

THE TIDEWATER SITE

PRIOR TO START OF REMEDIAL WORK

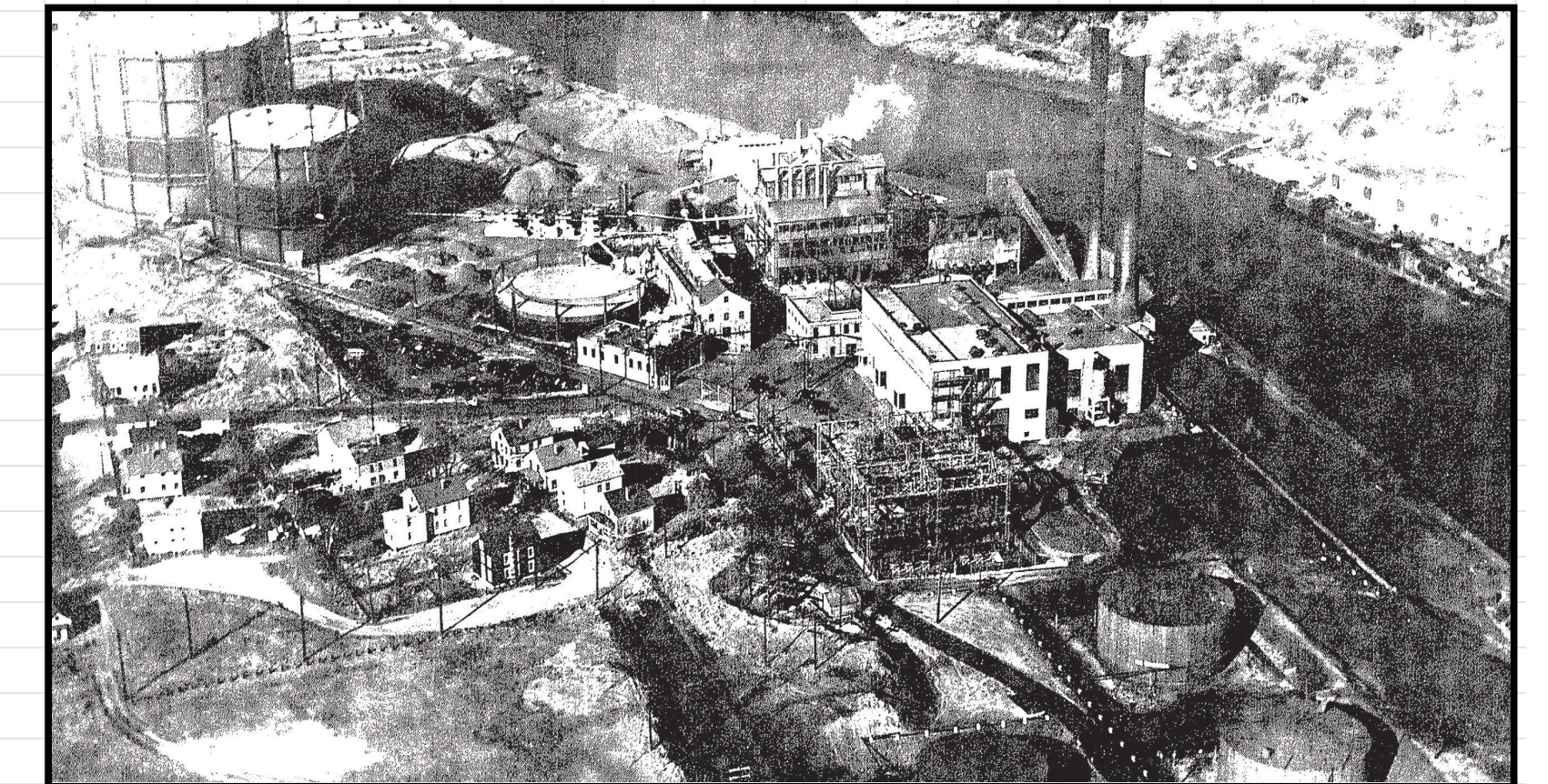
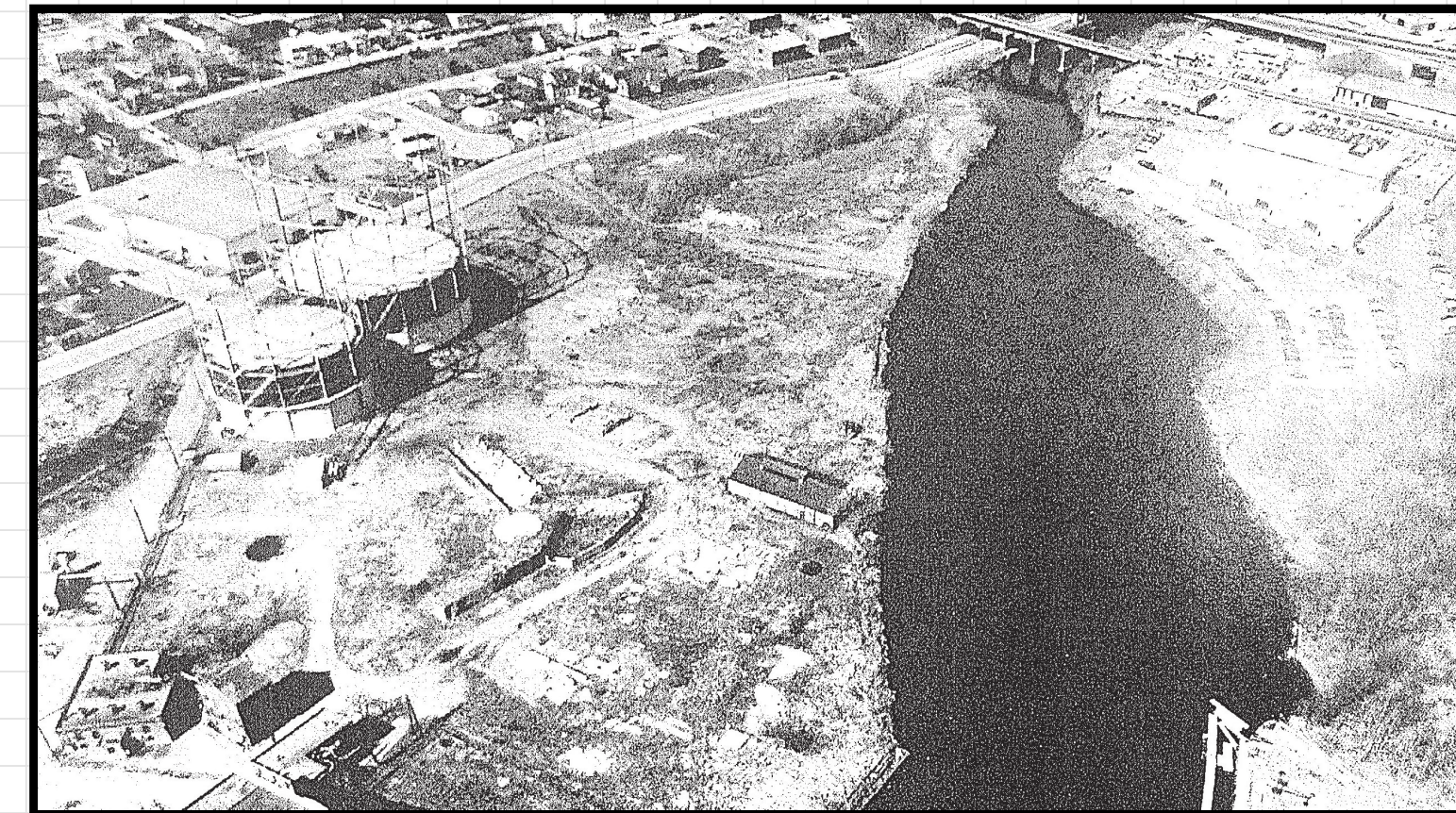


Image courtesy of Google Professional

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SITE HISTORY

The Tidewater Site has a long History of industrial use dating back to at least 1881. Site operations, including the historic Manufactured Gas Plant (MGP), provided essential electric and gas service to the community for over 130 years. Large areas of the site are currently vacant. Current operations include a natural gas regulation facility, electrical transmission facilities and an electrical switch and substation facility.



- 1881** The Pawtucket Gas Company constructs the Tidewater Manufactured Gas Plant (MGP) to produce manufactured gas from coal and oil using industrial processes.
- 1908** Blackstone Valley Gas and Electric Company (BVG&E) purchases the Pawtucket Gas Company.
- 1938** The Great Hurricane of 1938 causes significant damage to the MGP and power plant.
- 1961** Valley Gas Company (VGC) acquires the MGP from BVG&E.
- 1962** The transmission towers are first evident in historical records for the power plant.
- 1975** The power plant is officially decommissioned.
- 1995** Rhode Island Department of Environmental Management (RIDEM) issues a Letter of Responsibility to BVEC and VGC.
- 2006** National Grid acquires the Rhode Island gas utility and the gas portion of the Tidewater Site.
- 2017** Performance of Limited Design Investigation
- 2018** Remedial Action Work Plan Submitted to RIDEM
- AUG. 2019** Permit Application Package Submitted to Regulators
- MARCH 2020** RIDEM Issued Order of Approval
- SEPT. 2020** Community Outreach Event Prior to Start of Environmental Work
- FALL 2021** Environmental Work in Southern Half of Site Anticipated to be Completed

Period of MGP Operations

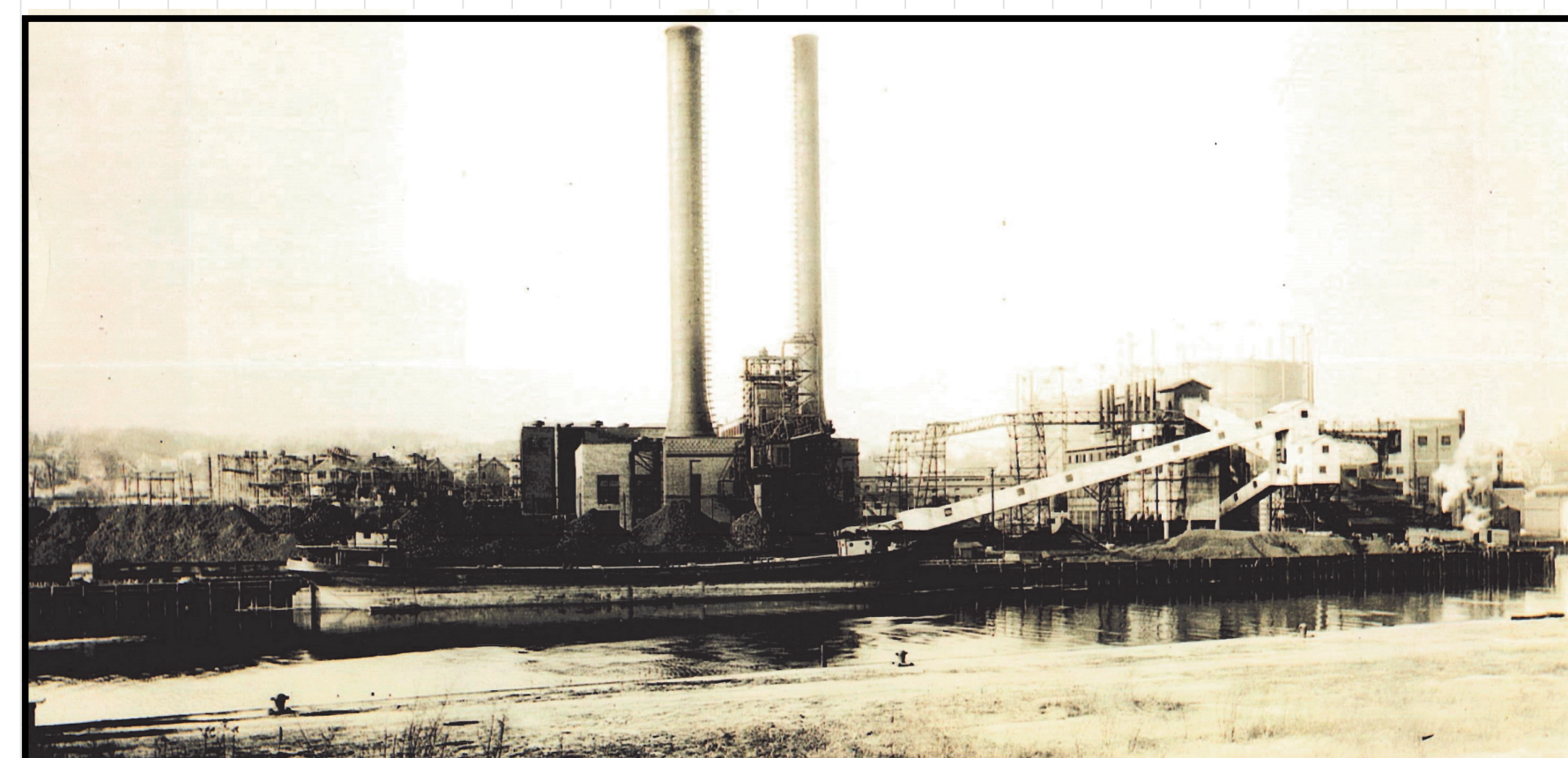
National Grid Ownership of the Former Gas Plant Area and the North Fill Area

1880 1900 1920 1940 1960 1980 2000 2020

Period of Active Power Plant Operations

National Grid Ownership of the Former Power Plant Area and the South Fill Area

- 1890** Pawtucket Gas Company constructs the power plant.
- 1923** Power plant changes its primary fuel from coal to oil.
- 1954** Majority of MGP operations ceases, though oil gas is produced on an as-needed basis to supplement available natural gas supply until approximately 1968.
- 1968** The Blackstone Valley Electric Company (BVEC) acquires the power plant from BVG&E. The MGP is officially decommissioned. The City of Pawtucket acquires portions of the southernmost section.
- 1986** Site investigations begin.
- 2000** National Grid acquires the Rhode Island electric utility and the electric portion of the Tidewater Site.
- 2009-2016** Facility upgrades include:
 - Natural Gas Regulating Station upgrades
 - Gasholders Nos. 7 and 8 decommissioned and demolished
 - Pawtucket No.1 Substation and Switching
 - Station modifications
 - Former gas buildings demolished
 - Repair of the south washout area
- MAY 2019** RAWP Addendum submitted to RIDEM
- DEC. 2019** Army Corp of Engineers Approval
- MARCH 2020** Coastal Resources Management Council Approval
- NOV. 2020** Environmental Work Initiated (Southern Half of Site)
- FALL 2021** Environmental Work Anticipated to be Initiated in Northern Half of Site

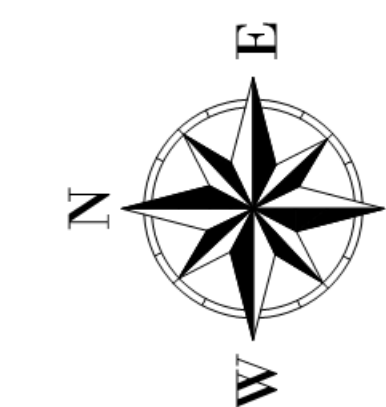
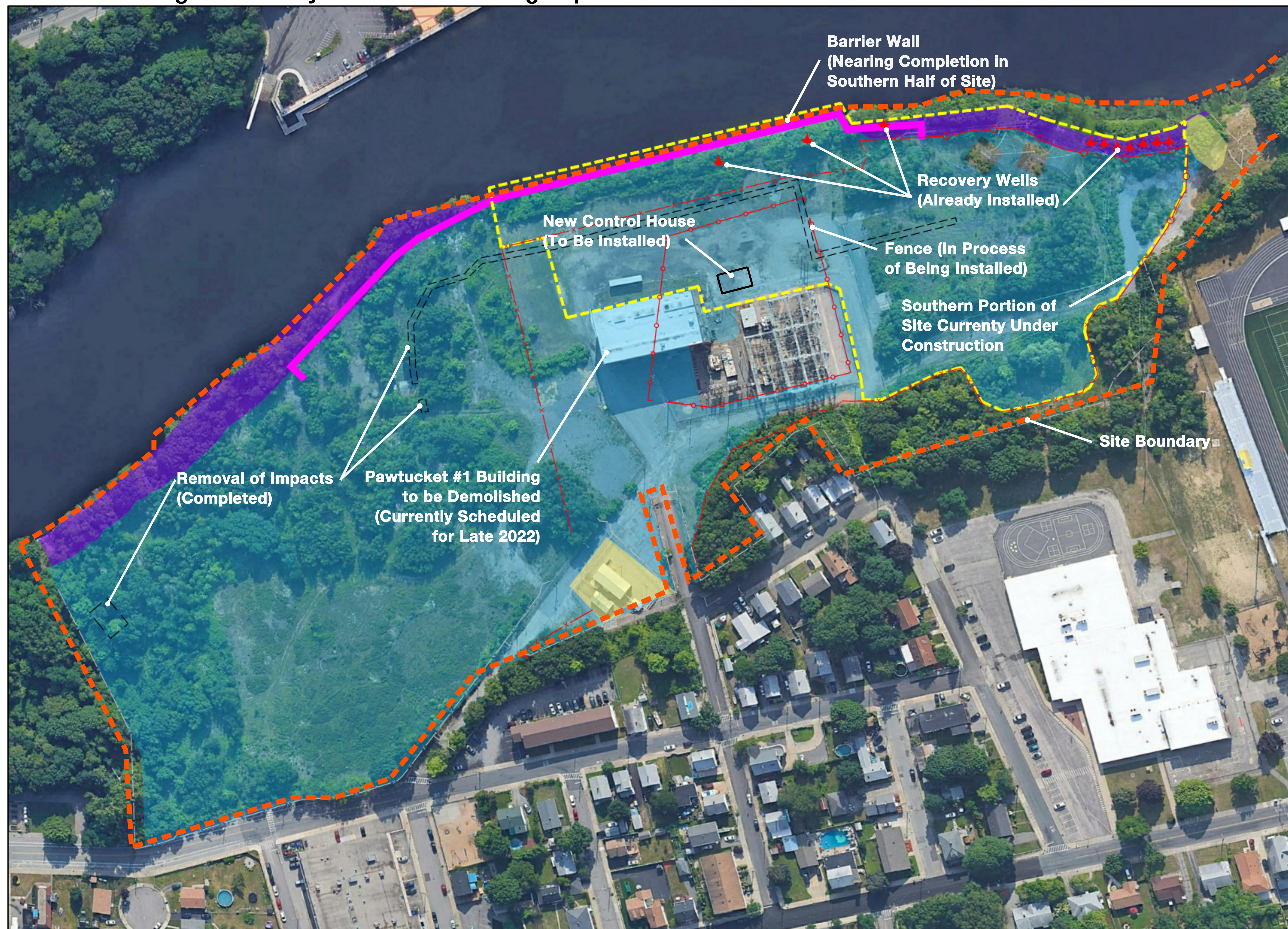


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REMEDIAL LAYOUT PLAN

The remedy for the Site consists of targeted removal of certain impacts, installation of a subsurface barrier wall designed to protect the Seekonk River and the use of engineered caps to isolate impacts. This remedy was selected based on its ability to address Site impacts while minimizing community disturbance during implementation.



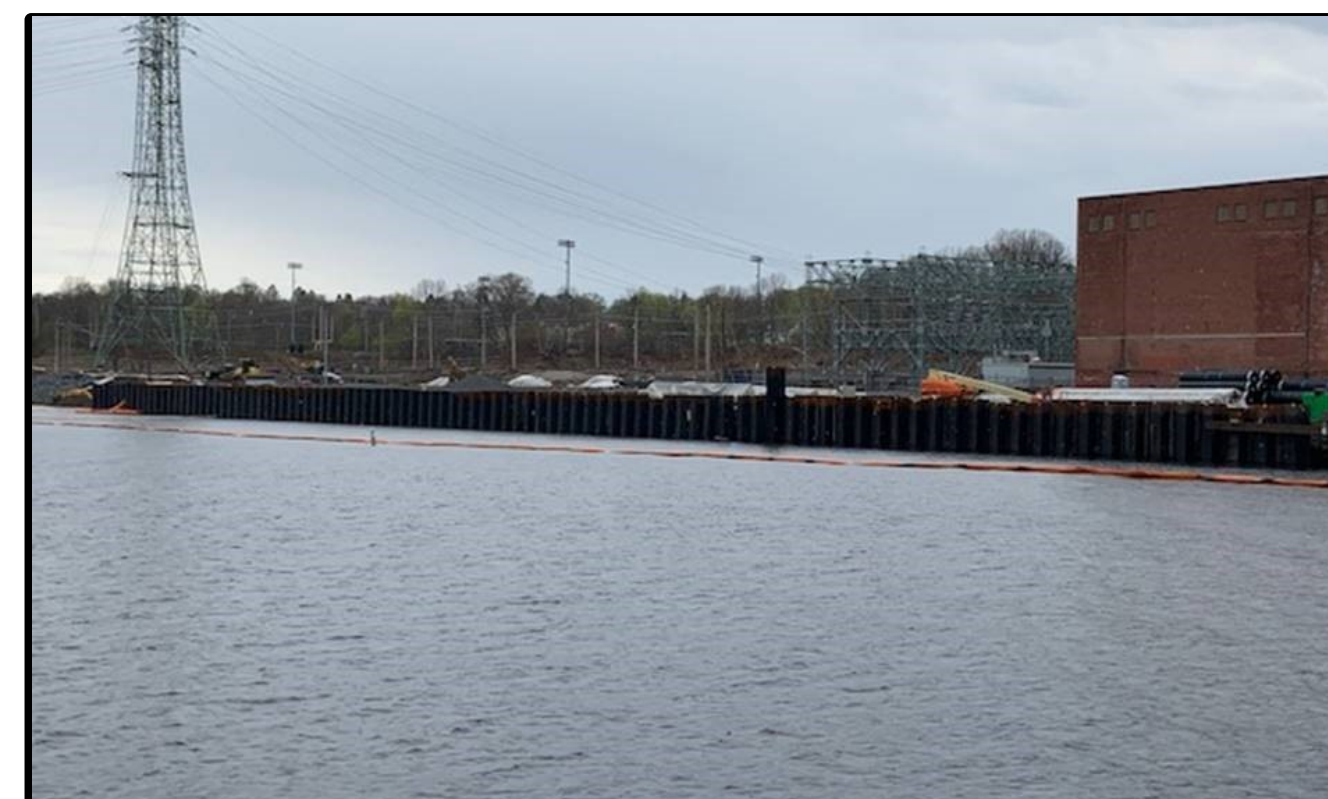
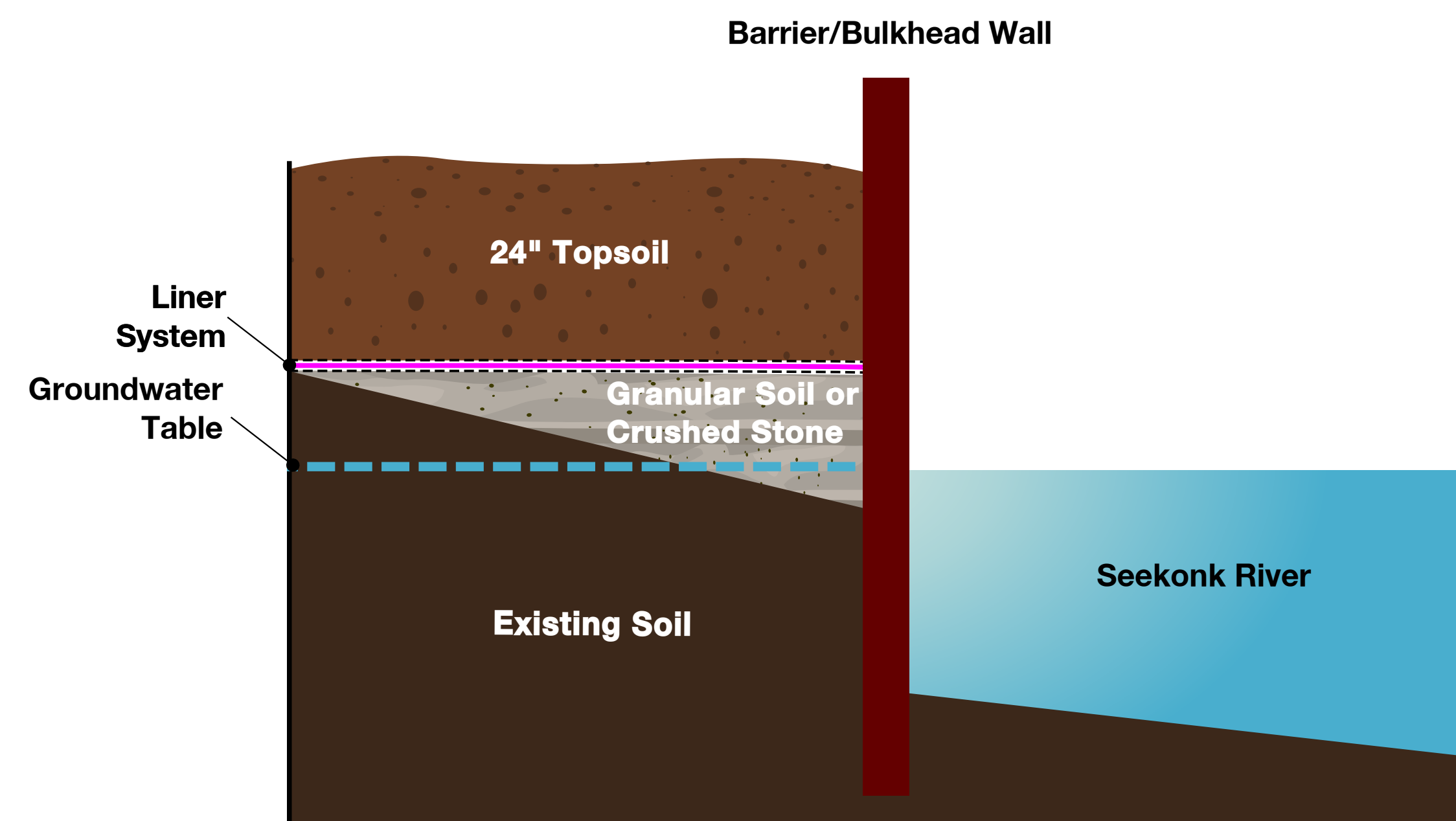
LEGEND	
	Engineered Cap
	Previously Capped Areas
	Rip Rap Cap
	New Substation Fencing
	New Perimeter Fencing

Image courtesy of Google Professional

BARRIER WALL DETAILS

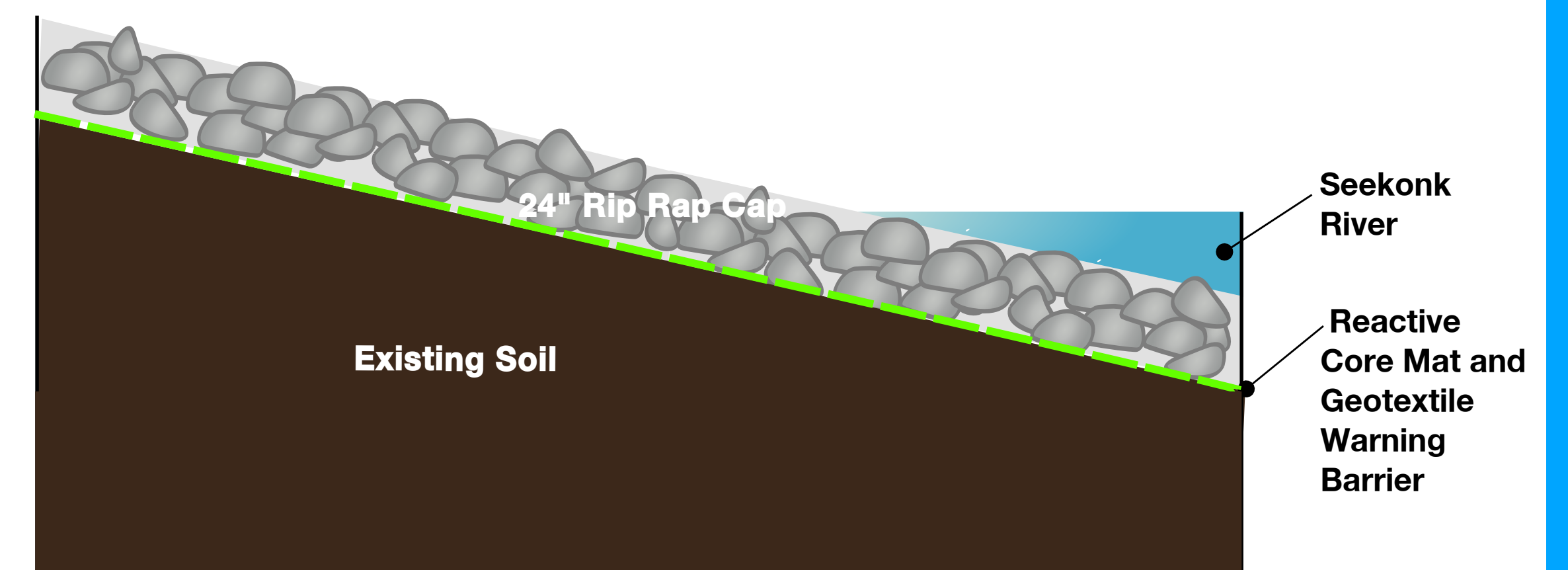
A subsurface barrier wall, installed along the Seekonk River, will prevent the migration of impacted groundwater and non-aqueous phase liquids (NAPLs)

BARRIER/BULKHEAD WALL



Construction of Barrier Wall - Sheet Pile Installation

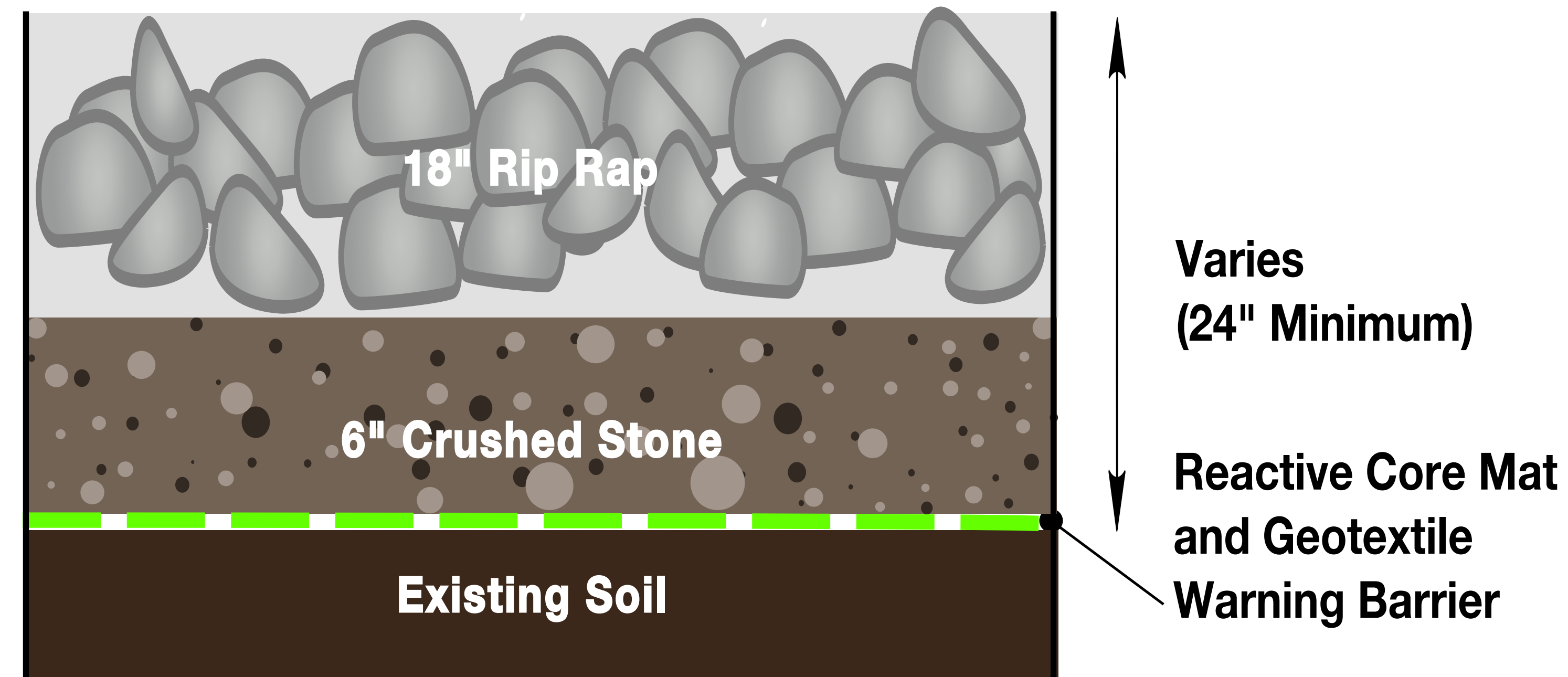
RIP RAP RETAINING SLOPE



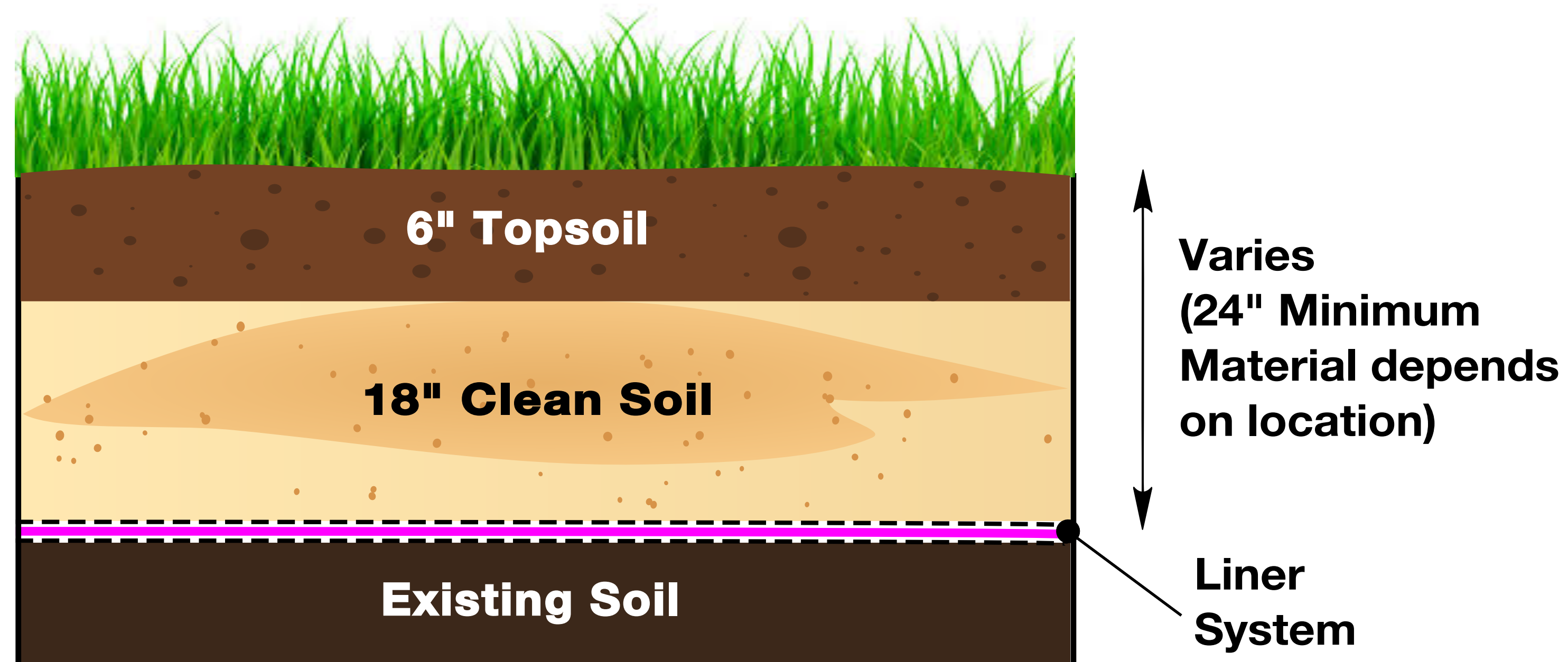
Shoreline Improvement

ENGINEERED CAP DETAILS

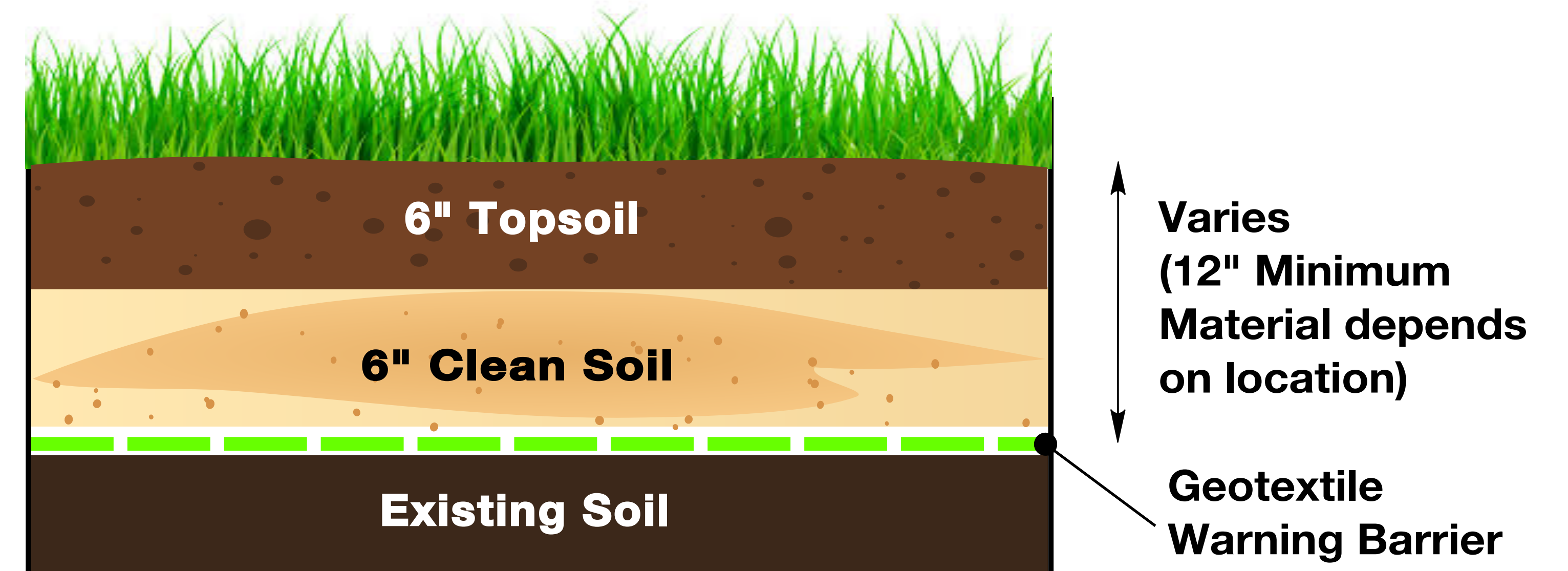
Rip Rap Cap



Impermeable Cap



Permeable Cap



MATERIAL IMPORT AND DISPOSAL

The Tidewater Site remedy includes excavation and disposal of targeted impacted areas, as well as the installation of an engineered cap to prevent direct contact with Site materials and protect groundwater. In order to install the engineered cap and minimize the amount of materials needed to be transported offsite, National Grid will re-grade the Tidewater Site. Clean fill materials will be transported onto the Site to construct the cap.



ROUTES

From Site to I-95N:
Taft Street to Roosevelt Avenue Extension
Roosevelt Avenue Extension to Main Street
Main Street to I-95N On-Ramp

From Site to I-95S:
Taft Street to Jenks Way
Jenks Way to Pleasant Street
Pleasant Street to Grace Street
Grace Street to George Street
George Street to Cedar Street
Cedar Street to I-95S On-Ramp

From I-95N to Site
Marrin Street to Grace Street
Grace Street to Pleasant Street
Pleasant Street to Jenks Way
Jenks Way to Taft Street
Taft Street to Tidewater Street

From I-95S to Site
Cedar Street to George Street
George Street to Grace Street
Grace Street to Pleasant Street
Pleasant Street to Jenks Way
Jenks Way to Taft Street
Taft Street to Tidewater Street

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WHAT TO EXPECT DURING REMEDY CONSTRUCTION

National Grid is completing the work as outlined in the Remedial Action Plan (RAWP) for the Tidewater Site. These images are from the work completed in the southern portion of the Tidewater Site.

DUST & ODOR CONTROL



Water Truck Control Dust



Covered Stockpiles Control Dust and Odors



Foam Addresses Any Odors

SEDIMENT & EROSION CONTROL



Straw Wattles Limit Erosion



Turbidity Curtains Prevent Sediments From Migrating Away From Site

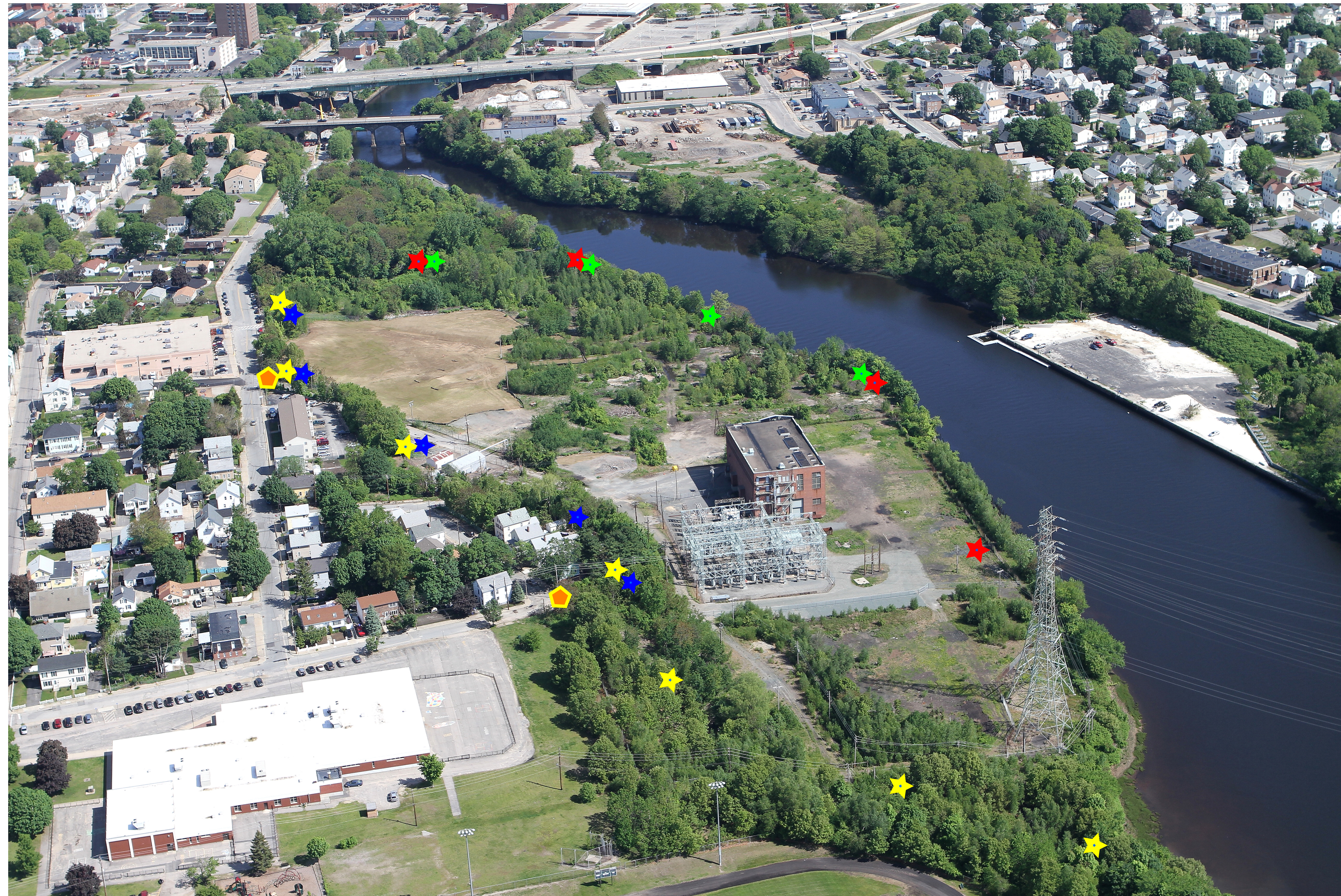
OFFSITE TRACKING CONTROL



Tracking Pad Prevents Offsite Tracking of Material

AIR MONITORING PROGRAM

Throughout construction of the remedy, National Grid will deploy a robust, multi-tier air monitoring program to protect both onsite workers and community. Air monitoring data can be accessed at www.tidewater.com.



LEGEND

- ★ Current Air Monitoring Station Location - Solar Light Units (Organic Vapors and Fugitive Dust)
- ★ Current Full Air Monitoring Station Location - Classic Units (Organic Vapors, Fugitive Dust and Benzene)
- ★ Proposed Phase 4/5 Air Monitoring Station Location - Solar Light Units (Organic Vapors and Fugitive Dust)
- ★ Proposed Phase 4/5 Full Air Monitoring Station Location - Classic Units (Organic Vapors, Fugitive Dust and Benzene)
- ⬠ Bulletin Board Location

TIER 1 - REAL-TIME MONITORING



Classic Units



Solar Lite Units

SITE PERIMETER

TIER 2 - AIR SAMPLE COLLECTION FOR LABORATORY TESTING

TIME-INTEGRATED SAMPLING



Summa Cannister

ANTICIPATED REMEDY CONSTRUCTION SCHEDULE



**CONTRACTOR MOBILIZATION TO SITE
NOVEMBER 30, 2020**

IMPLEMENTATION/CONSTRUCTION OF REMEDY PHASES 1-3

BALANCE OF REMEDY

**TWO TO THREE MONTHS
AFTER IMPLEMENTATION**

Submittal of Remedial Action
Closure Report to RIDEM

JULY 2020

OCTOBER 2020

JANUARY 2021

APRIL 2021

JULY 2021

OCTOBER 2021

2022

APRIL 2023

OCTOBER 29, 2020
Community Outreach Event

SEPTEMBER 14, 2021
Community Outreach Event

FALL 2022
PAWTUCKET No. 1 BUILDING DEMOLITION



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SITE CONDITIONS AFTER IMPLEMENTATION OF REMEDY TIDEWATER SITE

