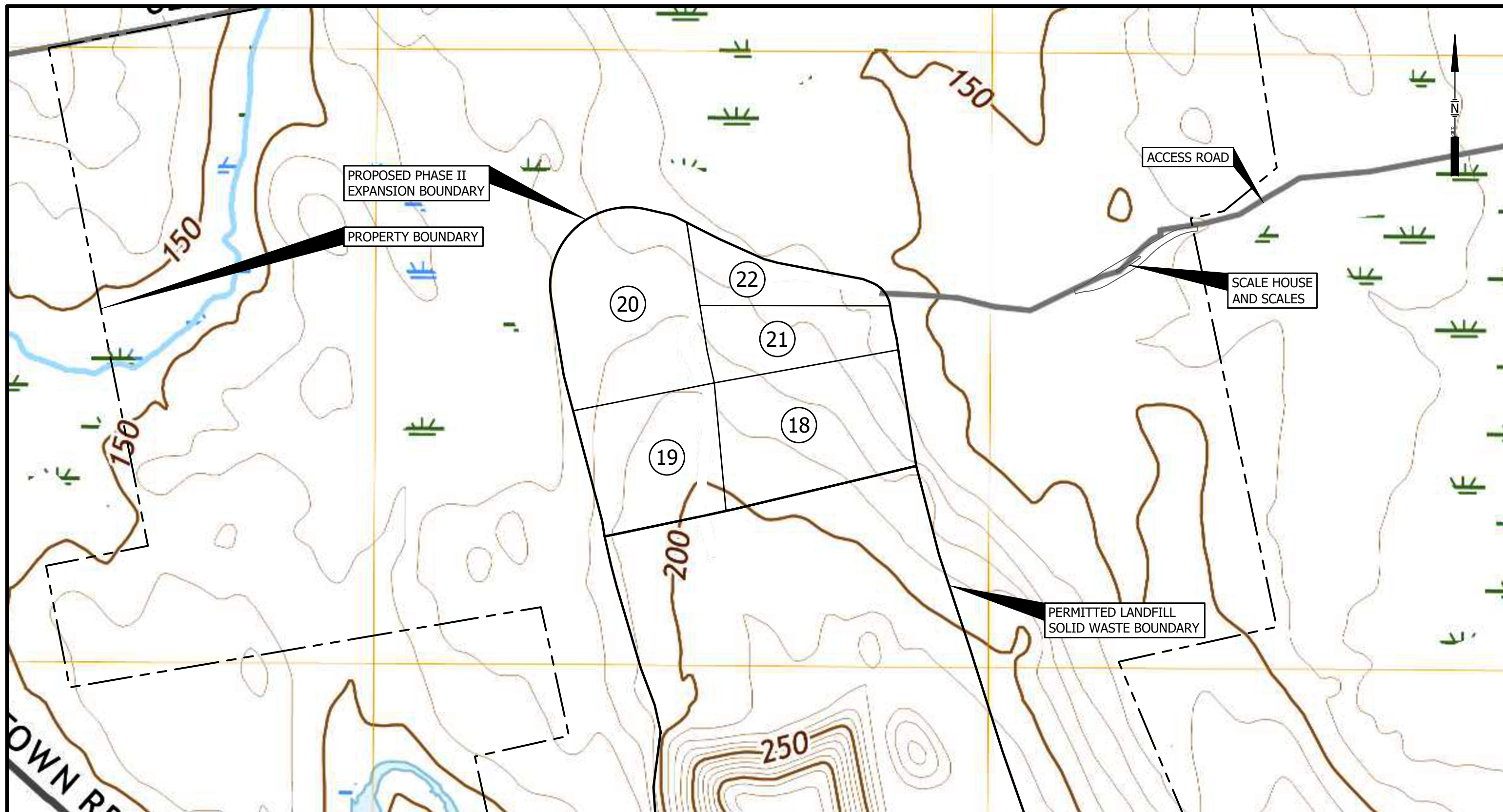
1 MILE



BASE MAP ADAPTED FROM 7.5 MIN
USGS TOPOGRAPHIC QUADRANGLE
OLD TOWN, MAINE - 2021
GREENBUSH, MAINE - 2021
PUSHAW LAKE, MAINE - 2021

SITE LOCATION



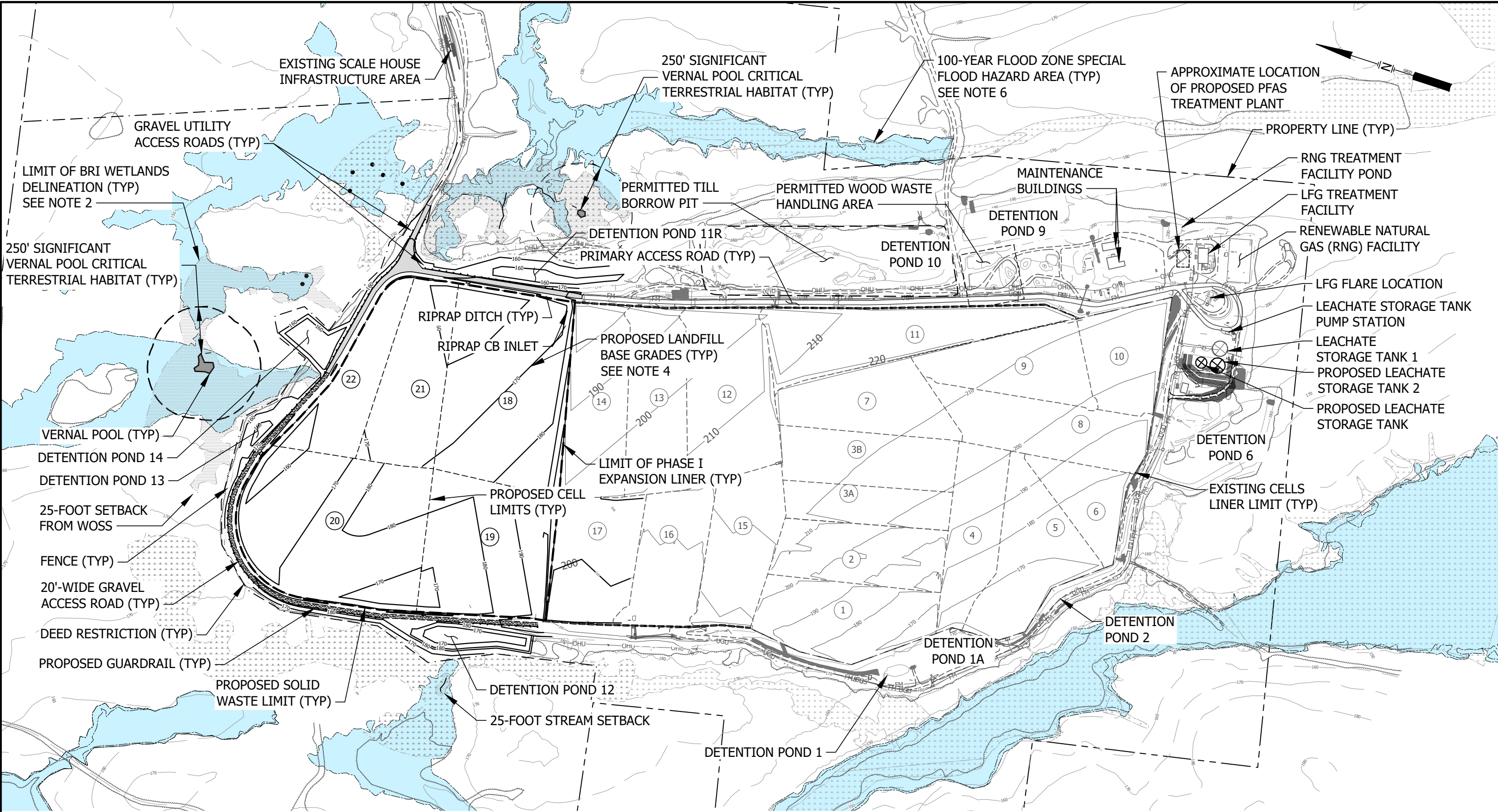


BASE MAP ADAPTED FROM 7.5 MIN
USGS TOPOGRAPHIC QUADRANGLE
OLD TOWN, MAINE - 2021
GREENBUSH, MAINE - 2021
PUSHAW LAKE, MAINE - 2021

1/2 MILE

CELL LOCATION PLAN

SME 
SEVEE & MAHER
ENGINEERS



NOTE:

1. BASE MAP PREPARED BY AERIAL SURVEY & PHOTO INC, NORRIDGEWOCK, MAINE. PHOTO DATE 5/21/2024. CONTROL POINTS BASED ON SURVEY BY PLISGA & DAY LAND SURVEYORS OF BANGOR, MAINE, ON APRIL 24, 2025. VERTICAL DATUM: ASSUMED. SUBTRACT 0.34 FEET FROM ELEVATIONS LISTED TO CONVERT ELEVATIONS TO NAVD 88. HORIZONTAL DATUM: MAINE STATE COORDINATES EAST ZONE NAD 83. GROUND CONTROL BY SEVEE & MAHER ENGINEERS, INC., OF CUMBERLAND, MAINE. SEE NOTE 1 ON DWG C-100.

2. WETLAND BOUNDARIES DELINEATED BY WOODLOT ALTERNATIVES, INC. IN 2004, STANTEC CONSULTING SERVICES 2008, 2014, 2015, AND BRI ENVIRONMENTAL IN 2024.

3. BORINGS AND TEST PIT LOCATIONS FIELD SURVEYED BY SEVEE & MAHER ENGINEERS, INC. OF CUMBERLAND, MAINE.

4. BASE GRADES REPRESENT THE PREPARED SUBGRADE SURFACE BELOW THE UNDERDRAIN OR AUGMENTED LAYER. IN LOCATIONS THAT ARE NOT IDENTIFIED TO RECEIVE UNDERDRAIN OR AUGMENTED LINER, ONE FOOT OF NATIVE SOILS SHALL REMAIN IN PLACE ABOVE THE BASE GRADE. THE BASE LINER SYSTEM SHALL BE CONSTRUCTED ON THE RESULTING GRADE ABOVE THE UNDERDRAIN, AUGMENTED LINER, OR ONE FOOT OF NATIVE SOILS.

5. SPECIAL FLOOD HAZARD ZONE PER FEMA PANEL 23019C1926D.

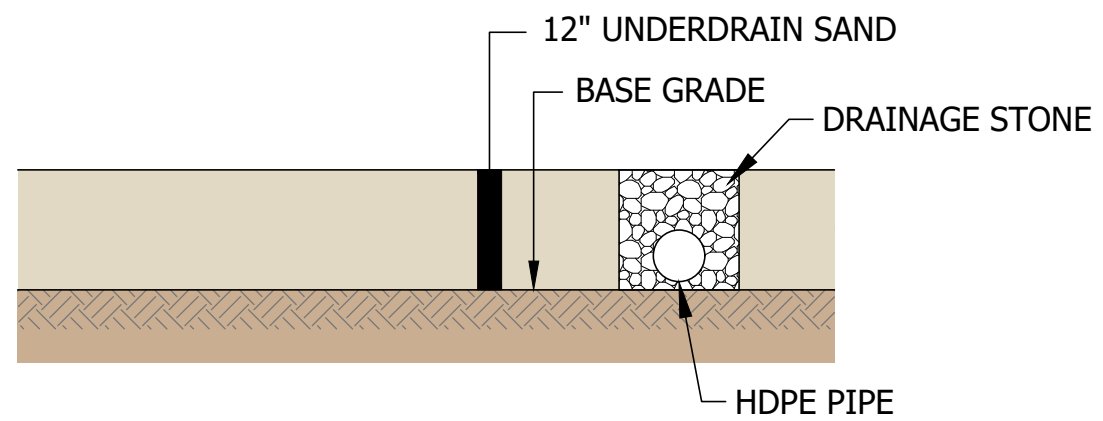
Secure Landfill – Double Liner System

Secure Landfill

- Landfill designed to contain, collect, and convey leachate while minimizing impact to groundwater or surfacewater

Double Liner

- Two liner systems



UNDERDRAIN SYSTEM

NTS

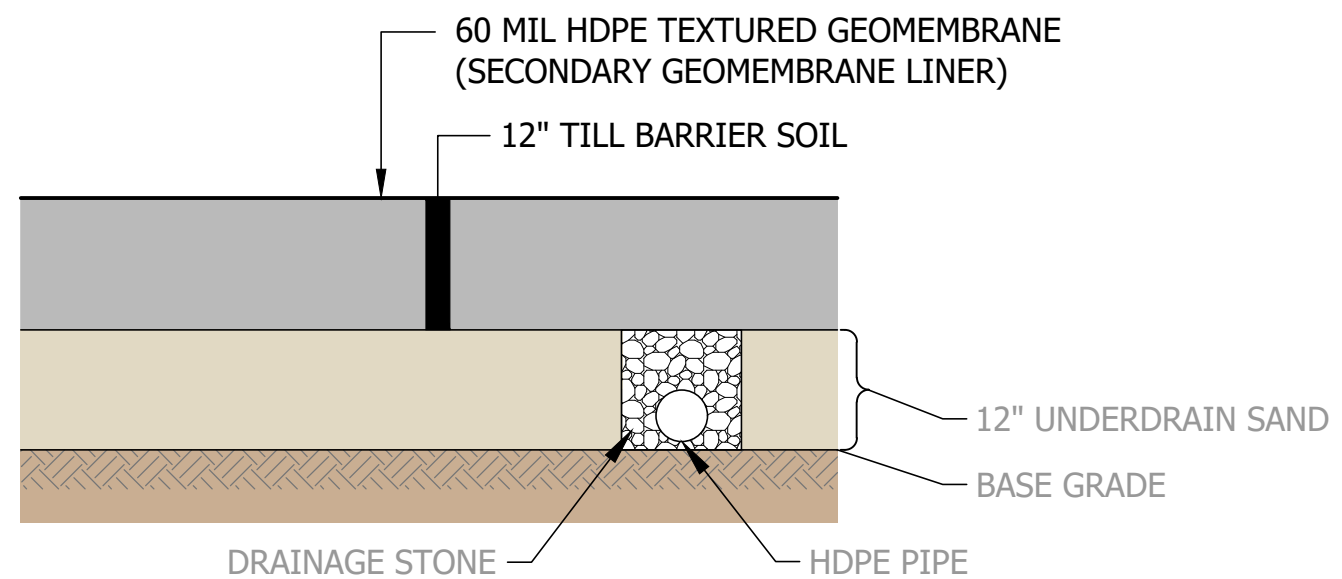


LEGEND

-  CELL IDENTIFICATION
-  WETLAND DELINEATED

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SECONDARY LINER SYSTEM

NTS



LEGEND

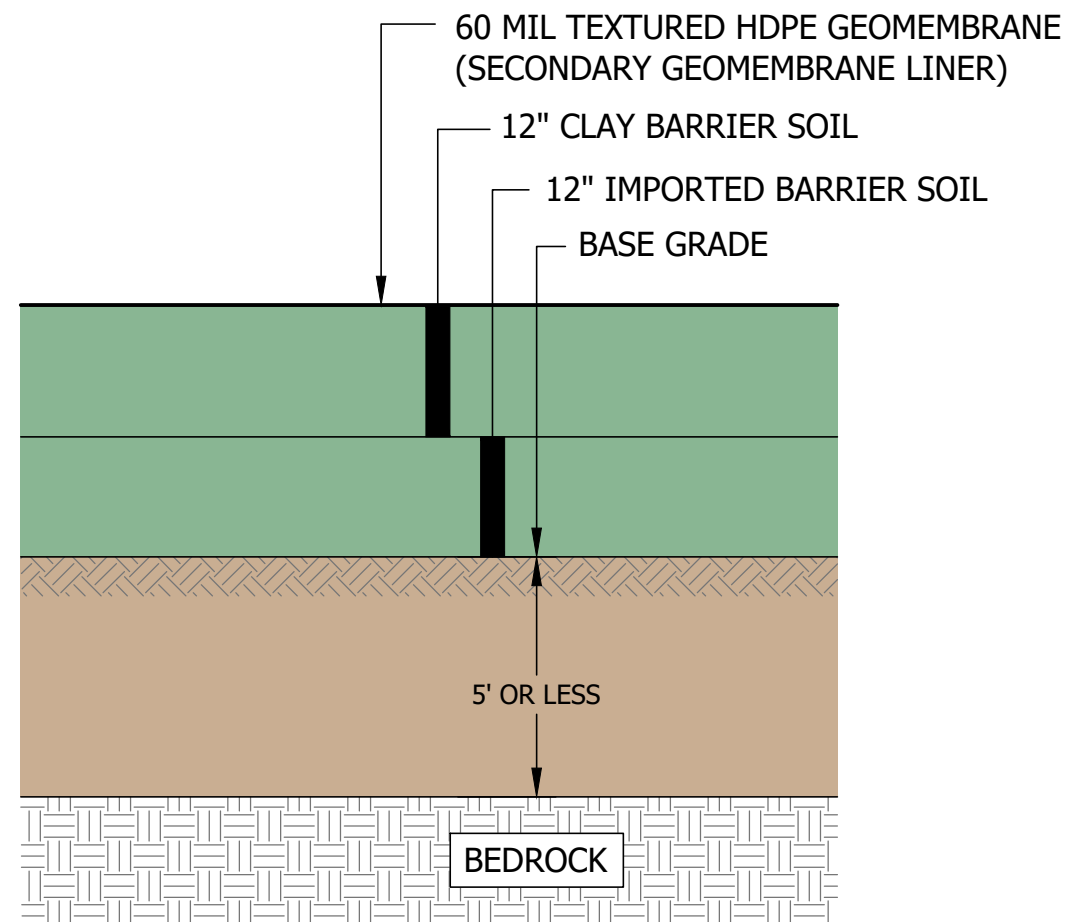
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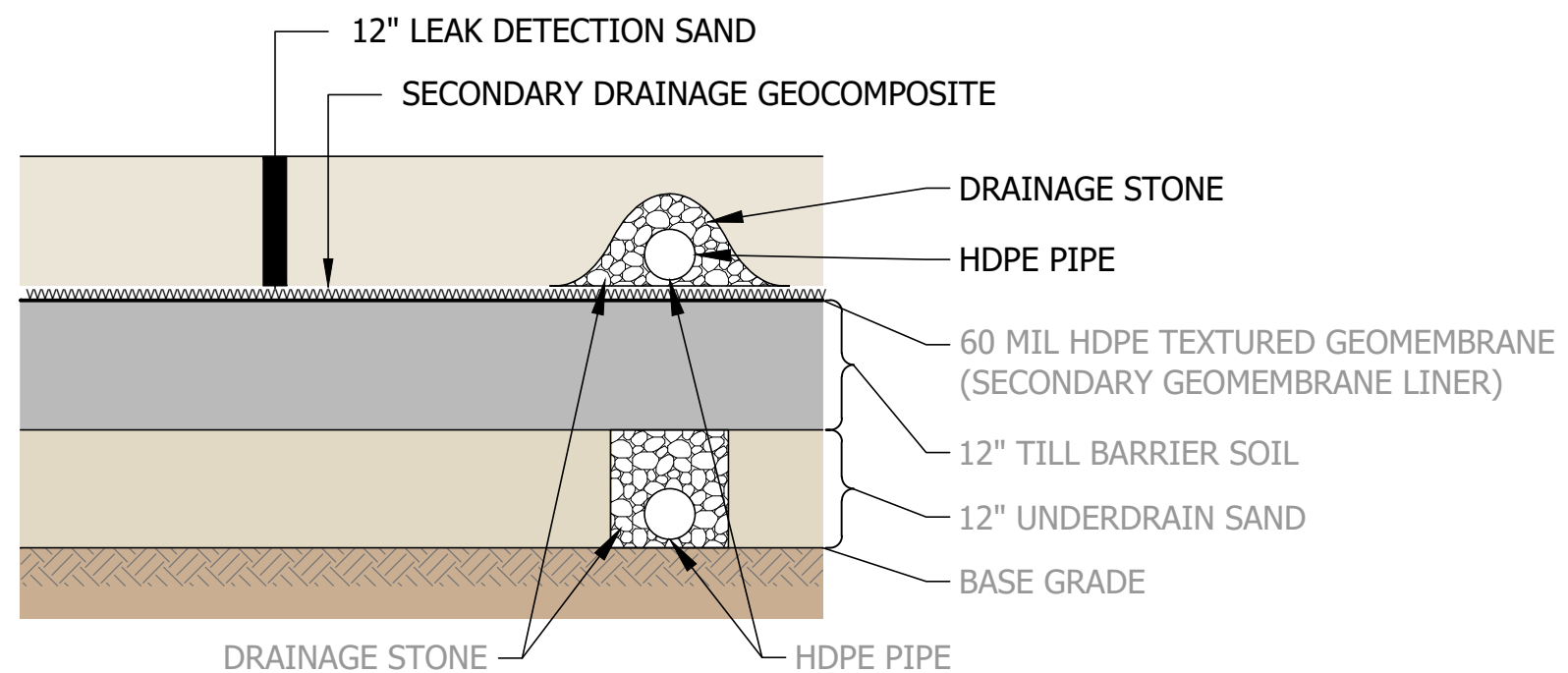
AUGMENTED LINER AND
UNDERDRAIN AREAS





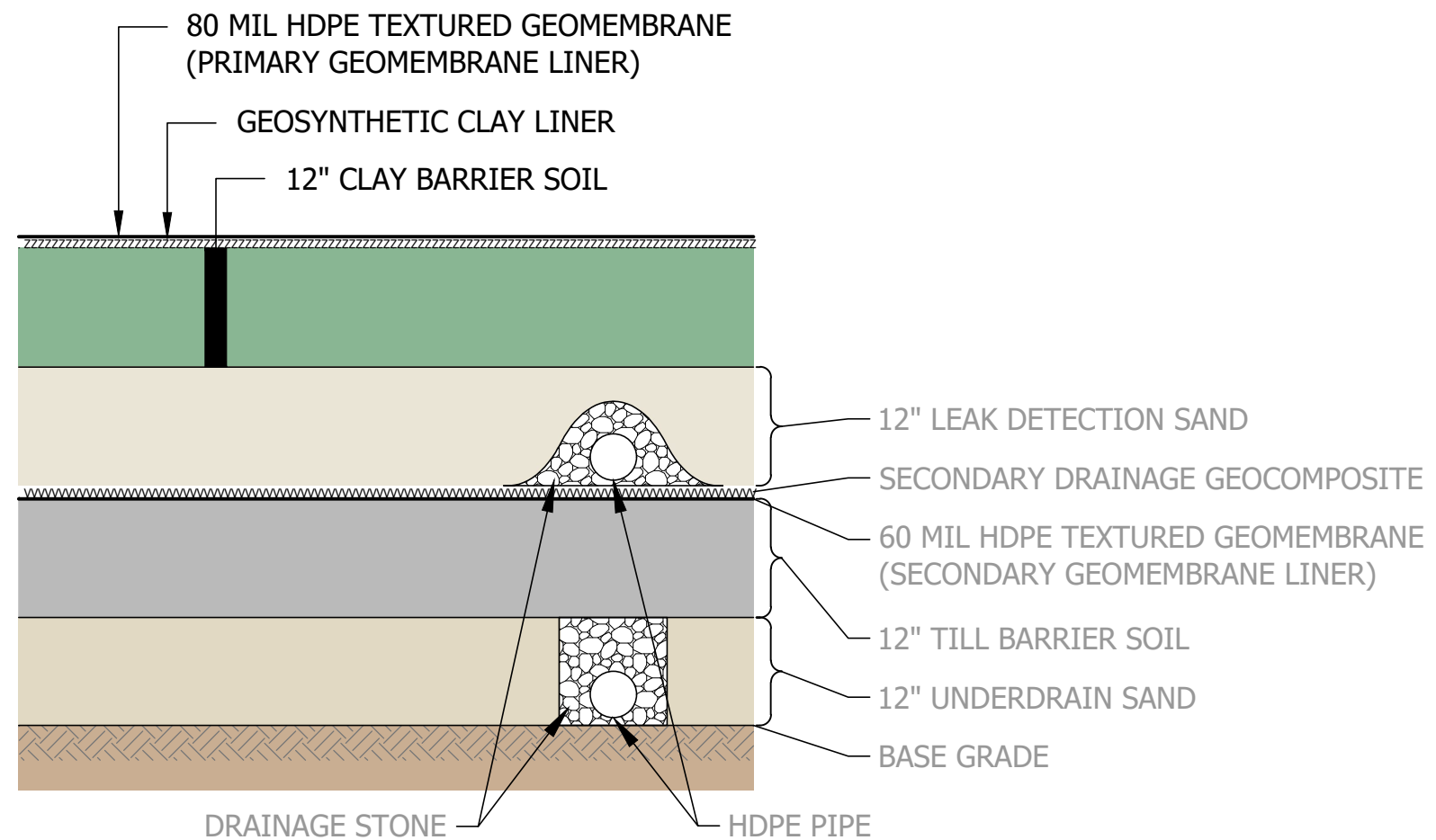
AUGMENTED SECONDARY LINER SYSTEM

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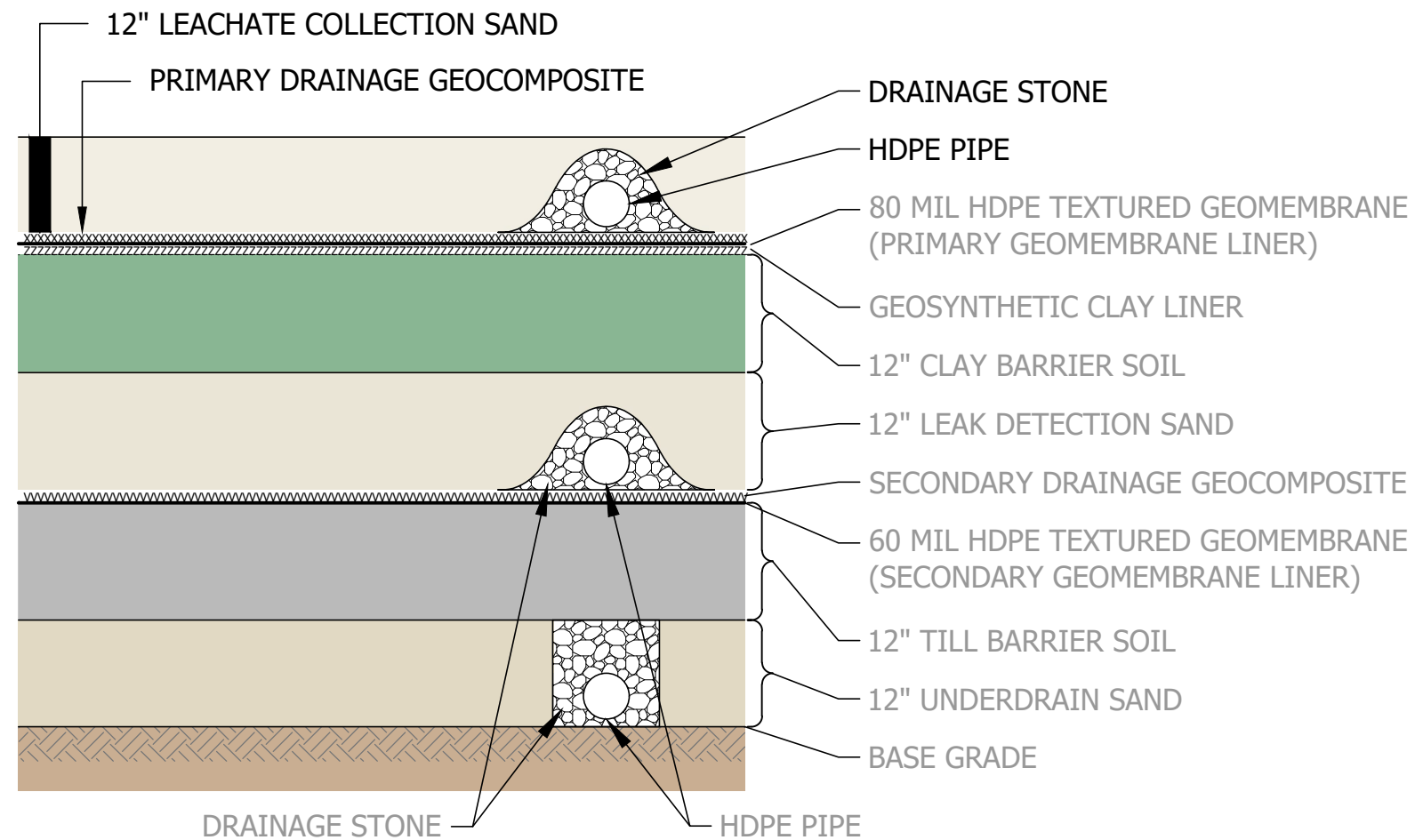
LEAK DETECTION SYSTEM

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PRIMARY LINER SYSTEM

NTS



LEACHATE COLLECTION SYSTEM

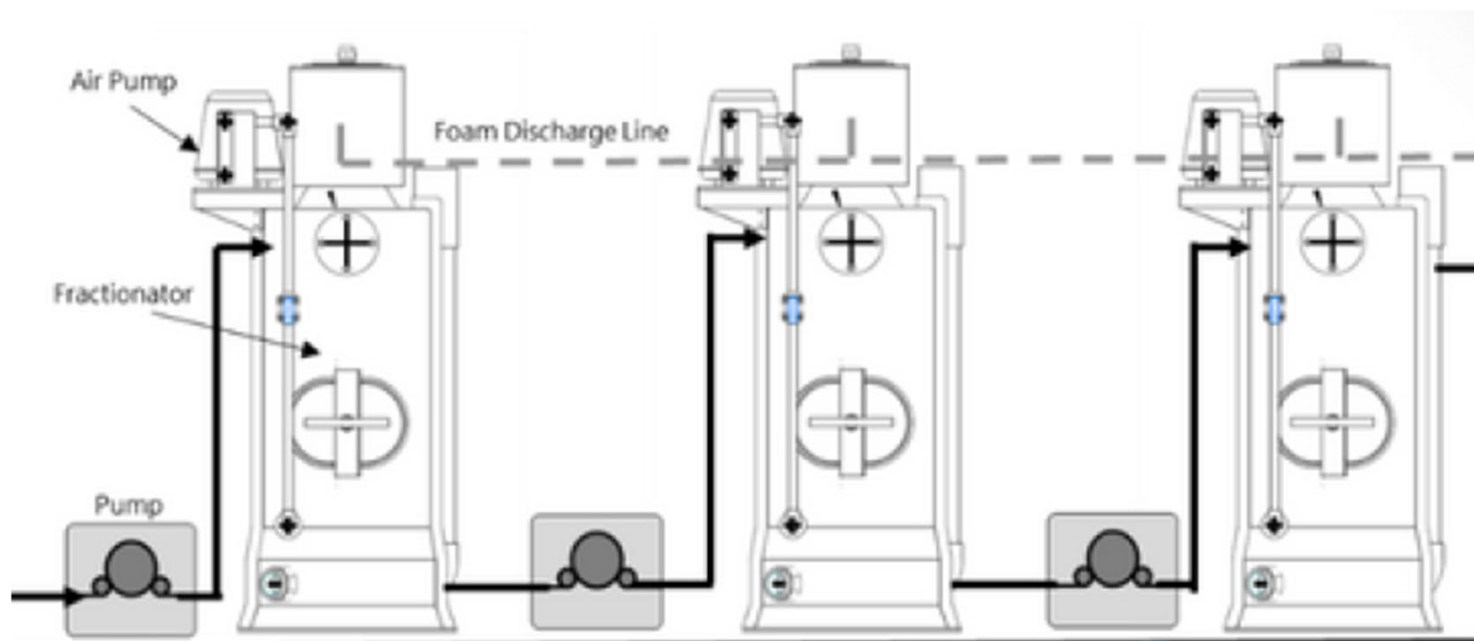
NTS

LEACHATE TRANSPORT AND STORAGE



LEACHATE TREATMENT

LEACHATE FROM THE EXISTING AND EXPANSION LANDFILL WILL RECEIVE TREATMENT TO REMOVE PFAS PRIOR TO TRUCKING OFF SITE TO A PERMITTED WASTEWATER TREATMENT PLANT.



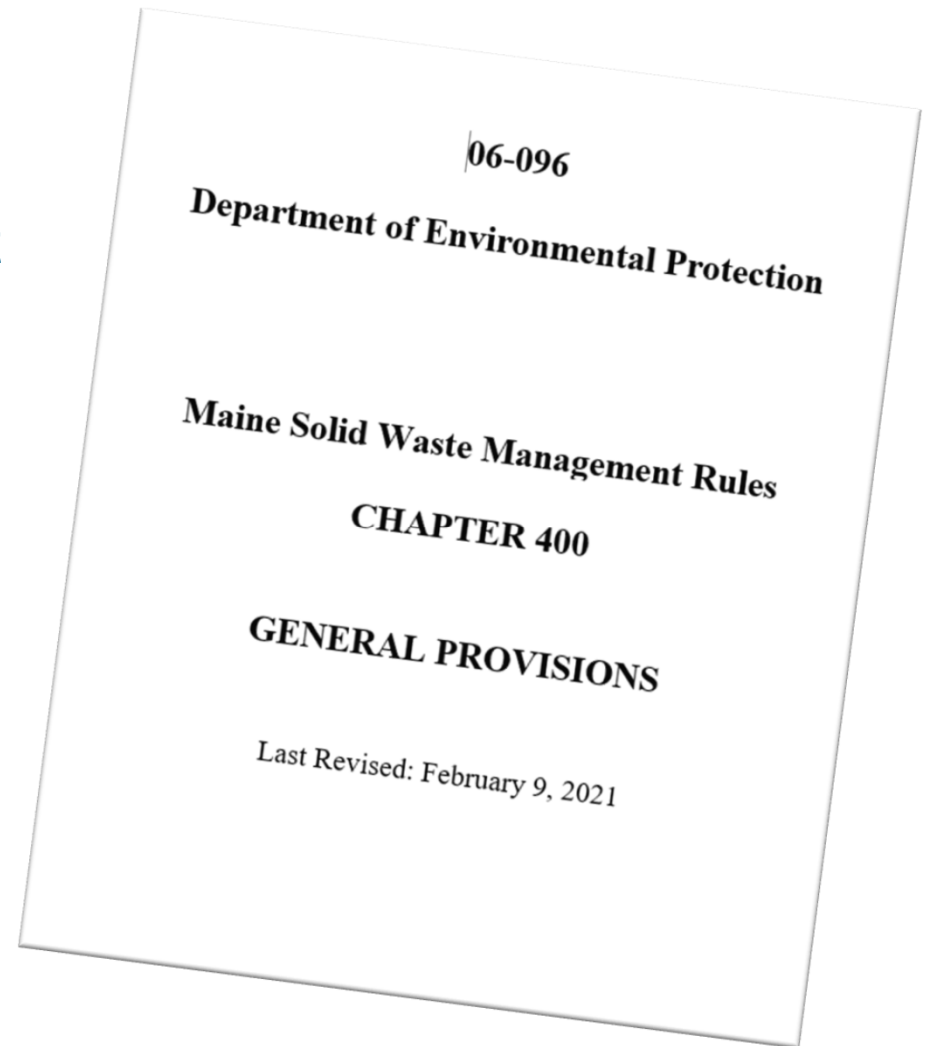
GAS COLLECTION AND TREATMENT



LANDFILL EXPANSION PERMIT

CHAPTER 400

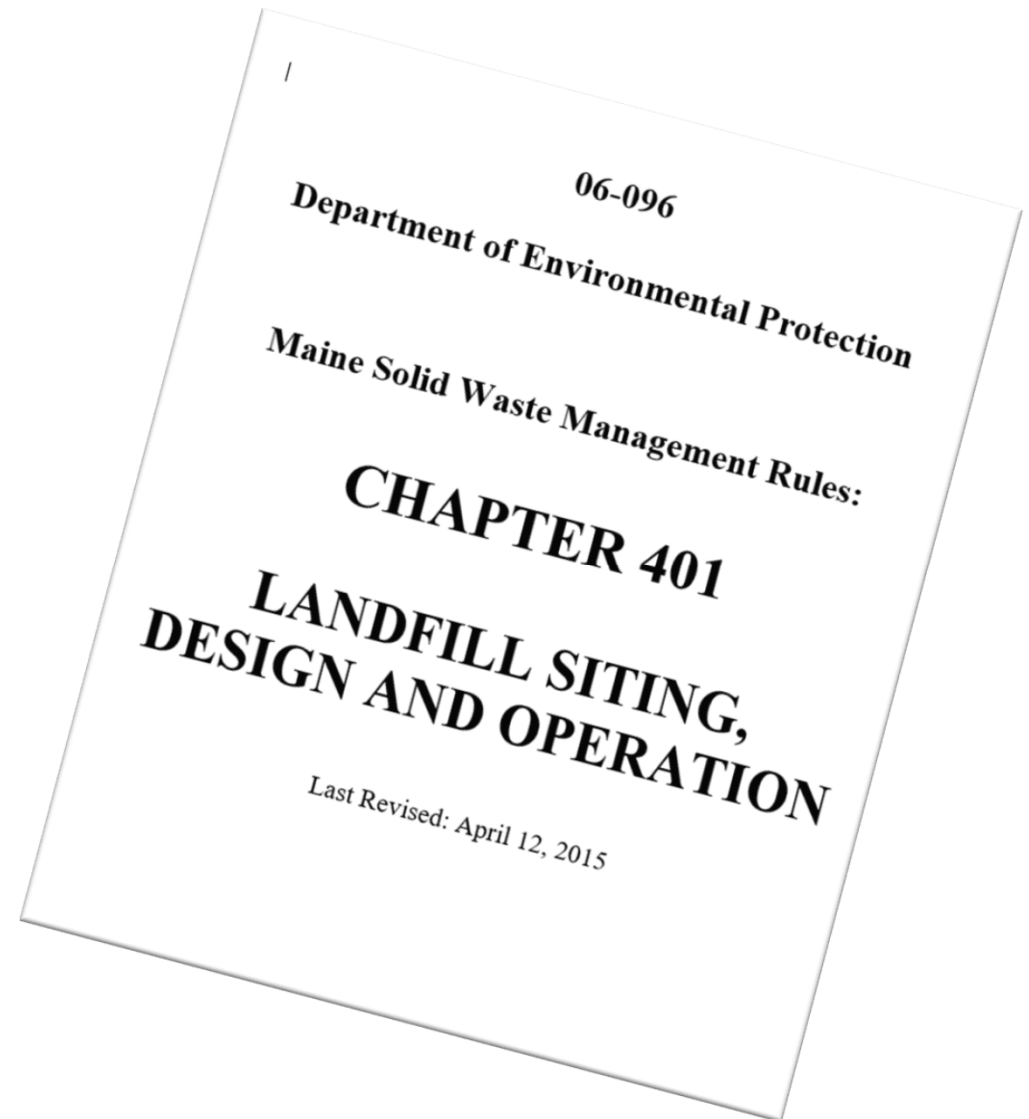
- Application Procedures
- Title, Right, and Interest
- Technical Ability
- Financial Ability
- Closure & Post Closure Funding
- Waste Hierarchy Consistency
- Siting Criteria



LANDFILL EXPANSION PERMIT

CHAPTER 401

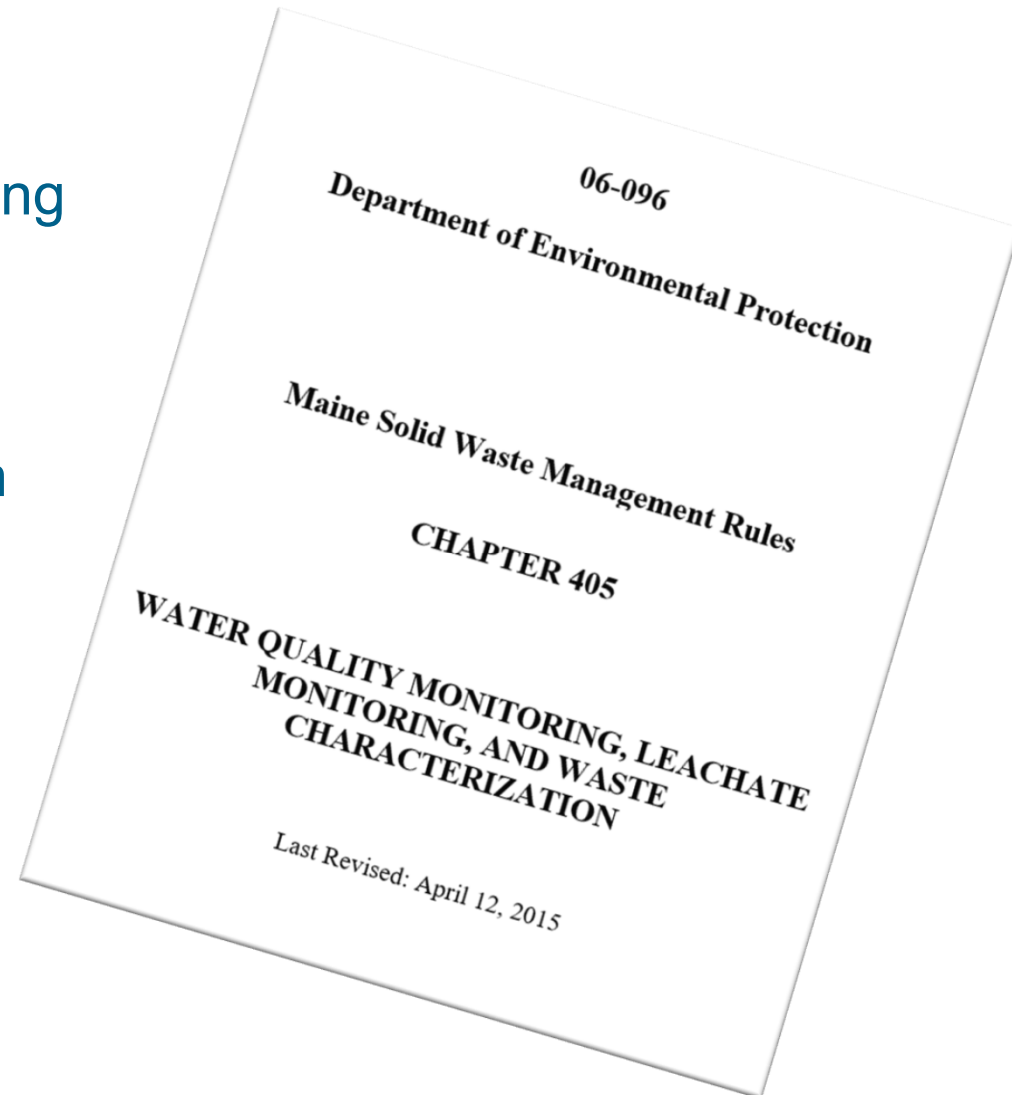
- Site Investigations
- Site Evaluations
- Landfill Design
- Construction Specifications
- QA/QC Plan
- Operation and Maintenance



LANDFILL EXPANSION PERMIT

CHAPTER 405

- Environmental Monitoring
 - Groundwater
 - Surfacewater
 - Leachate
- Waste Characterization



NATURAL RESOURCES PROTECTION ACT

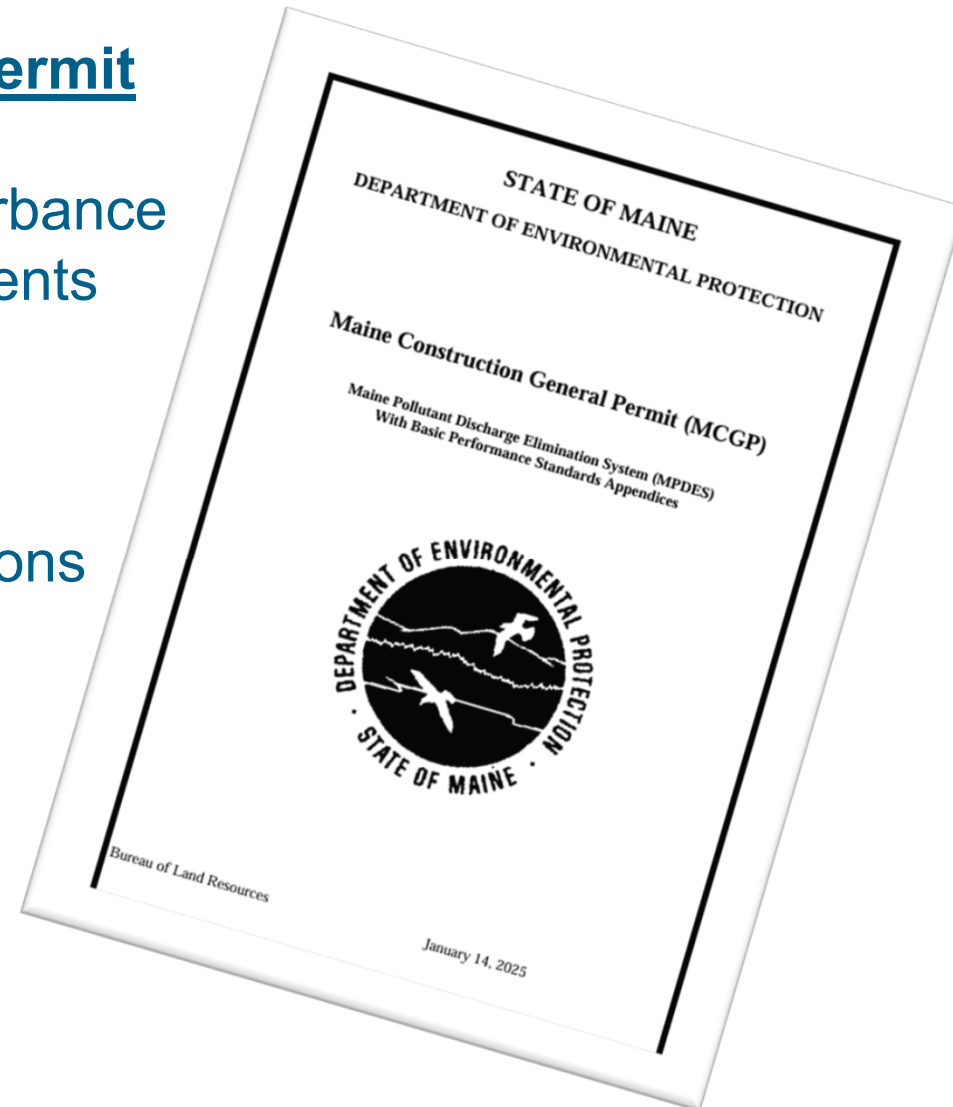
- Tier III Natural Resources Permit
- Wetland Permit (Army Corps)
- Water Quality Certification (Army Corps)



MAINE CONSTRUCTION GENERAL PERMIT

ME Construction General Permit

- Required for >1 acre disturbance
- Erosion Control Requirements
- BMP's Based on Site
 - Size
 - Location
 - Environmental Conditions
- Not required until project construction



CITY OF OLD TOWN

CHAPTER 24 ORDINANCE

Approved by City Council 7/6/2015

CHAPTER 24 SOLID WASTE FACILITIES

ARTICLES

I - PURPOSE AND ENABLING LEGISLATION

II - TITLE AND DEFINITIONS

III - SOLID WASTE FACILITY PERMITTING PROCEDURES

IV - SOLID WASTE FACILITY PERMIT STANDARDS

V - CONSTRUCTION AND OPERATION

VI - CLOSURE REQUIREMENTS

VII - POST CLOSURE REQUIREMENTS

VIII – ADMINISTRATIVE

ENVIRONMENTAL IMPACT - SITING CRITERIA

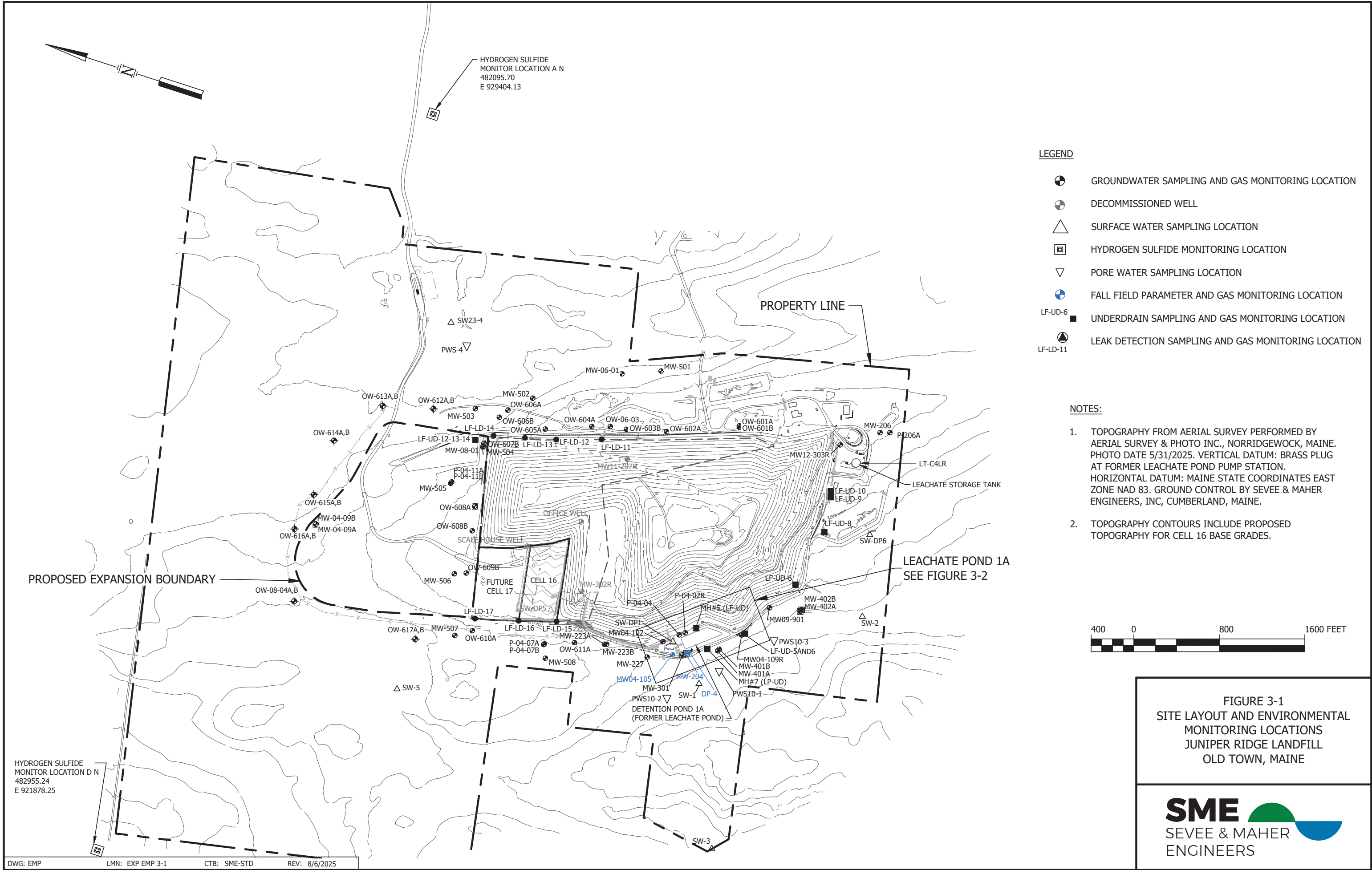
Chapter 401 Established Setbacks

Setbacks to:	MEDEP Regulation	Actual Proposed
Prohibitive Siting Criteria		
Class AA or Class SA waters	1,000 feet	>2 miles
Significant sand and gravel aquifer	300 feet	1 mile
Fault displaced in Holocene time	200 feet	None identified on 780-acre parcel. Nearest Mapped Fault approximately six miles northeast of the site.
Restrictive Siting Criteria		
Nearest public road	300 feet	3,020 feet
Property boundary	300 feet	513 feet
Nearest residence	1,000 feet	1,760 feet
Stratified sand and gravel deposit	100 feet	1,800 feet
Classified surface water body	100 feet	1,580 feet
Water supply spring or well	1000 feet	1,400 feet
Performance Standards		
Airport	10,000 feet	>15,000 feet

ENVIRONMENTAL IMPACTS - GROUNDWATER

- Hydraulic Isolation from existing off-site public and private groundwater supplies
- Groundwater flow controlled by topography
- Surrounding streams and wetland complexes act as boundaries
- Low permeability soils provide slow groundwater movement
- Dual composite liner system
- Robust groundwater monitoring system

No unreasonable risk of discharge to significant groundwater aquifer



\\server\dfs\Casella\OldTown\Landfill\General\SiteInfo\Acad\EMP.dwg, EXP EMP FIG 3-1, 8/6/2025 11:26:32 AM, sjm

ENVIRONMENTAL IMPACTS - SURFACEWATER

- Potential sources of impact are surface and groundwater
- Erosion and Sediment Control Plan
- Stormwater Pollution Prevention Plan
- Robust monitoring system

SME anticipates no unreasonable adverse impacts to surfacewater.



AIR QUALITY

- Permitted Active Gas Treatment System
- Gas is either:
 - collected and treated
 - burned in flare, or
 - converted to Renewable Natural Gas



AIR QUALITY - ODOR

Causes

- Incoming waste
- Leachate transport and storage
- Landfill related gasses

Efforts to control odor include:

- Tarping Incoming Loads
- Deodorizers
 - incoming trucks
 - Air in active areas
 - Working areas (2x/day)
- Active Landfill Gas System
- Daily cover of waste areas

AIR QUALITY - ODOR

Monitoring & Response

- Monthly Landfill Gas System
- Quarterly Scans for methane emissions from cover
- Maintain H₂S Monitors
- Maintain Odor Complaint and Management Plan
- Maintain 24-hour Complaint Line
- Investigates and responds to odor complaints

AIR QUALITY - DUST

Watering and Sweeping



Given the air quality measures proposed we anticipate no unreasonable adverse impacts to air quality from the project.

SCENIC CHARACTER - VISUAL IMPACT

Viewshed engaged to assess visual impact on the surrounding community

- No public viewing area within 2,000 feet of proposed expansion, therefore no unreasonable adverse effect on existing uses and scenic character.
- Extended study to 7-miles from site and noted:
 - Background views from Pushaw Lake
 - Visibility from Penobscot River, Stillwater River, Pushaw Stream possible but not likely due to topography and vegetation
- Vehicle views not classified as “Public Viewing Areas”
 - Vehicle visibility includes:
 - 0.8 Miles of I-95 in Alton
 - Intermittent views from Route 43 and 16

SCENIC CHARACTER - NOISE

Epsilon performed noise study that included:

- On site noise monitoring
- Prediction of noise during expansion operations

Expansion operations expected to comply with City of Old Town and State regulations with respect to noise.



SCENIC CHARACTER - LITTER

Measures to limit litter include:

- Installing temporary cover over waste
- Installing temporary fencing
- Using temporary labor to hand-pick wind blown litter as needed



SCENIC CHARACTER - VECTORS

Stantec hired to determine ways to limit gull populations at the landfill.

Recommendations to limit Gull populations include:

- Limit uncovered areas
- Install bird roosting deterrents
- Maintain and maximize depredation
- Use hazing devices
- Continued site visits by Wildlife Professionals

FAA agreed with recommendations.



SCENIC CHARACTER - HISTORICAL & ARCHAEOLOGICAL

SME contacted

- Maine Historical Preservation Commission,
- Penobscot Nation,
- Mi'kmaq Nation,
- Passamaquoddy Tribe,
- Maliseet Indians

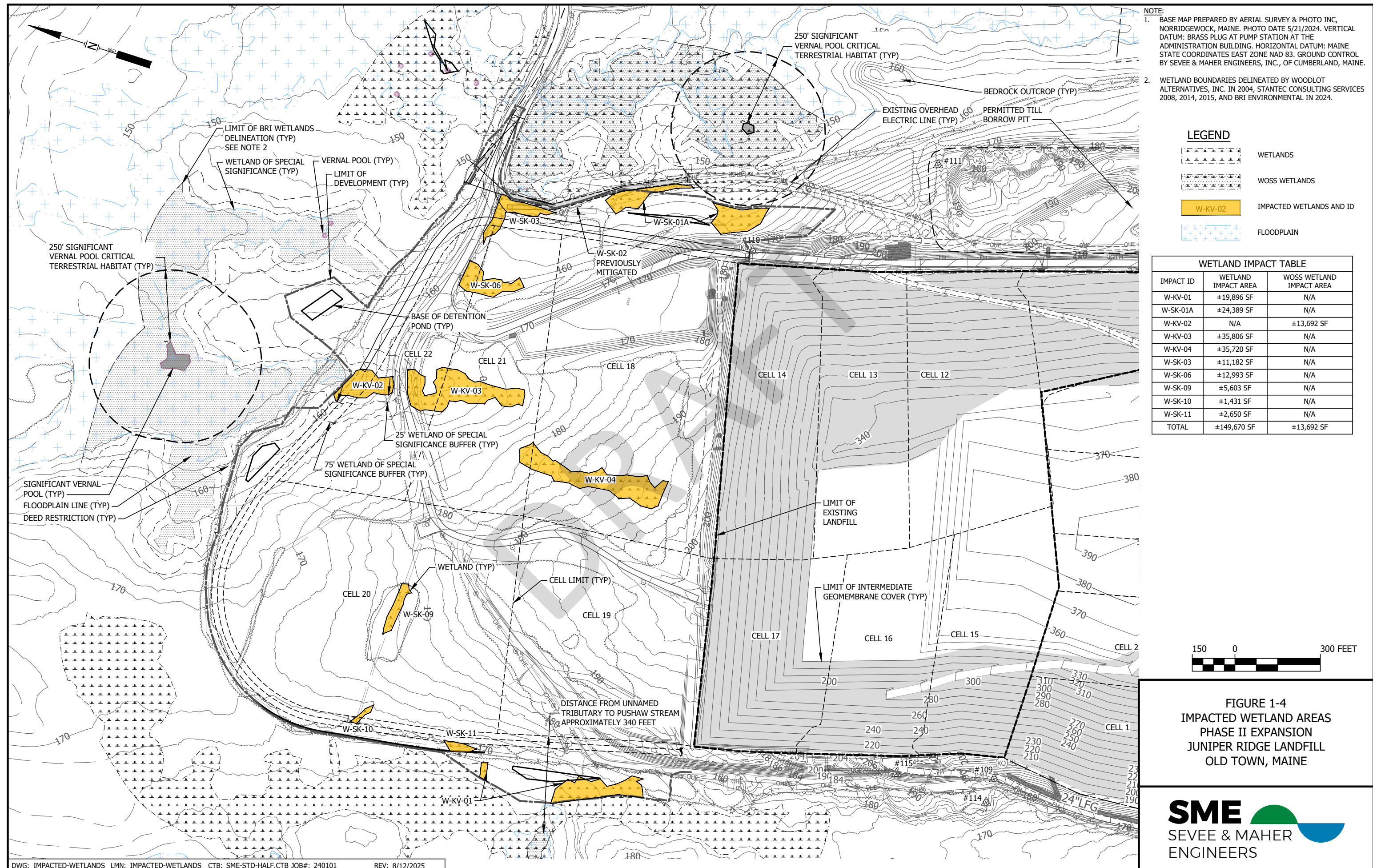
No identified historical architectural or archaeological sites of significance in the project area.

Given the scenic character information gathered we anticipate no unreasonable adverse impacts on existing uses or scenic character.

NATURAL RESOURCES - WETLANDS

- Biodiversity Research Institute (BRI) and Stantec assisted with wetlands and wildlife work at the site.
- Included coordination with agencies.





NATURAL RESOURCES - WILDLIFE

SME Contacted the following organizations related to endangered species and critical habitat:

- US Fish and Wildlife Service
- Maine Department of Inland Fisheries and Wildlife
- Department of Environmental Protection

Maine Department of Agriculture, Conservation and Forestry Maine Natural Areas Program indicated “no rare botanical features documented in the project area”.

BRI site visits in 2022, 2023, and 2024.

SME will continue to correspond with the Agencies through the permitting process.

Penobscot Tribe did send Declaration with concerns of impact to their culture, water, and environment.

UTILITIES

Existing On-Site Utilities

- Water & Septic
- Electric and Communications from Utility companies
- Leachate Disposal at ND Paper Wastewater Plant

Changes to Utilities

- Leachate will receive leachate treatment prior to disposal at permitted Wastewater Treatment Plant

Expansion will not cause unreasonable impacts to existing or proposed utilities.

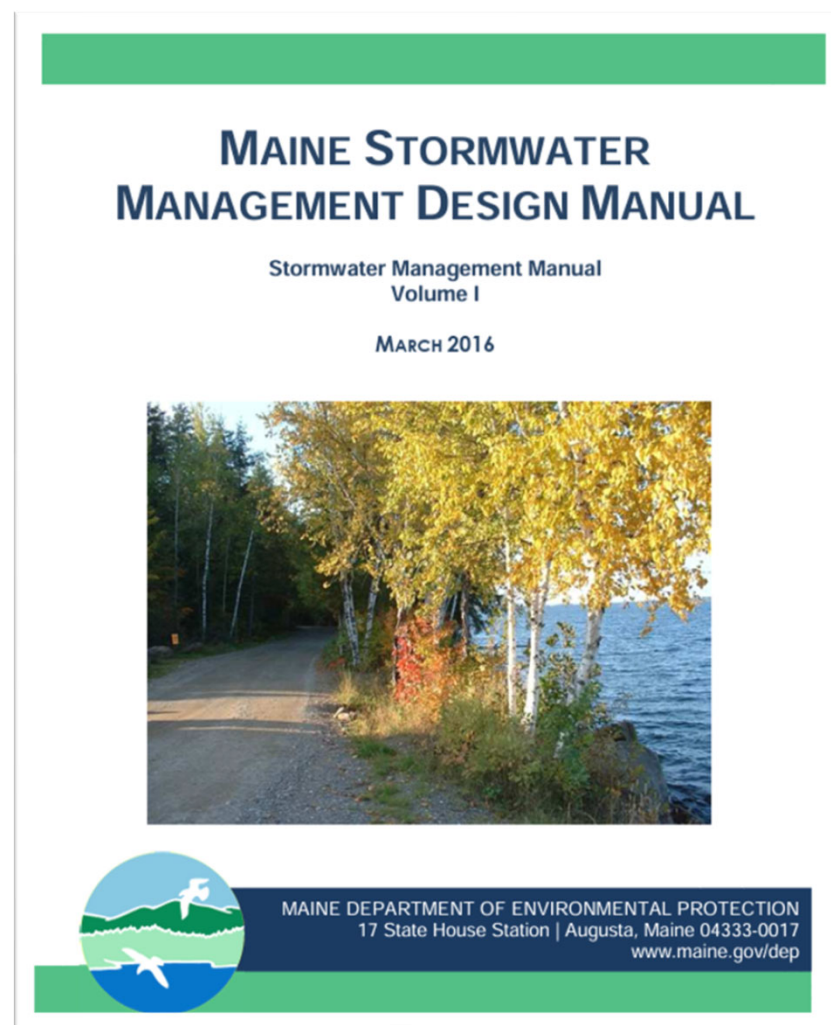


FLOODING

Stormwater peak flow evaluations indicate post development peak flow equal to or less than pre development.

Development outside the limits of the 100-year floodplain as indicated by the Federal Emergency Management Agency mapping.

Given these we conclude there is no increased risk of flooding on site or on adjacent properties.



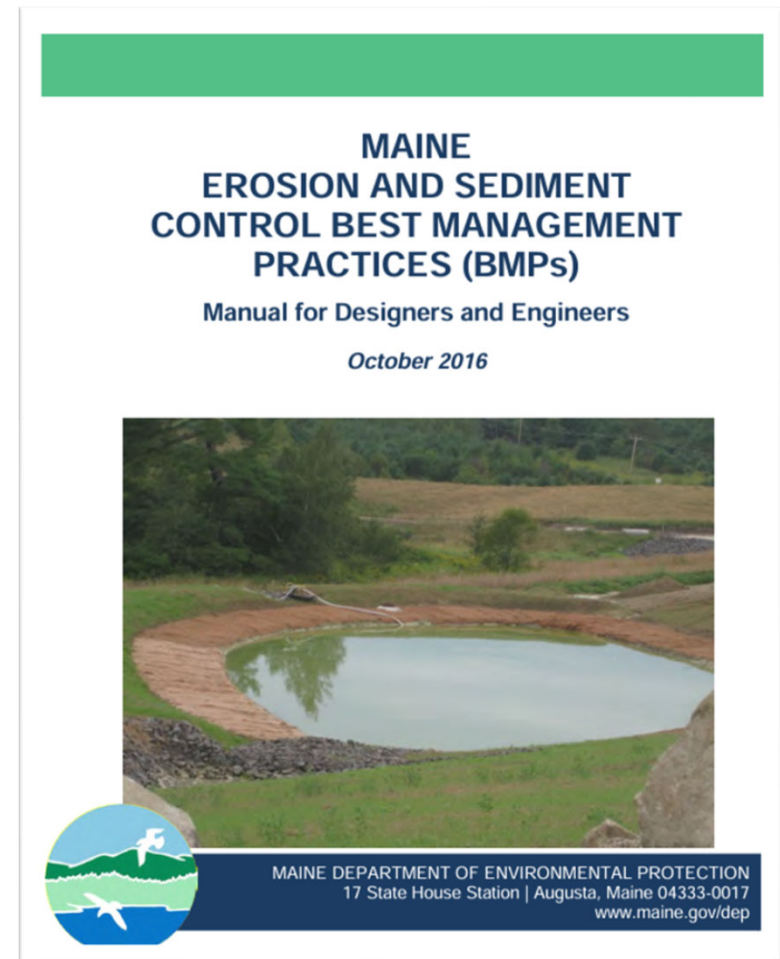


FINAL GRADING PLAN

EROSION

- Site Soils suitable for development
- Erosion Controls will be in accordance with Maine Erosion and Sediment Control BMP's
- Additionally, Project Specific Construction General Permit will require that a SWPPP be prepared for all projects that disturb greater than 1-acre of land.

These practices minimize the potential of erosion and sedimentation at the site and off site.



TRAFFIC

Gorrill Palmer performed a traffic study to evaluate the potential impacts from the project.

- Traffic patterns will remain unchanged for the project.
- Predicted increase of 9 Trucks per day
- Roads are suitable for increased traffic without changes
- NEWSME will continue to recommend trucks use I-95 not Route 16



ANTICIPATED NOTICE AND SUBMITTAL

- **Public Notice of Application Submittal**
 - **Early October 2025**
- **Submittal of Application**
 - **Early November 2025**

PUBLIC PARTICIPATION

People interested in the project should contact Dominique Dispirito (MEDEP).

- Comments will be received during the processing period of the application (from acceptance to decision)
- Interested people will receive a copy of the draft license when it is issued.

Paper copies of the Project Fact Sheet and Public Participation Sheet are available at the meeting tonight.

QUESTIONS AND COMMENTS