Jersey Central Power & Light Company
2021 RAC Minimum Filing Requirements

1. The Company currently provides a vendor summary as Attachment D with its annual filing. This Attachment provides a summary of the expenditures incurred by vendor by site for the twelve-month RAC period. Hereafter, the Attachment will be supplemented with a general description of the services provided by each vendor. The data noting expenditures incurred through November are submitted to the Parties by December 31 of the filing period. The data are updated with the expenditures incurred through December and submitted to the Parties by January 31 of the year following the filing period.

   Response:

   See Attachment D.

2. Identify the three MGP sites with the highest level of expenditures during the prior RAC period. For each identified site, provide a copy of the latest work plan, remediation report, or major work product submitted to the NJDEP. The copies should include the narrative portion of the report or work plan but need not include the technical supporting workpapers, charts and tables.

Response:

The three MGP sites with the highest level of expenditures during the 2021 RAC period are Boonton, Dover and Newton II. A copy of the latest work plan, remediation report, or major work product for each site submitted to the Licensed Site Remediation Professional (LSRP) or NJDEP is provided as an attachment. Further discussion of the use of LSRP's is included in MFR-8. They include:

Attachment MFR-2a – Boonton

Remedial Action Work Plan, Boonton Former Manufactured Gas Plant Site, Boonton, New Jersey, PI# G000005438, April 2018.

Attachment MFR-2b – Dover

JCP&L Dover Former MGP Site, 2021 Mitigation Status Report, Town of Dover & Township of Rockaway, Morris County, New Jersey, December 2021.

Attachment MFR-2c – Newton II

Technical Memorandum, Supplemental Subsurface Investigation, Newton II Former MGP Site and John's Automotive Diagnostics & Repair, Block 9.02, Lots 3 and 4, Newton, New Jersey, Program Interest No. G000005460, May 24, 2021.

As requested, only the narrative portions of the respective documents are provided.

Attachment MFR-2a

ARCADIS Design & Consultancy for natural and built assets

Jersey Central Power & Light
A FirstEnergy Company

REMEDIAL ACTION WORK PLAN

Boonton Former Manufactured Gas Plant Site

Boonton, New Jersey

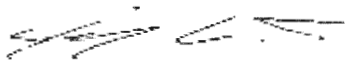
PI# G000005438

April 2018

REMEDIAL ACTION WORK PLAN

Boonton Former Manufactured Gas Plant Site

Boonton, New Jersey



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Date:

April 2018

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ACRONYMS AND ABBREVIATIONS

ACO	Administrative Consent Order
Adron site	Adron, Incorporated
Arcadis	Arcadis U.S., Inc
Amsl	Above mean sea level
Bgs	Below ground surface
CEA	Classification Exception Area
COC	Constituent of Concern
cfs	Cubic feet per second
DKQP	Data of Known Quality Protocols
DNAPL	Dense Non-Aqueous Phase Liquid
Ebasco	Esbasco Services. Inc
EBSL	Ecologically Based Screening Level
EE	Ecological Evaluation
ESNR	Environmentally Sensitive Natural Resource
FSPM	Field Sampling Procedures Manual
ft/day	feet per day
ft/ft	feet per foot
ft^2/day	square feet per day
ft^3	cubic feet
FW2-NT	Fresh Water-2 Non-Trout
gpm	gallons per minute
GWQS	Groundwater Quality Standards
IGWSSL	Impact to Groundwater Soil Screening Level
IGWSRS	Impact to Groundwater Soil Remediation Standard
IRM	Interim Remedial Measure
JCP&L	Jersey Central Power & Light Company
LCS	Laboratory Control Samples
LNAPL	Light Non-Aqueous Phase Liquid
LSRP	Licensed Site Remediation Professional

MDL	Method detection limit
MGP	Manufactured Gas Plant
mg/kg	milligrams per kilogram
MNA	Monitored Natural Attenuation
NAPL	Non-Aqueous Phase Liquid
NJDEP	New Jersey Department of Environmental Protection
NJDOT	New Jersey Department of Environmental Protection
NJGS	New Jersey Geological Survey
NJNG	New Jersey Natural Gas Company
NJPDES	New Jersey Pollutant Discharge Elimination System
NRDCSRS	Non-Residential Soil Remediation Standards
N.J.A.C.	New Jersey Administrative Code
ORP	Oxidation-reduction potential
PAHs	Polycyclic Aromatic Hydrocarbons
PCE	Tetrachloroethene
PDI	Pre-design Investigation
PID	Photoionization detector
POTW	Publicly-Owned Treatment Works
PVC	Poly Vinyl Chloride
QAPP	Quality Assurance Project Plan
QC	Quality Control
RAO	Response Action Outcome
RAR	Remedial Action Report
RAWP	Remedial Action Work Plan
RDCSRS	Residential Soil Remediation Standards
RI	Remedial Investigation
RIR	Remedial Investigation Report
SIU	Significant Indirect User
site	Former Boonton Manufactured Gas Plant Site
SRS	Soil Remediation Standards
SVOCs	Semi-volatile organic compounds

SWQS	Surface Water Quality Standards
TAL	Target Analyte List
TCL	Target Compound List
TOC	Total organic carbon
TRSR	NJDEP Technical Requirements for Site Remediation N.J.A.C. 7:26E
USEPA	United States Environmental Protection Agency
USGS	United States Geological Survey
UST	Underground Storage Tank
VI	Vapor Intrusion
VOC	Volatile Organic Compounds
WRA	Well Restriction Area
µg/L	micrograms per liter

1. INTRODUCTION

This Remedial Action Work Plan (RAWP) has been prepared by Arcadis U.S., Inc. (Arcadis), on behalf of Jersey Central Power and Light Company (JCP&L) and presents a description of the proposed remedial activities at the former Boonton Manufactured Gas Plant (MGP) Site (site) located in Boonton, New Jersey and surrounding properties.

The objectives of this RAWP include:

- Describe the site physical setting, including topography, geology, hydrogeology, and surrounding land use;
- Summarize the nature and extent of site-related environmental impacts based on the results of remedial investigation (RI) activities completed at the site and surrounding properties;
- Document the implementation and results of supplemental remedial investigation activities conducted at the site in October 2016 (not reported in previous submittals);
- Summarize previous remedial actions implemented at the site; and
- Describe the proposed remedial actions to address site-related soil and groundwater impacts.

This RAWP was prepared pursuant to New Jersey Department of Environmental Protection (NJDEP) Technical Requirements for Site Remediation (TRSR), New Jersey Administrative Code (N.J.A.C.) 7:26E-5.5. A Case Inventory Document is provided as Appendix A.

2. SITE DESCRIPTION AND SETTING

2.1 Physical Setting

The site is located in a mixed non-use and commercial area in Morris County, New Jersey at Block 105 Lots 1 (Town of Boonton) and Block 449 Lot 3 (Parsippany-Troy Hills Township). A site location map is presented on Figure 1. A map of the site and surrounding properties is shown on Figure 2.

The site is bordered to the northwest by active railroad tracks, with areas of moderate vegetation (trees and shrubs) on both sides of the tracks. The northeastern portion of the site is heavily vegetated. A lightly to moderately vegetated area (trees & shrubs) borders the site to the east and Interstate Route 287 (Route 287) is located approximately 50 to 100 feet east of the site boundary. The Rockaway River, which is impounded to form the Boonton Reservoir, is located approximately 100 feet east of Route 287. A towing company is located south of the site and Fanny Road borders the site to the west. Industrial properties are located west of Fanny Road. Significant changes in land use at properties surrounding the site are unlikely, as the railroad to the north and Route 287 to the east of the site are relatively permanent transportation routes and are restrictive of potential future development.

Adron, Incorporated, a known contaminated site (PI #011035), is located at 94 Fanny Road in Parsippany-Troy Hills Township, New Jersey (tax block 448, lots 5 and 6; tax block 90, lot 1) (The Adron site). A portion of the Adron site is shown on Figure 2. Adron, Inc., formerly Norda Essential Oil Company,

has been in operation since 1941 and the facility has been used to manufacture semi-products for foods and fragrance, warehouse raw materials and finished products, and house auxiliary facilities including laboratories, shops, and offices. The Adron site is currently used to produce a variety of dry flavor products (The Louis Berger Group, Inc., 2007).

Six Areas of Concern (AOCs) have been identified at the Adron site. A review of NJDEP records indicates that constituents including benzene, cyanide and metals are present in groundwater beneath the Adron site at concentrations greater than the NJDEP Class II-A Groundwater Quality Standards (GWQS). Groundwater beneath the Adron site reportedly flows to the south-southwest toward Lake Intervale. (The Louis Berger Group, Inc., 2007).

2.2 Operational History

The site is the former location of a MGP, which was reportedly operational between 1901 and 1941 (RETEC, 1996). From 1901, the MGP was owned and operated by the Boonton Gas Light Improvement Company, which manufactured gas via coal gasification using the carbureted water gasification process. JCP&L purchased the site in 1926 and continued MGP operations until approximately 1941. From 1941 to 1952 JCP&L utilized the site for natural gas and liquid propane storage. The New Jersey Natural Gas Company (NJNG) purchased the Site in 1952 and used the property for propane gas storage until 1981.

Former locations of MGP-related structures (approximate) are shown on Figure 3. Site-specific structures include gas and oil holding and storage tanks, a tar well, tar pump house, generator house, boiler house, purifier, and gas storage facilities. Sanborn Fire Insurance maps from 1930 and 1947 indicate that a 5,000-gallon gas oil underground storage tank (UST) and one 18,000 cubic foot (ft^3) and four 40,000 ft^3 gas pressure tanks were present at the site (RETEC 1996).

Based on field observations reported by Ebasco Services, Inc. (Ebasco) in 1986, the former tar well was a brick and mortar structure approximately 6 feet in outer diameter and installed to a total depth of 18 feet below ground surface (bgs). The inner diameter of the tar well at the surface was approximately 30 inches and flared out at a depth of approximately 2 feet bgs. The outer surface of the well was covered by a thin layer of mortar. The relatively flat surface at the bottom of the well suggests that the tar well was used as a holding facility for wastes rather than as an injection or disposal well (Ebasco 1986).

The current owners, S. Onorati and Sons, Inc., purchased the site in 1981 and have historically utilized the site for vehicle parking and storage of miscellaneous equipment, asphalt, gravel, topsoil and firewood. There are currently no permanent structures located on the site; however, several large vehicle or equipment storage shelters exist on the northern portion of the property.

2.3 Regulatory Background

In August 1983, the NJDEP notified public utilities operating in New Jersey of pending investigations of potential adverse health effects associated with former coal gasification plants. In response, JCP&L voluntarily implemented a phased RI of potential site-related environmental impacts. Based on results of RI activities, which indicated the presence MGP residual and related constituents including Polycyclic Aromatic Hydrocarbons (PAHs), Volatile Organic Compounds (VOCs), metals, and cyanide in soil and/or groundwater at concentrations exceeding applicable cleanup criteria, JCP&L entered into an Administrative Consent Order (ACO) with the NJDEP on March 12, 1991. RI activities were conducted on

behalf of JCP&L between 1985 and 2015 to characterize and delineate the nature and extent of Site-related soil and groundwater impacts.

Previous regulatory submittals and reports associated with the site are chronicled in Table 1. A proposed Classification Exception Area submitted to NJDEP on 29 May 2001. In response to the CEA proposal, the NJDEP required an expansion of the site monitoring well network and additional groundwater monitoring and the CEA was not approved. However, the 2001 proposed CEA is illustrated on NJGeoweb.

An initial Receptor Evaluation was submitted to the NJDEP on March 3, 2011 to document the evaluation of the potential exposure of receptors to soil and groundwater impacts identified during RI activities. A Remedial Investigation Report (RIR) (Arcadis 2016) documenting the completion of the RI in accordance with the NJDEP TRSR and was approved by the Licensed Site Remediation Professional (LSRP) for the site on April 28, 2016 and submitted to NJDEP on May 3, 2016. The 2016 RIR included an updated Receptor Evaluation Form, an Ecological Evaluation, and Classification Exception Area (CEA)/Well Restriction Area (WRA) Fact Sheet. The duration of the 2016 proposed CEA is indeterminate and will be reevaluated based on remedial action groundwater performance monitoring results.

2.4 Topography

Ground-surface elevation at the site ranges from approximately 360 to 410 feet above mean sea level (amsl). Topography at the western portion of the site is relatively flat at approximately 410 feet amsl. Ground surface on the eastern portion of the Site slopes steeply to the east-northeast to an elevation of approximately 360 feet amsl. The southern portion of the Site slopes gently to the south. East of the Site, the ground surface slopes east-southeast to the Rockaway River and to the Boonton Reservoir, located approximately 310 feet east of the Site at an elevation of approximately 310 feet amsl.

2.5 Surface Water

The site is located within the Passaic, Hackensack and New York Harbor Complex Basin. The Rockaway River (Figure 2) is located approximately 310 feet east of the site and flows to the southeast. The Rockaway River is classified by the NJDEP as a Fresh Water-2 Non-Trout (FW2-NT) surface water body. The annual mean discharge recorded at United States Geological Survey (USGS) gaging station No. 01380500, located approximately 0.5 miles northeast of the Site, ranged from 88.3 to 412 cubic feet per second (cfs) from 1938 to 2011. The Rockaway River is impounded approximately 310 feet east of the site boundary to form the Boonton Reservoir, which is classified as a Fresh Water-2 Trout Maintenance (FW2-TM) surface water body by the state of New Jersey. Downstream of the reservoir dam, the Rockaway River flows to the south-southeast before its confluence with the Passaic River.

2.5.1 Drainage Features

Surface runoff and reported groundwater seepage collect in a drainage swale at the base of the slope northeast of the site. Water accumulating in this low-lying area drains via a culvert toward the east, beneath Route 287 and discharges to the Rockaway River. Additionally, a stormwater management pond located in the drainage area near the northeastern boundary of the site also collects surface runoff. Site reconnaissance conducted in December 2015 and October 2016 identified two drainage outfalls near the site. One outfall is located south and uphill of the drainage culvert near the base of the eastern slope of

the site and appeared to discharge surface runoff from Route 287. A second outfall was observed along the western banks of the Rockaway River to the northeast of the site and presumably discharges surface runoff and stormwater to the Rockaway River. The approximate locations of the drainage culvert and observed outfalls are shown in Figure 2.

2.6 Geology

The site is located in proximity to and on the northwest side of the Ramapo Fault. The Ramapo Fault is a major regional fault that separates the Middle Proterozoic-aged metamorphic and metasedimentary rocks of the Highland physiographic region to the northwest, from the Lower Jurassic and Upper Triassic aged sedimentary and bedded volcanic rocks of the Piedmont physiographic region to the southeast (Volkert 2012). East of Route 287, the Ramapo Fault coincides with the Rockaway River.

Bedrock beneath the site consists of metamorphic diorite. The Boonton Formation is the bedrock formation immediately southeast of the Ramapo Fault, and is comprised of fine-grained sandstone, siltstone, and mudstone in the upper part of the bedrock unit and siltstone and shale common in the lower part.

Surficial sediments overlying bedrock at the site consist of three stratigraphic units including Late Wisconsinan aged Glacial Lake Denville Deposits (glacial till), Glacial Lake Passaic Deposits (deltaic deposits), and Post-Glacial Deposits (artificial fill) (Stanford, 1989). The glacial till of the Glacial Lake Denville Deposits overlies bedrock across the site and is comprised of unstratified and unsorted boulders, cobbles, and pebbles in a silty fine sand or fine to medium sand matrix.

A cross section location map is presented on Figure 4A and geologic cross-sections A-A', B-B' and C-C' are presented on Figure 4B, Figure 4C and Figure 4D, respectively. Based on subsurface stratigraphic information obtained from soil borings and monitoring wells advanced during RI activities, the thickness of the glacial till unit ranges from approximately 20 to 120 feet across the site. Northwest of the Ramapo Fault, the glacial till unit thins out towards the Rockaway River where metamorphic bedrock is overlain by deltaic deposits and post-glacial alluvium. Southeast of the Ramapo Fault, the till unit also thins out towards the Boonton Reservoir.

In the western and southern portions of the site, deltaic deposits consisting of sand and pebble and cobble gravel overlie the till unit. The deltaic deposits are looser and less cohesive than the till unit and range in thickness from 0 to approximately 30 feet across the site.

The Surficial Geology of the Boonton Quadrangle, New Jersey Map (Stanford 1989) shows a mapped area of artificial fill overlying both the glacial till and deltaic deposits along the eastern portion of the site. The artificial fill consists of excavated till, sand, gravel, and/or rock and extends eastward to the eastern side of Route 287. The current owner of the site property has reportedly used fill material at the site; and soil boring and well logs generated during RI activities indicate that there is a layer of fill across the entire site ranging in thickness from approximately 2 to 16 feet.

2.6.1 Historic Fill

Based on the Historic Fill of the Boonton Quadrangle (NJGS, 2004) and NJGeoweb, a portion of a mapped unit of historic fill which coincides with Route 287 northeast of the site and is shown to extend

across the northeastern property boundary and onto the site property. A review of soil boring logs generated during RI activities did not reveal the presence of construction debris, dredge spoils, incinerator residue, demolition debris, fly ash, or non-hazardous solid waste characteristic of historic fill material in soil borings advanced on-site within the mapped unit of historic fill. As such, the extent of the mapped historic fill unit appears to have been inaccurately mapped and is limited to off-site areas northeast of the site property boundary. In accordance with the NJDEP (2013) Historic Fill Material Technical Guidance, delineation of historic fill beyond the property boundaries is not required.

Debris material was observed in historical soil borings and test pits advanced in the area of former MGP structures (Figure 3) and are likely related to historical MGP operations at the site and/or subsequent site redevelopment activities and not to the mapped unit of historic fill shown on the Historic Fill of the Boonton Quadrangle (NJGS, 2004) and NJGeoweb. Remedial investigation activities were performed to characterize the nature and extent of MGP-related soil impacts in the vicinity of former MGP structures and are discussed further in Section 4.1.

2.7 Hydrogeology

Groundwater beneath the site generally occurs under unconfined (water-table) conditions within the glacial till unit, with the exception of localized areas in the western portion of the site where the water table occurs within the overlying deltaic deposits (Arcadis 2001). South and southeast of the site, where the deltaic deposits are more continuous above the glacial till unit, the water table is located within the deltaic deposits. The water table in the vicinity of the site occurs at depths ranging from approximately 10 to 30 bgs.

Groundwater containing MGP-related compounds was encountered in a trench during the excavation and installation of a storm sewer in the median of Route 287 by the New Jersey Department of Transportation (NJDOT) in June 1993. The groundwater was confined to a 3-foot wide send lens and observed at a higher elevation relative to the water table in nearby monitoring wells, suggesting the occurrence of channelized perched groundwater conditions in this area (Atlantic Environmental Services, Inc. 1994). Localized zones of perched groundwater or artesian conditions have been reported in the vicinity of monitoring well SW-2 and former monitoring well MW-14 (Figure 2) (Arcadis 2001).

Groundwater in the vicinity of the site generally flows to the east-northeast and presumably discharges to the Rockaway River. Groundwater elevation measurements obtained during RI activities suggests that a groundwater divide oriented northeast-southwest is present between off-site sentinel wells SW-2 and SW-4 and south of on-site monitoring well MW-13 (Figure 2). North of the divide, groundwater flows to the northeast toward the Rockaway River. Groundwater south of the divide flows from the site toward the southeast. A groundwater elevation contour map based on depth-to-water measurements obtained at on- and off-site monitoring and sentinel wells in May 2011 is provided on Figure 5. Well construction specifications and historical groundwater elevations obtained at site monitoring wells are presented in Table 2 and Table 3, respectively.

Hydraulic head measurements obtained from on-site monitoring well MW-4R and off-site monitoring well SW-1R (Figure 2) in 2010 and 2011 indicate a horizontal hydraulic gradient in the vicinity of the site of approximately 0.18 feet per foot (ft/ft). Based on an analysis of a time-drawdown data obtained during a 48-hour constant rate pumping test performed at recovery well RW-1 (Figure 2) in July 2000, estimated

hydraulic conductivity of the glacial till unit in the vicinity of the site ranges from 5.8 x 10^{-2} feet per day (ft/day) to 0.745 ft/day. Estimated values of transmissivity in the glacial till unit range from 2.85 square feet per day (ft^2/day) to 11.18 ft^2/day (Arcadis 2001). Estimates of the hydraulic conductivity of the glacial till unit derived based on the results of short-duration aquifer pumping tests performed at select monitoring wells in February 2017 (discussed further in Section 6.1.1) are within this range. Higher (up to 4.5 ft/day) estimates of hydraulic conductivity are derived based on February 2017 pumping tests performed at on-site monitoring wells MW-4R and MW-8 (screened within the glacial till unit); however higher values of transmissivity at these wells is likely related to sand and gravel lenses identified in the well logs. The estimated hydraulic conductivity of the deltaic deposits based on results of the pumping test performed at monitoring well MW-22 in February 2017 is approximately 48 ft/day.

2.7.1 Groundwater-Surface Water Interactions

Monitoring wells or piezometers have not been installed directly adjacent to the Rockaway River. As such, a direct comparison between groundwater elevations and the elevation of surface water within the river could not be performed however, groundwater presumably discharges to the Rockaway River, which acts as a regional discharge boundary. Concentrations of PAHs, lead, and/or benzene were detected at concentrations greater than the applicable NJDEP Surface Water Quality Standards (SWQS) and/or applicable Ecologically-Based Screening Levels (EBSLs) in samples collected from downgradient sentinel monitoring wells (Figure 2) in October 2016. Analytical results of October 2016 groundwater and surface water samples are discussed further in Section 4.4.2.

A review of historical reports indicates that a series of groundwater seeps occur along the eastern slope of the site (Atlantic 1994). Groundwater seepage along the eastern slope was not observed during a site visit conducted in December 2015 or during supplemental remedial investigation activities conducted in October 2016. Groundwater seepage, if present, and surface runoff collect in a drainage swale at the base of the slope to the northeast of the site. Water accumulating in this low-lying area drains via a culvert toward the east, underneath Route 287. As noted in section 2.5.1, a drainage outfall located south and uphill of the drainage culvert near the base of the slope to the northeast of the site appears to discharge surface runoff from Route 287. A second drainage outfall observed along the western banks of the Rockaway River northeast of the site in October 2016 was identified as a potential discharge point of the drainage culvert. The approximate location of the culvert and outfalls are shown on Figure 2.

Surface water samples SW-2 and SW-3 were collected from surface water located in the low-lying area northeast of the site by Ebasco in 1986. MGP-related constituents were not detected in these samples, however results reported laboratory method detection limits greater than applicable NJDEP SWQS and/or applicable EBSLs for several VOC and SVOC compounds, including PAHs. Additional evaluation of the drainage features northeast of the site, potential contributions of constituents from Route 287 runoff, and groundwater discharge to surface water via seepage along the slope northeast of the site and direct discharge to the Rockaway River will be evaluated as part of pre-design investigation (PDI) activities discussed further in Section 8.

3. MEDIA OF CONCERN

Currently the media of concern associated with the site include soil and groundwater. No vapor intrusion (VI) receptors have been identified (Arcadis 2016). Historical and 2016 surface water and sediment sample analytical results indicate that surface water and sediment impacts are not site-related (discussed further in section 4.4). As such, remedial action to address surface water and sediment impacts in the Rockaway River east of the site and associated ecological receptors is not warranted. Remedial actions proposed in this RAWP are aimed at mitigating the potential exposure of receptors to site-related constituents of concern in soil and groundwater at concentrations above the applicable ecological or human health-based remediation criteria.

4. NATURE AND EXTENT OF IMPACTS

RI activities were conducted at the site from the 1980s to 2016 to characterize the nature and extent of site-related environmental impacts. Implementation and results were described in previously submitted historical reports and summarized in the RIR (Arcadis 2016) submitted in May 2016. The nature and extent of site-related impacts is summarized in the sections below.

4.1 Soil

To date, multiple soil remedial investigations have been conducted at the site and surrounding properties, including a total of approximately 56 soil borings, 3 excavation trenches, and 23 test pits advanced to characterize and delineate site-related soil impacts. Soil samples were screened for total VOCs using a photoionization detector (PID), visual and olfactory evidence of MGP-related impacts, and analyzed for VOCs, base-neutrals, metals, phenolics and/or cyanide. A summary of soil RI results is presented on Table 4.

4.1.1 MGP Product and Residual Product in Soil

Visual and olfactory evidence of MGP product and residuals including observations of a free product, sheen, coal tar residue, soil staining and coal tar odors were reported. The extent of MGP product and residuals in soil based on previous RI activities is shown on Figure 6. Based on the observed distribution of MGP product and residuals and the orientation of groundwater flow (Figure 5), facilities related to former MGP operations at the site (Figure 3) are likely the source of MGP-related soil impacts. MGP-product or residual was historically observed at various depths ranging from 0.5 feet bgs (TP-7) to approximately 70 feet bgs (D-13) (Figure 6).

Results of historical (1988 to 1996) RI activities indicate that the presence of free product was limited to the western portion of the site (locations TW-1, TW-2, TP-1, B-3/MW-3, D-13, and TP-7) and areas southeast of the site (locations B-22A, TP-B) (Figure 6). MGP residuals in soil extend off-site from the area of former MGP structures to the southeast to former monitoring well MW-19 and former monitoring well/soil boring B-14/MW-14, to the north to soil boring/monitoring well B-2/MW-2, and to the northeast property boundary to monitoring wells MW-8 and MW-20 (Ebasco 1986, Ebasco 1988, RETEC 1996) (Figure 6). MGP product or residual was not observed in soil during the installation of sentinel wells and soil borings southeast of MW-19 and B-14/MW-14 and northeast of MW-8 and MW-20 (Figure 6),

indicating that the extent of MGP product and residual in soil is delineated to the southeast and northeast of the site. Additional soil investigation activities will be performed to define the current extent of MGP product in soil will be performed as part of PDI activities discussed further in Section 8.

MGP product in soil appears to be immobile based on the limited extent and of non-aqueous phase liquids (NAPL) observed in site monitoring wells and the stability of the site-related dissolved-phase groundwater plume. The extent of NAPL in groundwater and MGP-related groundwater impacts at the site and surrounding areas is discussed further in Section 4.2.

A soil cover system (Figure 6) was installed in the vicinity of the former gas holders and oil storage UST as an interim remedial measure (IRM) to prevent exposure to shallow (less than 4 feet bgs) soil impacts. MGP product and residuals beyond the extent of the cover system are limited to depths greater than 4 feet bgs. The soil cover system is discussed further in Section 5.1.2.

4.1.2 MGP-Related Constituents in Soil

Results of soil sample laboratory analyses and field screening observations recorded during RI implementation indicate the presence of site-related constituents including PAHs, naphthalene, and to a lesser extent, benzene, cyanide, and lead at concentrations greater than the current NJDEP Non-Residential Direct Contact Soil Remediation Standards (NRDCSRS), Residential Direct Contact Soil Remediation Standards (RDCSRS) and/or the Impact to Groundwater Soil Screening Levels (IGWSSL). Results of previous soil RI activities are summarized in Table 4. The extent of MGP-related constituents in soil at concentrations greater than the NRDCSRS and/or RDCSRS based on results of the RI is shown on Figure 7A. The extent of MGP-related soil impacts at concentrations greater than the IGWSSLs within the unsaturated zone is shown on Figure 7B.

Historical on-site soil sample analytical results indicate that concentrations of metals (except lead) and phenolics in soil are below the applicable SRSs, below laboratory method detection limits, or within regional background concentrations (Ebasco 1986).Lead was detected at a concentration (424 milligrams per kilogram [mg/kg)greater than the RDCSRS in one sample collected at location TB-4 (Figure 7A), advanced in the southeastern portion of the property at a depth of 64 to 66 feet bgs (within the saturated zone). The highest concentrations of PAHs and naphthalene were detected in shallow (upper 2 feet bgs) samples collected from test pits TR-2, TR-3, and TP-5 (Figure 7A), located in the vicinity of former MGP structures. Concentrations of PAHs greater that the NRDCSRS were detected in samples collected from one off-site soil boring location (B-2/MW-2, Figure 7A), located north of the site. MGP-related constituents, including PAHs, naphthalene, BTEX compounds, and/or cyanide were detected at concentrations greater than the IGWSSLs in unsaturated zone soil samples collected on- and off-site (Figure 7B).

PAHs were detected in soil at concentrations greater than the RDCSRS and IGWSSL in off-site soil sample A7 (1 to 1.5 feet bgs) (Figures 7A and 7B); however based on the location of this sample relative to the area of MGP structures, the locations of samples to the south and southwest of A7 reporting PAH concentrations below the SRSs, and the presence of drainage feature in proximity to A7 that potentially discharge surface runoff from Route 287, detected PAH concentrations greater than the RDCSRS and IGWSSL in sample A7 are likely not site-related. Additional evaluation of the drainage features in this area and potential contributions of PAHs from Route 287 will be included in PDI activities discussed further in Section 8.

As reported in the 2016 RIR (Arcadis 2016), site-related constituents are horizontally and vertically delineated to the applicable remediation standards by "clean zone" soil delineation samples collected at surrounding off-site properties in accordance with the NJDEP June 2013 Policy Statement: Interpretation of SRRA Requirement to complete the Remedial Investigation by May 2014. The delineated extent of MGP-related constituents in soil at concentrations above the applicable SRSs and IGWSSLs is shown on Figures 7A and 7B, respectively. Vertical delineation of site-related soil impacts was achieved at a depth of 89.5 feet bgs at centrally located soil boring D-13 (Figure 7A).

4.2 Groundwater

Groundwater RI activities were initiated by Ebasco between 1986 and 1988 and, combined with subsequent RI activities, the RI included the installation and sampling of both on- and off-site monitoring wells (wells with a "MW" designation), downgradient and sidegradient sentinel wells (wells with a "SW" designation), and groundwater piezometers (wells with a "PZ" designation). The locations of monitoring wells, sentinel wells and piezometers are shown on Figure 2. Well construction specifications are provided in Table 2. Monitoring and sentinel wells are screened or open within the unconsolidated deposits, except for monitoring well BW-1, which was installed into bedrock beneath the site.

Numerous groundwater monitoring events have been conducted to characterize groundwater quality at and in the vicinity of the site since RI activities were initiated in the 1980s. More recently, eight consecutive quarters of groundwater sampling were conducted from September 2009 to May 2011 in accordance with the Updated Site-Specific Work Plan for Groundwater Sampling (Arcadis 2008) submitted by Arcadis, on behalf of JCP&L in November 2008.

Synoptic water level and depth to NAPL (if present) measurements were obtained at accessible on- and off-site monitoring wells during quarterly groundwater monitoring events to characterize groundwater flow in the vicinity of the site. Figure 5 presents a groundwater elevation contour map based on water-level measurements obtained during the May-June 2011 groundwater sampling event. Historical groundwater elevations at site monitoring and sentinel wells are provided in Table 3. Investigation methodology and results of quarterly groundwater monitoring conducted from September 2009 through February 2011 were reported in annual monitoring reports (Arcadis 2009, 2010, 2011) submitted to NJDEP by Arcadis on behalf of JCP&L. Implementation and results of the May-June 2011 groundwater monitoring event were reported in the RIR (Arcadis 2016). A supplemental round of groundwater sampling (discussed below in Section 4.4) was conducted in October 2016 to obtain more current groundwater quality data and establish baseline conditions prior to implementing remedial actions.

Site-related constituents of concern (COCs) in groundwater include PAHs, naphthalene, benzene, xylenes, lead and cyanide. Metals including aluminum, sodium, manganese, and iron have also been detected at concentrations greater than the NJDEP GWQS in samples collected from on- and off-site monitoring and sentinel wells, however, these constituents are attributed to naturally occurring background concentrations, potential off-site influence from historic fill, and/or surface runoff from Route 287 and local roadways near the site and are not considered to be related to historical MGP operations (Arcadis 2016). Analytical results of groundwater samples collected at on- and off-site monitoring and sentinel wells from September 2009 to October 2016 are summarized on Figure 8.

As stated in Section 2.7, groundwater containing MGP-related compounds was encountered in a trench during the excavation and installation of a storm sewer in the median of Route 287 in 1993. The groundwater was confined to a 3-foot wide send lens within the unsaturated zone suggesting the that channelized perched groundwater conditions occur in areas southeast of the site. (Atlantic Environmental Services, Inc. 1994). Perched groundwater may act as a migration pathway for dissolved phase MGP-constituents on the unsaturated zone. A groundwater recovery trench system (discussed further in Section 5.3.1) was installed along the median of Route 287 in 1994 to contain impacted groundwater in this perched zone southeast of the site. The Route 287 recovery trench system is no longer operable due to deteriorated infrastructure and negligible groundwater recovery.

Based on analytical results of groundwater samples collected during the May-June 2011 and October 2016 groundwater monitoring activities, xylenes, MGP-related SVOCs, lead and cyanide in groundwater at concentrations above the GWQS are horizontally and vertically (by BW-1) delineated. Figure 9 shows the extent of benzene, benzo(a)anthracene (considered representative of the overall distribution of PAHs in groundwater) and lead in groundwater at concentrations greater than the NJDEP GWQS. Based on analytical results of groundwater samples collected in February and May 2011, benzene in groundwater was delineated to the GWQS except to the southeast of the site, where the concentration of benzene in the sample collected from sentinel well SW-10 (1.2 micrograms per liter [µg/L]) in May 2011 marginally exceeds the GWQS of 1 µg/L. Based on the distribution of benzene in groundwater, decreasing concentration gradients observed between SW-10 and upgradient monitoring wells, and that an active groundwater recovery system (discussed further in Section 5.1.3) is operating at the site, low-level benzene concentrations detected in sentinel SW-10 are expected to decrease to the GWQS before reaching surface water receptors. Based on groundwater sample analytical results obtained in February and May 2011, PAHs and lead were delineated to the GWQS. Analytical results of groundwater samples collected during the October 2016 supplemental groundwater monitoring event are discussed below in Section 4.4.

4.2.1 Non-Aqueous Phase Liquids

Light NAPL (LNAPL) and Dense NAPL (DNAPL) have historically been observed in on-site monitoring wells MW-3 and MW-5 (Figure 2). LNAPL and DNAPL were observed at a maximum apparent thickness of 3.14 feet (MW-5) and 1.05 feet (MW-3), respectively during RI activities completed from 2000 through 2011. NAPL thickness measurements obtained at monitoring wells MW-3 and MW-5 during groundwater RI activities conducted from 2000 through October 2016 are summarized in Table 5. DNAPL has not been detected in MW-3 or MW-5 since 2002. Overall decreasing trends in LNAPL thickness in MW-3 and MW-5 are observed. An oil-absorbent sock deployed in monitoring MW-5 to recover LNAPL from the well was replaced most recently during site reconnaissance activities conducted in December 2015. The absorbent sock was not saturated with NAPL after having remained in MW-5 since 2011.

During the most recent sampling/gauging event conducted in October 2016, no measurable product was observed at MW-5, however a sheen was observed on the exterior surface of the bailer used to confirm the presence of NAPL in the well. MW-3 could not be located during the October 2016 monitoring event due to obstructions related to current site operations. However, measurable LNAPL has not been observed in MW-3 since March 2010.

As reported in the RIR (Arcadis 2016), results of NAPL bail-down testing conducted at monitoring wells MW-3 and MW-5 in July 2000 indicated that the actual thickness of LNAPL in the vicinity of MW-5 was 0.09 feet (approximately 21% of the apparent thickness). Results of DNAPL bail-down testing indicated an estimated actual DNAPL thickness of 0.06 feet (approximately 6% of the apparent thickness). Laboratory analytical results of a sample of recovered LNAPL (MW-5) and DNAPL (MW-3) collected following bail-down testing indicate that the kinematic viscosity of the sample from MW-5 was 10.61 centistokes (cSt) and was 40.06 cSt for the sample from MW-3. Density, recorded as specific gravity of the LNAPL and DNAPL samples, were 0.9531and 1.388, respectively (Arcadis 2001).

4.3 Surface Water and Sediment

Surface water sediment remedial investigation activities were initially conducted by Ebasco as part of Phase I and Phase II investigation activities conducted in the mid-1980s. Surface water sampling methodology and results are detailed in the Task 3 Report, Field Investigation Results (Ebasco 1986) and the Task 3 Report, Phase II Field Investigations (Ebasco 1988) and are summarized in the 2016 RIR (Arcadis 2016). The approximate locations of historical surface water and sediment samples are shown on Figure 10.

Surface water samples SW-1, SW-2, SW-3 and SW-7 and sediment sample SE-7 were collected from the drainage area in the northern portion of the site and northeast of the property boundary as part of water and sediment investigation activities conducted in the 1980s. Surface water samples SW-4, SW-5 and SW-6 and sediment samples SE-4, SE-5 and SE-6 were collected from the Rockaway River. Samples SE-4 and SW-4 were obtained at a location upstream from the site to evaluate background sediment and surface water quality. Historical surface water and sediment samples were analyzed for VOCs and base neutral organic compounds. Surface water samples SW-1, SW-2 and SW-3 were also analyzed for metals, total cyanide, total phenolics, total dissolved solids, total organic carbon and specific conductivity.

Site-related constituents were not detected above the method detection limits in historical surface water samples. For some compounds, the reported laboratory method detection limits were greater than the applicable NJDEP SWQS and/or applicable EBSLs. Low levels of PAHs, including benzo(a)anthracene, benzo(a)pyrene, fluoranthene, benzo(k)fluoranthene and/or pyrene, were detected in sediment samples SE-4 through SE-6 (Rockaway River) and SE-7 (drainage area). Slightly higher concentrations of PAHs were generally detected in sediment samples collected from the Rockaway River downgradient from the site (SE-5 and SE-6) than in the sample collected upstream from the site (SE-4). However, the presence of PAHs detected in sediment sample SE-4 suggest that PAH concentrations in the Rockaway River are attributed in part to off-site sources located upstream. Additional potential anthropogenic contributions of PAHs to surface water include surface runoff from Route 287, which discharges to the drainage area northeast of the site before being diverted to the Rockaway River via a drainage culvert (Figure 2), and the interaction of groundwater with historic fill material east of the site prior to groundwater discharge to the Rockaway River.

4.4 2016 Supplemental Groundwater, Surface Water and Sediment Investigation

A supplemental groundwater, surface water and sediment investigation was implemented in October 2016 to supplement data obtained during RI activities documented in the RIR (Arcadis 2016), and to evaluate potential site-related surface water and sediment impacts to the Rockaway River and associated ecological receptors. The specific objectives of the investigation were:

- To obtain surface water and sediment analytical data of greater usability and reliability compared to historical surface water and sediment sample analytical results which reported method detection limits (MDLs) greater than the applicable remediation criteria;
- To evaluate the groundwater to surface water pathway and potential discharge of site-related constituents in groundwater to the Rockaway River based on their relative concentrations in groundwater and surface water;
- To evaluate potential off-site inputs of site-related constituents to surface water in the Rockaway River east of the site;
- To obtain additional groundwater analytical data to evaluate potential changes in groundwater quality at the site relative to historical (through May 2011) groundwater data and to support the design and implementation of groundwater remedial actions proposed in this RAWP; and
- To establish baseline groundwater quality conditions to evaluate the effectiveness of future groundwater remedial actions.

The 2016 supplemental groundwater, surface water and sediment investigation included a round of synoptic water-level gauging and the collection of groundwater samples at on- and off-site monitoring wells and the collection of surface water and sediment samples from the Rockaway River. Implementation and results are summarized below.

4.4.1 Implementation and Methods

The 2016 Supplemental Groundwater, Surface Water and Sediment Investigation was implemented between October 17 and October 20, 2016. Groundwater, surface water and sediment samples were collected in accordance with the NJDEP (2005) Field Sampling Procedures Manual (FSPM) and NJDEP (2015) Ecological Evaluation Technical Guidance. Groundwater samples were collected from 14 on-site and off-site monitoring wells including MW-4R, MW-8, MW-16, MW-17, MW-18, MW-20, MW-22, and SW-4 through SW-10 (Figure 2). Due to sediment buildup and/or limited water column, a single sample was collected from monitoring well MW-22 (15-foot screened interval). Monitoring wells MW-3, MW-7 and MW-13 could not be located and were therefore not sampled. Samples were not collected from monitoring wells MW-15, MW-20, SW-1R, SW-2 and SW-3 due to apparent sediment accumulation and/or damage to the well casing. Monitoring well MW-5 was not sampled during the October 2016 sampling event due to the presence of a sheen observed on the exterior of a bailer used to bail groundwater from the well. There is currently an absorbent sock in this well to recovery LNAPL.

Groundwater samples were collected using low-flow sampling techniques in accordance with the 11 November 2008 Arcadis *Updated Site Specific Work Plan for Groundwater Sampling* (Arcadis 2008).

Multiple samples were collected from wells constructed with greater than 10 feet of well screen at a frequency of 1 sample for per 10 feet of saturated screen interval. These wells include MW-20 (35 foot screened interval), and SW-4 (15-foot screened interval). Pump placement depths are shown on the Pump Intake Depth Field Calculation Form and on the groundwater sampling purge logs provided in Appendix B.

Groundwater samples were submitted to Hampton-Clarke Veritech of Fairfield New Jersey (New Jersey Laboratory Certification ID #07071/07069) for analyses. Groundwater samples were analyzed for Target Compound List (TCL) VOCs using United States Environmental Protection Agency (USEPA) Method 8260, TCL SVOCs using USEPA Method 8270 and 8270SIM, Target Analyte List (TAL) metals using USEPA Method 6010, total phenolics using USEPA Method 420.1, and total cyanide using USEPA Method 9012 Groundwater samples collected from monitoring wells MW-8, MW-18, MW-20, and SW-4 were analyzed for total metals and field-filtered using a 0.45-micron filter for dissolved metals analysis. Analytical results of groundwater samples were compared to the NJDEP GWQS and historical groundwater analytical results to evaluate the current extent of site-related groundwater impacts and inform the design and implementation of the groundwater remedial actions proposed in this RAWP.

Though site-related constituents were not detected in historical (1980's) surface water and sediment samples, method detection limits, for select compounds, were reported above the SWQS and/or EBSLs. As such, additional surface water and sediment samples were collected to evaluate potential discharge of site-related COCs in groundwater to surface water in the Rockaway River and potential impacts to associated ecological receptors. Historical and 2016 surface water and sediment sample locations are shown on Figure 10. Surface water and sediment samples SW-4-1/SE-4-1, SW-5-1/SE-5-1, and SW-6-1/SE-6-1 were collected at the approximate locations of historical surface water and sediment samples SW-4/SE-4, SW-5/SE-5, and SW-6/SE-6, respectively. Samples SW-4-1/SE-4-1 were collected at a location upstream from the site to evaluate background sediment and surface water quality. An additional surface water and sediment sample (SW-8/SE-8) was collected to target the areas of potential mass discharge to surface water downgradient from the site.

Surface water samples were collected using a disposable Teflon bailer. Sediment samples were collected using dedicated, disposable plastic scoops from the upper 6-inches of sediment. Surface water and sediment samples were analyzed for TCL VOCs using USEPA Method 8260, TCL SVOCs using USEPA Method 8270 and 8270SIM, TAL metals using USEPA Method 6010, total phenolics using USEPA Method 420.1, and total cyanide using USEPA Method 9012. Surface water samples were analyzed for total organic carbon (TOC) using USEPA Method 9060A, hardness (calculated) using USEPA Method 6010, and total alkalinity using method SM2320B-97. Sediment samples were also analyzed for TOC using the Lloyd Kahn method (USEPA, Region II).

Analytical results of surface water and sediment samples were compared to the applicable SWQS and EBSLs and to recent and historical groundwater sample analytical results to evaluate whether potential surface water and sediment impacts are related to the site or attributable to off-site anthropogenic sources.

4.4.2 Results

Full laboratory analytical reports and electronic data deliverables (EDDs) for groundwater, surface water, and sediment samples collected in October 2016 are provided as Appendix C. Analytical results are summarized below.

4.4.2.1 Groundwater

Depth-to-water measurements obtained at on- and off-site monitoring and sentinel wells in October 2016 and calculated groundwater elevations are provided in Table 3. A groundwater elevation contour map generated based on depth to water measurements obtained October 2016 is presented on Figure 11. The orientation of groundwater flow and associated hydraulic gradients observed in October 2016 were consistent with previous gauging data, as groundwater in the vicinity of the site generally flows northeast toward the Rockaway River. Groundwater elevation data indicate that a groundwater flow divide, oriented northwest-southeast in the vicinity of monitoring wells MW-5 and SW-2. North of the divide, groundwater flows northeast toward the Rockaway River. South of the divide, groundwater flow is oriented to the southeast.

Analytical results of groundwater samples collected from on- and off-site monitoring wells in October 2016 are summarized in Table 6A through Table 6C and on Figure 8. Benzene, PAHs (naphthalene, benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene), tetrachloroethene (PCE), 1,2-dichloroethane, and metals (lead, manganese, sodium, iron, and aluminium) were detected at concentrations greater than the NJDEP GWQS in at least one sample. As stated in the 2016 RIR (Arcadis 2016), concentrations of PCE and 1,2-dichloroethane are not considered site-related based on the absence of these constituents in on-site soil samples and groundwater samples collected at upgradient on-site monitoring wells during historical and recent RI activities. Elevated levels of manganese, sodium, iron, and aluminium and other metals are likely related to runoff from Route 287 and the presence of historic fill (Arcadis 2016).

The extent of benzene, benzo(a)anthracene, and lead in groundwater at the site based on October 2016 groundwater analytical results is shown on Figure 12. The distribution of benzene and PAHs in October 2016, and the extent of these constituents in groundwater at concentrations greater than the GWQS is generally consistent with the previous (May 2011) round of groundwater sampling, suggesting that the site-related groundwater plume is relatively stable. However, benzene concentrations at sentinel well SW-4 increased to 52 µg/L relative to May 2011 (39 µg/L). The concentration of benzene at monitoring well SW-10, located downgradient of SW-4 and upgradient of the Rockaway River, decreased from 1.2 µg/L in May 2011, to 0.94 µg/L below the GWQS in October 2016. This concentration of benzene exceeds the NJDEP human health Ecological Screening Criteria for fresh water (FW-2) of 0.15 µg/L, however benzene was not detected in surface water samples collected from the Rockaway River in October 2016.

Lead was detected at a concentration of 5.9 µg/L, slightly greater than the GWQS, in the sample collected from monitoring well SW-5. Lead was not detected in the groundwater sample collected from SW-5 in May 2011. During the October 2016 supplemental investigation, a sample could not be collected from on-site monitoring well MW-13, where lead was detected at a concentration of 7.3 µg/L in May 2011, because the well was inaccessible.

4.4.2.2 Surface Water

Analytical results of surface water samples collected during the October 2016 supplemental groundwater, surface water and sediment investigation are summarized in Table 7. October 2016 surface water sample analytical results and recent sentinel well groundwater sample analytical results are summarized on Figure 13. Metals, including arsenic, cadmium, and thallium were detected in at least one surface water sample at concentrations greater than the SWQS, applicable EBSLs, and/or human health criteria. Given the presence of a mapped unit of historic fill northeast of the site, and that these constituents have not historically been detected at concentrations greater than the GWQS in site monitoring wells, concentrations of arsenic, cadmium, and thallium detected in surface water samples collected from the Rockaway River are not considered site-related.

Cyanide (total) was detected at concentrations greater than the surface water EBSL of 5.2 µg/L for free cyanide in surface water sample SW-6-1 (25 µg/L), located downgradient from the site and near the inlet to the Boonton Reservoir. A comparison of surface water sample analytical results and results of recent and historical groundwater samples collected from sentinel monitoring wells (Figure 13) suggests that cyanide detected in surface water sample SW-6-1 is related to off-site source(s). As shown in Figure 13, cyanide was not detected in samples collected from sentinel wells SW-1R, SW-2, SW-3, SW-4, SW-5, SW-6, SW-7, SW-9, and SW-10 in the most recent (October 2016 or May 2011) sample. Cyanide was detected in the sample collected from sentinel SW-8 at a concentration of 32 µg/L in October 2016. Given the location of sentinel well SW-8 relative to surface water sample SW-6-1, this concentration of total cyanide would be expected to decrease along the groundwater to surface water migration pathway due to the effects of dilution and is unlikely to result in the concentration of 25 µg/L detected in surface water at sample location SE-6-1. Cyanide was not detected in the samples collected from sentinel wells located upgradient (SW-4) and downgradient (SW-10), of SW-8, which further suggests that cyanide detected in surface water at sample location SW-6-1 is related to an off-site source. Additionally, the introduction of cyanide to surface water in the Rockaway River via groundwater discharge in the vicinity of surface water sample SW-6-1 would be expected to result in detectable concentrations of total cyanide in sediments at that location; however, cyanide was not detected in sediment sample SE-6-1.

Furthermore, the pH measured at sample location SW-6-1 was 7.33 standard units. Cyanide related to MGP facilities is typically found in the form of iron-cyanide complexes that are transported as non-reactive solutes and do not degrade readily to generate free cyanide at ambient pH conditions (Ghosh et al. 1999). As such, the comparison of total cyanide in surface water sample analytical results to an ecological benchmark for free cyanide is conservative and the observed concentration of total cyanide in the Rockaway River at surface water sample location SW-6-1 is not likely to have adverse effects on aquatic receptors. Based on the evidence that cyanide in surface water sample SW-6-1 is not related to the site as described above and given the stability of iron-cyanide complexes typically associated with MGP operations, remedial action to address potential free cyanide concentrations in surface water in the Rockaway River east of the site is not warranted.

4.4.2.3 Sediment

Analytical results of sediment samples collected during the October 2016 Supplemental Groundwater, Surface Water and Sediment Investigation are summarized in Table 8 and on Figure 13. PAHs including acenaphthene, acenaphthylene, benzo(a)anthracene, phenanthrene, and pyrene were detected in

sediment sample SE-4-1 at concentrations greater than the applicable sediment EBSLs. This sample was collected at a location upstream from the site and is not likely influenced by the discharge of groundwater impacted with site-related constituents. A such, concentrations of PAHs detected in sediment sample SE-4-1 are not considered site-related. Except for acenaphthylene, which was detected at a concentration of 0.014 milligrams per kilogram (mg/kg), these constituents were not detected in sediment samples collected from the Rockaway River downgradient from the site.

Metals, including copper, manganese, nickel, zinc, chromium, copper, and antimony, were detected in at least one sediment sample at concentrations greater than the applicable sediment EBSLs. Elevated levels of these constituents in sediments in the Rockaway River are not considered related to former MGP operations and are potentially related to the presence of a mapped unit of historic fill located northeast of the site and/or proximity to Route 287 and associated drainage features. Additionally, elevated levels of these constituents were detected in upstream sediment sample location SE-4-1, which suggests influence from an upstream source, including Route 287, upstream known contaminated sites, historic fill, and diffuse anthropogenic pollution (DAP) related to widespread industrial activities in the Town of Boonton and upstream industrialized municipalities. As part of PDI activities (discussed further in Section 8), additional background sediment samples will be collected from the Rockaway River at locations upstream to further evaluate background levels of PAHs and metals in Rockway River sediments.

Lead was detected at concentrations greater than the sediment EBSLs in each of the four sediment samples collected from the Rockaway River in October 2016. Concentrations ranged from 99 mg/kg in sample SE-5-1 to 270 mg/kg in sample SE-6-1 (Figure 13), located downgradient of the site; however, lead was detected at similar concentration (200 mg/kg) in upstream sediment sample SE-4-1 (Figure 13), suggesting a significant contribution from off-site sources located upstream. Additionally, as shown on Figure 13, the maximum concentration of lead detected in sentinel monitoring wells is 19.4 mg/kg, which was last detected at SW-1 in April 2001 prior to the implementation of low-flow sampling methodology. Lead concentrations of this magnitude in groundwater are not likely to result in lead concentrations of greater than 200 mg/kg in sediments if introduced via groundwater discharge. Furthermore, a mapped unit of historic fill is located northeast and upstream from the site and the Rockaway River likely receives surface runoff from Route 287 via a drainage culvert located near the north-eastern site boundary (Figure 13). Surface runoff from Route 287 may have historically contained elevated lead concentrations related to the historical use of leaded gasoline. Additionally, lead was not detected at concentrations greater than the applicable direct contact soil remediation standards in unsaturated zone samples collected on-site during RI activities, suggesting that there is no significant source of lead related to historical site operations.

Based on the concentrations of lead in sediments downgradient from the site relative to lead concentrations in groundwater, the presence of elevated lead concentrations upstream from the site, the likely influence of historic fill northeast of the site, and runoff from Route 287, and the absence of a site-related source of lead, lead in sediments in the Rockaway River downgradient from the site at concentrations greater than the applicable sediment EBSLs is not considered site-related. Remedial action to address sediment impacts is therefore not warranted.

4.4.3 Data Usability

Full laboratory analytical reports and EDDs associated with samples collected as part of the October 2016 Supplemental Groundwater, Surface Water, and Sediment Investigation are provided as Appendix C. Laboratory analytical data were reviewed for completeness and technical compliance and to determine the usability of the data in the evaluation of potential site-related impacts to ecological and human receptors associated with the Rockaway River east of the site. Data were reviewed in accordance with USEPA National Functional Guidelines of October 1999 (Organic Data Review) and July 2002 (Inorganic Data Review), Region II SOPs and NJDEP Technical Guidance documents, including the NJDEP (2014) Data of Known Quality Protocols (DKQP) Technical Guidance. Where applicable, the review of the data packages included assessment of the following:

- Chain-of-custody forms
- Holding times
- Blank contamination
- Spike recoveries (MS/MSD)
- Laboratory Control Samples (LCS)/Blank spikes
- Surrogate recoveries (VOCs and SVOCs)
- Calibration summaries
- Internal Standards
- Field Duplicates
- Laboratory Duplicates
- Serial Dilutions (Metals)

The review/data verification effort was performed to identify any quality control (QC) deviations which may result in the qualification of data as estimated or rejected (i.e., not usable) data. The data review indicates that analytical results of samples collected as part of the October 2016 Supplemental Groundwater, Surface Water, and Sediment Investigation are generally of acceptable quality and usable in the evaluation of potential site-related impacts to receptors associated with the Rockway River. QC deviations that require the estimation of specific data for site-related COCs are documented below. These data are qualified as estimated ("J") in Tables 6A, 6B, 6C, 7, and 8.

- The matrix spike and/or matrix spike duplicate performed on surface water sample SW-4-1 (AC94210-009) exhibited a recovery below control limits for m&p xylenes. The reported concentration of m&p xylenes (and total xylenes) associated with sample SW-4-1 (AC94210-009) should be considered estimated (biased low) but usable.
- The matrix spike and/or matrix spike duplicate performed on sediment sample SE-4-1 (AC94210-021) exhibited a recovery below control limits for SVOC constituents phenanthrene, fluoranthene, and chrysene. The reported results associated with these compounds for sample SE-4-1 should be considered estimated (potential low bias) but usable.

- Groundwater samples MW-8(38.9) (AC94275-002), MW-20 (24.1) (AC94173-002), and duplicate sample DUP 102016 (AC94275-008) required a dilution, due to the presence of elevated concentrations of target compounds, that resulted in elevated laboratory method detection limits for VOC and/or SVOC analyses. For sample DUP 102016, the surrogates associated with USEPA Method 8270 diluted below the calibration curve; therefore, no determination of extraction efficiency could not be determined. SVOC results associated with sample DUP 102016 should be considered estimated (biased low) but usable.
- Lead was detected in QC blanks (i.e., method, calibration and/or field blanks) associated with surface water samples SW-4-1 (total) (AC94210-007), SW-5-1 (total) (AC94210-005), SW-6-1 (dissolved) (AC94210-002), and SW-8-1 (total [AC94210-003] and dissolved [AC94210-004]) and blind duplicate sample BD (101816)SW (total) (AC94210-013). Lead results associated with these samples should be considered below the laboratory method detection limit (i.e., non-detect).
- The compound pentachlorophenol in groundwater samples MW-4R(38.5) (AC94275-001), MW-8(38.9) (AC94275-002), MW-16(30.1) (AC94275-011), MW-17(17.1) (AC94275-010), DUP 102016 (AC94275-008), SW-6(31.5) (AC94241-004), SW-8(31.2) (AC94241-003), SW-9(28.7) (AC94241-002), and SW-10(28.5) (AC94241-001) exhibited an initial calibration relative percent difference (RPD) greater than the control limit. Reported results for pentachlorophenol in these samples should be considered estimated but usable.

Additional QC deviations associated with reported results for compounds that are not considered related to historical MGP operations at the site were identified during the data review. These data quality issues do not affect the usability of the October 2016 analytical results in the evaluation of potential site-related impacts to ecological and human receptors associated with the Rockaway River.

4.4.4 Updated Ecological Evaluation

An ecological evaluation (EE) was submitted as part of the 2016 RIR (Arcadis 2016) to evaluate potential site-related ecological impacts at areas identified as an environmentally sensitive natural resource (ESNR). The EE was performed based on analytical results of sediment and surface water samples collected during RI activities conducted the mid-late 1980s, which do not reflect current surface water and sediment quality conditions. Method detection limits at the time of historical surface water and sediment sample analysis for several compounds, including PAHs, were greater than the applicable EBSLs. Potential site-related ecological impacts were revaluated based on analytical results of surface water, sediment, and groundwater samples collected as part of the October 2016 supplemental RI activities. An Ecological Evaluation Addendum is provided as Appendix D.

Site-related constituents of concern detected in surface water samples collected form the Rockaway River at concentrations greater than the applicable human health and/or ecological remediation criteria was limited to cyanide. As discussed in Section 4.4.2.2 and the Ecological Evaluation Addendum (Appendix D), based on 1) the conservative comparison of total cyanide concentrations to an ecological screening level for free cyanide; 2) the distribution of cyanide in groundwater and the relative concentrations of total cyanide in groundwater and surface water in the Rockaway River; and 3) the stability of iron-cyanide complexes at neutral pH conditions typically associated with MGP operations, total cyanide detected in surface water in the Rockaway River at concentrations greater than the applicable EBSL is not

considered site-related. As such, the exposure pathway between site-related groundwater impacts and ecological receptors associated with the Rockaway River is considered incomplete.

Lead and PAHs, including acenaphthene, acenaphthylene, benzo(a)anthracene, phenanthrene, and pyrene were detected in at least one sediment sample collected from the Rockaway River in October 2016 at concentrations greater than the applicable EBSL. As discussed in Section 4.4.2.3 and the Ecological Evaluation Addendum (Appendix D), based on the distribution of lead and PAHs in Rockaway River sediments and the relative concentrations of lead detected in groundwater and sediments, concentrations of acenaphthene, acenaphthylene, benzo(a)anthracene, phenanthrene, pyrene, and lead greater than the EBSL are attributed to off-site anthropogenic sources and are not considered site-related. As such, the exposure pathway for PAHs and lead in Rockaway River sediments is considered incomplete. Findings of the updated EE indicate that site-related soil and groundwater impacts are not likely to result in adverse health effects to ecological receptors associated with the Rockaway River.

5. PREVIOUS REMEDIAL ACTION MEASURES

Interim remedial measures were implemented at the site to address site-related soil and groundwater impacts identified during historical RI activities. Previously implemented remedial actions are summarized below.

5.1 Tar Well

In August 1987, remedial actions were implemented to address residual coal tar observed in the site tar well (Figure 3) during historical RI activities. Remedial actions, including the removal of approximately 2,500 gallons of tar, sludge, water and debris from the tar well, steam cleaning the tar well and backfilling the tar well with clean soil were conducted (Ebasco 1988). Following completion of the remedial measure, borings TW-1 and TW-2 (Figure 7A) were advanced to assess the extent of visible soil and groundwater impacts in the vicinity of the tar well. TW-1 was advanced through the bottom of the tar well, identified at 18 feet bgs, to a total depth of 88 feet bgs. TW-2 was advanced adjacent to and downgradient of the tar well to a total depth of 46 feet bgs. Visual examination of soil samples indicated that visible impacts were present at a depth of approximately 26 feet bgs in both borings (Ebasco 1988).

5.2 Soil Cover System

In November 1993 JCP&L installed a soil cover system in the vicinity of the former gas holders and oil UST (Figure 3) in accordance with the NJDEP-approved Boonton Site Cover System Specifications and Drawings dated 26 April 1993. Installation and cover system specifications are detailed in the 31 October 1994 *The Documentation Report for the Remedial Cover System Installation* prepared by Enserch Environmental Corporation (formerly Ebasco Services) The soil cover system included the excavation of approximately two feet of surface soil from the former relief holder adjacent to test trenches TR-2 and TR-3 (Figure 7A), followed by the installation of a permeable cover system over an area of approximately 15,000 square feet. This cover system is comprised of a geotextile liner overlain by a gravel subbase and surface course. The extent of the cover system is shown on Figure 2.

5.3 Groundwater Recovery Systems

5.3.1 I-287 Trench Recovery System

The Route 287 trench recovery system was installed in 1994 as part of an emergency response action that included the installation of a sanitary sewer extension that connected to a groundwater recovery trench located on the median of Route 287 (Figure 2) via a groundwater discharge pipe. Foster Wheeler Environmental Corporation submitted *The Documentation for the Emergency Response Action on Interstate 287* to the NJDEP on January 25, 1995 summarizing field activities (RETEC 1996). The recovery trench system consisted of two 20-foot lengths of 4-inch diameter polyvinyl chloride (PVC) horizontal well screens that were connected via manifold to a collection sump that housed two electric submersible pumps controlled by conductivity sensors (Figure 2). Groundwater from the collection sump was discharged directly to the Parsippany-Troy Hills Sanitary Sewer System, as approved by the January 7, 1995 agreement between the Township of Parsippany-Troy Hills and JCP&L. The Route 287 trench recovery system required maintenance and repair of electrical supply wiring and damaged water lines in 2001 and 2002. Once repaired, the system operated consistently until early 2004, at which time additional repairs were required. The trench recovery system operated consistently from 2004 until 2005 when further troubleshooting of the electrical supply wiring was required. Following negligible groundwater recovery in 2007 and additional unsuccessful troubleshooting efforts in 2007 and early 2008, HCR determined that the system was inoperable due to the deteriorated infrastructure. The NJDEP approved decommissioning of the system in correspondence dated 1 June 2009. Decommissioning activities were conducted by HCR in December 2009 and are detailed in *the Annual Progress Report (Reporting Period April 2009 to March 2010) – Additional CEA Investigative Activities* prepared by Arcadis on behalf of JCP&L in April 2010.

5.3.2 RW-1 Recovery Well

The RW-1 groundwater recovery system was activated in 1999 to prevent off-site migration of site-related COCs in groundwater and is currently operational. An electric submersible pump installed in RW-1 discharges to the Parsippany-Troy Hills Sanitary Sewer System. Groundwater recovery rates in the RW-1 recovery system have been variable since activation in 1999. Pumping rates associated with RW-1 are reported in the ongoing Quarterly Progress Reports for ACO compliance. The location of RW-1 is shown on Figure 2. RW-1 currently extracts groundwater at a rate of approximately 0.1 gallons per minute (gpm).

5.3.3 Classification Exception Area

Based on a review of available groundwater analytical data, a groundwater CEA was proposed as an institutional control on potential exposure to site-related groundwater impacts. The CEA was submitted as part of the 2016 RIR (Arcadis 2016) in May 2016 and is pending approval from NJDEP. The proposed CEA encompasses the site boundaries and adjacent areas to the northeast, east and southeast and was defined based on the extent of site-related COCs at concentrations greater than the NJDEP GWQS determined during the RI. The horizontal extent of the CEA is shown on Figure 9. The CEA extends vertically to the top of competent bedrock identified at a depth of 81 feet bgs (290 feet above mean sea level [amsl]) during the installation of on-site bedrock monitoring BW-1 (Figure 2). The CEA was established with an indeterminate duration based on the operation and anticipated expansion of the

groundwater recovery system. The duration and extent of the CEA will be re-evaluated based on results of ongoing groundwater monitoring activities.

6. CONCEPTUAL SITE MODEL

The site is located in a mixed-use area of Boonton/Parsippany-Troy Hills Township, New Jersey and is the former location of a MGP facility. Route 287 is located approximately 310 feet east of the site and the Rockaway River, which feeds the Boonton Reservoir to the south, is located east of Route 287. A mapped unit of historic fill is present adjacent to the site to the northeast. The Adron, Inc. facility, a known contaminated site where concentrations of benzene and cyanide in groundwater greater than the NJDEP GWQS has been reported, is present west-southwest of the site on the opposite site of Fanny Road.

The site is the location of a former MGP facility which was utilized to manufacture gas via coal gasification from 1901 to 1941. The site is currently used for storage of construction equipment, vehicular parking and storage of materials including asphalt, topsoil and firewood. Ground surface elevation in the western portion of the site is approximately 410 feet amsl. The eastern portion of the site slopes to the east to an elevation of approximately 360 feet amsl. Several areas of the site are used to stockpile materials including gravel, firewood, and asphalt and are exposed intermittently. Several drainage features including a drainage culvert and discharge outfalls observed near the base of the slope to the east of the site and along the western banks of the Rockaway River suggest potential discharge of runoff from Route 287 to the Rockaway River.

Surficial sediments at and in the vicinity of the site consist of artificial fill, deltaic sands and gravel and glacial till. The artificial fill is continuous across the site and ranges in thickness from 20 to 120 feet across the site. The deltaic sand and gravel unit is discontinuous and underlies the fill in the western and southern portions of the site. The glacial till unit overlies bedrock at approximately 90 feet bgs and ranges in thickness from approximately 20 to 120 feet across the site and pinches out to the east toward the Rockaway River.

MGP product and residuals have been observed in soil during previous RI activities and MGP-related constituents have been detected in soil samples collected on- and off-site at concentrations greater than the applicable soil remediation criteria. Based on the distribution of MGP-related product and residuals (Figure 6) observed during remedial activities conducted at the site in the mid to late 1980s and 1990s, former structures associated with historical MGP operations, including the tar well and gas holders (Figure 3), have been identified as potential sources of observed site-related groundwater and soil impacts. MGP-related product or residuals have been observed at depths ranging from 0.5 to up to 70 feet bgs. The former tar well (Figure 2) was constructed to a depth of approximately 18 feet bgs. Approximately 2,500 gallons of tar, sludge, water and debris were removed from the tar well and the well was steam-cleaned and backfilled with clean soil in 1987. MGP-related product (or residuals) have also been identified in the vicinity of and downgradient of other former MGP structures at the site. MGP-related product in vadose zone soil is limited to the north-western portion of the site in the vicinity of former MGP-structures and extends off-site to the north to boring location B-2 (Figure 6). Based on the presence of LNAPL and/or DNAPL historically observed in monitoring wells MW-3 and MW-5 and the distribution of MGP product observed in previous on- and off-site soil borings (Figure 6), MGP product within the saturated zone migrated preferentially to the southeast and, to a lesser extent, to the northeast from the area of former MGP structures. DNAPL has not been detected in site monitoring wells since 2002 (Table

5) and the presence of LNAPL has been limited to monitoring well MW-5 during recent groundwater monitoring events. Based on the absence of LNAPL and DNAPL historically in other site monitoring wells, MGP product appears to be immobile. Additionally, the relative stability of the dissolved-phase groundwater plume suggests the absence of an ongoing source of NAPL in the subsurface.

Groundwater occurs in the unconsolidated deposits at approximately 30 feet bgs in the western portions of the site and at approximately 10 feet bgs in the lower-lying areas to the east. Perched groundwater occurring within sand lenses within the unsaturated zone has been observed in the area southeast of the site.

Groundwater elevation data based on depth to water measurements obtained at on- and off-site monitoring wells indicates that a groundwater divide, oriented northwest-southeast, is present in the vicinity of monitoring wells MW-5 and SW-2 (Figure 5). Groundwater north of the divide flows toward the northeast toward the Rockaway River. South of the divide, groundwater flows to the southeast. Results of aquifer pumping tests conducted in 2000 (Arcadis 2001) and February 2017 (discussed further in section 6.1.1) indicate the hydraulic conductivity of the glacial till unit ranges from 5.8×10^{-2} ft/day to 0.745 ft/day, with higher (up to 4.5 ft/day) hydraulic conductivity where lenses of sand and/or gravel are present. Based on the results of pumping tests performed at off-site monitoring well MW-22, the hydraulic conductivity of the deltaic sands and gravel is approximately 48 ft/day.

Site-related COCs, primarily PAHs, naphthalene, and benzene, have been detected at concentrations greater than the NJDEP GWQS in samples collected from on- and off-site monitoring wells. Lead is present in groundwater at concentrations greater than the GWQS in isolated areas located in the vicinity of on-site monitoring well MW-13 and off-site monitoring well SW-5. Based on the distribution of benzene and PAHs detected in groundwater (Figure 12), dissolved phase constituents migrate preferentially via advective processes to the northeast and to the southeast within the till and deltaic sands and gravel units.

Based on the concentrations of PAHs in samples collected from on-and off-site monitoring wells in October 2016 relative to groundwater analytical results obtained in February and May 2011 (Figure 9), PAH concentrations in groundwater at monitoring wells located downgradient of the MGP source area have remained relatively stable; however slightly increased concentrations of PAHs observed at downgradient sentinel wells SW-6 and SW-7 in October 2016 relative to May 2011 suggest that off-site migration of PAHs in groundwater is ongoing. Increased benzene concentrations were observed at on-site monitoring well MW-8 (northeast of the MGP source area) and off-site monitoring well SW-4 (southeast of the MGP source area) relative to May 2011, which is consistent with observed preferential groundwater flow pathways to the northeast and southeast.

Exposure pathways associated with site-related soil and groundwater impacts include direct contact with impacted soil and the discharge of groundwater containing COCs to surface water in the Rockaway River, Boonton Reservoir and wetland area northeast of the site. Based on the findings of the Receptor Evaluation (Appendix E), potential receptors include site occupants (via direct contact exposure to impacted soil) and ecological receptors associated with the wetland area northeast of the site (via direct contact) and the Rockaway River (via groundwater discharge to surface water). Based on the results of a well search performed as part of the Receptor Evaluation (Arcadis 2016), groundwater impacted by MGP operations at the site is not being utilized as a source of potable water.

There are no permanent structures located on-site or within 100 feet of groundwater VOC impacts. As such, the VI exposure pathway is not of concern.

A soil cover system (Figure 2) was installed in the area of former MGP structures to prevent direct contact with soil impacted by former MGP operations. Additionally, several areas of the site are used for the storage of materials such as wood, gravel, and asphalt and for vehicular parking. Ground surface in these areas are exposed intermittently to surface soil and downgradient surface soil from surface runoff.

The October 2016 supplemental sampling event confirmed that site-related constituents were not detected at concentrations greater than the applicable surface water quality, human health or EBSL in sediment and surface water samples collected from the Rockaway River down gradient from the site, with the exception of cyanide detected in one surface water sample and lead detected in sediment samples collected at concentrations greater than the applicable EBSLs. As discussed in Section 4.4.2, concentrations of cyanide in surface water and lead in sediments in the Rockaway River greater than the respective EBSLs is not considered site related. As such, the exposure pathway between groundwater impacted by former MGP operations and ecological receptors in and adjacent to the Rockaway River is incomplete. Based on the findings of the EE submitted as part of the 2016 RIR (Arcadis 2016), the exposure pathway associated with ecological receptors in the wetland area northeast of the site is incomplete.

6.1 Groundwater Model

A groundwater flow model was generated by Arcadis as part of an evaluation of remedial alternatives to address site-related groundwater impacts. The groundwater model was constructed using MODFLOW 88 and calibrated using public and site-specific information and data to simulate groundwater flow in the vicinity of the site. The groundwater model was used to perform a hydraulic capture zone analysis in support of the design of a potential groundwater containment system to address site-related groundwater impacts. The development, calibration and application of the groundwater model are described in the Remedial Action Selection Report prepared by Arcadis Geraghty & Miller in September 2000.

In 2017, the groundwater flow model was recalibrated using recent site data obtained during the October 2016 supplemental RI activities to better represent current site conditions. To evaluate the feasibility and design of an expanded groundwater containment system via groundwater modelling and to supplement the data obtained during the aquifer pumping test performed at recovery well RW-1 in 2000, short-duration aquifer pumping tests were performed at a subset of site monitoring wells in February 2017. Implementation and results of the February 2017 aquifer pumping tests are summarized below in Section 6.1.1. Values of hydraulic conductivity and transmissivity derived from historical and recent pumping tests were applied to the groundwater flow model and the model was used to evaluate potential recovery well locations and groundwater extraction rates required to achieve a target capture zone defined based on the extent of the site-related groundwater plume, primary dissolved phase constituent migration pathways, the presence of potentially upgradient groundwater impacts related to the Adron site, and current site conditions. Details related to the groundwater flow model recalibration and capture zone analysis performed in 2017 are described in the Groundwater Modelling Report provided as Appendix F.

Results of the capture zone analysis indicate that hydraulic containment of groundwater containing site-related constituents at concentrations greater than the NJDEP GWQS is a viable remedial alternative to

address site-related groundwater impacts beneath portions of and areas west of Route 287. Based on results of the updated groundwater model and capture zone evaluation and existing site data, hydraulic containment of NAPL and impacted groundwater coupled with monitored natural attenuation is selected as the remedy to address site-related groundwater impacts. Proposed groundwater remedial actions are discussed further in Section 7.5.

6.1.1 February 2017 Pump Tests

Short duration single-well pumping tests were performed at existing on-site monitoring wells MW-4R, MW-8, MW-16, MW-18, and MW-20 and off-site monitoring well MW-22 (Figure 2) in February 2017 to obtain additional hydraulic data to support groundwater flow modelling and evaluate hydraulic capture via a potential groundwater containment system. Pumping tests were performed using a submersible pump and pressure transducers with datalogging capabilities were used to monitor and record changes in water levels in response to pumping. Pumping rates and drawdown were manually measured periodically and pumping rates were adjusted as needed to hydraulically stress the pumping well without causing the water level in the well to decrease below the depth of the pump and pressure transducer. Due to limitations in the volume of investigation-derived waste that could practicably be staged at the site given current site operations, the wells were pumped continuously until the maximum sustainable pumping rate was achieved or until a maximum volume (approximately 50 to 100 gallons per well) of extracted groundwater was generated. The raw pressure data recorded by the pressure transducers during the February 2017 pumping tests is provided as Appendix G.

Groundwater extraction rates and changes in water level recorded during the February 2017 pumping tests were used to estimate the hydraulic conductivity and transmissivity data at the pumping well using the Theis solution for unconfined aquifers (Theis 1935). Estimated values of hydraulic conductivity and transmissivity derived from the February 2017 pumping tests are summarized in Table 9. Graphical plots of time-drawdown data are provided in Appendix G. Estimated values of hydraulic conductivity ranged from 0.09 ft/day at monitoring well MW-16 to 48 ft/day at off-site monitoring well MW-22, which is screened within the deltaic sands and gravel unit. The average estimated hydraulic conductivity for wells screened within the glacial till until (MW-16, MW-18, and MW-20) is 0.18 ft/day. The boring logs generated during the installation of monitoring wells MW-4R (4.5 ft/day) and MW-8 (1.4 ft/day), which are screened within the glacial till indicate that lens(es) of sand and/or gravel are present within the screened interval at these well locations. This likely contributed to greater achievable pumping rates observed during the pumping and higher estimates of hydraulic conductivity relative to the wells screened solely within the glacial till. Estimates of hydraulic conductivity were applied to the groundwater model and utilized in the steady-state capture zone evaluation and selection of the remedy for groundwater proposed in this RAWP.

7. REMEDIAL ACTION WORK PLAN

7.1 Remedial Action Objectives

In accordance with the TRSR, the overall objective of the remedial actions proposed in this RAWP is to ensure the protection of human health and the environment against adverse health effects associated

with potential exposure to site-related constituents at concentrations greater than applicable remediation standards. Based on the results of the RI (Arcadis 2016) and the October 2016 Supplemental Groundwater, Surface Water, and Sediment Investigation discussed in Section 4.4 and the Ecological Evaluation Addendum (Appendix D), site-related constituents at concentrations greater than the applicable remediation standards are limited to soil and groundwater. As such, the remedial actions proposed herein are focused on these media of concern.

For soil, the objective of the proposed remedial actions is to prevent direct contact with soil containing site-related constituents at concentrations greater than the applicable direct contact SRSs. This objective will be achieved through the implementation of institutional (i.e., deed notice) and/or engineering controls to the extent practicable, based on whether the applicable residential or non-residential remediation criteria are exceeded. The Impact to Groundwater pathway will be addressed via groundwater containment. For areas beyond the extent of the groundwater containment system capture zone where site-related constituents occur in soil at concentrations greater than the applicable Impact to Groundwater remediation standard or screening level, the Impact to Groundwater pathway will be addressed by restricting groundwater infiltration through the unsaturated zone via the installation of an impermeable cap, if practicable. Though MGP-product appears to be immobile, potential migration of MGP-product in the subsurface will be contained via the proposed groundwater containment system.

The objective of the remedy for groundwater proposed in this RAWP is to prevent further off-site migration of dissolved phase site-related constituents and NAPL in groundwater via hydraulic containment and to allow for natural attenuation processes to reduce concentrations of dissolved-phase constituents in groundwater downgradient of the containment system capture zone to acceptable levels prior to reaching potential receptors. The groundwater CEA established in 2016 will be maintained in accordance with N.J.A.C. 7:26C as an institutional control on the potential utilization of groundwater containing site-related constituents at concentrations greater than the GWQS for potable purposes. The proposed remedial actions to address site-related soil and groundwater impacts are described in the sections below.

7.2 Remediation Standards

Remedial actions proposed in this RAWP will be implemented to mitigate potential exposure of receptors to site-related soil and groundwater impacts identified during the RI. For site-related soil impacts, the selection, design and evaluation of the performance of remedial actions are based on a comparison of soil sample analytical results to the applicable NJDEP NRDCSRS, RDCSRS, (N.J.A.C. 7:26D, last updated September 2017), the applicable IGWSSLs or site-specific Impact to Groundwater Soil Remediation Standards (IGWSRS) and in accordance with the NJDEP (2010) Protocol for Addressing Extractable Petroleum Hydrocarbons and the requirements for addressing free and residual product in the NJDEP TRSR and the Departments related guidance. Site-specific IGWSRSs for site related constituents will be derived using NJDEP-approved methods as part of PDI activities (discussed further in Section 8). The selection, design, and performance evaluation of the groundwater remedy proposed in this RAWP are based on a comparison of groundwater sample analytical results to the applicable NJDEP GWQS outlined in N.J.A.C. 7:9C and Interim GWQS (last updated August 2016).

7.3 Technology Overview

Remedial actions to address MGP-related soil impacts, including MGP product and residuals and MGP-related constituents in soil will include containment, natural source zone depletion (NSZD), and engineering controls (i.e., cap). Site-related groundwater impacts will be addressed via hydraulic containment, manual product recovery, and monitored natural attenuation. A general overview the proposed remedial technologies is presented in the sections below.

7.3.1 Natural Source Zone Depletion

NSZD occurs when certain naturally occurring physical (volatilization, dissolution, sorption, etc.) and biological processes result in the reduction of LNAPL mass in the subsurface. These processes physically degrade LNAPL by mass transfer of chemical components to the aqueous and gaseous phases where they are biologically broken down via anaerobic and aerobic biodegradation. Used in conjunction with other remedial alternatives, such as manual product recovery and containment, NSZD can be a viable option to reduce LNAPL saturation, degrade and dissipate MGP product, and prevent further migration of LNAPL and related dissolved-phase constituents.

7.3.2 Engineering Controls

Engineering controls for soil impacts function as physical barrier between impacted soil and potential receptors within an exposure pathway. For the direct contact exposure pathway, an engineering control, such as a permeable or impermeable surface cover or locked gate or fence acts as a physical barrier to inhalation or dermal absorption. For the impact to groundwater exposure pathway, an engineering control, such as an impermeable cap is designed to prevent infiltration of precipitation and overland flow into the subsurface whereby constituents in soil could potentially be transported to groundwater.

7.3.3 Hydraulic Containment

Hydraulic containment is a technology that relies on exerting hydraulic influence on a groundwater system to control the movement and limit expansion of a zone of impacted groundwater and/or mobile product (i.e., the capture zone). This can be achieved by groundwater extraction at one or more recovery wells located downgradient of the source of groundwater impacts, thus creating a hydraulic barrier to migration of NAPL and/or dissolved phase constituents. The number of recovery wells and groundwater extraction rates required to contain the impacted groundwater is contingent on the target capture zone, the nature and extent of the groundwater impacts, the hydraulic properties of the impacted aquifer system, and the feasibility of installation, operating and maintaining the recovery wells and associated infrastructure.

7.3.4 Monitored Natural Attenuation

Monitored natural attenuation is an approach to the remediation of groundwater impacts that relies on natural physical, biological and/or geochemical attenuation processes, including biodegradation, dilution, adsorption, and/or chemical reactions to reduce concentrations of dissolved-phase organic and and/or inorganic constituents in groundwater. Source control, via active treatment, removal, or containment and a favourable geochemical environment are generally required for MNA to be an effective groundwater remedy. Groundwater monitoring using a network of monitoring wells is performed to verify that natural

attenuation processes are effectively reducing constituent concentrations to acceptable levels prior to reaching the point of potential exposure to receptors.

7.3.5 Product Recovery

NAPL recovery entails the physical removal of NAPL (LNAPL and DNAPL) from groundwater within a monitoring well. This can be achieved using various manual or mechanical methods, including the use of oil-absorbent materials, skimmers, or bailers. For manual recovery to be viable, recoverable thicknesses of NAPL must accumulate in a well.

7.4 Soil Remedial Action

Results of RI activities completed at the site indicate the presence of MGP product and MGP-related constituents and concentrations greater than the applicable NJDEP SRS in soil on-site and on surrounding off-site properties at depths of up to 70 feet bgs (Figure 6). Free product was observed in historical soil borings and test pits advanced in the vicinity of former MGP structures and areas located southeast of the site boundary. NAPL (LNAPL and DNAPL) has historically been observed in only two site monitoring wells, MW-3 and MW-5. DNAPL has not been observed in site monitoring wells since 2002 (Table 5). LNAPL was not observed in MW-3 in May 2011 (most recent measurement) and decreasing LNAPL thickness has been observed at MW-5 (only a sheen in October 2016). Free product has not been observed in soil borings and monitoring wells installed downgradient of MW-3 and MW-5 suggesting limited NAPL mobility. Additionally, the site-related dissolved-phase groundwater plume has remained relatively stable in recent years, indicating the absence of an ongoing source of mobile NAPL.

Pursuant to N.J.A.C. 7:26E-5.1(e), the person responsible for conducting the remediation is required to treat or remove free product and residual product to the extent practicable or contain free or residual product when treatment or removal is not practicable. The site is currently used for storage of construction equipment and stockpiles of materials including asphalt, gravel, and wood. Furthermore, the topography of the site and areas to the east and northeast where MGP product and related constituents at concentrations greater than the SRS were detected, are characterized by uneven terrain and/or steep slopes. As such, the removal or treatment of MGP product at depth is not practicable. MGP product in soil will be addressed via containment and NSZD.

Based on the findings of historical and recent RI activities, MGP product in the saturated zone migrated preferentially to the northeast and southeast of the MGP source area. If present, mobile MGP product will be contained via the proposed groundwater containment system described below in Section 7.5. The hydraulic capture zone associated with the proposed containment system encompasses the preferential migration pathways to northeast and southeast of the MGP source area. Immobile residual phase MGP product in soil will be addressed via NSZD.

To prevent direct contact with MGP product and site-related constitutes in shallow soils at concentrations greater than the applicable SRS, institutional and/or engineering controls will be implemented as part of the remedial action for soil. A deed notice will be established as an institutional control to prevent potential direct contact with soil containing site-related constituents at concentrations greater than the RDCSRS. Engineering controls will be implemented to the extent practicable based on the extent of site-related constituents at concentrations greater than the NRDCSRS and MGP product or residual in

shallow (0 to 2 feet bgs) soils. Additional soil delineation and/or verification sampling will be performed on-and off-site as part of a PDI (discussed below Section 8) to refine the extent of MGP product and site-related constituents at concentrations greater than the SRSs and the properties where institutional and/or engineering controls are required to mitigate the potential for direct contact with impacted soils. Site reconnaissance will also be performed during the PDI to evaluate the practicability and inform the design, construction and implementation of engineering controls.

The Impact to Groundwater (IGW) pathway will be addressed via groundwater containment and/or engineering controls (e.g., impermeable cap) if practicable. Engineering control will be implemented in areas where MGP-related constituents occur at concentrations greater than the applicable IGW screening level or remediation standard within the vadose zone and beyond the extent of the hydraulic capture zone associated with the proposed groundwater containment system (discussed further below in Section 7.5.2). Site specific IGWSRSs will be developed for site-related constituents as part of PDI activities discussed further in Section 8.

7.4.1 Institutional Controls

A deed notice will be filed with the appropriate county for all or portions of on- and off-site properties where site-related COCs have been detected at concentrations greater than the RDCSRS and/or where MGP product has been observed as an institutional control on potential exposure to impacted soil. Based on the known extent of MGP product (Figure 6) and existing soil sample analytical results reporting MGP-related constituents at concentrations greater than the RDCSRS (Figure 7A), these properties include:

Municipality	Block	Lot	On or Off-Site
Town of Boonton	105	1	On-site
Town of Boonton	105	17	Off-site
Town of Boonton	104	15	Off-site
Town of Boonton	104	15.02	Off-site
Parsippany-Troy Hills	449	3	On-site
Parsippany-Troy Hills	449	1	Off-site
Parsippany-Troy Hills	Not Applicable (NJDOT Corridor)	Not Applicable (NJDOT Corridor)	Off-site

As indicated in Section 4.1.2, based on the location of soil boring A7 (Figure 14) relative to the area of MGP structures, the locations of samples to the south and southwest of A7 reporting PAH concentrations below the SRSs, and the presence of drainage feature in proximity to A7 that potentially discharge surface runoff from Route 287, concentrations of PAHs greater than the SRSs detected in soil sample A7

are likely not site-related. Therefore, remedial action by JCP&L to address soil impacts in this area (NJDOT Corridor, Town of Boonton) is likely not warranted. Additional evaluation of the drainage features in this area and potential contributions of PAHs from Route 287 will be included in PDI activities discussed further in Section 8. Data obtained during the PDI will be used to further evaluate the need for remedial action in this area. Additionally as part of the PDI, additional soil delineation samples will be collected to supplement historical soil analytical results and evaluate he need for institutional controls at off-site properties. PDI soil delineation sampling is discussed further in Section 8.

Broad delineation of site-related soil impacts across adjacent property boundaries was achieved during the RI in accordance with the NJDEP June 2013 Policy Statement: Interpretation of SRRA Requirement to complete the Remedial Investigation by May 2014. Additional soil delineation samples will be collected as part of PDI activities (discussed further in Section 8) to refine the extent of site-related COCs in soil at concentrations greater than the RDCSRS and the presence of MGP product. These data will be used to verify which off-site properties requiring institutional and/or engineering controls to mitigate the potential for direct contact with impacted soils.

Deed notices will be established in accordance with N.J.A.C. 7:26C-7.2 and N.J.A.C. 7:26E-5,2(a)4. Monitoring associated with these deed notices will be conducted in accordance with conditions applicable to the remedial action permit outlined in N.J.A.C. 7:26C-7.7 and 7.8. A detailed log of all monitoring activities will be maintained. The log and results of all monitoring activities will be presented biennially in a monitoring report pursuant to N.J.A.C. 7:26C-7.8(b). Copies of the recorded deed notices will be provided to NJDEP in a forthcoming Remedial Action Report to be submitted in accordance with the applicable regulatory timeframes. In accordance with the NJDEP TRSR, a model deed notice is provided as Appendix H. JCP&L is aware that potential deed restrictions at on- and off-site properties are contingent upon consent by the property owner.

7.4.2 Engineering Controls

An engineering control consisting of a cap or soil cover system will be implemented at all or portions of on- and off-site properties where MGP product has been observed and/or where MGP-related constituents are present at concentrations greater than the NRDCSRS. Based on results of the RI (Figures 6 and 7A), these properties coincide with the properties where a deed notice is proposed as part of the remedial action for soil (see section 7.4.1 above) (Figure 14). However, installation of cap or soil cover system in some of these on- and off-site areas is not practicable given current property uses and/or conditions. An evaluation of the practicability of engineering controls at properties where concentrations of site-related COCs exceed the NRDCSRS will be performed as part of PDI activities (discussed further in Section 8). Information obtained during the PDI will also inform the selection and design of the engineering control to be implemented at each target property, where practicable. Delineation soil samples will also be collected during the PDI to refine the extent of MGP product and site-related constituents in soil at concentrations greater than the NRDCSRS and to verify areas requiring engineering controls to prevent potential exposure to impacted soil under a restricted use scenario.

Additionally, as part of the PDI, the existing soil cover system installed in 1994 in the area of former on-site MGP structures (Figure 3) will be evaluated for compliance with current NJDEP regulations and guidance. If compliant, additional remedial action in this area to address potential direct contact with MGP product and MGP-related constituents at concentrations greater than NRDCSRS is not warranted. Site-

specific IGWSRSs for MGP-related constituents will be developed as part of the PDI and soil sample analytical results will be compared to the site-specific IGWSRSs to evaluate the need for remedial action in this are to address the Impact to Groundwater pathway via an impermeable cap. The locations, design and construction specifications associated with engineering controls implemented to address site-related soil impacts will be presented in a forthcoming Remedial Action Report and Remedial Action Permit Application for Soil.

Monitoring associated with engineering controls will be conducted in accordance with requirements of the remedial action permit for soil, as outlined in N.J.A.C. 7:26C-7.7 and 7.8 and will include:

- Biennial preparation and submittal of a remedial action protectiveness certification form for soil.
- Periodic review of documented records for each engineering control in according to the requirements included in the deed notices.
- Periodic inspections and maintenance of each engineering control.
- Evaluation of changes in applicable New Jersey laws, regulations, or remediation standards to determine that the engineering controls remain in compliance.

A detailed log of all monitoring activities will be maintained. The log and results of all monitoring activities will be presented biennially in a monitoring report pursuant to N.J.A.C. 7:26C-7.8(b) and (c).

7.5 Groundwater Remedial Action

To achieve the remedial objectives for groundwater described in Section 7.1, hydraulic containment, LNAPL recovery (as needed), and monitored natural attenuation (MNA) are selected as remedial actions to address site-related groundwater impacts. Specifically, JCP&L will install, operate and maintain a groundwater containment system to prevent further downgradient migration of NAPL and dissolved phase constituents in groundwater at the eastern property boundary, and beneath portions of and in areas west of Route 287. The target capture zone associated with the proposed containment system is shown on Figure 15. Due to current site conditions and physical constraints, the installation, operation, and/or maintenance of groundwater recovery wells and associated infrastructure east of Route 287 is not practicable. Additionally, based on the presence of groundwater impacts at the adjacent Adron site, located west-southwest and potentially upgradient from the site, potential groundwater extraction rates associated with the groundwater containment system are limited if capturing upgradient groundwater impacts and the potential comingling of groundwater plumes is to be avoided. Thus, complete capture of the site-related groundwater plume, is not feasible. The capture zone associated with the proposed groundwater containment system will be focused on areas where LNAPL has been observed during recent groundwater monitoring activities (i.e., in the vicinity of monitoring well MW-5) and along the primary dissolved phase constituent migration pathways (i.e., to the southeast and northeast of the area of former MGP structures), preventing further offsite migration of site related groundwater impacts. MNA is selected as the groundwater remedy to address the portions of the site-related groundwater plume extending beyond the containment system capture zone (i.e., eastern property boundary/area west of Route 287 (Figure 15). Additionally, manual LNAPL recovery using oil-absorbent material will be employed if measurable (greater than 0.1 feet thick) LNAPL is observed in on-or off-site monitoring wells during proposed groundwater monitoring activities.

7.5.1 NAPL Recovery

As summarized in the 2016 RIR (Arcadis 2016), NAPL has historically been observed at on-site monitoring wells MW-3 and MW-5. Measurable NAPL thickness was not present in MW-5 during the most recent (October 2016) groundwater monitoring event. MW-3 was inaccessible in October 2016, however measurable NAPL thickness has not been observed in this well since 2002. Manual LNAPL recovery will be conducted using oil-absorbent material suspended in the well at the groundwater interface if measurable thickness of LNAPL is observed during ongoing groundwater monitoring activities.

7.5.2 Groundwater and NAPL Containment/Treatment

Results of groundwater modelling and the hydraulic capture zone evaluation (Appendix F) indicate that hydraulic containment of site-related groundwater impacts in the vicinity of monitoring well MW-5 and areas southeast and northwest of the MGP source area and west of Route 287 is feasible via groundwater extraction at recovery wells without potentially capturing groundwater impacts beneath the Adron site. This section presents a conceptual framework for the implementation of hydraulic containment based on the results of groundwater modelling. Additional pre-design activities (discussed further in Section 8) will be performed to verify modelling assumptions and support actual containment system design, construction, operation and maintenance. Following activation, additional modifications to the containment system, target groundwater extraction rates and infrastructure may be implemented based on results of groundwater performance monitoring activities and/or additional groundwater modelling.

Based on the groundwater model and capture zone evaluation, four groundwater extraction points (i.e. recovery wells) are proposed for hydraulic containment in addition to the currently operating recovery well RW-1. The projected steady-state capture zone, locations of existing and proposed recovery wells and the respective target groundwater extraction rates are shown on Figure 15. Recovery wells RW-2 and RW-3 will be installed along or near the shoulder of Route 287 to the northeast and southeast of the site, respectively. Recovery wells RW-4 and RW-5 will be installed on-site. Proposed recovery well RW-4 is located downgradient of on-site monitoring well MW-5, where NAPL has historically been observed in groundwater. The location of RW-4 was selected to achieve containment of dissolved constituents to the southeast of the MGP source area and to contain and treat the potential mobilization of NAPL in the vicinity of MW-5. Existing recovery RW-1 will be operated at an approximate rate of 0.1 gpm. Based on groundwater modelling, it is estimated that a total system groundwater recovery on the order of approximately 1.8 gpm will be required to achieve containment of groundwater within the target capture zone shown on Figure 15, with the highest yields (approximately 0.8 gpm) anticipated at the northeastern recovery well RW-2 and limited pumping rates (approximately 0.3 gpm or less) at remaining recovery wells (RW-1, RW-3, RW-4 and RW-5). Results of hydraulic testing and groundwater modelling indicate that higher pumping rates are achievable at existing and proposed recovery well locations. Extraction rates at recovery wells may be increased to expand the hydraulic capture zone based on results of groundwater performance monitoring and remedial activities at the Adron site.

A submersible pump will be installed in each newly installed recovery well. Recovered groundwater pumped from existing (RW-1) and the proposed recovery wells will be routed through a header pipe to a common discharge point and potentially treated to meet applicable effluent requirements prior to discharge to surface water. Effluent groundwater will be discharged to surface water directly via the

Parsippany-Troy Hills Township Publicly-Owned Treatment Works (POTW). Potential discharge and/or permitting requirements enforced by the POTW will be identified during forthcoming PDI activities.

Details of the design, construction, and operation of the expanded groundwater containment system and recovery well construction specifications will be included in the submittal of a Remedial Action Report and Remedial Action Permit Application for Groundwater to the NJDEP, pending approval of this RAWP and completion of PDI activities.

7.5.3 Monitored Natural Attenuation

Results of groundwater monitoring activities conducted in October 2016 indicate that benzene, PAHs, naphthalene and/or lead are present in groundwater at concentrations greater than the NJDEP GWQS at monitoring wells located outside and/or downgradient of the target capture zone associated with the proposed groundwater containment system (Figure 15).

As such, MNA is the selected remedy to address site-related groundwater impacts beyond the footprint of the containment system capture zone shown on Figure 15. By effectively managing groundwater capture at the downgradient property boundary, impacts downgradient of the groundwater containment system capture zone, including concentrations of PAHs greater than the GWQS in groundwater in the vicinity of off-site monitoring well SW-5 and the southeast portion of the benzene groundwater plume located east of Route 287 in the vicinity of off-site monitoring wells SW-2, SW-4, and SW-10, will be addressed via MNA.

In accordance with the NJDEP (2012) Monitored Natural Attenuation Technical Guidance, a minimum of eight rounds of groundwater monitoring, including four consecutive rounds of quarterly monitoring, at a subset of existing monitoring wells will be conducted to demonstrate that MNA is occurring and is effectively reducing concentrations of site-related constituents beyond the extent of the capture zone. At a minimum, groundwater samples will be collected quarterly for 2 years following activation of the groundwater containment system at monitoring wells SW-2, SW-4, SW-5, SW-10, MW-13, MW-15, MW-8, MW-16, and MW-20 (Figure 15), to evaluate MNA and monitor plume migration along the preferential migration pathways to the northeast and southeast of the site. Monitoring wells MW-2, MW-4R, MW-7, MW-16, MW-17, MW-21, MW-22, BW-1, SW-1R, SW-3, SW-4, SW-6, SW-7, SW-8 and/or SW-9 will be sampled semi-annually for two years following activation of the groundwater containment system. Groundwater monitoring will be performed annually thereafter to evaluate the performance of the overall groundwater remedy.

Groundwater samples will be analyzed for benzene, xylenes, cyanide, PAHs, lead, and/or MNA evaluation parameters, including nitrate, sulfate, manganese, iron, methane, and field parameters (oxidation reduction potential (ORP), dissolved oxygen, pH, alkalinity, temperature and specific conductivity). Samples will be collected in using the methods and procedures described in the NJDEP-approved 2008 *Updated Site Specific Work Plan for Groundwater Sampling* (Arcadis 2008) and in accordance with the NJDEP FSPM and Quality Assurance Project Plan (QAPP) provided as Appendix I.

7.5.4 Classification Exception Area

A groundwater CEA was established as part of the 2016 RIR (Arcadis 2016) as an institutional control on potential exposure to groundwater containing site-related COCs at concentrations greater than the

NJDEP GWQS. The extent of the groundwater CEA is shown on Figure 9 and was defined based on analytical results of groundwater samples collected in February and May 2011. Results of groundwater monitoring activities completed in October 2016 indicate that the extent of the CEA encompasses the current extent of site-related groundwater impacts. Therefore, no changes to the CEA boundaries are currently proposed. The CEA will remain in place as part of the remedy for groundwater until such time that concentrations of site COCs in groundwater decrease to below the GWQS. Monitoring of the CEA will be conducted in accordance with N.J.A.C. 7:26C-7. Results of groundwater monitoring will be used to:

- Evaluate changes in laws, GWQS, or regulations to determine that the CEA remains compliant.
- Determine whether there are planned changes in the 25-year water use planning horizon for the aquifer in which the CEA is located and whether those changes influence the protectiveness of the CEA.
- Identify whether there have been any actual changes in groundwater use since the last review and whether those changes influence the protectiveness of the CEA.
- Include inspections of all monitoring wells associated with the CEA and maintain a log of those inspections.
- Identify any land use disturbance that may intercept the water table within the area of the CEA.
- Assess groundwater quality by long-term semiannual and annual groundwater monitoring.

The extent and duration of the CEA will be re-evaluated periodically based on results of ongoing groundwater monitoring associated with remedial action performance monitoring and evaluation of MNA and will be adjusted as necessary to ensure the institutional control remains protective of human health and the environment. The results of groundwater monitoring activities will be presented in biennial remedial action protectiveness certification reports following submittal of a remedial action permit application for groundwater pursuant to N.J.A.C. 7:26C-7.9.

7.5.5 Groundwater Monitoring

Groundwater monitoring will be performed to evaluate the effectiveness of remedial actions. Following installation and start-up of the proposed groundwater containment system, groundwater monitoring will be initiated at a subset of monitoring wells to 1) evaluate whether MNA is occurring downgradient of the hydraulic capture zone; 2) evaluate whether the proposed containment system effectively restricts further off-site migration of site-related constituents within the capture zone; 3) monitor the potential mobilization of NAPL historically observed at on-site monitoring well MW-5; and 4) to evaluate the protectiveness of the existing groundwater CEA. Eight rounds of quarterly groundwater sampling will be performed at a subset of on- and off-site monitoring wells following activation of the proposed groundwater containment system, and prior to submittal of a Remedial Action Report and Remedial Action Permit Application for Groundwater. Proposed groundwater monitoring to evaluate MNA downgradient of the hydraulic capture zone and overall remedial action performance is described above in Section 7.5.5. Pursuant to N.J.A.C. 7:26C-7.5, a groundwater monitoring plan to evaluate the performance of groundwater remedial actions will be included as part of the Remedial Action Permit Application for Groundwater, which will be submitted in accordance with the applicable regulatory timeframes.

7.6 Permitting

Groundwater recovered by the expanded groundwater recovery system will discharged to the Parsippany-Troy Hills POTW. In accordance with N.J.A.C. 7:14A, a New Jersey Pollutant Discharge Elimination System (NJPDES) Permit Application (Form NJPDES-1) and applicable supplemental permit application forms for discharge to a sanitary sewer (discharge category codes L – Significant Indirect User [SIU], B4B – Groundwater Petroleum Product Cleanup, and BGR – General Remediation Cleanup) will be submitted the NJDEP pending approval of this RAWP and at least 180 days prior to activation of the proposed groundwater containment system. Effluent monitoring and/or treatment associated with groundwater containment system will be performed in accordance with the conditions of the NJPDES permit and applicable local, state and federal regulatory requirements.

In accordance with the NJDEP TRSR, A Remedial Action Permit Application for Soil and a Remedial Action Permit Application for Groundwater will be submitted as part of the forthcoming Remedial Action Report (RAR). Separate Remedial Action Permit Applications For Soil will be prepared for individual properties subject to remedial action in accordance with NJDEP requirements. The RAR and remedial action permit applications will be submitted in within the applicable regulatory timeframes.

8. PRE-DESIGN ACTIVITIES

Additional activities will be performed at the site and surrounding properties to support the design and implementation of the remedial action proposed herein. The data and information obtained during Pre-design activities will be shared with the project LSRP and ultimately presented in the Remedial Action Report which will be submitted in accordance with applicable regulatory timeframes. Anticipated pre-design activities are summarized below.

8.1 Monitoring Well Rehabilitation, Replacement and Sampling

During implementation of the October 2016 Supplemental Groundwater, Surface Water and Sediment investigation, groundwater samples were not collected from monitoring wells MW-3, MW-7, MW-10, MW-13, MW-15, MW-21, SW-1R, SW-2, and SW-3 because these wells were damaged or inaccessible. As part of pre-design activities, these wells will be located and inspected to determine if the well is in good condition or requires maintenance or replacement. Monitoring well inspection will include visual examination, obtaining measurements of depth to water and depth to the bottom of the well and/or video logging as needed to verify the integrity of the well or identify maintenance requirements. Maintenance will be performed as needed to restore the integrity of the well if possible. If findings of the inspection indicate that damage to the well is irreparable, the well may be replaced. Following well rehabilitation or replacement, depth to water measurements and groundwater samples will be collected at these, and potentially other existing monitoring wells to establish baseline conditions in advance of implementation of the proposed remedial actions.

8.2 Groundwater and NAPL Gauging

As part of PDI activities, a synoptic round of depth to groundwater and depth to NAPL (LNAPL and DNAPL), measurements will be obtained from site monitoring wells. The presence of measurable NAPL

has historically been limited to on-site monitoring wells MW-3 and MW-5. DNAPL has not been observed in site monitoring wells since 2002 (Table 5). Though MW-3 was inaccessible during the most recent (October 2016) groundwater gauging event, measurable LNAPL has not been observed in MW-3 since March 2010 (Table 5). Only a sheen was observed at MW-5 during the October 2016 gauging event. NAPL gauging data obtained during PDI activities will be used to confirm that mobile DNAPL is no longer present in the subsurface and that LNAPL, if present, remains localized in the vicinity of MW-5.

Additionally, JCP&L will attempt to gain access to the Adron site property to obtain depth to water measurement from Adron site monitoring wells. Groundwater elevation data obtained from Adron site monitoring wells will be sued to evaluate hydraulic gradients between the site and the Adron site and evaluate whether groundwater extraction rates and thus, the extent of the hydraulic capture zone associated with the proposed groundwater containment system can be increased without potentially drawing in dissolved constituents in groundwater associated with the Adron site.

8.3 Aquifer Pumping Tests

Aquifer pumping tests will be performed at proposed recovery well locations to verify that target pumping rates associated with the proposed groundwater containment system are achievable and sustainable and to assess the hydraulic influence of pumping. Pumping tests will be performed using a submersible pump and pressure transducers with data logging capabilities deployed in the pumping well and/or nearby monitoring wells. Drawdown and pumping data will be used to identify optimal pumping rates required at each pumping well to achieve the target capture zone and inform the design of the groundwater containment system.

8.4 Groundwater Discharge to Surface Water Evaluation

JCP&L will evaluate hydraulic gradients between groundwater downgradient from the site and surface water in the Rockaway River to verify that groundwater downgradient from the site discharges to surface water. Groundwater and surface water elevation data will be obtained from downgradient monitoring wells, surveyed surface water elevation measurements, available topographic information and/or USGS or NJGS surface water gage stations located in the vicinity of the site. Additionally as part of the PDI, potential groundwater seepage along the eastern slope of the site will be evaluated.

8.5 Drainage System Evaluation

As discussed in Section 2.5.1, a drainage culvert is present in low-lying areas northeast of the site and discharge outfalls were observed in this area and along the western banks of the Rockaway River east of the site (Figure 2) during site reconnaissance activities conducted in 2015 and 2016. The outfall observed near the northeastern site boundary likely discharges surface runoff from Route 287. Water accumulating in this low-lying area likely discharges to the Rockaway River via the drainage culvert and an outfall along the western banks of the river. The drainage system northeast of the site will be evaluated using information obtained from local municipalities, a surface geophysical survey, and/or other methods to evaluate potential contributions of PAHs and other constituents to shallow soils northeast of the site and surface water and sediments in the Rockaway River from off-site anthropogenic sources. As part of this

evaluation, samples may be collected from the outfalls, culvert, shallow soils and/or surface water and sediments in the Rockaway River.

8.6 Surface Water and Sediment Sampling

As discussed in Section 4.4, surface water and sediment samples were collected from the Rockaway River in October 2016 to evaluate potential impacts to surface water and associate ecological receptors resulting from the direct discharge of groundwater impacted by historical site operations to surface water. Total cyanide was detected in at concentrations greater than applicable surface water EBSLs in sample SW-6-1, collected from the Rockaway River at a location downgradient from the site (Figure 13). However, the concentration of cyanide in this sample is in total cyanide and the ecological benchmark for free cyanide. Though as discussed in Section 4.4.2.2, there is evidence to suggest that elevated concentrations of total cyanide in surface water at this location is related to off-site anthropogenic sources, a surface water sample at location SW-6-1 will be collected and analyzed for free cyanide to further evaluate potential cyanide impacts to surface water and in the Rockaway River and associated ecological receptors.

Concentrations of metals and PAHs detected in sediment sample SE-4-1, collected from the Rockaway River at a location upstream from the site in October 2016 indicate that elevated levels of these constituents in Rockaway River sediments are likely related off-site anthropogenic sources and are not related to the site. In accordance with the NJDEP (2015) Ecological Evaluation Technical Guidance, three to 5 background samples are recommended to evaluate potential background sources of observed sediment impacts. Additional sediment samples will be collected along the Rockway River upstream from the site to further evaluate the presence of background levels of PAHs and metals Rockaway River sediments.

Surface water and sediment samples will be collected in accordance with the NJDEP (2005) FSPM and NJDEP (2015) Ecological Evaluation Technical Guidance. Additional surface water and/or sediment samples may be collected to further evaluate potential site-related impacts to surface water and sediment in the Rockaway River and potential background sources.

8.7 Cover System and RW-1 Recovery System Evaluation

An evaluation of the RW-1 recovery system and the on-site soil cover system will be performed to determine the condition, utility and compliance status of existing remediation infrastructure. To the extent practicable, existing components of the RW-1 recovery system may be utilized in the design and construction of the proposed groundwater containment system. The soil cover system installed on-site in the vicinity of former MGP structures may be utilized as an engineering control on exposure to MGP product and related constituents if it is determined to be compliant with applicable NJDEP regulations and guidance.

8.8 Delineation Soil Sampling

Delineation soil sampling will be conducted at on-site and off-site properties to refine the extent of MGP product and site-related constituents at concentrations greater than the applicable SRS.. Sampling intervals and laboratory analyses associated with the proposed soil samples will be selected based on

previous soil samples reporting MGP product and concentrations of site-related COCs greater than the IGWSSLs, RDCSRS and/or NRDCSRS. Soil samples will be collected in accordance with the NJDEP (2005) FSPM. Analytical results of delineation soil samples will be used to determine where institutional and/or engineering controls are required to prevent direct contact with MGP product and MGP-related constituents in soils above the applicable SRS, and to evaluate the containment of free product, if present, via the proposed groundwater containment system.

8.9 Impact to Groundwater Pathway Evaluation

MGP-related constituents were detected in soil samples collected on- and off-site at concentrations greater than the applicable IGWSSLs. As discussed in Section 7.4, engineering controls will be implemented, if practicable, in areas where site-related constituents occur in vadose zone soils beyond the extent of the hydraulic capture zone associated with the proposed groundwater containment system. JCP&L will develop site-specific IGWSRSs for site-related constituents using NJDEP-approved methods (e.g. Synthetic Precipitation Leaching Procedure [SPLP] analyses, Seasonal Soil Compartment [SESOIL] modelling) in accordance with NJDEP guidance. Site-specific IGWSRSs will be used to evaluate the extent of areas requiring remedial action to address the IGW pathway. Additionally, the site-specific IGWSRSs will be used to evaluate the potential need for upgrades or replacement of the existing permeable soil cover system.

8.10 Engineering Control Evaluation

Reconnaissance activities will be performed at on- and off-site properties to evaluate the practicability of and support the design of potential engineering controls at properties where MGP-related constituents are present at concentrations greater than the NRDCSRS. Reconnaissance activities will include an evaluation of current site conditions, the extent of soil cover, and specific current site uses and operations.

9. SCHEDULE AND COSTS

The remedial activities proposed herein will be completed following approval of this RAWP by the LSRP and NJDEP. In accordance with N.J.A.C. 7:26E-5.8, implementation of remedial actions to address site-related environmental impacts is required to be completed by May 2021 (i.e., 5 years following the regulatory timeframe for completion of the RI). Pre-design activities will be initiated upon RAWP approval and will be used to inform the design and implementation of the proposed remedial actions. Groundwater monitoring to evaluate the hydraulic capture zone and MNA downgradient will be initiated following containment system activation. Modifications to the containment system design and construction specifications will be implemented as needed prior to submittal of the Remedial Action Permit Application and Remedial Action Report based on the results of groundwater monitoring. The design and construction of proposed deed notices and engineering controls to address site-related soil impacts will be completed in advance of the Remedial Action Permit Application and Remedial Action Report, which will be submitted by or before May 2021.

Preliminary cost estimates for implementation of the remedial actions and associated performance monitoring and reporting are provided in Table 10. Costs associated with remedial action implementation

are subject to change based on the findings of PDI activities and subsequent remedial action performance monitoring activities.

10. REFERENCES

Atlantic Environmental Services, Inc. 1994. Boonton Manufactured Gas Plant Site Groundwater Remediation: Work Plan for Pre-Design Activities. August 1994.

Arcadis, 2001. Supplemental Remedial Investigation and Remedial Action Selection Report. Boonton, New Jersey, Former Manufactured Gas Plant Site. 3 April 2001.

Arcadis, 2008. Updated Site Specific Work Plan for Groundwater Sampling, Boonton, New Jersey, Former Manufactured Gas Plant Site. November 2008

Arcadis, 2009. Annual Progress Report (Reporting Period April 2008 to March 2009), Boonton, New Jersey, Former Manufactured Gas Plant Site, 29 April 2009.

Arcadis, 2010, Annual Progress Report (Reporting Period April 2009 to March 2010), Boonton, New Jersey, Former Manufactured Gas Plant Site, 28 April 2010.

Arcadis, 2011, Annual Progress Report (Reporting Period April 2010 to March 2011), Boonton, New Jersey, Former Manufactured Gas Plant Site, 29 April 2011.

Arcadis, 2016, Remedial Investigation Report, Boonton Former Manufactured Gas Plant Site, Boonton, New Jersey. 3 May 2016.

Ebasco, 1985. Investigations at the Boonton Coal Gas Plant Site, Task 1 Report. December 1985.

Ebasco, 1986. Investigations at the Boonton Coal Gas Plant Site, Task 3 Report, Field Investigation Results. December 1986.

Ebasco, 1988. Investigations at the Boonton Coal Gas Site, Task 3 Report, Phase II Field Investigations. May 1988.

Ebasco, 1993. Pre-Remedial Design: Groundwater Evaluation Report for the Boonton Former Manufactured Gas Plant Site. February 1993.

MacDonald, D.D., C.G. Ingersoll, and T.A. Berger. 2000. Development and Evaluation of Consensus-Based Sediment Quality Guidelines for Freshwater Ecosystems. Archives of Environmental Contamination and Toxicology, vol. 39, 20-31 pp.

New Jersey Department of Environmental Protection. 2002. Letter to Edwin O'Brien, P.G., GPUE Energy. January 11, 2002.

New Jersey Department of Environmental Protection. 2005. Field Sampling Procedures Manual. August 2005.

New Jersey Department of Environmental Protection. 2010. Protocol for Addressing Extractable Petroleum Hydrocarbons. August 9, 2010.

New Jersey Department of Environmental Protection. 2013. Historic Fill Material Technical Guidance. April 29, 2013

New Jersey Department of Environmental Protection. 2012. Monitored Natural Attenuation Technical Guidance. March 1, 2012.

New Jersey Department of Environmental Protection. 2013. Historic Fill Material Technical Guidance. April 29, 2013

New Jersey Department of Environmental Protection. 2014. Data of Known Quality Protocols. April 2014.

New Jersey Department of Environmental Protection. 2015. Ecological Evaluation Technical Guidance. February 2015.

New Jersey Geological Survey (NJGS). 2004. Historic Fill of the Boonton Quadrangle, Historic Fill Map HFM-28. 2004

Remediation Technologies, Inc. (RETEC). 1996. Revised Remedial Action Workplan for the Boonton Former Manufactured Gas Plant Site, Phase II: Groundwater Remediation. Jersey Central Power and Light Company. July 1996.

ThermoRetec Consulting Corporation (TCC). 1999. Remedial Investigation Report, GPUE Energy. October 14, 1999.

The Louis Berger Group, Inc., 2007. Adron, Inc., Draft Phase 1 Remedial Investigation Report, Parsippany-Troy Hills, New Jersey, Remedial Investigation and Remedial Alternatives Selection Evaluation, Statewide Contract Number A-47449. February 2007

Attachment MFR-2b

JCP&L Dover Former MGP Site
2021 Mitigation Status Report

Town of Dover & Township of Rockaway
Morris County, New Jersey

Submitted to:

NJDEP Division of Land Use Regulation
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December 2021

Project No. 60390438

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State of New Jersey
Department of Environmental Protection

Revised: January 2018 Website: www.nj.gov/dep/landuse

MITIGATION PROJECT MONITORING REPORTS

CHECKLIST FOR COMPLETENESS

All mitigation sites must be monitored starting the first full growing season after the construction/planting of the mitigation project is completed and shall be monitored for five years unless a different timeframe is specified in the approved mitigation proposal. It is recommended that monitoring occur twice a year in the early spring and the fall. Below are the submission requirements for a complete monitoring report. Please read each section and place a check in the box adjacent to each requirement once completed. Please submit three paper copies of the monitoring report and one CD containing an electronic copy of the report. All monitoring reports are due to the Department no later than December 31.

Section A: All monitoring reports must include three copies of the following information

☑1. An executive summary briefly describing the mitigation project and results of monitoring.

☑ 2. The requirements and goals of the approved mitigation proposal.

☑4. The following maps and imagery, with the mitigation site and access points clearly indicated:

i. A USGS quad map,
ii. A county road map showing the location of the mitigation site, including the lot and block of the mitigation site.
iii. A copy of an aerial photograph of the mitigation site.

☑ 5. A field delineation of the wetlands at the wetlands mitigation project site, based on techniques specified in the Federal Manual for Identifying and Delineating Jurisdictional Wetlands, published in 1989, including raw data sheets from sampling points describing the vegetation present, the percent coverage of the vegetation, soil borings and location of the water table.

☑ 6. A plan showing the flagged wetlands delineation and GPS data points.

☑ 7. As-built plans which depict final grade elevations at one foot contours, plantings (including species, size, and densities), and any structures included in the approved mitigation proposal. Submit a table listing the vegetative species and quantities of each that were planted including any grasses that may have been used for soil stabilization purposes.

☑ 8. One set of color photographs depicting the mitigation site conditions and project. Photographs must be mounted on 8½ -inch by 11-inch paper and accompanied by a map showing the location and direction from which each photograph was taken. Copies of photographs are acceptable provided they are color copies. Black and white copies of photographs are not acceptable.

Section B: In addition to the information required in Section A above, all monitoring reports except the final report must include the following information

☑1. A detailed explanation of the ways in which the mitigation has or has not achieved progress towards the goals of the approved mitigation proposal including, for example, acreage of wetlands, percent vegetative cover, percent cover of invasive species, soil profile, and soil organic content. Raw data sheets should be included to support this explanation. If mitigation has not achieved anticipated progress, this report must also include a list of corrective actions to be implemented and a timeframe for completion.

☑2. Separate assessments of the planted vegetation, species that are naturally colonizing the site, and an overall assessment of vegetation coverage. These assessments shall include the location and percent coverage of each species. The data should document that the site is progressing towards 85 percent survival and 85 percent area coverage of mitigation plantings or target hydrophytes (target hydrophytes are noninvasive native species to the area and similar to ones identified on the mitigation planting plan). If the proposed plant community is a scrub/shrub or a forested wetland the permittee must also demonstrate each year with data that the woody species are thriving, increasing in stem density and height each year. To document this, the Department recommends a grid-sampling pattern across the site. There should be sufficient samples taken to accurately assess the vegetation, hydrology and soil conditions across the entire mitigation site. The location of where the samples were collected should be provided in order for the Department to confirm the consultant's findings.

☑3. Documentation demonstrating that the hydrologic regime specified in the mitigation proposal, which proves the mitigation site is a wetland, is present. The documentation shall include, as appropriate, monitoring well data, stream gauge data, photographs and/or field observation notes collected throughout the monitoring period.

☑4. Documentation on the development of hydric soils across the mitigation site. Include description of soil borings and location they were collected.

☑5. Documentation of any invasive or noxious species colonizing the site and how they are being eliminated. This should include a detailed discussion of each invasive species present, and the location and area of each species and monocultures, in addition to a sitewide assessment of the area of invasive species.

The permittee is required to eliminate either through hand-pulling, application of a pesticide or other Department approved method any occurrence of an invasive/noxious species on the mitigation site during the monitoring period. Note that application of pesticide in wetlands requires an approval from the Department's Bureau of Pesticides and Applications and must be performed by a licensed applicator.

Section C: In addition to the information required in Section A above, all final monitoring reports must include the following information:

☐1. Documentation that demonstrate that the goals of the wetland mitigation project including acreage and the required transition area, vegetative cover, percent cover of invasive species, soil profile, and soil organic content, as stated in the approved wetland mitigation proposal and the permit, have been satisfied. Raw data sheets should be included to support this demonstration.

☐2. Documentation that the mitigation site is a wetland, including a field wetland delineation of the wetland mitigation project based on the Federal Manual for Identifying and Delineating Jurisdictional Wetlands (1989) which shows the exact acreage of State open waters, emergent, scrub/shrub and/or forested wetlands in the mitigation area. Submit a plan showing the flagged wetland delineation referenced above for review and approval by the Program. The wetland line must include global positioning system data points. This documentation must also include monitoring well data, stream gauge data, relevant tidal data (when appropriate), photographs, and field observation notes collected throughout the monitoring period demonstrating the area contains hydric soils or reduction is occurring in the soil, and that the hydrologic regime specified in the mitigation proposal has been achieved.

☐3. Documentation that the wetland community comprised of the planted vegetation or targeted hydrophytes as detailed in the approved mitigation proposal and permit conditions has been achieved, or, if not yet achieved, all site indicators suggest that the site is on a positive trajectory to meeting the desired wetland plant community.

☐4. Documentation that the mitigation provided meets all applicable requirements of N.J.A.C. 7:7A-11, including that the mitigation fully compensates for lost functions and values.

☐5. Documentation that the mitigator has executed and recorded a conservation restriction for the mitigation area that meets the requirements of N.J.A.C. 7:7A-12 through the submission of the recorded conservation restriction.

Implementation of remedial action (RA) at the Jersey Central Power & Light (JCP&L) Former Dover Manufactured Gas Plant (MGP) (Site) temporarily disturbed freshwater wetlands, transition areas and vegetated riparian zone. Disturbance to these regulated areas was authorized by the New Jersey Department of Environmental Protection (NJDEP) Division of Land Use Regulation (DLUR) though issuance of the following permits:

- Flood Hazard Area Individual Permit (FHA IP, 1400-17-0003.1 FHA170001) and
- Freshwater Wetlands General Permit No. 4 (FWWGP#4, 1400-17-0003.1 FWW170001)

The permit approvals granted permission to temporarily disturb 0.01 acre of shrub/scrub/forested freshwater wetlands, 0.04 acre of freshwater wetland transition area and 0.056 acre of forested riparian zone. Mitigation for unavoidable impacts to wetlands, transition areas and riparian zone vegetation associated with the remediation is required by the permits. Copies of the permits are provided in Appendix A.

The initial plantings for the required mitigation was completed in June 2019. The mitigation goal is to establish the permit required mitigation acreage as summarized in Table E1. The objective is to have 85% survival of planted material and 85% coverage with desirable native species, as well as less than 10% coverage of invasive or noxious species.

Table E1: JCP&L Dover MGP Site – Mitigation Area Summary

Regulated Area	*Authorized Disturbance (acres)*	*Required Mitigation (acres)*	*Established Mitigation Area (acres)*
Forested/Shrub Wetland	0.010	0.010	0.010
Transition Area	0.040	0.045	0.045
Riparian Zone	0.056	0.070	0.070
Total Acreages	**0.106**	**0.125**	**0.125**

A springtime site visit was conducted on May 24th, and at this time areas were viewed qualitatively, to see what areas (if any) needed to be reseeded or if other maintenance or adaptive management measures were needed. Quantitative mitigation monitoring was conducted by AECOM personnel on September 10th, 2021.

At the conclusion of the third growing season, which is documented in this report, the overall survival rate of the trees and shrubs in the mitigation area is 97%. The percent coverage with native desirable vegetation, inclusive of herbaceous cover is approximately 91%. The percent coverage of invasive or noxious species is approximately 10%. Table E2 presents a summary of the percent survival and coverages, which serve as the metrics for determining mitigation success, for each monitoring year.

Table E2: JCP&L Dover MGP Site – Vegetation Survival and Coverage Summary

Regulated Area	Restoration Area ID	Tree/Shrub Survival (%)			Herbaceous Cover (%)			Invasive Species Cover (%)		
		2019	2020	2021	2019	2020	2021	2019	2020	2021
Forested/Shrub Wetland *	1, 2	83%	67%	100%	90%	86%	90%	5%	15%	15%
Transition Area	3, 5	91%	82%	99%	79%	95%	95%	0%	9%	9%
Riparian Zone	4, 6, 6 A/B	84%	86%	95%	63%	89%	88%	1%	6%	10%
Total		84%	82%	97%	73%	90%	91%	1%	8%	10%

* Includes Transition Area (Area 2)

Because tree/shrub survival at the conclusion of the monitoring period is above the required 85% survival rate, no replacement plantings are proposed for 2021. Survivability has been augmented through the substitution of black chokeberry (*Aronia melanocarpa)* for the unsuccessful spicebush (*Lindera benzoin*). The overall herbaceous cover has met success criteria of greater than 85% coverage at the conclusion of the 2021 growing season. Unfortunately, invasive species cover has not been met, therefore, invasive species will continue to be monitored and control measures will be implemented through 2022. In addition, to ensure that coverage requirements for desirable species continue to be met, re-seeding will be conducted to boost desirable herbaceous cover.

This report presents the results of the third annual monitoring of the mitigation area at the Jersey Central Power & Light (JCP&L) Former Manufactured Gas Plant (MGP) (Site). Mitigation was implemented following remedial action (RA) implementation at the site to address unavoidable impacts to freshwater wetlands, transition areas and riparian zone vegetation. Background and details of the mitigation performed at the site, as well as a summary of the current status of the mitigation as determined by the 2021 field monitoring, are provided.

1.1 SITE INFORMATION

In 2018, JCP&L implemented RA to address Dense Non-Aqueous Phase Liquid (DNAPL) contamination in exceedance of New Jersey Department of Environmental Protection soil and groundwater remediation standards. The selected RA was detailed in the Remedial Action Work Plan (RAWP; URS 2017) for the site, which is located in the Town of Dover and Rockaway Township, Morris County, New Jersey. The site is registered with the NJDEP Site Remediation Program, with PI# 010630 and EA ID# SUB070006.

The approximately 7.5-acre site is located in a residential/light industrial area bisected by a railroad right-of-way. The site location is illustrated on the USGS Topographic Map and Local Road Map, included as Figures 1 and 2, respectively, and is identified as Block 10202, Lots 34 and 36 in the Township of Rockaway, and Block 2313, Lot 1 and Block 2318, Lot 1 in the Town of Dover, as shown on the Tax Map, Figure 3. The railroad right-of-way, known as the Morristown and Erie Railroad and consists of Block 604, Lot 5 in Dover and Block 10202, Lot 35 in Rockaway, is included in the remedial recovery zone. All contiguous lots are owned by JCP&L, with the exception of the railroad, which is owned by Morris County. The property along East Blackwell Street which includes Block 2318, Lot 1 in Dover, and Block 10202, Lot 36 in Rockaway, was purchased from Neptune Products, Inc. by JCP&L in March 2011. Additional information concerning the history of property ownership can be found in the RAWP (URS 2017[1]).

1.2 PERMIT SUMMARY

Unavoidable disturbance to regulated areas associated with the RA was authorized by the NJDEP Division of Land Use Regulation (DLUR) through issuance of the following permits on November 9, 2017:

- Flood Hazard Area Individual Permit (FHA IP, 1400-17-0003.1 FHA170001) and
- Freshwater Wetlands General Permit No. 4 (FWWGP#4, 1400-17-0003.1 FWW170001).

[1] URS. 2017. Remedial Action Workplan, Former Dover MGP Site, Town of Dover, New Jersey. Prepared for Jersey Central Power & Light. Prepared by: URS August 2017.

1.3 MITIGATION AREA

As shown on the Wetland & Riparian Zone Mitigation Plan (Appendix B) the mitigation areas are identified within the site. Mitigation activities were completed on June 3, 2019 and were conducted in accordance with the standard conditions, plans, and specifications cited in the NJDEP permits.

The goal of the mitigation project is to establish 0.010 acre of palustrine forested/scrub-shrub wetland, 0.040 acre of vegetated transition area and 0.056 acre of vegetated riparian zone, as summarized in Table 1. Within each of these areas, the objective is to achieve a minimum of 85% survival of mitigation plantings and 85% vegetative cover with desirable native species, along with less than 10% coverage by invasive or noxious species.

The required mitigation was completed through restoration of temporarily disturbed wetland, transition area and riparian zone, as well as creation of an additional area of vegetated riparian zone. Since the remedial measures took less than six months to complete, it was considered a "temporary disturbance" to freshwater wetlands and transition areas, as defined in N.J.A.C. 7:7A-1.4. Therefore, wetland and transition areas were mitigated through restoration of the disturbed areas at a 1:1 ratio, consistent with requirements detailed at N.J.A.C. 7:7A-15.7. In accordance with the N.J.A.C. 7:13-10.2(r), temporarily disturbed riparian zone was mitigated at a 2:1 ratio. To accomplish the 2:1 mitigation ratio, in addition to restoration of the temporarily disturbed areas, riparian zone vegetation was established in an additional adjacent area. This riparian zone creation area had previously been asphalt, which was excavated to remove the impervious surface, restored to finished grade with topsoil and planted with native woody species. As shown on the Wetland & Riparian Zone Mitigation Plan (Appendix B), the forested/shrub wetland and a portion of the transition area are also located within the riparian zone. These areas were included in the calculations for 2:1 mitigation for riparian zone only.

Mitigation was accomplished by grading the disturbed areas to match pre-existing elevations and seeding and planting the disturbed areas with native species.

Table 1 summarizes the mitigation area requirements identified in the NJDEP permit, along with the mitigation areas restored:

Table 1: JCP&L Dover MGP Site – Mitigation Area Summary

Regulated Area	*Authorized Disturbance (acres)*	*Required Mitigation (acres)*	*Established Mitigation Area (acres)*
Forested/Shrub Wetland	0.010	0.010	0.010
Transition Area	0.040	0.045	0.045
Riparian Zone	0.056	0.070	0.070
Total Acreages	**0.106**	**0.125**	**0.125**

1.4 MAINTENANCE AND ADAPTIVE MANAGEMENT

This section presents a summary of the maintenance and adaptive management actions that were undertaken as a result of the prior year's monitoring effort. Note that replacement plantings took place in November of 2020. On February 23rd, 2021, a maintenance visit was conducted by the landscape contractor to inspect mitigation area coverage and overall health of the plantings. During this site visit, trees / branches that had fallen during a recent windstorm were removed and damage to a section of deer exclusion cages and fencing was repaired. Restoration plantings were evaluated and determined to be overall healthy. Invasive species, such as mugwort (*Artemisia vulgaris*), were identified in sparse quantities throughout the mitigation area and were treated in October 2021. Areas with less than 85% coverage were re-seeded in November 2021.

2.1 METHODOLOGY

For reference, each individual area restored was assigned a numeric or alpha-numeric code; the locations of each area (Areas 1&2 through 6A/B) are shown on Figure 4. Mitigation monitoring consisted of a total count of planted shrubs and trees in each area. In addition, the percent coverage of herbaceous vegetation within each restoration area was estimated. The species present were recorded, and information such as whether the species was included in the seed mix or volunteered was noted. Noxious, non-native and invasive species were noted when present, within and adjacent to the mitigation area. Species present within each area are provided in Appendix C.

Photographs taken during the monitoring are provided in Appendix D. Figure 4 shows the location and direction of the monitoring photos.

2.2 RESULTS

Results of the 2021 monitoring for each of the individual restoration areas are presented in the remainder of this section, with a focus on vegetation survival for woody plantings and percent cover for herbaceous species. Herbaceous species within each planting area were identified and the percent cover for dominant species was estimated; these data were recorded on the data sheets in Appendix C.

No changes were made to elevation, grades or pre-existing hydrologic inputs to wetlands as a result of the remedial action or mitigation. Hydrology is associated with stormwater runoff, predominantly from Block 2318, Lot 1 and the railroad right of way. There have been no changes to hydrologic inputs as a result of the remedial action or mitigation.

2.2.1 Vegetative Cover

Areas 1 and 2 – Wetland and Transition Area

A total of four (4) trees and eight (8) shrubs were planted in Areas 1&2. During the September 2021 monitoring event, all four (4) trees, and all eight (8) shrubs were alive and healthy.

Plantings on the side slopes of the wetland ditch had approximately 90% herbaceous cover, with approximately 30% consisting of species present in the seed mix including black-eyed Susan (*Rudbeckia hirta*), swamp milkweed (*Asclepias incarnata*), common rush (*Juncus effusus*), and partridge pea (*Chamaecrista fasciculata*). Other native species present that were not included in the applied seed mix were dotted smartweed (*Persicaria punctata*), common cocklebur (*Xanthium strumarium*), and bottlebrush sedge (*Carex hystericina*). In addition, the non-native, invasive species purple loosestrife (*Lythrum salicaria*) was present along the southern bank, with approximately 15% coverage. In addition, Japanese knotweed *(Polygonum cuspidatum*) was noted as present adjacent to the mitigation area.

Area 3 – Transition Area

A total of seven (7) trees and thirteen (13) shrubs were planted in Area 3. During the September 2021 monitoring event, all twenty (20) plantings were alive and healthy in part due to the replacement of spicebush (*Lindera benzoin*) with black chokeberry (*Aronia melancarpa*).

Herbaceous cover was approximately 96%. Several herbaceous species that were included in the seed mix were present, including Virginia wildrye (*Elymus virginicus*), black-eyed Susan, false sunflower (Heliopsis *helianthoides)* and partridge pea. Other native herbaceous species present include common evening primrose (*Oenothera biennis*). Invasive, non-native species mugwort and Queen Anne's lace (*Daucus carota*) were also present, covering approximately 10% of the restoration area.

Area 4 – Riparian Zone

A total of eight (8) trees and nineteen (19) shrubs were planted in Area 4, with twenty-six (26) plantings found alive and healthy during the September 2021 monitoring event (96% survival). Mortality was observed in one (1) of the two (2) remaining spicebush plants (2 were replaced in 2020 with black chokeberry).

Herbaceous cover was approximately 86%, including approximately 10% coverage of mugwort, an invasive species. Herbaceous vegetation present that was in the seed mix included common switchgrass (Panicum *virgatum*), Virginia wildrye, black-eyed Susan, and partridge pea. Other species present in the herbaceous layer include evening primrose and yellow Indian grass (*Sorghastrum nutans*).

Area 5 – Riparian Zone / Transition Area

A total of thirteen (13) trees and twenty-three (23) shrubs were planted in Area 5, with thirty (35) plantings found alive and healthy during the September 2021 monitoring event (97% survival). Mortality was observed in one (1) of the four (4) remaining spicebush. Four (4) spicebush were replaced with black chokeberry in November 2020.

Herbaceous cover was observed in two sections, north of the fence and south of the fence, with an average cover of 94%. 89% coverage was observed in the northern area and 98% in the southern. Herbaceous vegetation present within both areas that was included in the applied seed mix were black-eyed Susan, Virginia wildrye, common switchgrass and common boneset (*Eupatorium perfoliatum*). Additional native species present include deer tongue (*Dichanthelium clandestinum*), American burnweed (*Erechtites hieraciifolius*) and beggartick (*Bidens frondosa*). Mugwort comprised approximately 5% of both areas, with butter-and-eggs (*Linaria vulgaris*) present at approximately 5% within the north area.

Area 6 – Riparian Zone

A total of six (6) trees and eleven (11) shrubs were planted in Area 6, with sixteen (15) plantings found alive during the September 2021 monitoring event (88% survival). Two (2) of the three (3) planted spicebush did not survive.

Herbaceous vegetation present included devil's beggartick and unidentified grasses. Tree-of-heaven (*Ailanthus altissima*) saplings, a non-native and invasive plant, is present in about 10% of the area. Oriental bittersweet (*Celastrus orbiculatus*), common yarrow (*Achillea millefolium*), and Canada thistle (*Cirsium arvense*) were also present with approximately 8% coverage. This area has the lowest overall herbaceous cover at 79%, however this is up significantly from the 10% cover recorded in 2020.

Area 6 A/B – Riparian Zone

A total of eleven (11) trees and twenty-one (21) shrubs were planted in Area 6 A/B, with all thirty-two (32) plantings found surviving during the September 2021 monitoring event (100% survival). This includes the four (4) black chokeberry that were planted to replace spicebush at the end of the 2020 growing season.

Herbaceous cover throughout Area 6 A/B was 99%. A portion of this area consisting of broadleaf cattail (*Typha latifolia*), dotted smartweed and rice-cut grass (*Leersia oryzoides*) may be indicative of the wet conditions present during the 2021 growing season. Herbaceous species observed from the seed mix include common switchgrass, common rush, common boneset and Virginia wildrye. Mugwort was present in about 2% of the drier portion of the site with Japanese knotweed noted outside of the area.

Table 2: Restoration Area Summary – 2021

Mitigation Area	Trees/Shrubs % Survival	Herbaceous % Cover
Area 1 & 2	100	90
Area 3	100	96
Area 4	96	86
Area 5	97	94
Area 6	88	79
Area 6A/B	100	99
Overall	97	91

2.3 MAINTENANCE AND MANAGEMENT

Due to an increased survival rate due to the replacement of spicebush with black chokeberry, no replacement plantings are proposed for the 2021 monitoring season. However, an herbicide treatment was applied to non-native invasive plants on October 19, 2021 under supervision of AECOM personnel. This work was completed under permit by a licensed applicator. Mugwort, Japanese knotweed, to a lesser extent purple loosestrife among others, were treated throughout the site and will continue to be monitored and treated as needed. In addition, additional seed mix was applied to areas with less than 85% coverage, specifically Area 6. All areas will continue to be monitored for overall coverage and survival and the need for additional seed application in the spring of 2022.

During the September 2021 monitoring event and a subsequent site visit for herbicide application, several spotted lanternfly (*Lycorma delicatula)* were noted within the site. Spotted lanternfly is an invasive pest that has recently spread to New Jersey from Pennsylvania and is becoming a widespread nuisance. They were concentrated on a tree-of-heaven, the preferred host plant, adjacent to Area 3. Their presence will continue to be monitored and impact on the mitigation site evaluated.

3.1 CONCLUSIONS

The overall survival rate for trees and shrubs in all the mitigation areas observed during the September 10, 2021 monitoring event was 97%, therefore no replacement plantings were done in 2021. Survivability was augmented through the substitution of black chokeberry for the spicebush in prior years. The average percent coverage with herbaceous vegetation for all the mitigation areas was approximately 91%. Aerial percent cover for the tree/shrub layer was not estimated as the success of planted woody species is based on survival. The average percent coverage of invasive or noxious species was 10%.

Table 3 presents a summary of the percent survival and coverages, which serve as the metrics for determining mitigation success, for each monitoring year.

Table 3: JCP&L Dover MGP Site – Vegetation Survival and Coverage Summary

Regulated Area	*Restoration Area ID*	*Tree/Shrub Survival (%)*			*Herbaceous Cover (%)*			*Invasive Species Cover (%)*		
		2019	2020	2021	2019	2020	2021	2019	2020	2021
Forested/Shrub Wetland *	1, 2	83%	67%	100%	90%	86%	90%	5%	15%	15%
Transition Area	3, 5	91%	82%	99%	79%	95%	95%	0%	9%	9%
Riparian Zone	4, 6, 6 A/B	84%	86%	95%	63%	89%	88%	1%	6%	10%
Total		84%	82%	97%	73%	90%	91%	1%	8%	10%

* Includes Transition Area (Area 2)

In late September 2021, the township of Dover issued a warning to the site for unmaintained property. This resulted in some of the mitigation areas being mowed by the property owner. As there are deer exclusion cages around all of the planted trees and shrubs, none of the planted materials were damaged, mowing/weed wacking was done only in herbaceous areas visible from East Blackwell Street (i.e., Areas 5, 6, &6A/B). Because the mowing was done only in herbaceous cover areas, no permanent damage to the mitigation areas occurred. Inadvertently, mitigation signage was not installed at the completion of planting in 2019. Signs are in the process of being installed on site to notice that the site is a Riparian/Wetland Mitigation Area, and mowing, cutting, removal of plant material and use of all-terrain vehicles is prohibited. Thus, vegetation maintenance/mowing of the mitigation areas will be avoided in the future.

3.2 RECOMMENDATIONS

Other than applying additional seed mix within the lower herbaceous coverage areas, there are currently no maintenance recommendations for spring 2022. Monitoring events will be scheduled for early spring 2022 and fall 2022 to access the overall survival and coverage and determine the

need for maintenance/management measures, such as any additional plantings, seeding or herbicide application that may be required. As stated in Section 2.3, ongoing herbicide application is expected to be required for invasive species control, and the effect of the spotted lanternfly on the site will continue to be monitored. Tree-of-heaven within the mitigation areas will be cut and removed to minimize attractants for the spotted lanternfly.

FIGURES

Attachment MFR-2c

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Technical Memorandum

Prepared for: Jersey Central Power & Light Company

Project Title: Newton II Former MGP Site

Project No.: 155834.100.004

Technical Memorandum

Subject: Supplemental Subsurface Investigation
Newton II Former MGP Site and John's Automotive Diagnostics & Repair
Block 9.02, Lots 3 and 4
Newton, New Jersey
Program Interest No. G000005460

Date: May 24, 2021

To: Elaine Comings, Jersey Central Power & Light Company

From: Brown and Caldwell

Peter Randazzo, LSRP
LSRP License No.: 573512

5/24/2021
Date

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Section 1: Introduction

This technical memorandum reports the results of the supplemental subsurface investigation conducted to characterize potential manufactured gas plant (MGP) residuals occurring on the southeastern portion of the Newton II Coal Gas Site (Block 9.02, Lot 3) and on the John's Automotive Diagnostics & Repair (John's Automotive) property (Block 9.02, Lot 4) in Newton, Sussex County, New Jersey. The John's Automotive property adjoins the southeast side of the Newton II Coal Gas Site, a former MGP Site at 15 East Clinton Street (Figure 1).

1.1 Background

In November 2019, during the implementation of the Newton II Coal Gas Site's Remedial Action Work Plan, a below grade steel process vessel (SPV) was encountered approximately one foot below ground surface (bgs) on the Jersey Central Power & Light Company (JCP&L) property adjacent to the border with the John's Automotive property. The rectangular SPV was constructed of riveted steel and lacked a cover. The contents of the SPV included fill soil, masonry and metallic debris, water, and non-aqueous phase liquid (NAPL) with an odor of MGP waste.

The remediation contractor removed some of the solid and liquid contents of the SPV to prepare for installation of steel sheeting in the area. After liquids were withdrawn from the SPV, the vessel partially re-filled with groundwater, indicating the walls and/or bottom of the SPV were not entirely intact. Although borings advanced during prior investigations in 2000 to 2001 did not identify MGP residuals on the John's Automotive property, the location of the SPV near the John's Automotive property line suggested a potential for MGP residuals to be present on the John's Automotive property.

In August 2020, a series of soil borings were advanced on the John's Automotive property to investigate potential MGP-related impacts. The results of the August 2020 investigation activities are documented in the October 7, 2020 Subsurface Investigation – John's Automotive Diagnostics & Repair Technical Memorandum, prepared by Brown and Caldwell (BC). The October 2020 Technical Memorandum concluded that MGP-related impacts are present on the John's Automotive property and additional investigation was required to delineate the extent of MGP-related impacts on that property. A Supplemental Investigation Work Plan dated October 26, 2020 was prepared by BC to conduct the delineation. Prior to implementation of the Supplemental Investigation, the Work Plan was modified to include an additional soil boring (SB-122) at the request of a representative of the John's Automotive property owner.

1.2 Objective of Investigation

The investigation objectives included the following:

- Delineate the extent of polycyclic aromatic hydrocarbons (PAH), including naphthalene, occurring at concentrations exceeding New Jersey Soil Remediation Standards on the John's Automotive property.
- Further delineate the extent of MGP-replated impacts in the southeastern portion of the Newton II Coal Gas Site.

Section 2: Scope of Supplemental Investigation

The investigation included the following field tasks:

- A geophysical survey within the limited area of investigation near the property boundary to identify subsurface obstructions
- Pre-clearance of boreholes to a depth of 5 feet using soft digging techniques.
- Advancement of soil borings.
- Collection and analysis of soil samples.

2.1 Utility Clearance and Location Survey

Prior to advancing soil borings on the John's Automotive property, a surface geophysical survey was conducted to confirm the absence of subsurface structures/utilities at the locations of the proposed borings. On April 13, 2021, Subsurface Environmental Technologies (SET) employed ground-penetrating radar (GPR), electromagnetic (EM), and radio frequency (RF) technologies to screen the John's Automotive soil boring locations. SET's report is provided as Attachment A. In addition, on April 13, 2021, Dennis W. Sklar, Inc. (DWS) surveyed the locations of the proposed borings on the Newton II Coal Gas Site and on the John's Automotive property.

2.2 Soil Sampling

Soil boring and sampling activities were conducted on April 14 through 16, 2021. Prior to implementing the sampling activities, the drilling contractor notified NJ One Call to request a utility mark-out. Sampling was conducted in accordance with the methods specified in the Supplemental Investigation Work Plan (BC, 2020).

Soil borings on the John's Automotive property were initially pre-cleared down to a depth of 5 feet bgs utilizing air knife and soft digging techniques to verify that subsurface utilities were not present at each boring location. Pre-clearance techniques were not used at the Newton II Coal Gas Site boring locations since those areas had previously been partially excavated and/or screened for utilities during the in-situ stabilization (ISS) remedial construction.

Continuous soil samples were collected at each boring location from the ground surface until the final depth of the boring. At boring locations that had been pre-cleared, soil samples were collected manually from the sidewall of the pre-cleared annulus for screening and logging. The remaining boring soil samples were retrieved utilizing the direct push drilling method via a Geoprobe 6620 drill rig operated by Advanced Drilling, Inc. With the exception of SB-121, each boring was installed utilizing a Dual Tube® sampling system which consists of an outer core barrel that is left in the borehole while the inner core barrel and core sleeve are retrieved after each five-foot advancement. SB-121 was installed on April 14, 2021, prior to the driller mobilizing the Dual Tube® sampling rods and was not able to achieve the target depth.

Recovered soil cores were screened with a photoionization detector (PID) for the presence of organic vapors and examined for visual evidence of contamination such as stains or sheens that could be indicative of the presence of MGP residuals. The characteristics of the recovered soils were described in accordance with a modified Burmister soil classification system and classified using the Unified Soil Classification System (USCS). Recovery percentages, observations, PID readings, soil descriptions, and other pertinent information were recorded in the field log book and transcribed to soil boring logs (Attachment B).

Soil samples chosen for chemical analysis were generally collected from a discrete 6-inch interval at the following depth ranges and submitted to Eurofins Lancaster Laboratories for the following analyses:

- John's Automotive Property Soil Samples
  - Analytical Parameters: PAHs, including naphthalene, by Unites States Environmental Agency (USEPA) Method 8270
  - Analytical Sample Intervals:
    - 0-2 feet bgs
    - Unsaturated zone just above the water table
    - One-foot zone below the water table or at a depth within the saturated zone that exhibited the highest PID measurement
    - Bottom of the borings from a depth that is just above Lodgment Till
- Newton II Coal Gas Site Soil Samples
  - Analytical Parameters: volatile organic compounds (VOCs) by USEPA Method 8260, semivolatile organic compounds (SVOCs) by USEPA Method 8270, Extractable Petroleum Hydrocarbon (EPH) Category 2 with fractionation by New Jersey Department of Environmental Protection (NJDEP) EPH Method.
  - Analytical Sample Intervals:
    - Interval that exhibited the highest PID measurement or was observed to have the greatest MGP-residual impacts
    - The first interval underlying the above sample, which did not exhibit an elevated PID measurements and where MPG-residual impacts were not observed
    - Bottom of the borings from a depth that is just above Lodgment Till

The analytical parameters chosen for each property were based on the results obtained from the prior phase of investigation. In the case of the John's Automotive property, neither VOCs nor EPH were found to exceed applicable New Jersey remediation standards in that earlier phase. As a result, these parameters were not targeted for analyses in the supplemental investigation of that property.

Based on the soil boring recovery, boring depth, field observations, the discretion of the BC field team performing sampling, and input from a representative of the John's Automotive property owner who was observing a portion of the sampling, the sample collection plan was modified slightly during the collection process to either shift a sample depth or collect an additional sample from particular borings.

Table 1 provides a summary of boring locations, sample depths, and analyses.

Each borehole was backfilled with the recovered soil cores and imported fill material provided by the driller after the completion of the borehole. Recovered soils exhibiting potential MGP-impacts were segregated and containerized in a drum staged on the Newton II Coal Gas Site. Penetrations of paved surfaces were repaired with cold-patch asphalt paving material.

Investigation-Derived Waste (IDW), including the recovered soil cores exhibiting potential MGP-impacts, personal protective equipment (PPE), used liners, and decontamination water were placed in Department of Transportation (DOT)-approved drums and were staged on the Newton II Coal Gas Site.

Section 3: Investigation Results

This section describes the indications of contamination observed during the investigation, and the results of the laboratory analyses including data validation. Boring locations are shown on Figure 2.

3.1 Deviations from Supplemental Investigation Work Plan

The following deviations from the October 2020 Supplemental Investigation Work Plan were made during the implementation of field investigation activities:

- SB-118 and SB-119: Due to access restrictions associated with the Newton II Coal Gas Site perimeter fence and a guardrail on the John's Automotive property, SB-118 and SB-119 could not be positioned in an area outside the extent of the ISS monolith. In lieu of SB-118 and SB-119, SB-123 was installed to delineate impacts near the eastern corner of the Newton II Coal Gas Site.
- SB-121 was installed utilizing a single tube direct-push drilling method which was unable to recover soils from the target depth of approximately 30 feet bgs. Of the recovered soils from SB-121, elevated PID measurements and observations of potential MGP-residuals were noted. Rather than re-install SB-121 to the target depth utilizing the Dual Tube® sampling system, SB-124 was installed as a step-out in an attempt to delineate impacts to the southwest.
- SB-122 was installed on the John's Automotive property at the request of the John's Automotive property owner.

3.2 Observation of Odor, Sheen, and NAPL

A mothball-like odor, similar to MGP tars, was noted in the soil samples from following locations and depth intervals:

- John's Automotive property:
  - SB-114: 6.6 feet bgs
  - SB-117: faint odor 8.0-10.0 feet bgs
  - SB-122: faint odor 5.0-6.5 feet bgs
- Newton II Coal Gas Site
  - SB-120: 10.2-11 feet bgs and 15.7-16.8 feet bgs
  - SB-123: 7.5-12.3 feet bgs
  - SB-124: 5.0-15.5 feet bgs

Sheens were observed in the soil samples from the following locations and depth intervals:

- John's Automotive property:
  - SB-117: slight sheen 15.0-15.5 feet bgs
- Newton II Coal Gas Site
  - SB-120: 10.2-11.0 feet bgs and 15.7-16.8 feet bgs
  - SB-121: 10-15 feet bgs
  - SB-123: sporadic sheen 7.5-10.0 feet bgs, sheen 11.4-12.3
  - SB-124: 5.0-15.5 feet bgs

Sporadic NAPL blebs were observed in the soil samples from the following locations and depth intervals:

- Newton II Coal Gas Site
  - SB-120: 10.2-11.0 feet bgs and 15.7-16.8 feet bgs
  - SB-121: 10-12 feet bgs
  - SB-124: 11.9-12.8 feet bgs and 15.0-16.5 feet bgs

3.3 Analytical Results

The validated results of the soil analyses are summarized in Table 2 and Figure 2. Results are compared to the New Jersey Residential and Non-Residential Direct Contact Soil Remediation Standards (RDCSRS and NRDCSRS). EPH results were also compared to NJDEP's default Product Limit and the NJDEP's EPH Residential and Non-Residential Site Remediation Criteria (SRC). For samples collected from the vadose zone, analytical results are also compared to the default Impact to Ground Water Soil Screening Levels (IGWSSL). Laboratory reports, prepared by Eurofins Lancaster Laboratories, are included as Attachment C. Analytical results were validated in accordance with the Site's Quality Assurance Project Plan (QAPP). A data validation summary report is included as Attachment D.

3.3.1 John's Automotive Property - PAHs

Exceedances of the RDCSRS, NRDCSRS, and default IGWSSL were detected at SB-114, SB-117, and SB-122. With few exceptions, the exceedances of the RDCSRS, NRDCSRS, and default IGWSSL were limited to the samples collected from the unsaturated zone just above the water table. The following constituents were detected at concentrations exceeding the respective standard/screening level:

- **Default IGWSSL** – benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, dibenz(a,h)anthracene, indeno(1,2,3,-cd)pyrene, and naphthalene. A default IGWSSL exceedance of benzo(a)pyrene was also detected within the SB-117 1.5-2.0 feet bgs sample.
- **RDCSRS** - benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, dibenz(a,h)anthracene, indeno(1,2,3,-cd)pyrene, and naphthalene. A RDCSRS exceedance of benzo(a)pyrene was also detected within the SB-117 15.0-15.4 feet bgs sample.
- **NRDCSRS** - benzo(a)anthracene, benzo(a)pyrene, dibenz(a,h)anthracene, and naphthalene.

No exceedances of the RDCSRS, NRDCSRS, or default IGWSSL were detected in SB-115 or SB-116.

3.3.2 Newton II Coal Gas Site

No exceedances of the NJDEP's default Product Limit (8,000 milligrams per kilogram [mg/kg]) or the NJDEP's EPH Residential and Non-Residential SRC (5,100 mg/kg and 54,000 mg/kg, respectively) were detected.

Exceedances of the RDCSRS and NRDCSRS for various PAHs were detected at SB-120, SB-123, and SB-124. With the exception of the SB-123 sample collected from 8.5-9.0 feet bgs, all samples collected on the Newton II Coal Gas Site were collected within the saturated zone.

Section 4: Conclusions and Recommendations

Delineation of MGP-related impacts on the John's Automotive property is considered complete. Soil borings SB-115 and SB-116 provide horizontal delineation of MGP-related impacts on the John's Automotive property to the southeast. Based on the soil exceedances identified at SB-117 and the results of prior off-site remedial investigations associated with the Newton II Coal Gas Site, MGP-related impacts are

3. For each of the same three MGP sites, provide all correspondence between the Company and the NJDEP concerning submissions for the site, reply comments, and other major items which have a material impact on remediation activities and associated costs incurred by the Company. The correspondence should span the twelve-months preceding December 31st of the most recent RAC period.

Response:

Copies of all Company written correspondence to or from the Licensed Site Remediation Professional (LSRP) or NJDEP for calendar year 2021, which may have a material impact on remediation activities and associated costs incurred by the Company concerning the three referenced sites, are provided as attachments. Further discussion of the use of LSRP's is included in MFR-8. They include:

Attachment MFR-3a – Boonton;

Attachment MFR-3b – Dover; and

Attachment MFR-3c – Newton II.

Attachment MFR-3a

STATE OF NEW JERSEY
DEPARTMENT OF ENVIRONMENTAL PROTECTION
WATERSHED & LAND MANAGEMENT
Mail Code 501-02A, P.O. Box 420, Trenton, New Jersey 08625-0420
Telephone: (609) 777-0454 or Fax: (609) 777-3656
www.nj.gov/dep/landuse

PERMIT

In accordance with the laws and regulations of the State of New Jersey, the Department of Environmental Protection hereby grants this permit to perform the activities described below. This permit is revocable with due cause and is subject to the terms, conditions, and limitations listed below and on the attached pages. For the purpose of this document, "permit" means "approval, certification, registration, authorization, waiver, etc." Violation of any term, condition, or limitation of this permit is a violation of the implementing rules and may subject the permittee to enforcement action.

Approval Date
May 17, 2021

Expiration Date
May 16, 2026

Permit Number(s):	**Type of Approval(s):**	**Governing Rule(s):**
1400-10-0003.2, LUP210001	FWW GP14 Water Monitoring Devices FWW GP2 Underground Utility Lines	N.J.A.C. 7:7A-1.1(a)

Permittee:

Frank Lawson
300 Madison Avenue, PO Box 1911
Morristown, NJ 07962

Site Location:

Block(s): 105; Lot(s): 1
Municipality: Boonton Town
Block(s): 449; Lot(s): 3
Municipality: Parsippany-Troy Hills
County: Morris

Description of Authorized Activities:

This document authorizes the installation of eight (8) recovery wells and a groundwater recovery pipe in association with a remedial action on the parcel(s) referenced above.

Prepared by:

Christopher Squazzo

Received and/or Recorded by County Clerk:

If the permittee undertakes any regulated activity, project, or development authorized under this permit, such action shall constitute the permittee's acceptance of the permit in its entirety as well as the permittee's agreement to abide by the requirements of the permit and all conditions therein.

This permit is not valid unless authorizing signature appears on the last page.

STATEMENT OF AUTHORIZED IMPACTS:

The authorized activities allow for the permittee to undertake impacts to regulated areas as described below. Additional impacts to regulated areas without prior Department approval shall constitute a violation of the rules under which this document is issued and may subject the permittee and/or property owner to enforcement action, pursuant to N.J.A.C. 7:7A-22

FWW GP2 Underground Utility Lines	Permanent Disturbance (Acres)	Temporary Disturbance (Acres)
Freshwater wetlands	0	0
Transition areas	0	**0.05**
State open waters	0	0

FWW GP14 Water Monitoring Devices	Permanent Disturbance (Acres)	Temporary Disturbance (Acres)
Freshwater wetlands	0	0
Transition areas	**0.001**	0
State open waters	0	0

SPECIAL CONDITIONS:

1. The permanently maintained clearing over the utility line shall be no wider than 20 feet.

2. The trench into which the utility line is placed shall be no wider than necessary to comply with the Federal O.S.H.A. safety standards.

3. Temporary disturbance, as defined at N.J.A.C. 7:7a-1.4, such as temporary construction clearing or temporary storage of dirt or equipment, shall be the minimum size necessary for compliance with applicable laws.

4. The permittee shall ensure that the activities do not interfere with the natural hydraulic characteristics of the wetland, such as the flow characteristics of groundwater on the site.

5. All excess soil or bedding material shall be disposed of in a lawful manner outside of any regulated flood plain, open water, freshwater wetlands or adjacent transition areas, and in such a way as to not interfere with the positive drainage of the receiving area.

6. Any excavation within the wetland or wetland transition area, shall be backfilled to the preexisting elevation and the uppermost 18 inches of the excavation shall be backfilled with the original topsoil material.

7. The activities shall not cause any change in preconstruction elevation of a freshwater wetland or transition area.

8. Any pipes laid shall be properly sealed so as to prevent leaking or infiltration and designed so as not to form or provide a conduit for groundwater to be discharged or drained from the wetlands.

9. The disturbance of wetlands and associated transition areas on site shall be limited to that which is necessary to complete the investigation and installation of the monitoring wells.

10. All activities must be conducted in accordance with a Department approved Remedial Investigation Work Plan.

11. The applicant is responsible for disposing of all excavated material in a suitable location. No material shall be deposited in freshwater wetlands, transition areas, State open waters or other environmentally sensitive areas. If excavated material is contaminated with toxic substances, the dredged material shall be removed and disposed of in accordance with Department-approved procedures.

STANDARD CONDITIONS:

1. The issuance of a permit shall in no way expose the State of New Jersey or the Department to liability for the sufficiency or correctness of the design of any construction or structure(s). Neither the State nor the Department shall, in any way, be liable for any loss of life or property that may occur by virtue of the activity or project conducted as authorized under a permit.

2. The issuance of a permit does not convey any property rights or any exclusive privilege.

3. The permittee shall obtain all applicable Federal, State, and local approvals prior to commencement of regulated activities authorized under a permit.

4. A permittee conducting an activity involving soil disturbance, the creation of drainage structures, or changes in natural contours shall obtain any required approvals from the Soil Conservation District or designee having jurisdiction over the site.

5. The permittee shall take all reasonable steps to prevent, minimize, or correct any adverse impact on the environment resulting from activities conducted pursuant to the permit, or from noncompliance with the permit.

6. The permittee shall immediately inform the Department of any unanticipated adverse effects on the environment not described in the application or in the conditions of the permit. The Department may, upon discovery of such unanticipated adverse effects, and upon the failure of the permittee to submit a report thereon, notify the permittee of its intent to suspend the permit.

7. The permittee shall immediately inform the Department by telephone at (877) 927-6337 (WARN DEP hotline) of any noncompliance that may endanger public health, safety, and welfare, or the environment. The permittee shall inform Watershed & Land Managment by telephone at (609) 777-0454 of any other noncompliance within two working days of the time the permittee becomes aware of the noncompliance, and in writing within five working days of the time the permittee becomes aware of the noncompliance. Such notice shall not, however, serve as a defense to enforcement action if the project is found to be in violation of this chapter. The written notice shall include:

   i. A description of the noncompliance and its cause;

   ii. The period of noncompliance, including exact dates and times;

   iii. If the noncompliance has not been corrected, the anticipated length of time it is expected to continue; and

iv. The steps taken or planned to reduce, eliminate, and prevent recurrence of the noncompliance.

8. Any noncompliance with a permit constitutes a violation of this chapter and is grounds for enforcement action, as well as, in the appropriate case, suspension and/or termination of the permit.

9. It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the authorized activity in order to maintain compliance with the conditions of the permit.

10. The permittee shall employ appropriate measures to minimize noise where necessary during construction, as specified in N.J.S.A. 13:1G-1 et seq. and N.J.A.C. 7:29.

11. The issuance of a permit does not relinquish the State's tidelands ownership or claim to any portion of the subject property or adjacent properties.

12. The issuance of a permit does not relinquish public rights to access and use tidal waterways and their shores.

13. The permittee shall allow an authorized representative of the Department, upon the presentation of credentials, to:

    i. Enter upon the permittee's premises where a regulated activity, project, or development is located or conducted, or where records must be kept under the conditions of the permit;

    ii. Have access to and copy, at reasonable times, any records that must be kept under the conditions of the permit;

    iii. Inspect, at reasonable times, any facilities, equipment, practices, or operations regulated or required under the permit. Failure to allow reasonable access under this paragraph shall be considered a violation of this chapter and subject the permittee to enforcement action; and

    iv. Sample or monitor at reasonable times, for the purposes of assuring compliance or as otherwise authorized by the Federal Act, by the Freshwater Wetlands Protection Act, or by any rule or order issued pursuant thereto, any substances or parameters at any location.

14. The permittee shall not cause or allow any unreasonable interference with the free flow of a regulated water by placing or dumping any materials, equipment, debris or structures within or adjacent to the channel while the regulated activity, project, or development is being undertaken. Upon completion of the regulated activity, project, or development, the permittee shall remove and dispose of in a lawful manner all excess materials, debris, equipment, and silt fences and other temporary soil erosion and sediment control devices from all regulated areas.

15. The permittee and its contractors and subcontractors shall comply with all conditions, site plans, and supporting documents approved by the permit.

16. All conditions, site plans, and supporting documents approved by a permit shall remain in full force and effect, so long as the regulated activity, project, or development, or any portion thereof, is in existence, unless the permit is modified pursuant to the rules governing the herein approved permits.

17. The permittee shall perform any mitigation required under the permit in accordance with the rules governing the herein approved permits.

18. If any condition or permit is determined to be legally unenforceable, modifications and additional conditions may be imposed by the Department as necessary to protect public health, safety, and welfare, or the environment.

19. Any permit condition that does not establish a specific timeframe within which the condition must be satisfied (for example, prior to commencement of construction) shall be satisfied within six months of the effective date of the permit.

20. A copy of the permit and all approved site plans and supporting documents shall be maintained at the site at all times and made available to Department representatives or their designated agents immediately upon request.

21. The permittee shall provide monitoring results to the Department at the intervals specified in the permit.

22. A permit shall be transferred to another person only in accordance with the rules governing the herein approved permits.

23. A permit can be modified, suspended, or terminated by the Department for cause.

24. The submittal of a request to modify a permit by the permittee, or a notification of planned changes or anticipated noncompliance, does not stay any condition of a permit.

25. Where the permittee becomes aware that it failed to submit any relevant facts in an application, or submitted incorrect information in an application or in any report to the Department, it shall promptly submit such facts or information.

26. The permittee shall submit written notification to the Bureau of Coastal and Land Use Compliance and Enforcement, 401 East State Street, 4th Floor, PO Box 420, Mail Code 401-04C, Trenton, NJ 08625, at least three working days prior to the commencement of regulated activities.

27. The permittee shall record the permit, including all conditions listed therein, with the Office of the County Clerk (the Registrar of Deeds and Mortgages, if applicable) of each county in which the site is located. The permit shall be recorded within 30 calendar days of receipt by the permittee, unless the permit authorizes activities within two or more counties, in which case the permit shall be recorded within 90 calendar days of receipt. Upon completion of all recording, a copy of the recorded permit shall be forwarded to Watershed & Land Management at the address listed on page one of this permit.

APPROVED PLAN(S):

The drawing(s) hereby approved are prepared by David Caballero, P.E. of Arcadis, dated December 14, 2020, unrevised, and entitled "**JERSEY CENTRAL POWER & LIGHT COMPANY – FORMER MGP SITE – BOONTON, NEW JERSEY**":

"TREATMENT SYSTEM PLAN", sheet 3 of 5

APPEAL OF DECISION:

Any person who is aggrieved by this decision may submit an adjudicatory hearing request within 30 calendar days after public notice of the decision is published in the DEP Bulletin (available at www.nj.gov/dep/bulletin). If a person submits the hearing request after this time, the Department shall deny the request. The hearing request must include a completed copy of the Administrative Hearing Request Checklist (available at www.nj.gov/dep/landuse/forms.html). A person requesting an adjudicatory hearing shall submit the original hearing request to: NJDEP Office of Legal Affairs, Attention: Adjudicatory Hearing Requests, Mail Code 401-04L, P.O. Box 402, 401 East State Street, 7th Floor, Trenton, NJ 08625-0402. Additionally, a copy of the hearing request shall be submitted to the Director of Watershed & Land Managment at the address listed on page one of this permit. In addition to your hearing request, you may file a request with the Office of Dispute Resolution to engage in alternative dispute resolution. Please see www.nj.gov/dep/odr for more information on this process.

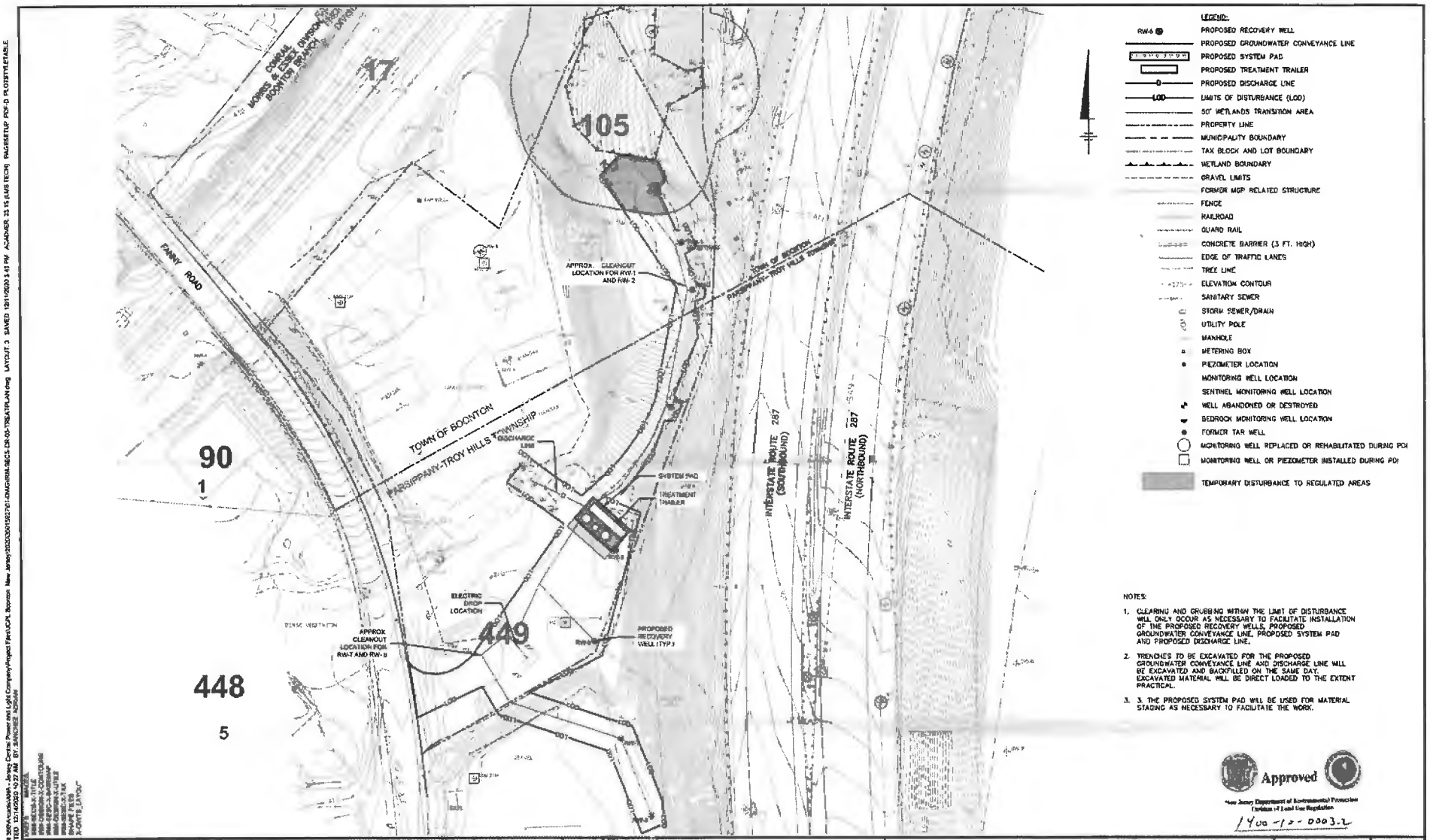
If you need clarification on any section of this permit or conditions, please contact the Division of Land Resource Protection's Technical Support Call Center at (609) 777-0454.

Approved By:

Digitally signed
by Patrick Ryan
Date: 2021.05.17
16:01:41 -04'00'

Patrick Ryan, Supervisor
Watershed and Land Management

c: Municipal Clerk, Boonton Town **w/plan**
Municipal Construction Official, Boonton Town
Municipal Clerk, Parsippany-Troy Hills **w/plan**
Municipal Construction Official, Parsippany-Troy Hills
Agent (original) – Dave Caballero **w/plan**



SCALE(S) AS INDICATED

THIS BAR REPRESENTS ONE INCH ON THE ORIGINAL DRAWING. USE TO VERIFY FIGURE REPRODUCTION SCALE

DAVID CABALLERO
24GE04819300

Digitally signed by David Caballero
Date: 2020.12.14 17:04:13 -05'00'

ARCADIS U.S., INC
NEW JERSEY ENGINEERING CERTIFICATE OF AUTHORIZATION NUMBER 24GA27939600

ARCADIS | Design & Consultancy for natural and built assets

JERSEY CENTRAL POWER & LIGHT COMPANY • FORMER MGP SITE • BOONTON, NEW JERSEY
PROPOSED REMEDIAL ACTION

TREATMENT SYSTEM PLAN

ARCADIS Project No. 30019677.0013
Date: DECEMBER 2020

3

Jersey Central Power & Light
A FirstEnergy Company

VIA USPS PRIORITY MAIL EXPRESS

May 28, 2021

Bureau of Case Assignment and Initial Notice
Site Remediation and Waste Management Program
NJ Department of Environmental Protection
401-05H
P.O. Box 420
Trenton, NJ 08625-0420

Subject: Remediation Funding Source Self-Guarantee Renewal Applications
Remediation Cost Review and RFS/FA Forms

To Whom It May Concern:

Jersey Central Power & Light Company (JCP&L) herein submits to the New Jersey Department of Environmental Protection (NJDEP) Bureau of Case Assignment & Initial Notice the Remediation Funding Source Self-Guarantee Applications and Remediation Cost Review and RFS/FA Forms for renewal of the remediation funding source for the following sites:

Site Name	**PI #**
Belmar Manufactured Gas Plant Site	G000005128
Boonton Manufactured Gas Plant Site	G000005438
Dover Manufactured Gas Plant Site	010630
Lakewood Manufactured Gas Plant Site	G000005364
Wildwood Manufactured Gas Plant Site	G000006128
Forked River Station Site	005313
Oyster Creek Nuclear Generating Station	004306

Each *Remediation Funding Source Self-Guarantee Renewal Application* package contains a worksheet providing additional detail on how the future remediation cost estimates were calculated, and a worksheet providing detail for the Self-Guarantor's amounts provided in Section F of the form. Included is a copy of JCP&L's audited Consolidated Financial Statements for the years ended December 31, 2020 and 2019.

Each *Remediation Cost Review and RFS/FA Form* package contains a worksheet providing additional detail on how the future remediation cost estimates were calculated, a worksheet providing monies spent to remediate in 2020.

As previously reported, based on understandings reached between Mr. Ronald Corcory (NJDEP), JCP&L and New Jersey Natural Gas Company (NJNG), JCP&L is fully responsible for providing the Self-Guarantees regarding the costs of remediation for the Belmar, Dover, Lakewood and Wildwood MGP sites. Similarly, NJNG is fully responsible for providing the Self-Guarantees for the Toms River and Long Branch MGP sites.

Please call me at (973) 401-8309 should you have any questions regarding this submittal.

Sincerely,

Frank D Lawson

Frank D. Lawson
Supervisor – Site Remediation
Environmental Department

c: D. Thompson - LSRP (Belmar, Boonton and Lakewood) - forms only
M. Craig - LSRP (Dover) - forms only
S. Ueland - LSRP (Wildwood) - forms only
P. Naumoff - LSRP (Forked River and Oyster Creek) - forms only

G. Nicholas - NJNG w/o attachments

Encl.

New Jersey Department of Environmental Protection
Site Remediation Program

REMEDIATION FUNDING SOURCE SELF GUARANTEE APPLICATION

Date Stamp
(For Department use only)

SECTION A. SITE NAME AND LOCATION

Site Name: Boonton Manufactured Gas Plant Site

Street Address: Fanny Road

Municipality: Town-Boonton, Twp of Parsippany-Troy Hills (Township, Borough or City)

County: Morris Zip Code: 07005

Program Interest (PI) Number(s): G000005438

Case Tracking Number: NJD981082878

SECTION B. OVERSIGHT DOCUMENT/AUTHORITY

1. Indicate the type(s) of Oversight Document/Authority in effect and provide the date the Oversight Document/Authority became effective and the name of the entity that entered into the oversight document *(check all that apply)*

☒ ACO	Date:	03/12/1991	Name of entity:	Jersey Central Power & Light Company
☐ Remediation Agreement (RA)	Date:		Name of entity:	
☐ Remediation Certification	Date:		Name of entity:	
☐ ISRA RAWP	Date:		Name of entity:	
☐ Directive	Date:		Name of entity:	
☐ Order	Date:		Name of entity:	
☐ Court Order	Date:		Name of entity:	
☐ ACO Amendment	Date:		Name of entity:	
☐ RA Amendment	Date:		Name of entity:	

SECTION C. SELF-GUARANTEE APPLICANT / PERSON RESPONSIBLE FOR CONDUCTING THE REMEDIATION INFORMATION

Name of Organization: Jersey Central Power & Light Company (JCP&L)

First Name of Contact: Frank Last Name of Contact: Lawson

Title: Supervisor - Site Remediation

Phone Number: (973) 401-8309 Ext.: Fax: (330) 436-8159

Mailing Address: Attn: Supervisor - Site Remediation, 300 Madison Avenue, P.O. Box 1911

Municipality: Morristown State: NJ Zip Code: 07962

Email Address: flawson@firstenergycorp.com

1. Are you claiming to be a special purpose entity created specifically for the purpose of acquiring and redeveloping a contaminated site for which a statement of income and expenses are not available? ☐ Yes ☒ No
2. Does the person responsible for conducting the remediation produce its own audited financial statements? ☒ Yes ☐ No

   If "No," does a Parent Company produce the audited financial statements? ☐ Yes ☐ No

   If a Parent Company does produce the audited financial statements complete the Parent Company section below.

PARENT COMPANY INFORMATION *(If Applicable)*

Name of Organization: _____

First Name of Contact: _____ Last Name of Contact: _____

Title: _____

Phone Number: _____ Ext.: _____ Fax: _____

Mailing Address: _____

Municipality: _____ State: _____ Zip Code: _____

Email Address: _____

SECTION D. ESTIMATED COST OF REMEDIATION

1. Current estimated cost of remediation: $ 6,542,500.00
2. Estimated cost of remediation for the next 12-month period: $ 1,825,000.00

SECTION E. REMEDIATION FUNDING SOURCE (RFS) AMOUNT

Total amount of RFS to be established: ..... $ 6,542,500.00

SECTION F. FINANCIAL DOCUMENTATION

1. Does the required remediation funding source amount exceed one-third of the applicant's tangible net worth? ☐ Yes ☒ No

   Self Guarantor's Net Worth (pg(s). 2) ..... $ 3,707,000,000.00

   Self Guarantor's Intangible Assets (pg(s). 2) ..... $ 1,907,000,000.00

   Self Guarantor's Tangible Net Worth (Net Worth minus Intangible Assets) ..... $ 1,800,000,000.00

   One-third of Tangible Net Worth Listed Above ..... $ 600,000,000.00

2. Is cash flow sufficient to assure the availability of sufficient monies for the remediation? ..... ☒ Yes ☐ No

   Self Guarantor's Cash provided by (used in) operating activities (pg(s). 4) ..... $ 246,000,000.00

3. Do the gross receipts (revenues) exceed gross payments (expenses) in an amount at least equal to or greater than the estimated cost of remediation to be performed in the next 12-month period? .... ☒ Yes ☐ No

   Gross Receipts (revenues) (pg(s). 1) ..... $ 1,782,000,000.00

   Gross Payments (pg(s). 1) ..... $ 1,461,000,000.00

   Gross Receipts less Gross Payments ..... $ 321,000,000.00

Chief Financial Officer or Similar Officer Certification

I certify under penalty of law that I am fully aware of the requirements of N.J.S.A. 58:10B-3 as they pertain to remediation funding sources. Specifically, I am aware of the responsibilities to establish and maintain the remediation funding source. Additionally, I acknowledge that the remediation funding source as required by N.J.A.C. 7:26C-5 shall be maintained in the appropriate amount and form until such time as an alternative remediation funding source is submitted to the Department and it has been approved by the Department in writing or the Department determines that it is no longer necessary to maintain a remediation funding source. I am aware that there are significant civil penalties for knowingly submitting false, inaccurate or incomplete information and that I am committing a crime of the fourth degree if I make a written false statement that I do not believe to be true. I am also aware that if I knowingly direct or authorize the violation of any statute, I am personally liable for all resulting penalties.

Date: May 25, 2021 By: _____

Signature

Joseph Storsin

Print Full Name Signed Above

Controller

Title

SECTION G. PERSON RESPONSIBLE FOR CONDUCTING THE REMEDIATION CERTIFICATION

I certify under penalty of law that I am fully aware of the requirements of N.J.S.A. 58:10B-3 as they pertain to remediation funding sources. Specifically, I am aware of the responsibilities to establish and maintain the remediation funding source. Additionally, I acknowledge that the remediation funding source as required by N.J.A.C. 7:26C-5 shall be maintained in the appropriate amount and form until such time as an alternative remediation funding source is submitted to the Department and it has been approved by the Department in writing or the Department determines that it is no longer necessary to maintain a remediation funding source. I am aware that there are significant civil penalties for knowingly submitting false, inaccurate or incomplete information and that I am committing a crime of the fourth degree if I make a written false statement that I do not believe to be true. I am also aware that if I knowingly direct or authorize the violation of any statute, I am personally liable for all resulting penalties.

Date: 5-25-21 By: Frank D Lawson
Signature

Frank Lawson
Print Full Name Signed Above

Supervisor - Site Remediation
Title

Completed forms should be sent to:

Bureau of Case Assignment and Initial Notice
Site Remediation Program
NJ Department of Environmental Protection
401-05H
PO Box 420
Trenton, NJ 08625-0420

Worksheet for Remediation Cost Estimates
Self-Guarantee Application and Project Cost Review
Boonton MGP Site
May 2021

TASK

Remedial Action	2021	2022	2023	2024	2025
Design	$10,000	$10,000	$0	$0	$0
Implementation	$1,550,000	$390,000	$380,000	$0	$0
Other *	$110,000	$110,000	$75,000	$55,000	$55,000
Short Term O&M **	$155,000	$155,000	$155,000	$155,000	$155,000
Subtotal	**$1,825,000**	**$665,000**	**$610,000**	**$210,000**	**$210,000**

Post Remedial Action	2021	2022	2023	2024	2025-2051
Long Term O&M (26 yrs x $116,250/yr) ***	$0	$0	$0	$0	$3,022,500
Subtotal	**$0**	**$0**	**$0**	**$0**	**$3,022,500**

30 Year Totals	$1,825,000	$665,000	$610,000	$210,000	$3,232,500

30 Year Grand Total	$6,542,500

Notes:

*Costs include, but not limited to, LSRP Oversight, Community Relations and Deed Notices.

**Costs are included until such time that a remedial action permit is obtained.

***Total O&M costs are projected for 30 years (short-term plus long-term).

EXPLANATION OF SECTION F. FINANCIAL DOCUMENTATION

	NJDEP CATEGORY	AMOUNT	REFERENCE	CALCULATION
1.	Self Guarantor's Net Worth	$3,707,000,000	COMMON STOCKHOLDERS' EQUITY– Total Common Stockholders' Equity $3,707,000,000 (Page 2 of JCP&L Consolidated Financial Statement)	—
	Self Guarantor's Intangible Assets	$1,907,000,000	DEFERRED CHARGES AND OTHER ASSETS – Total Goodwill $1,811,000,000, plus (+) Other $96,000,000. (Page 2 of JCP&L Consolidated Financial Statement)	$1,811,000,000 + $96,000,000 $1,907,000,000
	Self Guarantor's Tangible Net Worth (Net Worth minus Intangible Assets)	$1,800,000,000	$3,707,000,000 minus (-) $1,907,000,000	$3,707,000,000 - $1,907,000,000 $1,800,000,000
	One-third of Tangible Net Worth listed above	$600,000,000	$1,800,000,000 divided (÷) by 3	$1,800,000,000 ÷ 3 $600,000,000
2.	Self Guarantor's Net Cash provided by (used in) operating activities	$246,000,000	CASH FLOWS FROM OPERATING ACTIVITIES – Net cash provided from operating activities (Page 4 of JCP&L Consolidated Financial Statement)	—

3.	Gross Receipts (revenues)	$1,782,000,000	REVENUES – Total revenues (Page 1 of JCP&L Consolidated Financial Statement)	—
	Gross Payments (expenses)	$1,461,000,000	EXPENSES EXCLUDING IMPAIRMENT CHARGES AND NON-CASH CHARGES – Total expenses $1,645,000,000, minus (-) Interest Expense $94,000,000, minus (-) Provision for Depreciation $167,000,000, minus (-) Amortization of Regulatory Assets ($175,000,000), minus (-) Income Taxes $19,000,000, minus (-) Impairment of Assets $0, minus (-) Pension and OPEB mark-to-market adjustment* $79,000,000. (Page 1 of JCP&L Consolidated Financial Statement)	$1,645,000,000 - $94,000,000 $1,551,000,000 - $167,000,000 $1,384,000,000 - ($175,000,000) $1,559,000,000 - $19,000,000 $1,540,000,000 - $0 $1,540,000,000 - $79,000,000 $1,461,000,000
	Net Income (Gross Receipts less Gross Payments)	$321,000,000	$1,782,000,000 minus (-) $1,461,000,000	$1,782,000,000 - $1,461,000,000 $321,000,000

*Non-cash adjustment related to a pension and OPEB mark-to-market adjustment for the change in the fair value of plan assets and net actuarial gains and losses annually in the fourth quarter of each fiscal year and whenever a plan is determined to qualify for a remeasurement

New Jersey Department of Environmental Protection
Site Remediation and Waste Management Program

REMEDIATION COST REVIEW AND RFS/FA FORM

☒ RFS ☐ FA

Date Stamp
(For Department use only)

SECTION A. SITE NAME AND LOCATION

Site Name: Boonton Manufactured Gas Plant Site

List All AKAs:

Street Address: Fanny Road

Municipality: Parsippany-Troy Hills and Boonton (Township Borough or City)

County: Morris Zip Code: 07005

Program Interest (PI) or RFS Number(s): G000005438

Case Tracking Number(s): NJD981082878

SECTION B. PERSON RESPONSIBLE FOR CONDUCTING THE REMEDIATION

Full Legal Name Person Responsible for Conducting Remediation: Jersey Central Power & Light Company (JCP&L)

Representative First Name: Frank Representative Last Name: Lawson

Title: Supervisor - Site Remediation

Mailing Address: Attn: Supervisor - Site Remediation, 300 Madison Avenue, P.O. Box 1911

Municipality: Morristown State: NJ Zip Code: 07962

Phone Number: (973) 401-8309 Ext: Fax: (330) 436-8159

Email Address: flawson@firstenergycorp.com

☒ I am also the person responsible for establishing and maintaining a Remediation Funding Source (RFS).

Billing Contact

☒ Same as Person Responsible for Conducting Remediation / Representative listed above.

Name of Organization:

Name of Billing Contact: Title:

Mailing Address:

Municipality: State: Zip Code:

Phone Number: Ext: Fax:

Email Address:

EXEMPTION CLAIM FOR RFS ONLY (not FA)

If claiming an exemption from the requirement to post Remediation Funding Source pursuant to N.J.A.C. 7:26C-5.2(b), please check the appropriate box below and do not complete sections C through H:

- ☐ Environmental Opportunity Zone
- ☐ Innovative remedial action technology
- ☐ Unrestricted or limited restricted use remedial action
- ☐ Government entity
- ☐ Remediation at primary or secondary residence
- ☐ Owner or operator of a licensed child care center
- ☐ Public, private or charter school

NOTE: All exemptions require additional supporting *documentation to be attached. Please refer to the form* instructions. If the exemption is only for a portion of the site, you must complete section C through H for the portion of the site that does not meet the exemption criteria. **See instructions.**

SECTION C. PURPOSE OF SUBMISSION

Check all that apply

- ☐ Initial Remediation Funding Source pursuant to N.J.A.C. 7:26C-5.2(a) *(attach original RFS instrument and 1% surcharge payment, as applicable)*
- ☐ Initial Financial Assurance for a Remedial Action Permit pursuant to N.J.A.C. 7:26C-7 *(attach original FA instrument)*
- ☐ Initial Direct Oversight Remediation Trust Fund Agreement pursuant to N.J.A.C. 7:26C-14.2(b)5 *(attach original RTF instrument and 1% surcharge payment)*

- ☐ Initial Direct Oversight Remediation Cost Review pursuant to N.J.A.C. 7:26C-14.2(b)4
- ☒ Annual Remediation Cost Review pursuant to N.J.A.C. 7:26C-5.10 *(attach RFS instrument verification and valuation)*
- ☐ Biennial Cost Review pursuant to N.J.A.C. 7:26C-7.10 *(Remedial Action Permits)*

- ☒ Change in Remediation Funding Source or Financial Assurance Amount pursuant to N.J.A.C. 7:26C-5.11
- ☐ Change in Remediation Funding Source or Financial Assurance Mechanism pursuant to N.J.A. 7:26C-5.11(d)
- ☐ Remediation Funding Source Disbursement Notification pursuant to N.J.A.C. 7:26C-5.12(a)
- ☐ Remediation Funding Source Disbursement Request pursuant to N.J.A.C. 7:26C-5.12(b) – Direct Oversight only
- ☐ Remediation Funding Source/Financial Assurance Disbursement Request pursuant to N.J.A.C. 7:26C-5.13(d) – Department held RFS/FA

- ☐ Request Release of the Remediation Funding Source or Financial Assurance pursuant to N.J.A.C. 7:26C-5.11(e)
- ☐ Using a Remediation Funding Source as Financial Assurance

SECTION D. TYPE AND AMOUNT OF REMEDIATION FUNDING SOURCE OR FINANCIAL ASSURANCE POSTED

Initial or Existing Mechanism for ☒ RFS or ☐ FA

Check all that apply

- ☐ Letter of Credit
- ☐ Remediation Trust Fund
- ☒ Self Guarantee
- ☐ Line of Credit
- ☐ Environmental Insurance Policy
- ☐ Surety Bond
- ☐ Direct Oversight Remediation Trust Fund
- ☐ Fully Funded Trust (Existing only pre-June 1993)
- ☐ Performance Bond (Existing only pre-June 1993)
- ☐ Surety Bond (Existing only pre-June1993)

Replacement Mechanism for ☐ RFS or ☐ FA

Check all that apply

- ☐ Letter of Credit
- ☐ Remediation Trust Fund
- ☐ Self Guarantee
- ☐ Line of Credit
- ☐ Environmental Insurance Policy
- ☐ Surety Bond
- ☐ Direct Oversight Remediation Trust Fund

1. Expiration Date of Remediation Funding Source or Financial Assurance Posted: 06/01/2021
2. Amount of Remediation Funding Source or Financial Assurance posted prior to any increase, reduction, or disbursement addressed in this submission: $5,520,500.00
3. Do you want to disburse, reduce, or increase the amount of the Remediation Funding Source?..... ☒ Yes ☐ No
   If "Yes," specify below:
   ☐ Disburse RFS ☐ Reduce RFS ☒ Increase RFS by (amount): $1,022,000.00

SECTION E. REMEDIATION COST ESTIMATION

1. Indicate the method(s) used to calculate the remediation cost review/estimate: (*Check all that apply*)

☐ RACER® (*attach documentation for estimate*)
☐ Cost-Pro® (*attach documentation for estimate*)
☐ Surrogate Cost (*ISRA Remediation Certifications, see for instructions for further clarification*)
A Preliminary Assessment/Site Investigation has NOT been completed for the site, the surrogate remediation funding source has been established in the amount of $100,000 or $250,000.
☒ Calculated independently by LSRP/Consultant using (*attach documentation used to generate calculation*):
☐ Actual competitive bid(s)
☒ Internal company data
☐ Other commercially available software. Specify: _____
☒ Other. Specify: Internal JCP&L estimates with LSRP input

2. Estimated cost:
To complete remediation: $6,542,500.00
or
For Financial Assurance: _____

3. Full legal name of person who prepared the cost estimate: Frank D. Lawson, JCP&L / David Thompson, LSRP

SECTION F. COST REVIEW FOR REMEDIATION FUNDING SOURCE OR FINANCIAL ASSURANCE

1. **Remediation Funding Source – due annually**

a. Date of most recent prior cost estimate: 05/31/2020

b. Total monies spent to date to remediate the site: $6,643,116.00
Attach detailed summary of monies spent to remediate.

c. Estimated remaining costs to complete the remediation: $6,542,500.00
Attach detailed estimate of remaining costs to complete remediation.

d. Provide an explanation of any changes from most recent prior cost estimate.

Revised estimate

1b. Total monies spent to date to remediate the site as of 12/31/2020
Attach detailed summary of monies spent to remediate. $848,600.00 1/1/20-12/31/20
(see attached for cost detail)

2. **Financial Assurance – due biennially** Not Applicable

a. Date of most recent prior cost estimate: ..... _____

b. Current cost estimate to operate, maintain and monitor the engineering control: ..... _____

c. Provide an explanation of any changes from most recent prior cost estimate.

SECTION G. LSRP AUTHORIZED DISBURSEMENTS NOTIFICATION AND REQUEST FOR NJDEP REDUCTION APPROVAL Not Applicable

1. Date previous notification/request submitted: .....

2. For Remediation Trust Funds and Lines of Credit:
   a. Date the LSRP authorized disbursement (*Attach copy of authorization*): .....
   b. Total amount of the authorized disbursement: .....
   c. Date the holder of the RFS mechanism disbursed the funds: .....
   d. Amount of RFS remaining after disbursement .....

3. For NJDEP authorized reductions:
   a. Amount of funds you are requesting the NJDEP authorize for reduction: .....
   b. Provide RFS account information (e.g., bank name, account number, etc.):

SECTION H. REQUEST FOR NJDEP AUTHORIZED DISBURSEMENTS Not Applicable

ONLY for sites subject to Direct Oversight pursuant to N.J.A.C. 7:26C-14 and disbursement requests in accordance with N.J.A.C. 7:26C-5.13

1. Total amount of requested disbursement .....
2. Provide the name, address, telephone number, email and tax identification number of all parties to receive payment from this disbursement and amount of each payment.

3. Attach a description of remediation costs incurred or to be incurred and the specific remediation that has or will be completed under this request including the following documentation:
   a.) For remediation costs that have been incurred, include a Remediation Report documenting the completion of the remediation activities; or
   b.) For remediation costs to be incurred, include a proposed scope of work of the remediation activities to be completed.
4. Attach an estimate of all remaining costs to complete the remediation.

SECTION I. LICENSED SITE REMEDIATION PROFESSIONAL INFORMATION AND STATEMENT

LSRP ID Number: 591570

First Name: David Last Name: Thompson

Phone Numbers: (908) 526-1000 Ext.: 216 Fax: (908) 216-7886

Mailing Address: 35 Columbia Road

Municipality: Branchburg State: NJ Zip Code: 08876

Email Address: david.thompson@arcadis-us.com

This statement shall be signed by the LSRP who is submitting this notification in accordance with N.J.S.A. 58:10C-14, and N.J.S.A. 58:10B-1.3b(1) and (2).

(1) I certify, as a Licensed Site Remediation Professional authorized pursuant to N.J.S.A. 58:10C-1 et seq. to conduct business in New Jersey, that for the remediation described in this submission, and all attachments included in this submission, I personally: Managed, supervised, or performed the remediation conducted at this site that is described in this submission, and all attachments included in this submission; and/or periodically reviewed and evaluated the work performed by other persons that forms the basis for the information in this submission; and/or completed the work of another site remediation professional, licensed or not, after having: (1) reviewed all available documentation on which I relied; (2) conducted a site visit and observed the then-current conditions and verified the status of as much of the work as was reasonably observable; and (3)concluded, in the exercise of my independent professional judgment, that there was sufficient information upon which to complete any additional phase of remediation and prepare workplans and reports related thereto.

(2) I certify:

- *That I have read this submission and all attachments to this submission;*
- *That in performing the professional services as the licensed site remediation professional for the entire site or each area of concern, I adhered to the professional conduct standards and requirements governing licensed site remediation professionals provided in N.J.S.A. 58:10C-16;*
- *That the remediation conducted at the entire site or each area of concern, that is described in this submission and all attachments to this submission, was conducted pursuant to and in compliance with the remediation requirements in N.J.S.A. 58:10C-14.c;*
- *That the remediation described in this submission, and all attachments to this submission, was conducted pursuant to and in compliance with the regulations of the Site Remediation Professional Licensing Board at N.J.A.C. 7:26I; and*
- *That the information contained in this submission and all attachments to this submission is true, accurate, and complete.*

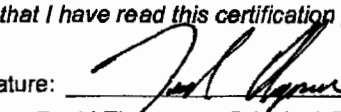
(3) I certify, when this submission includes a response action outcome, that the entire site or each area of concern has been remediated in compliance with all applicable statutes, rules, and regulations and is protective of public health and safety and the environment.

(4) I certify that no other person is authorized or able to use any password, encryption method, or electronic signature that the Board or the Department have provided to me.

(5) I certify that I understand and acknowledge that:

- *If I knowingly make a false statement, representation, or certification in any document or information I submit to the Department I may be subject to civil and administrative enforcement pursuant to N.J.S.A. 58:10C-17.a.1(a)through (f) by the Board, including but not limited to license suspension, revocation, or denial of renewal; and*
- *If I purposely, knowingly, or recklessly make a false statement, representation, or certification in any application, form, record, document or other information submitted to the Department or required to be maintained pursuant to the Site Remediation Reform Act, I shall be guilty, upon conviction, of a crime of the third degree and shall, notwithstanding the provisions of subsection b. of N.J.S.2C:43-3, be subject to a fine of not less than $5,000 nor more than $75,000 per day of violation, or by imprisonment, or both.*

(6) I certify that I have read this certification prior to signing, certifying, and making this submission.

LSRP Signature:  Date: 5/24/2021

LSRP Name: David Thompson, Principal Geologist

Company Name: ARCADIS U.S., Inc.

SECTION J. PERSON RESPONSIBLE FOR CONDUCTING THE REMEDIATION INFORMATION AND CERTIFICATION

Full Legal Name of the Person Responsible for Conducting the Remediation: Jersey Central Power & Light Company

Representative First Name: Frank Representative Last Name Lawson

Title: Supervisor - Site Remediation

Phone Number: (973) 401-8309 Ext: Fax: (330) 436-8159

Mailing Address: Attn: Supervisor - Site Remediation, 300 Madison Avenue, P.O. Box 1911

City/Town: Morristown State: NJ Zip Code: 07962

Email Address: flawson@firstenergycorp.com

☒ The person responsible for conducting the remediation is the person responsible for establishing and maintaining a remediation funding source/financial assurance.

This certification shall be signed by the person responsible for conducting the remediation who is submitting this notification in accordance with Administrative Requirements for the Remediation of Contaminated Sites rule at N.J.A.C. 7:26C-1.5(a).

I certify under penalty of law that I have personally examined and am familiar with the information submitted herein, including all attached documents, and that based on my inquiry of those individuals immediately responsible for obtaining the information, to the best of my knowledge, I believe that the submitted information is true, accurate and complete. I am aware that there are significant civil penalties for knowingly submitting false, inaccurate or incomplete information and that I am committing a crime of the fourth degree if I make a written false statement which I do not believe to be true. I am also aware that if I knowingly direct or authorize the violation of any statute, I am personally liable for the penalties.

I certify I am fully aware of the requirements of N.J.A.C. 7:26C-5 et seq. as they pertain to Remediation Funding Sources and Financial Assurances and the language of any provided Remediation Funding Source or Financial Assurance instrument does not deviate in any way from the language in the Department's model documents found at www.nj.gov/dep/srp/guidance/rfsguide except as approved by the Department.

For disbursement notification or request pursuant to N.J.A.C. 7:26C-5.12 or 5.13(d), I certify that the disbursement relates to actual remediation costs, incurred or to be incurred, and does not include ineligible legal fees.

Signature: Frank D Lawson Date: 5-27-21

Name/Title: Frank Lawson, Supervisor - Site Remediation

SECTION K. PERSON ESTABLISHING AND MAINTAINING A REMEDIATION FUNDING SOURCE/FINANCIAL ASSURANCE (complete if different person than Section J)

Full Legal Name of Person Establishing and Maintaining a Remediation Funding Source: _____

Representative First Name: _____ Representative Last Name: _____

Title: _____

Phone Number: _____ Ext: _____ Fax: _____

Mailing Address: _____

City/Town: _____ State: _____ Zip Code: _____

Email Address: _____

This certification shall be signed by the person establishing and maintaining a remediation funding source/financial assurance who is submitting this notification in accordance with Administrative Requirements for the Remediation of Contaminated Sites rule at N.J.A.C. 7:26C-1.5(a).

I certify under penalty of law that I have personally examined and am familiar with the information submitted herein, including all attached documents, and that based on my inquiry of those individuals immediately responsible for obtaining the information, to the best of my knowledge, I believe that the submitted information is true, accurate and complete. I am aware that there are significant civil penalties for knowingly submitting false, inaccurate or incomplete information and that I am committing a crime of the fourth degree if I make a written false statement which I do not believe to be true. I am also aware that if I knowingly direct or authorize the violation of any statute, I am personally liable for the penalties.

I certify I am fully aware of the requirements of N.J.A.C. 7:26C-5 et seq. as they pertain to Remediation Funding Sources and Financial Assurances and the language of any provided Remediation Funding Source or Financial Assurance instrument does not deviate in any way from the language in the Department's model documents found at www.nj.gov/dep/srp/guidance/rfsguide except as approved by the Department.

For a disbursement notification or request pursuant to N.J.A.C. 7:26C-5.12, I certify that the disbursement relates to actual remediation costs, incurred or to be incurred, and does not include ineligible legal fees

Signature: _____ Date: _____

Name/Title:

Completed forms should be sent to:

Bureau of Case Assignment & Initial Notice
Site Remediation and Waste Management Program
NJ Department of Environmental Protection
401-05H
PO Box 420
Trenton, NJ 08625-0420

Worksheet for Remediation Cost Estimates
Self-Guarantee Application and Project Cost Review
Boonton MGP Site
May 2021

TASK

Remedial Action	2021	2022	2023	2024	2025
Design	$10,000	$10,000	$0	$0	$0
Implementation	$1,550,000	$390,000	$380,000	$0	$0
Other *	$110,000	$110,000	$75,000	$55,000	$55,000
Short Term O&M **	$155,000	$155,000	$155,000	$155,000	$155,000
Subtotal	**$1,825,000**	**$665,000**	**$610,000**	**$210,000**	**$210,000**

Post Remedial Action	2021	2022	2023	2024	2025-2051
Long Term O&M (26 yrs x $116,250/yr) ***	$0	$0	$0	$0	$3,022,500
Subtotal	**$0**	**$0**	**$0**	**$0**	**$3,022,500**

30 Year Totals	$1,825,000	$665,000	$610,000	$210,000	$3,232,500

30 Year Grand Total	$6,542,500

Notes:
*Costs include, but not limited to, LSRP Oversight, Community Relations and Deed Notices.
**Costs are included until such time that a remedial action permit is obtained.
***Total O&M costs are projected for 30 years (short-term plus long-term).

Boonton MGP Site
Project Cost Review - Section F 1b
Monies Spent to Remediate
01/01/2020 - 12/31/2020 ($000)

Category	Prior Year (2020 Expenditures) Expenditures
1.0 External Costs	
1.1 Remedial Investigations	0.0
1.2 Remedial Action Plans	420
1.3 Implementation of Remedial Actions	
1.3.1 Capital	0.0
1.3.2 O&M	18
1.4 Other	
1.4.1 NJDEP LSRP Fee	2.4
1.4.2 Legal	48.2
1.4.3 Community Relations	0.0
1.4.4 Miscellaneous	360
2.0 Internal Costs	0.0

Jersey Central Power & Light
A FirstEnergy Company

300 Madison Avenue
P.O. Box 1911
Morristown, New Jersey 07962-1911

June 21, 2021

New Jersey Department of Treasury
Division of Revenue
PO Box 417
Trenton, NJ 08646-0417

Certified Mail Article Number 7017 0190 0000 5717 6070

To whom it may concern:

Jersey Central Power and Light Company (JCP&L) encloses payment for the following NJDEP Air Quality Permit Fee invoice:

Invoice No. 210735710
Amount: $4,010.00
Boonton MGP Site
PI #: 27180

Enclosed please find check number 2982337 in the amount of $4,010.00, which covers the summary of charges for the air quality permit fee.

Sincerely,

Jennifer Rusu
Project Manager

Enclosures

cc: David Thompson, LSRP

Let's protect our earth

NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION
AIR QUALITY PERMITTING PROGRAM

RECEIVED
JUN 8 2021
Environmental Department

INVOICE NO.
210735710

Program Interest
BOONTON FMR MANUFACTURED GAS PLANT SITE FANNY RD Boonton, NJ. 07005 27180

Type of Notice	Amount Due
ORIGINAL(NON-INITIAL)	$ 4,010.00

Billing Date	Due Date	NJEMS Bill ID
05/17/21	06/16/21	000000224071100

Summary	
Total Amount Assessed	4,010.00
Amount Received Before Creating Installment Plan (if installment plans is allowed)	0.00
Amount Transferred To Installment Plan	0.00
Installment Amount	0.00
Total Amount Credited	0.00
Total Amount Debited (Other Than Amounts Assessed)	0.00
Total Amount Due	4,010.00

REMINDER:
. 5-YEAR RENEWAL INVOICES FOR PERMITS WHICH HAVE NOT MODIFIED ANY OF THE EQUIPMENT CONTAINED THEREIN CAN BE PAID ELECTRONICALLY AT WWW.NJDEPONLINE.COM
. WHEN PAYING BY CHECK PLEASE BE SURE TO WRITE YOUR INVOICE NUMBER ON YOUR CHECK.
. ALL RECORD CHANGES FOR PRECONSTRUCTION PERMITS MUST BE MADE ON A NON-TECH AMENDMENT FORM LOCATED ON OUR WEBSITE WWW.STATE.NJ.US/DEP/AQPP. DO NOT USE THIS INVOICE AS INDICATED.
. INITIAL & RENEWAL FEES ARE CALCULATED USING THE FEE STRUCTURE FOUND IN N.J.A.C. 7:27-8.6
. UPDATES TO ALL AIR REGULATIONS CAN BE FOUND AT WWW.STATE.NJ.US/DEP/AQM.
. SEE BACK OF INVOICE FOR DEP CONTACT INFORMATION AND ADDITIONAL PERMIT BILLING AND RENEWAL INFO

See Back Of Page for Billing Inquiries

INVOICE NO.
210735710

D9901F (R 3/14/02)

Let's protect our earth

NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION
AIR QUALITY PERMITTING PROGRAM

INVOICE NO.
210735710

NJEMS Bill ID
000000224071100

Program Interest ID	Type of Notice	Billing Date	Due Date	Amount Due
27180	ORIGINAL(NON-INITIAL)	05/17/21	06/16/21	$ 4,010.00

For name and/or address change, check box and write corrections on the back of this invoice. ☐

DO NOT FOLD, SEND OR MARK

Enter the Amount of your payment → $ 4010.00

RETURN THIS PORTION with your check made payable to:

55 JERSEY CENTRAL POWER & LIGHT CO.
ATTN: Frank Lawson
PO BOX 1911
Morristown NJ 07962-1911

TREASURER - STATE OF NEW JERSEY
and mail to:
NJ DEPARTMENT OF TREASURY
DIVISION OF REVENUE
PO BOX 417
TRENTON, NJ 08646-0417

EP10101010101010101010020701080011111100040100000012721073571095S8

2982337

rstEnergy

VOID IF NOT CASHED WITHIN 90 DAYS

50-937
213

Check No. 2982337

CHECK DATE: 06 09 2021

AMOUNT: ******4,010.00

PAY TO THE ORDER OF
TREASURER STATE OF NEW JERSEY
NJ DEPARTMENT OF TREASURY
PO BOX 417
TRENTON, NJ 08646-0417

EXACTLY ******4,010 DOLLARS 00 CENTS

Steven R. Staub
Treasurer
FirstEnergy Corp.

>rgan Chase Bank, Syracuse, NY 13206

⑈2982337⑈ ⑆021309379⑆ 601864788⑈

DOR NO. 0210000188 DOC NO. 2000168950

O NO	INVOICE / RCPT #	DATE	DOCUMENT #	VENDOR INV AMT	DISCOUNT	NET AMOUNT
	BOONTON MGP	05/17/2021	1902318234	4,010.00	0.00	4,010.00

, CHECK INQUIRY, CONTACT FIRSTENERGY ACCOUNTS PAYABLE AT APHELP@FIRSTENERGYCORP.COM.

-MORG-1A/Russ,

Jersey Central Power & Light
A FirstEnergy Company

300 Madison Avenue
P.O. Box 1911
Morristown, New Jersey 07962-1911

July 1, 2021

New Jersey Department of Treasury
Division of Revenue
PO Box 417
Trenton, NJ 08646-0417

Certified Mail Article Number 7017 0190 0000 5717 6094

To whom it may concern:

Jersey Central Power and Light Company (JCP&L) encloses payment for the following NJDEP Annual Site Remediation Fee invoice:

Invoice No. 2983927
NJDEP Invoice No. 210772290
Amount: $2,385.00
Boonton MGP Site
PI #: G000005438

Enclosed please find check number 2983927 in the amount of $2,385.00, which covers the summary of charges for the annual site remediation fee.

Sincerely,

Jennifer Rusu
Project Manager

Enclosures

cc: David Thompson, LSRP

FirstEnergy

2983927

VOID IF NOT CASHED WITHIN 90 DAYS

50-937
213

Check No. 2983927

CHECK DATE	AMOUNT
06 24 2021	******2,385.00

PAY TO THE ORDER OF
TREASURER STATE OF NEW JERSEY
NJ DEPARTMENT OF TREASURY
PO BOX 417
TRENTON, NJ 08646-0417

EXACTLY ******2,385 DOLLARS 00 CENTS

Steven R. Staub
Treasurer
FirstEnergy Corp.

JPMorgan Chase Bank, Syracuse, NY 13206

⑈2983927⑈ ⑆021309379⑆ 601864788⑈

VENDOR NO. 0210000188 DOC NO. 2000189157

PO NO	INVOICE / RCPT #	DATE	DOCUMENT #	VENDOR INV AMT	DISCOUNT	NET AMOUNT
	210772290	06/01/2021	1902351288	2,385.00	0.00	2,385.00

FOR CHECK INQUIRY, CONTACT FIRSTENERGY ACCOUNTS PAYABLE AT APHELP@FIRSTENERGYCORP.COM.

Let's protect our earth

NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION

RECEIVED

JUN 23 2021

Environmental Department

ANNUAL SITE REMEDIATION FEE

INVOICE NO.
210772290

Program Interest
BOONTON COAL GAS (JCP&L) FANNY RD Boonton Town, NJ. 07005 G000005438

Type of Notice	Amount Due
THIRD NOTICE	$ 2,385.00

Billing Date	Due Date	NJEMS Bill ID
06/01/21	07/01/21	000000220578800

Summary	
Total Amount Assessed	2,385.00
Amount Received Before Creating Installment Plan (if installment plans is allowed)	0.00
Amount Transferred To Installment Plan	0.00
Installment Amount	0.00
Total Amount Credited	0.00
Total Amount Debited (Other Than Amounts Assessed)	0.00
Total Amount Due	2,385.00

REMINDER:
-RETURN THE PAYMENT STUB BELOW WITH A CHECK MADE PAYABLE TO: TREASURER - STATE OF NEW JERSEY
-WRITE THE INVOICE NUMBER ON YOUR CHECK
-PAYMENT CAN BE MADE ELECTRONICALLY VIA THE PAY A PAPER INVOICE LINK AT WWW.NJDEPONLINE.COM
-FOR 2ND OR 3RD NOTICE INVOICES OR DEP CONTACT INFORMATION, SEE BACK OF THIS PAGE
-FOR GENERAL INFORMATION, BILLING DISPUTES, AND FREQUENTLY ASKED QUESTIONS GO TO:
WWW.STATE.NJ.US/DEP/SRP/DIRECTBILLING
-INSTALLMENT PLANS ARE NOT AVAILABLE FOR PAYMENT OF LSRP ANNUAL FEES OR RFS 1% SURCHARGES.

Ck to Pay 6/23/21

See Back Of Page for Billing Inquiries

INVOICE NO.
210772290

09901F (R 3/14/02)

Let's protect our earth

NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION
ANNUAL SITE REMEDIATION FEE

INVOICE NO.
210772290

NJEMS Bill ID
000000220578800

Program Interest ID	Type of Notice	Billing Date	Due Date	Amount Due
G000005438	THIRD NOTICE	06/01/21	07/01/21	$ 2,385.00

For name and/or address change, check box and write corrections on the back of this invoice. ☐

DO NOT FOLD, BEND OR MARK

Enter the Amount of your payment → $2385.00

RETURN THIS PORTION with your check made payable to:

TREASURER - STATE OF NEW JERSEY
and mail to:
NJ DEPARTMENT OF TREASURY
DIVISION OF REVENUE
PO BOX 417
TRENTON, NJ 08646-0417

89 JERSEY CENTRAL POWER AND LIGHT
ATTN: Frank Lawson
300 MADISON AVE
Morristown NJ 07960-6169

EP10101010101700000000000504030811111100023850000019521077229018 93

Attachment MFR-3b

Comings, Elaine M

From: Johnston, Elizabeth <elizabeth.johnston@aecom.com>
Sent: Wednesday, February 3, 2021 12:03 PM
To: Morrow, David
Cc: Comings, Elaine M; Craig, Marion; Maranhao, Claudius
Subject: [EXTERNAL] Subject Item ID: DGW0000167212 Notification of Vault Effluent Exceedance January 2021; Dover Former Manufactured Gas Plant Site

David,

On behalf of Jersey Central Power and Light Company, AECOM completed the January 2021 quarterly influent and effluent vault sampling event on January 18, 2021 at the Dover Former Manufactured Gas Plant Site (PI 010630), in accordance with Permit-by-Rule Discharge Authorization Subject Item ID: DGWD0000167212. Results of the sampling were received yesterday, 2/3/2021. Results indicate that the following exceedances of the NJDEP Groundwater Quality Standards were detected the Vault 1 effluent samples:

- **Benzene:** The Vault 1 effluent sampling port (V1-eff-SP) benzene result is 340 ug/l, compared to the GWQS of 1 ug/l for benzene; however, the result for the Vault 1 effluent cleanout port (V1-eff-CP) benzene result does not exceed the GWQS, so notification is not required for benzene. Furthermore, the mid-sampling port (leading carbon drum) and the influent port are clean;

- **Amenable Cyanide:** The Vault 1 effluent sampling port (V1-eff-SP) amenable cyanide result is 0.51 mg/l and the Vault 1 effluent cleanout port (V1-eff-CP) amenable cyanide result is 0.21 mg/l, compared to the GWQS of 0.1 mg/l for free cyanide; therefore, notification is required for amenable cyanide exceedances in the effluent sample and cleanout ports. It is noted that the GWQS is for "free cyanide" and the exceedances are for "amenable cyanide."

  Amenable cyanide is not detected in the Vault 1 influent sample port or cleanout port. This indicates that the effluent exceedances are not due to the discharge of water from inside of the containment wall, but due to mixing of the treated water with downgradient groundwater. Corrective actions may include backflow preventer maintenance and carbon changeout.

Complete results of the Vault 1 influent, intermediate, and effluent sampling are presented in Table 1, below. Jersey Central Power and Light Company plans to investigate these exceedances and will present a plan for addressing these exceedances in a written compliance report within one week. Please let us know if you have any questions or concerns.

Thank you, Liz

Table 1. Summary of January 2021 Vault 1 Discharge to Groundwater Monitoring Results

Client ID	NJAC 7:9C	V1-Inf-SP				V1-Inf-CP				V1-mid-SP				DUP011821					
Lab Sample ID	GWQS	460-226823-19				460-226823-20				460-226823-21				460-226823-25					
Sampling Date	Class II A	01/18/2021 13:45:00				01/18/2021 14:00:00				01/18/2021 14:15:00				01/18/2021 12:01:00				01/.	
Matrix	Higher Values	Water				Water				Water				Water					
Dilution Factor		1				1				1				1					
		Result	Q	MDL	RL	Result	Q	MDL	RL	Result	Q	MDL	RL	Result	Q	MDL	RL	Result	Q
WATER BY 8260D																			
Benzene (ug/l)	1	0.20	U	0.20	1.0	0.20	U	0.20	1.0	0.20	U	0.20	1.0	0.20	U	0.20	1.0	0.20	U
Ethylbenzene (ug/l)	700	0.30	U	0.30	1.0	0.30	U	0.30	1.0	0.30	U	0.30	1.0	0.30	U	0.30	1.0	0.30	U
Total Conc (ug/l)	NA	0.0		NA	NA	0.0		NA	NA	0.0		NA	NA	0.0		NA	NA	0.0	
WATER BY 8270D																			
2-Methylnaphthalene (ug/l)	30	0.53	U	0.53	10	0.53	U	0.53	10	0.53	U	0.53	10	0.53	U	0.53	10	0.53	U
Naphthalene (ug/l)	300	0.54	U	0.54	2.0	0.54	U	0.54	2.0	0.54	U	0.54	2.0	0.54	U	0.54	2.0	0.54	U
Total Conc (ug/l)	NA	0.0		NA	NA	0.0		NA	NA	0.0		NA	NA	0.0		NA	NA	0.0	
WATER BY 335.4																			
Cyanide, Total (mg/l)	NA	0.0040	U	0.0040	0.010	0.0040	U	0.0040	0.010	0.68		0.020	0.050	0.64		0.020	0.050	0.17	F1
WATER BY SM 4500 CN G																			
Cyanide, Amenable (mg/l)	0.1***	0.010	U	0.010	0.010	0.010	U	0.010	0.010	[redacted]		0.010	0.010	0.010	U	0.010	0.010	0.010	U

Legend:

***GWQS for "free cyanide"

[redacted]

J : Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

U : Indicates the analyte was analyzed for but not detected.

F1 : MS and/or MSD recovery exceeds control limits.

NA: Not Applicable

Elizabeth A Johnston, PE
Environmental Engineer, Environmental Department
D 1-973-883-8533; C 1-203-824-0174
elizabeth.johnston@aecom.com

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T 1-973-883-8500; F 1-973-883-8501
www.aecom.com

Twitter I Facebook I LinkedIn I Google+

Comings, Elaine M

From: Morrow, David <David.Morrow@dep.nj.gov>
Sent: Wednesday, February 3, 2021 12:17 PM
To: Johnston, Elizabeth
Cc: Comings, Elaine M; Craig, Marion; Maranhao, Claudius
Subject: [EXTERNAL] Re: Subject Item ID: DGW0000167212 Notification of Vault Effluent Exceedance January 2021; Dover Former Manufactured Gas Plant Site

Elizabeth,

Thank you for the notification and the one-week schedule to present a plan for addressing these exceedances in a written compliance report . -DJM

From: Johnston, Elizabeth <elizabeth.johnston@aecom.com>
Sent: Wednesday, February 3, 2021 12:03 PM
To: Morrow, David <David.Morrow@dep.nj.gov>
Cc: Comings, Elaine M <ecomings@firstenergycorp.com>; Craig, Marion <marion.craig@aecom.com>; Maranhao, Claudius <claudius.maranhao@aecom.com>
Subject: [EXTERNAL] Subject Item ID: DGW0000167212 Notification of Vault Effluent Exceedance January 2021; Dover Former Manufactured Gas Plant Site

David,

On behalf of Jersey Central Power and Light Company, AECOM completed the January 2021 quarterly influent and effluent vault sampling event on January 18, 2021 at the Dover Former Manufactured Gas Plant Site (PI 010630), in accordance with Permit-by-Rule Discharge Authorization Subject Item ID: DGWD0000167212. Results of the sampling were received yesterday, 2/3/2021. Results indicate that the following exceedances of the NJDEP Groundwater Quality Standards were detected the Vault 1 effluent samples:

- **Benzene:** The Vault 1 effluent sampling port (V1-eff-SP) benzene result is 340 ug/l, compared to the GWQS of 1 ug/l for benzene; however, the result for the Vault 1 effluent cleanout port (V1-eff-CP) benzene result does not exceed the GWQS, so notification is not required for benzene. Furthermore, the mid-sampling port (leading carbon drum) and the influent port are clean;

- **Amenable Cyanide:** The Vault 1 effluent sampling port (V1-eff-SP) amenable cyanide result is 0.51 mg/l and the Vault 1 effluent cleanout port (V1-eff-CP) amenable cyanide result is 0.21 mg/l, compared to the GWQS of 0.1 mg/l for free cyanide; therefore, notification is required for amenable cyanide exceedances in the effluent sample and cleanout ports. It is noted that the GWQS is for "free cyanide" and the exceedances are for "amenable cyanide."

  Amenable cyanide is not detected in the Vault 1 influent sample port or cleanout port. This indicates that the effluent exceedances are not due to the discharge of water from inside of the containment wall, but due to

mixing of the treated water with downgradient groundwater. Corrective actions may include backflow preventer maintenance and carbon changeout.

Complete results of the Vault 1 influent, intermediate, and effluent sampling are presented in Table 1, below. Jersey Central Power and Light Company plans to investigate these exceedances and will present a plan for addressing these exceedances in a written compliance report within one week. Please let us know if you have any questions or concerns.

Thank you, Liz

Table 1. Summary of January 2021 Vault 1 Discharge to Groundwater Monitoring Results

Client ID	NJAC 7:9C	V1-Inf-SP				V1-Inf-CP					
Lab Sample ID	GWQS	460-226823-19				460-226823-20					
Sampling Date	Class II A	01/18/2021 13:45:00				01/18/2021 14:00:00					01/
Matrix	Higher Values	Water				Water					
Dilution Factor		1				1					
		Result	Q	MDL	RL	Result	Q	MDL	RL	Result	Q
WATER BY 8260D											
Benzene (ug/l)	1	0.20	U	0.20	1.0	0.20	U	0.20	1.0	0.20	U
Ethylbenzene (ug/l)	700	0.30	U	0.30	1.0	0.30	U	0.30	1.0	0.30	U
Total Conc (ug/l)	NA	0.0		NA	NA	0.0		NA	NA	0.0	
WATER BY 8270E											
2-Methylnaphthalene (ug/l)	30	0.53	U	0.53	10	0.53	U	0.53	10	0.53	U
Naphthalene (ug/l)	300	0.54	U	0.54	2.0	0.54	U	0.54	2.0	0.54	U
Total Conc (ug/l)	NA	0.0		NA	NA	0.0		NA	NA	0.0	
WATER BY 335.4											
Cyanide, Total (mg/l)	NA	0.0040	U	0.0040	0.010	0.0040	U	0.0040	0.010	0.68	
WATER BY SM 4500 CN G											

Elizabeth A Johnston, PE
Environmental Engineer, Environmental Department
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973.883.8501 fax

February 10, 2021

Mr. David Morrow
New Jersey Department of Environmental Protection
Bureau of Case Assignment & Initial Notice
Mail Code 401-05H
P.O. Box 420
Trenton, New Jersey 08625-0420

Re: DGW Permit-by-Rule Compliance Report – January 2021 Notification
Permit-by-Rule Discharge Authorization
Subject Item ID: DGWD0000167212
NJDEP PI No. 010630
Former Dover MGP Site, Town of Dover/Township of Rockaway, NJ

Dear Mr. Morrow:

The purpose of this letter is to provide written notification of a groundwater treatment system noncompliance. The groundwater treatment system discharge was permitted by the February 23, 2018 Permit-by-Rule Discharge Authorization for the Dover Former Manufactured Gas Plant Site. This letter was prepared in accordance with the requirements of the New Jersey Administrative Code 7:14A-6.10 Noncompliance Reporting Section "d." On behalf of Jersey Central Power and Light Company (JCP&L), AECOM completed initial notification of the malfunction within 24-hours by email to you, David Morrow of the NJDEP Bureau of Ground Water Pollution Abatement, in accordance with permit requirements.

Description of the January 2021 Noncompliance

On behalf of JCP&L, AECOM completed the January 2021 influent and effluent groundwater treatment vault (GWTV) sampling event on January 18, 2019, in accordance with Permit-by-Rule Discharge Authorization Subject Item ID: DGWD0000167212. Results of the sampling were received on February 3, 2021. Results indicate that following exceedances of the NJDEP Groundwater Quality Standards (GWQSs) were detected in the Vault 1 effluent sample:

- **Benzene:** The Vault 1 effluent sampling port (V1-eff-SP) benzene result is 340 micrograms per liter (ug/l), which exceeds the GWQS of 1 ug/l for benzene; however, the result for the Vault 1 effluent cleanout port (V1-eff-CP) benzene result does not exceed the GWQS.

  In accordance with the December 2020 DGW Permit-By-Rule Monitoring Report #11 and the August 19, 2019 Malfunction Notification letter, malfunction reporting will only occur if the effluent sample port and the effluent cleanout port sample results both exceed the GWQS. Since benzene only exceeded the GWQS in the effluent sampling port but does not exceed in the effluent cleanout port in the January 2021 monitoring event, notification is not required for benzene. Furthermore, the mid-sampling port (after

the leading carbon drum) and the influent port benzene results are not detected (results are less than the method detection limit of 0.20 ug/l).

- **Amenable Cyanide:** The Vault 1 effluent sampling port (V1-eff-SP) amenable cyanide result is 0.51 milligrams per liter (mg/l) and the Vault 1 effluent cleanout port (V1-eff-CP) amenable cyanide result is 0.21 mg/l, which exceed the GWQS of 0.1 mg/l for free cyanide; therefore, notification is required for amenable cyanide exceedances in the effluent sample and cleanout ports. It is noted that the GWQS is for "free cyanide" and the exceedances are for "amenable cyanide."

It should be noted that amenable cyanide is not detected (results are less than the method detection limit of 0.010 mg/l) in the Vault 1 influent sample port or cleanout port. This indicates that the effluent exceedances are not due to the discharge of water from inside of the containment wall, but due to mixing of the treated water with downgradient groundwater due to a potential failure of the backflow preventer of Vault 1. Complete results of the Vault 1 influent, intermediate, and effluent sampling are presented in Table 1, attached.

Previous GWTV 1 Noncompliance and Corrective Actions

During the Month 9 influent and effluent GWTV sampling event on April 15, 2019, benzene and amenable cyanide exceedances were reported in the effluent sample. To address the Vault 1 effluent sample exceedances, AECOM implemented the following corrective actions between June 24, 2019, and July 1, 2019:

- **Carbon vessel change-out:** The lead and lag drums of granular activated carbon (GAC) in all four GWTVs were replaced with new GAC. The carbon replacement was completed to address the possibility that the lag carbon vessel was spent due to downgradient groundwater entering Vault 1 prior to installation of backflow preventers in November 2018.
- **System clean-out:** All four GWTVs were flushed with potable water and the backflow preventers after the effluent sample ports were inspected to ensure they are functioning properly. This was completed to address the possibility that the Month 9 Vault 1 effluent exceedance was caused by backflow preventer malfunction.
- **Backflow Preventer Installation:** Even though there was no indication that the backflow preventers were damaged or malfunctioning, AECOM installed new backflow preventers at all four GWTVs. It was noted during the installation of the new backflow preventers that the backflow preventer flap valve does not fully close when the groundwater elevations inside and outside the sheetpile wall are similar, i.e., under conditions of no flow or little flow due to similar groundwater elevations inside and outside the sheetpile wall.

After the Month 9 GWTV corrective actions were complete, the Vault 1 influent, intermediate, and effluent sample/cleanout ports were then re-sampled on July 8, 2019, and the chemical analytical laboratory results indicate that there were no exceedances of the NJDEP GWQS in the influent, intermediate, or effluent sample/cleanout ports during the July 2019 GWTV 1 re-sampling event. However, benzene and amenable cyanide exceedances were noted in the GWTV 1 effluent in the regularly scheduled quarterly July 2019 sampling event conducted on July 25, 2019. As these exceedances appeared to be attributed to a mixing of treated groundwater with contaminated groundwater from outside of the containment wall rather than

due to a malfunction of the groundwater treatment system, AECOM resampled the GWTV 1 effluent at the effluent cleanout port on August 13, 2019. There were no exceedances of the GWTV effluent limits in the August 13, 2019 resampling event. The re-sampling results reinforce that the "perceived" exceedances were due to the mixing of the treated effluent water with downgradient groundwater when the groundwater elevations inside and outside the sheetpile wall are similar and there is insufficient groundwater pressure to fully close the backflow preventer valve. Therefore, AECOM has been and will continue to implement the following corrective actions during future sampling events:

- **Modify Groundwater Treatment Vault Sampling Procedure:** Collect water level measurements at monitoring wells located inside and outside the sheetpile wall near the GWTVs to establish groundwater flow conditions at the time of the sampling event. Collect groundwater samples at four (4), rather than three (3) locations, i.e., at the influent port, at the intermediate port, at the effluent cleanout port and effluent sampling port of each vault.
- **Effluent Sample Result Reporting:** Reporting of the effluent sample result will be based on the groundwater quality at the effluent cleanout port and effluent sampling port locations.

AECOM Investigation of the January 2021 Noncompliance

To investigate the cause of the Vault 1 effluent amenable cyanide exceedances in both the effluent sampling and effluent cleanout ports during the January 2021 sampling event, the following information was considered:

- **Previous Corrective Actions performed (described above)**; and
- **Vault 1 Influent and Intermediate Sample Results – January 2021 Sampling Event:** As presented in Table 1, attached, the influent Vault 1 samples did not exceed the NJDEP GWQS. Additionally, the amenable cyanide result only exceeded the GWQS for free cyanide in the Vault 1 mid sampling port but not in the Vault 1 mid cleanout port. As described above, these results suggest that the effluent exceedances were not due to the discharge of water from inside of the containment wall, but due to mixing of the treated effluent water with downgradient groundwater due to a potential failure of the Vault 1 backflow preventer.

Based on the complete set of GWTV 1 groundwater sampling results, no groundwater with concentrations above the NJDEP GWQS is moving from inside the sheetpile containment wall to the outside or vice-versa. Results indicate that the amenable cyanide exceedances in the effluent sample and cleanout ports are due to mixing of the treated effluent water with downgradient groundwater.

Corrective Action Plan for the January 2021 Exceedances

To address the effluent sample exceedances, AECOM on behalf of JCP&L plans to implement the following corrective actions:

- **Carbon vessel change-out**: Exceedances in the Vault 1 effluent sample and cleanout ports, and the mid sample port indicate that the lag carbon vessel is spent due to

downgradient groundwater entering Vault 1. Therefore, both the lead and lag carbon vessels in all four GWTVs will be changed out.

- **Backflow preventer replacement:** Results indicate that downgradient groundwater is leaking into Vault 1 from outside of the sheetpile containment wall. This suggests that the current backflow preventers are not functioning as intended. Backflow preventers will be replaced with new backflow preventers at all four GWTVs to attempt to mitigate the leaking of downgradient groundwater into the GWTVs.

Corrective actions will be implemented prior to the next quarterly monitoring event scheduled for April 2021.

Summary

GWTV results will be summarized and presented in DGW Permit-by-Rule Monitoring Report #12.

Results indicate that the January 2021 GWTV 1 effluent exceedances were caused by mixing of the treated effluent water with downgradient groundwater outside the sheetpile wall. The clean influent sample results indicate that no groundwater with concentrations above the NJDEP GWQS is moving from inside to the outside of the sheetpile wall. The effluent exceedances will be mitigated with GWTV upgrades including GAC changeout and backflow preventer replacement that will be implemented prior to the next quarterly monitoring event scheduled for April 2021.

Should you have any questions or require any additional information, please contact me at (973) 883-8623.

Sincerely,

Claudius Maranhao, P.E.
Project Manager

cc: M. Craig, LSRP #591601

Attachments:
Table 1. Summary of January 2021 Vault 1 Discharge to Groundwater Monitoring Results

Table 1. Summary of January 2021 Vault 1 Discharge to Groundwater Monitoring Results
DGW Permit-by-Rule Compliance Report - January 2021 Notification
Dover Former Manufactured Gas Plant Site
PI # 010630

Client ID	NJAC 7:9C	V1-inf-SP				V1-inf-CP				V1-mid-SP				DUP011821				V1-mid-CP				V1-eff-SP				V1-eff-CP			
Lab Sample ID	GWQS	460-226823-19				460-226823-20				460-226823-21				460-226823-25				460-226823-22				460-226823-23				460-226823-24			
Sampling Date	Classll A	01/18/2021 13:45:00				01/18/2021 14:00:00				01/18/2021 14:15:00				01/18/2021 12:01:00				01/18/2021 14:30:00				01/18/2021 14:45:00				01/18/2021 15:00:00			
Matrix	Higher Values	Water				Water				Water				Water				Water				Water				Water			
Dilution Factor		1				1				1				1				1				1				1			
		Result	Q	MDL	RL	Result	Q	MDL	RL	Result	Q	MDL	RL	Result	Q	MDL	RL	Result	Q	MDL	RL	Result	Q	MDL	RL	Result	Q	MDL	RL
WATER BY 8260D																													
Benzene (ug/l)	1	0.20	U	0.20	1.0	0.20	U	0.20	1.0	0.20	U	0.20	1.0	0.20	U	0.20	1.0	0.20	U	0.20	1.0	[redacted]		0.20	1.0	0.94	J	0.20	1.0
Ethylbenzene (ug/l)	700	0.30	U	0.30	1.0	0.30	U	0.30	1.0	0.30	U	0.30	1.0	0.30	U	0.30	1.0	0.30	U	0.30	1.0	84		0.30	1.0	0.30	U	0.30	1.0
Total Conc (ug/l)	NA	0.0		NA	NA	0.0		NA	NA	0.0		NA	NA	0.0		NA	NA	0.0		NA	NA	424.0		NA	NA	0.94		NA	NA
WATER BY 8270E																													
2-Methylnaphthalene	30	0.53	U	0.53	10	0.53	U	0.53	10	0.53	U	0.53	10	0.53	U	0.53	10	0.53	U	0.53	10	0.97	J	0.53	10	0.53	U	0.53	10
Naphthalene (ug/l)	300	0.54	U	0.54	2.0	0.54	U	0.54	2.0	0.54	U	0.54	2.0	0.54	U	0.54	2.0	0.54	U	0.54	2.0	16		0.54	2.0	0.54	U	0.54	2.0
Total Conc (ug/l)	NA	0.0		NA	NA	0.0		NA	NA	0.0		NA	NA	0.0		NA	NA	0.0		NA	NA	16.97		NA	NA	0.0		NA	NA
WATER BY 335.4																													
Cyanide, Total (mg/l)	NA	0.0040	U	0.0040	0.010	0.0040	U	0.0040	0.010	0.68		0.020	0.050	0.64		0.020	0.050	0.17	F1	0.0040	0.010	0.67		0.020	0.050	0.33		0.0040	0.010
WATER BY SM 4500 CN G																													
Cyanide, Amenable (mg/l)	0.1***	0.010	U	0.010	0.010	0.010	U	0.010	0.010	[redacted]		0.010	0.010	0.010	U	0.010	0.010	0.010	U	0.010	0.010	[redacted]		0.010	0.010	[redacted]		0.010	0.010

Legend:
***GWQS for "free cyanide"
[redacted]
J : Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
U : Indicates the analyte was analyzed for but not detected.
F1 : MS and/or MSD recovery exceeds control limits.
NA; Not Applicable

Comings, Elaine M

From: Johnston, Elizabeth <elizabeth.johnston@aecom.com>
Sent: Friday, March 19, 2021 11:36 AM
To: srp_submissions@dep.nj.gov
Cc: Maranhao, Claudius; Comings, Elaine M
Subject: [EXTERNAL] PI #010630_DGW Permit-By-Rule Monitoring Report 12_Subject Item ID: DGWD0000167212
Attachments: Final_DGW Permit-by-Rule Performance Monitoring Report 12_03182021.pdf

Hello,

On behalf of Jersey Central Power and Light Company, I have attached Discharge To Groundwater Permit-By-Rule Monitoring Report #12 for the Former Dover Manufactured Gas Plant Site:

DGW PBR Monitoring Report 12
Dover Former Manufactured Gas Plant Site,
Intersection of East Blackwell and Carrel Street,
Town of Dover/Rockaway Township,
Morris County, New Jersey 07801;
Program Interest Number: 010630;
Subject Item ID: DGWD0000167212

Thank you,

Elizabeth A Johnston, PE
Environmental Engineer, Environmental Department
D 1-973-883-8533; C 1-203-824-0174
elizabeth.johnston@aecom.com

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DGW PERMIT-BY-RULE MONITORING REPORT #12

PASSIVE GROUNDWATER TREATMENT VAULT PERFORMANCE MONITORING

Former Dover MGP Site
Town of Dover, New Jersey
PI # 010630

Prepared for

Jersey Central Power & Light
A FirstEnergy Company
Morristown, New Jersey

March 2021

Prepared by

URS
1255 Broad Street, Suite 201
Clifton, NJ 07013

Project Number: 60390438

TABLE OF CONTENTS

TABLE OF CONTENTS

May 27, 2021

New Jersey Department of Treasury
Division of Revenue
PO Box 417
Trenton, NJ 08646-0417

Certified Mail Article Number 7019 2970 0000 4565 2869

To whom it may concern:

Jersey Central Power and Light Company (JCP&L) encloses payment for the following NJDEP Annual Site Remediation Fee invoice:

Invoice No. 210364420
Period Covered: 1/17/2020 – 01/17/2020
Amount: $875.00
Amount Paid: $875.00
Dover MGP Site
PI #: 009991

Enclosed please find check number 2980610 in the amount of $875.00, which covers the summary of charges for the current invoice period.

Sincerely,

Denise E. Johnson

Denise E. Johnson
Admin to:
Elaine Comings
Project Manager

Enclosures

cc: Marion Craig, LSRP

Jersey Central Power & Light
A FirstEnergy Company

VIA USPS PRIORITY MAIL EXPRESS

May 28, 2021

Bureau of Case Assignment and Initial Notice
Site Remediation and Waste Management Program
NJ Department of Environmental Protection
401-05H
P.O. Box 420
Trenton, NJ 08625-0420

Subject: Remediation Funding Source Self-Guarantee Renewal Applications
Remediation Cost Review and RFS/FA Forms

To Whom It May Concern:

Jersey Central Power & Light Company (JCP&L) herein submits to the New Jersey Department of Environmental Protection (NJDEP) Bureau of Case Assignment & Initial Notice the Remediation Funding Source Self-Guarantee Applications and Remediation Cost Review and RFS/FA Forms for renewal of the remediation funding source for the following sites:

Site Name	**PI #**
Belmar Manufactured Gas Plant Site	G000005128
Boonton Manufactured Gas Plant Site	G000005438
Dover Manufactured Gas Plant Site	010630
Lakewood Manufactured Gas Plant Site	G000005364
Wildwood Manufactured Gas Plant Site	G000006128
Forked River Station Site	005313
Oyster Creek Nuclear Generating Station	004306

Each *Remediation Funding Source Self-Guarantee Renewal Application* package contains a worksheet providing additional detail on how the future remediation cost estimates were calculated, and a worksheet providing detail for the Self-Guarantor's amounts provided in Section F of the form. Included is a copy of JCP&L's audited Consolidated Financial Statements for the years ended December 31, 2020 and 2019.

Each *Remediation Cost Review and RFS/FA Form* package contains a worksheet providing additional detail on how the future remediation cost estimates were calculated, a worksheet providing monies spent to remediate in 2020.

As previously reported, based on understandings reached between Mr. Ronald Corcory (NJDEP), JCP&L and New Jersey Natural Gas Company (NJNG), JCP&L is fully responsible for providing the Self-Guarantees regarding the costs of remediation for the Belmar, Dover, Lakewood and Wildwood MGP sites. Similarly, NJNG is fully responsible for providing the Self-Guarantees for the Toms River and Long Branch MGP sites.

Please call me at (973) 401-8309 should you have any questions regarding this submittal.

Sincerely,

Frank D Lawson

Frank D. Lawson
Supervisor – Site Remediation
Environmental Department

c: D. Thompson - LSRP (Belmar, Boonton and Lakewood) - forms only
M. Craig - LSRP (Dover) - forms only
S. Ueland - LSRP (Wildwood) - forms only
P. Naumoff - LSRP (Forked River and Oyster Creek) - forms only

G. Nicholas - NJNG w/o attachments

Encl.

New Jersey Department of Environmental Protection
Site Remediation Program

REMEDIATION FUNDING SOURCE SELF GUARANTEE APPLICATION

Date Stamp
(For Department use only)

SECTION A. SITE NAME AND LOCATION

Site Name: Dover Manufactured Gas Plant Site

Street Address: Carrell Street & East Blackwell Street

Municipality: Rockaway Twp & Town of Dover (Township, Borough or City)

County: Morris Zip Code: 07801

Program Interest (PI) Number(s): 010630

Case Tracking Number: NJD980530455

SECTION B. OVERSIGHT DOCUMENT/AUTHORITY

1. Indicate the type(s) of Oversight Document/Authority in effect and provide the date the Oversight Document/Authority became effective and the name of the entity that entered into the oversight document *(check all that apply)*

☒ ACO	Date:	10/15/1991	Name of entity:	Jersey Central Power & Light Company
☐ Remediation Agreement (RA)	Date:		Name of entity:	
☐ Remediation Certification	Date:		Name of entity:	
☐ ISRA RAWP	Date:		Name of entity:	
☐ Directive	Date:		Name of entity:	
☐ Order	Date:		Name of entity:	
☐ Court Order	Date:		Name of entity:	
☐ ACO Amendment	Date:		Name of entity:	
☐ RA Amendment	Date:		Name of entity:	

SECTION C. SELF-GUARANTEE APPLICANT / PERSON RESPONSIBLE FOR CONDUCTING THE REMEDIATION INFORMATION

Name of Organization: Jersey Central Power & Light Company (JCP&L)

First Name of Contact: Frank Last Name of Contact: Lawson

Title: Supervisor - Site Remediation

Phone Number: (973) 401-8309 Ext.: Fax: (330) 436-8159

Mailing Address: Attn: Supervisor - Site Remediation, 300 Madison Avenue, P.O. Box 1911

Municipality: Morristown State: NJ Zip Code: 07962

Email Address: flawson@firstenergycorp.com

1. Are you claiming to be a special purpose entity created specifically for the purpose of acquiring and redeveloping a contaminated site for which a statement of income and expenses are not available? ☐ Yes ☒ No

2. Does the person responsible for conducting the remediation produce its own audited financial statements? ☒ Yes ☐ No

   If "No," does a Parent Company produce the audited financial statements? ☐ Yes ☐ No

   If a Parent Company does produce the audited financial statements complete the Parent Company section below.

PARENT COMPANY INFORMATION *(If Applicable)*

Name of Organization: _____

First Name of Contact: _____ Last Name of Contact: _____

Title: _____

Phone Number: _____ Ext.: _____ Fax: _____

Mailing Address: _____

Municipality: _____ State: _____ Zip Code: _____

Email Address: _____

SECTION D. ESTIMATED COST OF REMEDIATION

1. Current estimated cost of remediation: $ 16,638,024.00
2. Estimated cost of remediation for the next 12-month period: $ 1,745,000.00

SECTION E. REMEDIATION FUNDING SOURCE (RFS) AMOUNT

Total amount of RFS to be established: ..... $ 16,638,024.00

SECTION F. FINANCIAL DOCUMENTATION

1. Does the required remediation funding source amount exceed one-third of the applicant's tangible net worth? ☐ Yes ☒ No

   Self Guarantor's Net Worth (pg(s). 2) ..... $ 3,707,000,000.00

   Self Guarantor's Intangible Assets (pg(s). 2) ..... $ 1,907,000,000.00

   Self Guarantor's Tangible Net Worth (Net Worth minus Intangible Assets) ..... $ 1,800,000,000.00

   One-third of Tangible Net Worth Listed Above ..... $ 600,000,000.00

2. Is cash flow sufficient to assure the availability of sufficient monies for the remediation? ..... ☒ Yes ☐ No

   Self Guarantor's Cash provided by (used in) operating activities (pg(s). 4)..... $ 246,000,000.00

3. Do the gross receipts (revenues) exceed gross payments (expenses) in an amount at least equal to or greater than the estimated cost of remediation to be performed in the next 12-month period? .... ☒ Yes ☐ No

   Gross Receipts (revenues) (pg(s). 1) ..... $ 1,782,000,000.00

   Gross Payments (pg(s). 1) ..... $ 1,461,000,000.00

   Gross Receipts less Gross Payments ..... $ 321,000,000.00

Chief Financial Officer or Similar Officer Certification

I certify under penalty of law that I am fully aware of the requirements of N.J.S.A. 58:10B-3 as they pertain to remediation funding sources. Specifically, I am aware of the responsibilities to establish and maintain the remediation funding source. Additionally, I acknowledge that the remediation funding source as required by N.J.A.C. 7:26C-5 shall be maintained in the appropriate amount and form until such time as an alternative remediation funding source is submitted to the Department and it has been approved by the Department in writing or the Department determines that it is no longer necessary to maintain a remediation funding source. I am aware that there are significant civil penalties for knowingly submitting false, inaccurate or incomplete information and that I am committing a crime of the fourth degree if I make a written false statement that I do not believe to be true. I am also aware that if I knowingly direct or authorize the violation of any statute, I am personally liable for all resulting penalties.

Date: May 25, 2021 By: _____

Signature

Joseph Storsin

Print Full Name Signed Above

Controller

Title

SECTION G. PERSON RESPONSIBLE FOR CONDUCTING THE REMEDIATION CERTIFICATION

I certify under penalty of law that I am fully aware of the requirements of N.J.S.A. 58:10B-3 as they pertain to remediation funding sources. Specifically, I am aware of the responsibilities to establish and maintain the remediation funding source. Additionally, I acknowledge that the remediation funding source as required by N.J.A.C. 7:26C-5 shall be maintained in the appropriate amount and form until such time as an alternative remediation funding source is submitted to the Department and it has been approved by the Department in writing or the Department determines that it is no longer necessary to maintain a remediation funding source. I am aware that there are significant civil penalties for knowingly submitting false, inaccurate or incomplete information and that I am committing a crime of the fourth degree if I make a written false statement that I do not believe to be true. I am also aware that if I knowingly direct or authorize the violation of any statute, I am personally liable for all resulting penalties.

Date: 5-25-21 By: Frank D Lawson

Signature

Frank Lawson

Print Full Name Signed Above

Supervisor - Site Remediation

Title

Completed forms should be sent to:

Bureau of Case Assignment and Initial Notice
Site Remediation Program
NJ Department of Environmental Protection
401-05H
PO Box 420
Trenton, NJ 08625-0420

Worksheet for Remediation Cost Estimates
Self-Guarantee Application and Project Cost Review
Dover MGP Site
May 2021

TASK

Remedial Action	2021	2022	2023	2024
Design	$100,000	$0	$0	$0
Implementation	$1,457,000	$0	$0	$0
Wetlands Mitigation	$0	$0	$0	$0
Other *	$128,000	$68,000	$68,000	$61,000
Short Term O&M **	$60,000	$474,000	$474,000	$474,000
Subtotal	$1,745,000	$542,000	$542,000	$537,024

Post Remedial Action	2021	2022	2023	2024-2047
Long Term O&M (28 yrs x $474,000/yr) ***	$0	$0	$0	$13,272,000
Subtotal	$0	$0	$0	$13,272,000

30 Year Totals	$1,745,000	$542,000	$542,000	$13,809,024

30 Year Grand Total	$16,638,024

Notes:
*Costs include, but not limited to, LSRP Oversight, Community Relations and Deed Notices.
**Costs are included until such time that a remedial action permit is obtained.
***Total O&M costs are projected for 30 years (short-term plus long-term).

EXPLANATION OF SECTION F. FINANCIAL DOCUMENTATION

	NJDEP CATEGORY	AMOUNT	REFERENCE	CALCULATION
1.	Self Guarantor's Net Worth	$3,707,000,000	COMMON STOCKHOLDERS' EQUITY– Total Common Stockholders' Equity $3,707,000,000 (Page 2 of JCP&L Consolidated Financial Statement)	—
	Self Guarantor's Intangible Assets	$1,907,000,000	DEFERRED CHARGES AND OTHER ASSETS – Total Goodwill $1,811,000,000, plus (+) Other $96,000,000. (Page 2 of JCP&L Consolidated Financial Statement)	$1,811,000,000 + $96,000,000 $1,907,000,000
	Self Guarantor's Tangible Net Worth (Net Worth minus Intangible Assets)	$1,800,000,000	$3,707,000,000 minus (-) $1,907,000,000	$3,707,000,000 - $1,907,000,000 $1,800,000,000
	One-third of Tangible Net Worth listed above	$600,000,000	$1,800,000,000 divided (÷) by 3	$1,800,000,000 ÷ 3 $600,000,000
2.	Self Guarantor's Net Cash provided by (used in) operating activities	$246,000,000	CASH FLOWS FROM OPERATING ACTIVITIES – Net cash provided from operating activities (Page 4 of JCP&L Consolidated Financial Statement)	—

3.	Gross Receipts (revenues)	$1,782,000,000	REVENUES – Total revenues (Page 1 of JCP&L Consolidated Financial Statement)	—
	Gross Payments (expenses)	$1,461,000,000	EXPENSES EXCLUDING IMPAIRMENT CHARGES AND NON-CASH CHARGES – Total expenses $1,645,000,000, minus (-) Interest Expense $94,000,000, minus (-) Provision for Depreciation $167,000,000, minus (-) Amortization of Regulatory Assets ($175,000,000), minus (-) Income Taxes $19,000,000, minus (-) Impairment of Assets $0, minus (-) Pension and OPEB mark-to-market adjustment* $79,000,000. (Page 1 of JCP&L Consolidated Financial Statement)	$1,645,000,000 - $94,000,000 $1,551,000,000 - $167,000,000 $1,384,000,000 - ($175,000,000) $1,559,000,000 - $19,000,000 $1,540,000,000 - $0 $1,540,000,000 - $79,000,000 $1,461,000,000
	Net Income (Gross Receipts less Gross Payments)	$321,000,000	$1,782,000,000 minus (-) $1,461,000,000	$1,782,000,000 - $1,461,000,000 $321,000,000

*Non-cash adjustment related to a pension and OPEB mark-to-market adjustment for the change in the fair value of plan assets and net actuarial gains and losses annually in the fourth quarter of each fiscal year and whenever a plan is determined to qualify for a remeasurement

New Jersey Department of Environmental Protection
Site Remediation and Waste Management Program

REMEDIATION COST REVIEW AND RFS/FA FORM

☒ RFS ☐ FA

Date Stamp
(For Department use only)

SECTION A. SITE NAME AND LOCATION

Site Name: Dover Manufactured Gas Plant Site

List All AKAs:

Street Address: Carrell Street & East Blackwell Street

Municipality: Rockaway Twp & Town of Dover (Township Borough or City)

County: Morris Zip Code: 07801

Program Interest (PI) or RFS Number(s): 010630

Case Tracking Number(s): NJD980530455

SECTION B. PERSON RESPONSIBLE FOR CONDUCTING THE REMEDIATION

Full Legal Name Person Responsible for Conducting Remediation: Jersey Central Power & Light Company (JCP&L)

Representative First Name: Frank Representative Last Name: Lawson

Title: Supervisor - Site Remediation

Mailing Address: Attn: Supervisor - Site Remediation, 300 Madison Avenue, P.O. Box 1911

Municipality: Morristown State: NJ Zip Code: 07962

Phone Number: (973) 401-8309 Ext: Fax: (330) 436-8159

Email Address: flawson@firstenergycorp.com

☒ I am also the person responsible for establishing and maintaining a Remediation Funding Source (RFS).

Billing Contact

☒ Same as Person Responsible for Conducting Remediation / Representative listed above.

Name of Organization:

Name of Billing Contact: Title:

Mailing Address:

Municipality: State: Zip Code:

Phone Number: Ext: Fax:

Email Address:

EXEMPTION CLAIM FOR RFS ONLY (not FA)

If claiming an exemption from the requirement to post Remediation Funding Source pursuant to N.J.A.C. 7:26C-5.2(b), please check the appropriate box below and do not complete sections C through H:

- ☐ Environmental Opportunity Zone
- ☐ Innovative remedial action technology
- ☐ Unrestricted or limited restricted use remedial action
- ☐ Government entity
- ☐ Remediation at primary or secondary residence
- ☐ Owner or operator of a licensed child care center
- ☐ Public, private or charter school

NOTE: All exemptions require additional supporting documentation to be attached. Please refer to the form instructions. If the exemption is only for a portion of the site, you must complete section C through H for the portion of the site that does not meet the exemption criteria. **See instructions.**

SECTION C. PURPOSE OF SUBMISSION

Check all that apply

- ☐ Initial Remediation Funding Source pursuant to N.J.A.C. 7:26C-5.2(a) (*attach original RFS instrument and 1% surcharge payment, as applicable)*
- ☐ Initial Financial Assurance for a Remedial Action Permit pursuant to N.J.A.C. 7:26C-7 (*attach original FA instrument*)
- ☐ Initial Direct Oversight Remediation Trust Fund Agreement pursuant to N.J.A.C. 7:26C-14.2(b)5 (*attach original RTF instrument and 1% surcharge payment)*

- ☐ Initial Direct Oversight Remediation Cost Review pursuant to N.J.A.C. 7:26C-14.2(b)4
- ☒ Annual Remediation Cost Review pursuant to N.J.A.C. 7:26C-5.10 *(attach RFS instrument verification and valuation)*
- ☐ Biennial Cost Review pursuant to N.J.A.C. 7:26C-7.10 *(Remedial Action Permits)*

- ☒ Change in Remediation Funding Source or Financial Assurance Amount pursuant to N.J.A.C. 7:26C-5.11
- ☐ Change in Remediation Funding Source or Financial Assurance Mechanism pursuant to N.J.A. 7:26C-5.11(d)
- ☐ Remediation Funding Source Disbursement Notification pursuant to N.J.A.C. 7:26C-5.12(a)
- ☐ Remediation Funding Source Disbursement Request pursuant to N.J.A.C. 7:26C-5.12(b) – Direct Oversight only
- ☐ Remediation Funding Source/Financial Assurance Disbursement Request pursuant to N.J.A.C. 7:26C-5.13(d) – Department held RFS/FA

- ☐ Request Release of the Remediation Funding Source or Financial Assurance pursuant to N.J.A.C. 7:26C-5.11(e)
- ☐ Using a Remediation Funding Source as Financial Assurance

SECTION D. TYPE AND AMOUNT OF REMEDIATION FUNDING SOURCE OR FINANCIAL ASSURANCE POSTED

Initial or Existing Mechanism for ☒ RFS or ☐ FA

Check all that apply

- ☐ Letter of Credit
- ☐ Remediation Trust Fund
- ☒ Self Guarantee
- ☐ Line of Credit
- ☐ Environmental Insurance Policy
- ☐ Surety Bond
- ☐ Direct Oversight Remediation Trust Fund
- ☐ Fully Funded Trust (Existing only pre-June 1993)
- ☐ Performance Bond (Existing only pre-June 1993)
- ☐ Surety Bond (Existing only pre-June1993)

Replacement Mechanism for ☐ RFS or ☐ FA

Check all that apply

- ☐ Letter of Credit
- ☐ Remediation Trust Fund
- ☐ Self Guarantee
- ☐ Line of Credit
- ☐ Environmental Insurance Policy
- ☐ Surety Bond
- ☐ Direct Oversight Remediation Trust Fund

1. Expiration Date of Remediation Funding Source or Financial Assurance Posted: 06/01/2021
2. Amount of Remediation Funding Source or Financial Assurance posted prior to any increase, reduction, or disbursement addressed in this submission: $17,672,514.00
3. Do you want to disburse, reduce, or increase the amount of the Remediation Funding Source?..... ☒ Yes ☐ No
   If "Yes," specify below:
   ☐ Disburse RFS ☒ Reduce RFS ☐ Increase RFS by (amount): $1,034,490.00

SECTION E. REMEDIATION COST ESTIMATION

1. Indicate the method(s) used to calculate the remediation cost review/estimate: (*Check all that apply*)

☐ RACER® (*attach documentation for estimate*)
☐ Cost-Pro® (*attach documentation for estimate*)
☐ Surrogate Cost (*ISRA Remediation Certifications, see for instructions for further clarification)*
A Preliminary Assessment/Site Investigation has NOT been completed for the site, the surrogate remediation funding source has been established in the amount of $100,000 or $250,000.
☒ Calculated independently by LSRP/Consultant using (*attach documentation used to generate calculation*):
☐ Actual competitive bid(s)
☒ Internal company data
☐ Other commercially available software. Specify: _____
☒ Other. Specify: Internal JCP&L estimates with LSRP input

2. Estimated cost:
To complete remediation: $16,638,024.00
or
For Financial Assurance: _____

3. Full legal name of person who prepared the cost estimate: Frank D. Lawson, JCP&L / Marion Craig, LSRP

SECTION F. COST REVIEW FOR REMEDIATION FUNDING SOURCE OR FINANCIAL ASSURANCE

1. **Remediation Funding Source – due annually**

a. Date of most recent prior cost estimate: 05/31/2020

b. Total monies spent to date to remediate the site: $27,660,762.00
Attach detailed summary of monies spent to remediate.

c. Estimated remaining costs to complete the remediation: $16,638,024.00
Attach detailed estimate of remaining costs to complete remediation.

d. Provide an explanation of any changes from most recent prior cost estimate.

Revised estimate

1b. Total monies spent to date to remediate the site as of 12/31/2020
Attach detailed summary of monies spent to remediate. $786,900.00 1/1/20-12/31/20
(see attached for cost detail)

2. **Financial Assurance – due biennially** Not Applicable

a. Date of most recent prior cost estimate: ..... _____

b. Current cost estimate to operate, maintain and monitor the engineering control: ..... _____

c. Provide an explanation of any changes from most recent prior cost estimate.

SECTION G. LSRP AUTHORIZED DISBURSEMENTS NOTIFICATION AND REQUEST FOR NJDEP REDUCTION APPROVAL Not Applicable

1. Date previous notification/request submitted: .....

2. For Remediation Trust Funds and Lines of Credit:
   a. Date the LSRP authorized disbursement (*Attach copy of authorization*): .....
   b. Total amount of the authorized disbursement: .....
   c. Date the holder of the RFS mechanism disbursed the funds: .....
   d. Amount of RFS remaining after disbursement.....

3. For NJDEP authorized reductions:
   a. Amount of funds you are requesting the NJDEP authorize for reduction: .....
   b. Provide RFS account information (e.g., bank name, account number, etc.):

SECTION H. REQUEST FOR NJDEP AUTHORIZED DISBURSEMENTS Not Applicable

ONLY for sites subject to Direct Oversight pursuant to N.J.A.C. 7:26C-14 and disbursement requests in accordance with N.J.A.C. 7:26C-5.13

1. Total amount of requested disbursement .....
2. Provide the name, address, telephone number, email and tax identification number of all parties to receive payment from this disbursement and amount of each payment.

3. Attach a description of remediation costs incurred or to be incurred and the specific remediation that has or will be completed under this request including the following documentation:
   a.) For remediation costs that have been incurred, include a Remediation Report documenting the completion of the remediation activities; or
   b.) For remediation costs to be incurred, include a proposed scope of work of the remediation activities to be completed.
4. Attach an estimate of all remaining costs to complete the remediation.

SECTION I. LICENSED SITE REMEDIATION PROFESSIONAL INFORMATION AND STATEMENT

LSRP ID Number: 591601

First Name: Marion Last Name: Craig

Phone Numbers: (973) 883-8689 Ext.: 216 Fax: (973) 883-8501

Mailing Address: 1255 Broad Street, Suite 201

Municipality: Clifton State: NJ Zip Code: 07013

Email Address: marion.craig@aecom.com

This statement shall be signed by the LSRP who is submitting this notification in accordance with N.J.S.A. 58:10C-14, and N.J.S.A. 58:10B-1.3b(1) and (2).

(1) I certify, as a Licensed Site Remediation Professional authorized pursuant to N.J.S.A. 58:10C-1 et seq. to conduct business in New Jersey, that for the remediation described in this submission, and all attachments included in this submission, I personally: Managed, supervised, or performed the remediation conducted at this site that is described in this submission, and all attachments included in this submission; and/or periodically reviewed and evaluated the work performed by other persons that forms the basis for the information in this submission; and/or completed the work of another site remediation professional, licensed or not, after having: (1) reviewed all available documentation on which I relied; (2) conducted a site visit and observed the then-current conditions and verified the status of as much of the work as was reasonably observable; and (3)concluded, in the exercise of my independent professional judgment, that there was sufficient information upon which to complete any additional phase of remediation and prepare workplans and reports related thereto.

(2) I certify:

- *That I have read this submission and all attachments to this submission;*
- *That in performing the professional services as the licensed site remediation professional for the entire site or each area of concern, I adhered to the professional conduct standards and requirements governing licensed site remediation professionals provided in N.J.S.A. 58:10C-16;*
- *That the remediation conducted at the entire site or each area of concern, that is described in this submission and all attachments to this submission, was conducted pursuant to and in compliance with the remediation requirements in N.J.S.A. 58:10C-14.c;*
- *That the remediation described in this submission, and all attachments to this submission, was conducted pursuant to and in compliance with the regulations of the Site Remediation Professional Licensing Board at N.J.A.C. 7:26I; and*
- *That the information contained in this submission and all attachments to this submission is true, accurate, and complete.*

(3) I certify, when this submission includes a response action outcome, that the entire site or each area of concern has been remediated in compliance with all applicable statutes, rules, and regulations and is protective of public health and safety and the environment.

(4) I certify that no other person is authorized or able to use any password, encryption method, or electronic signature that the Board or the Department have provided to me.

(5) I certify that I understand and acknowledge that:

- *If I knowingly make a false statement, representation, or certification in any document or information I submit to the Department I may be subject to civil and administrative enforcement pursuant to N.J.S.A. 58:10C-17.a.1(a)through (f) by the Board, including but not limited to license suspension, revocation, or denial of renewal; and*
- *If I purposely, knowingly, or recklessly make a false statement, representation, or certification in any application, form, record, document or other information submitted to the Department or required to be maintained pursuant to the Site Remediation Reform Act, I shall be guilty, upon conviction, of a crime of the third degree and shall, notwithstanding the provisions of subsection b. of N.J.S.2C:43-3, be subject to a fine of not less than $5,000 nor more than $75,000 per day of violation, or by imprisonment, or both.*

(6) I certify that I have read this certification prior to signing, certifying, and making this submission.

LSRP Signature: Marion Craig Date: 5/26/21

LSRP Name: Marion Craig, Principal Scientist

Company Name: AECOM

SECTION J. PERSON RESPONSIBLE FOR CONDUCTING THE REMEDIATION INFORMATION AND CERTIFICATION

Full Legal Name of the Person Responsible for Conducting the Remediation: Jersey Central Power & Light Company

Representative First Name: Frank Representative Last Name Lawson

Title: Supervisor - Site Remediation

Phone Number: (973) 401-8309 Ext: Fax: (330) 436-8159

Mailing Address: Attn: Supervisor - Site Remediation, 300 Madison Avenue, P.O. Box 1911

City/Town: Morristown State: NJ Zip Code: 07962

Email Address: flawson@firstenergycorp.com

☒ The person responsible for conducting the remediation is the person responsible for establishing and maintaining a remediation funding source/financial assurance.

This certification shall be signed by the person responsible for conducting the remediation who is submitting this notification in accordance with Administrative Requirements for the Remediation of Contaminated Sites rule at N.J.A.C. 7:26C-1.5(a).

I certify under penalty of law that I have personally examined and am familiar with the information submitted herein, including all attached documents, and that based on my inquiry of those individuals immediately responsible for obtaining the information, to the best of my knowledge, I believe that the submitted information is true, accurate and complete. I am aware that there are significant civil penalties for knowingly submitting false, inaccurate or incomplete information and that I am committing a crime of the fourth degree if I make a written false statement which I do not believe to be true. I am also aware that if I knowingly direct or authorize the violation of any statute, I am personally liable for the penalties.

I certify I am fully aware of the requirements of N.J.A.C. 7:26C-5 et seq. as they pertain to Remediation Funding Sources and Financial Assurances and the language of any provided Remediation Funding Source or Financial Assurance instrument does not deviate in any way from the language in the Department's model documents found at www.nj.gov/dep/srp/guidance/rfsguide except as approved by the Department.

For disbursement notification or request pursuant to N.J.A.C. 7:26C-5.12 or 5.13(d), I certify that the disbursement relates to actual remediation costs, incurred or to be incurred, and does not include ineligible legal fees.

Signature: Frank D Lawson Date: 5-27-21

Name/Title: Frank Lawson, Supervisor - Site Remediation

SECTION K. PERSON ESTABLISHING AND MAINTAINING A REMEDIATION FUNDING SOURCE/FINANCIAL ASSURANCE (complete if different person than Section J)

Full Legal Name of Person Establishing and Maintaining a Remediation Funding Source: _____

Representative First Name: _____ Representative Last Name: _____

Title: _____

Phone Number: _____ Ext: _____ Fax: _____

Mailing Address: _____

City/Town: _____ State: _____ Zip Code: _____

Email Address: _____

This certification shall be signed by the person establishing and maintaining a remediation funding source/financial assurance who is submitting this notification in accordance with Administrative Requirements for the Remediation of Contaminated Sites rule at N.J.A.C. 7:26C-1.5(a).

I certify under penalty of law that I have personally examined and am familiar with the information submitted herein, including all attached documents, and that based on my inquiry of those individuals immediately responsible for obtaining the information, to the best of my knowledge, I believe that the submitted information is true, accurate and complete. I am aware that there are significant civil penalties for knowingly submitting false, inaccurate or incomplete information and that I am committing a crime of the fourth degree if I make a written false statement which I do not believe to be true. I am also aware that if I knowingly direct or authorize the violation of any statute, I am personally liable for the penalties.

I certify I am fully aware of the requirements of N.J.A.C. 7:26C-5 et seq. as they pertain to Remediation Funding Sources and Financial Assurances and the language of any provided Remediation Funding Source or Financial Assurance instrument does not deviate in any way from the language in the Department's model documents found at www.nj.gov/dep/srp/guidance/rfsguide except as approved by the Department.

For a disbursement notification or request pursuant to N.J.A.C. 7:26C-5.12, I certify that the disbursement relates to actual remediation costs, incurred or to be incurred, and does not include ineligible legal fees

Signature: _____ Date: _____

Name/Title: _____

Completed forms should be sent to:

Bureau of Case Assignment & Initial Notice
Site Remediation and Waste Management Program
NJ Department of Environmental Protection
401-05H
PO Box 420
Trenton, NJ 08625-0420

Worksheet for Remediation Cost Estimates
Self-Guarantee Application and Project Cost Review
Dover MGP Site
May 2021

TASK

Remedial Action	2021	2022	2023	2024
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Other *	$128,000	$68,000	$68,000	$61,000
Short Term O&M **	$60,000	$474,000	$474,000	$474,000
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Post Remedial Action	2021	2022	2023	2024-2047
Long Term O&M (28 yrs x $474,000/yr) ***	$0	$0	$0	$13,272,000
Subtotal	**$0**	**$0**	**$0**	**$13,272,000**

30 Year Totals	$1,745,000	$542,000	$542,000	$13,809,024

30 Year Grand Total	$16,638,024

Notes:
*Costs include, but not limited to, LSRP Oversight, Community Relations and Deed Notices.
**Costs are included until such time that a remedial action permit is obtained.
***Total O&M costs are projected for 30 years (short-term plus long-term).

Dover MGP Site
Project Cost Review - Section F 1b
Monies Spent to Remediate
01/01/2020-12/31/2020 ($000)

Category	
1.0 External Costs	
1.1 Remedial Investigations	0.0
1.2 Remedial Action Design	0.0
1.3 Implementation of Remedial Actions	
1.3.1 Capital	0.0
1.3.2 O&M	730.3
1.4 LSRP Oversight	2.9
1.5 Legal	4.8
1.6 Community Relations	0.1
1.7 Miscellaneous	8.1
1.8 Wetlands Mitigation	0.0
1.9 Deed Notice	0.0
1.10 NJDEP Fees	2.4
2.0 Internal Costs	38.3

Notes:
(1) Waste disposal included in O&M costs.

Comings, Elaine M

From: Johnston, Elizabeth <elizabeth.johnston@aecom.com>
Sent: Thursday, June 10, 2021 11:33 AM
To: srp_submissions@dep.nj.gov
Cc: Morrow, David; Maranhao, Claudius; Comings, Elaine M
Subject: [EXTERNAL] PI #010630_DGW Permit-By-Rule Monitoring Report 13_Subject Item ID: DGWD0000167212
Attachments: Final_DGW Permit-by-Rule Performance Monitoring Report 13_06102021.pdf

Hello,

On behalf of Jersey Central Power and Light Company, I have attached Discharge To Groundwater Permit-By-Rule Monitoring Report #13 for the Former Dover Manufactured Gas Plant Site:

DGW PBR Monitoring Report 13
Dover Former Manufactured Gas Plant Site,
Intersection of East Blackwell and Carrel Street,
Town of Dover/Rockaway Township,
Morris County, New Jersey 07801;
Program Interest Number: 010630;
Subject Item ID: DGWD0000167212

Thank you,

Elizabeth A Johnston, PE
Environmental Engineer, Environmental Department
D 1-973-883-8533; C 1-203-824-0174
elizabeth.johnston@aecom.com

AECOM
1255 Broad Street, Suite 201, Clifton, New Jersey 07013
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Twitter | Facebook | LinkedIn | Google+

DGW PERMIT-BY-RULE MONITORING REPORT #13

PASSIVE GROUNDWATER TREATMENT VAULT PERFORMANCE MONITORING

Former Dover MGP Site
Town of Dover, New Jersey
PI # 010630

Prepared for

Jersey Central Power & Light
A FirstEnergy Company
Morristown, New Jersey

June 2021

Prepared by

URS
1255 Broad Street, Suite 201
Clifton, NJ 07013

Project Number: 60390438

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Comings, Elaine M

From: Morrow, David (DEP) <David.Morrow@dep.nj.gov>
Sent: Thursday, June 10, 2021 11:43 AM
To: Johnston, Elizabeth; DEP SRP_SUBMISSIONS (DEP)
Cc: Maranhao, Claudius; Comings, Elaine M
Subject: [EXTERNAL] Re: PI #010630_DGW Permit-By-Rule Monitoring Report 13_Subject Item ID: DGWD0000167212

Eizabeth,
Please make sure that the report is also submitted through BCAIN. Thank you

Nothing in this correspondence affects your potential liability and obligations to the State Trustee, the Department or its Commissioner regarding natural resource injuries, restoration, or damages.

David Morrow, Principal Geologist
Bureau of Ground Water Pollution Abatement
Hazardous Site Science Element
Site Remediation and Waste Management Program
Mail Code 401-5V
P.O. Box 420
Trenton, NJ 08625
(609) 633-6439
david.morrow@dep.nj.gov

From: Johnston, Elizabeth <elizabeth.johnston@aecom.com>
Sent: Thursday, June 10, 2021 11:33 AM
To: DEP SRP_SUBMISSIONS (DEP) <srp_submissions@dep.nj.gov>
Cc: Morrow, David (DEP) <David.Morrow@dep.nj.gov>; Maranhao, Claudius <claudius.maranhao@aecom.com>; Comings, Elaine M <ecomings@firstenergycorp.com>
Subject: [EXTERNAL] PI #010630_DGW Permit-By-Rule Monitoring Report 13_Subject Item ID: DGWD0000167212

Hello,

On behalf of Jersey Central Power and Light Company, I have attached Discharge To Groundwater Permit-By-Rule Monitoring Report #13 for the Former Dover Manufactured Gas Plant Site:

DGW PBR Monitoring Report 13
Dover Former Manufactured Gas Plant Site,

Intersection of East Blackwell and Carrel Street,
Town of Dover/Rockaway Township,
Morris County, New Jersey 07801;
Program Interest Number: 010630;
Subject Item ID: DGWD0000167212

Thank you,

Elizabeth A Johnston, PE
Environmental Engineer, Environmental Department
D 1-973-883-8533; C 1-203-824-0174
elizabeth.johnston@aecom.com

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1255 Broad Street, Suite 201, Clifton, New Jersey 07013
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www.aecom.com

Comings, Elaine M

From: Johnston, Elizabeth <elizabeth.johnston@aecom.com>
Sent: Tuesday, August 17, 2021 2:52 PM
To: Morrow, David [DEP]
Cc: Comings, Elaine M; Craig, Marion; Maranhao, Claudius
Subject: [EXTERNAL] RE: Subject Item ID: DGW0000167212 Notification of Vault Effluent Exceedance July 2021; Dover Former Manufactured Gas Plant Site

Thank you David. I will submit this email to the BCAIN srp_submissions@dep.nj.gov email address as well. Would you like us to mail a copy as well? And did you want a written report or this email is sufficient?

Thanks, Liz

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elizabeth.johnston@aecom.com

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1255 Broad Street, Suite 201
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T +1-973-883-8500
aecom.com

From: Morrow, David [DEP] <David.Morrow@dep.nj.gov>
Sent: Tuesday, August 17, 2021 2:41 PM
To: Johnston, Elizabeth <elizabeth.johnston@aecom.com>
Cc: Comings, Elaine M <ecomings@firstenergycorp.com>; Craig, Marion <marion.craig@aecom.com>; Maranhao, Claudius <claudius.maranhao@aecom.com>
Subject: [EXTERNAL] RE: Subject Item ID: DGW0000167212 Notification of Vault Effluent Exceedance July 2021; Dover Former Manufactured Gas Plant Site

Thank you, please follow up with reporting to BCAIN for the addition to the site main file.

Nothing in this correspondence affects your potential liability and obligations to the State Trustee, the Department or its Commissioner regarding natural resource injuries, restoration, or damages.

David Morrow, Principal Geologist
Bureau of Ground Water Pollution Abatement
Hazardous Site Science Element
Site Remediation and Waste Management Program
Mail Code 401-5V
P.O. Box 420
Trenton, NJ 08625
(609) 633-6439
david.morrow@dep.nj.gov

From: Johnston, Elizabeth <elizabeth.johnston@aecom.com>
Sent: Tuesday, August 17, 2021 2:33 PM
To: Morrow, David [DEP] <David.Morrow@dep.nj.gov>
Cc: Comings, Elaine M <ecomings@firstenergycorp.com>; Craig, Marion <marion.craig@aecom.com>; Maranhao, Claudius <claudius.maranhao@aecom.com>
Subject: [EXTERNAL] Subject Item ID: DGW0000167212 Notification of Vault Effluent Exceedance July 2021; Dover Former Manufactured Gas Plant Site

David,

On behalf of Jersey Central Power and Light Company, AECOM completed the July 2021 quarterly influent and effluent vault sampling event on July 30, 2021 at the Dover Former Manufactured Gas Plant Site (PI 010630), in accordance with Permit-by-Rule Discharge Authorization Subject Item ID: DGWD0000167212. Results of the sampling were received yesterday, 8/16/2021. Results indicate that the following exceedance of the NJDEP Groundwater Quality Standards was detected the Vault 1 effluent cleanout port sample:

- **Amenable Cyanide:** The Vault 1 effluent cleanout port (V1-EFF-CP) amenable cyanide result is 0.12 mg/l, compared to the groundwater quality standard (GWQS) of 0.1 mg/l for free cyanide. However, the Vault 1 effluent sampling port (V1-EFF-SP) amenable cyanide result was not detected less than 0.010 mg/l. It is noted that the GWQS is for "free cyanide" and the cleanout port exceedance is for "amenable cyanide." We are waiting to hear back from Greg Toffoli on approval to use a free cyanide analytical method so we analyzed samples for total and amenable cyanide instead of free cyanide during this monitoring round.

  Additionally, amenable cyanide was not detected or less than the GWQS for free cyanide in the July 2021 Vault 1 influent and intermediate sample and cleanout port samples. This indicates that the effluent exceedance is not due to the discharge of water from inside of the containment wall.

Complete results of the Vault 1 influent, intermediate, and effluent sampling are presented in Table 1, below. As the effluent sampling port amenable cyanide result located after the lag GAC drum did not exceed the GWQS for free cyanide, we do not believe an investigation and written compliance report is required. Please let us know if this is acceptable or if a written compliance report is required.

Thank you, Liz

Table 1. Summary of July 2021 Vault 1 Discharge to Groundwater Monitoring Results

Client ID		NJAC 7:9C	V1-INF-SP				V1-INF-CP				V1-MID-SP				
Lab Sample ID		GWQS	460-239940-15				460-239940-16				460-239940-17				
Sampling Date		ClassII A	07/30/2021 11:50:00				07/30/2021 12:05:00				07/30/2021 12:20:00				
Matrix		Higher Values	Water				Water				Water				
Dilution Factor			1				1				1				
	Unit		Result	Q	MDL	RL	Result	Q	MDL	RL	Result	Q	MDL	RL	Re
WATER BY 8260D															
Benzene	ug/l	1	0.20	U	0.20	1.0	0.20	U	0.20	1.0	0.20	U	0.20	1.0	
Ethylbenzene	ug/l	700	0.30	U	0.30	1.0	0.30	U	0.30	1.0	0.30	U	0.30	1.0	
Total Conc		NA	0.0		NA	NA	0.0		NA	NA	0.0		NA	NA	
WATER BY 8270E															
2-Methylnaphthalene	ug/l	30	0.53	U	0.53	10	0.53	U	0.53	10	0.53	U	0.53	10	
Naphthalene	ug/l	300	0.54	U	0.54	2.0	1.1	J	0.54	2.0	0.54	U	0.54	2.0	
Total Conc	ug/l	NA	0.0		NA	NA	1.1		NA	NA	0.0		NA	NA	
WATER BY 335.4															
Cyanide, Total	mg/l	NA	0.020		0.0040	0.010	0.019		0.0040	0.010	0.0040	U	0.0040	0.010	0
WATER BY SM 4500 CN G															
Cyanide, Amenable	mg/l	0.1***	0.020		0.010	0.010	0.019		0.010	0.010	0.010	U	0.010	0.010	0

Legend:

***GWQS for "free cyanide"

J : Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

U : Indicates the analyte was analyzed for but not detected.

NA: Not Applicable

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aecom.com

Comings, Elaine M

From: Johnston, Elizabeth <elizabeth.johnston@aecom.com>
Sent: Tuesday, August 17, 2021 2:53 PM
To: DEP SRP_SUBMISSIONS (DEP)
Cc: Comings, Elaine M; Craig, Marion; Maranhao, Claudius; Morrow, David [DEP]
Subject: [EXTERNAL] Subject Item ID: DGW0000167212 Notification of Vault Effluent Exceedance July 2021; Dover Former Manufactured Gas Plant Site

Hello,

On behalf of Jersey Central Power and Light Company, AECOM completed the July 2021 quarterly influent and effluent vault sampling event on July 30, 2021 at the Dover Former Manufactured Gas Plant Site (PI 010630), in accordance with Permit-by-Rule Discharge Authorization Subject Item ID: DGWD0000167212. Results of the sampling were received yesterday, 8/16/2021. Results indicate that the following exceedance of the NJDEP Groundwater Quality Standards was detected the Vault 1 effluent cleanout port sample:

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Complete results of the Vault 1 influent, intermediate, and effluent sampling are presented in Table 1, below. As the effluent sampling port amenable cyanide result located after the lag GAC drum did not exceed the GWQS for free cyanide, we do not believe an investigation and written compliance report is required. Please let us know if this is acceptable or if a written compliance report is required.

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Matrix		Higher Values	Water				Water				Water				
Dilution Factor			1				1				1				
	Unit		Result	Q	MDL	RL	Result	Q	MDL	RL	Result	Q	MDL	RL	Re
WATER BY 8260D															
Benzene	ug/l	1	0.20	U	0.20	1.0	0.20	U	0.20	1.0	0.20	U	0.20	1.0	
Ethylbenzene	ug/l	700	0.30	U	0.30	1.0	0.30	U	0.30	1.0	0.30	U	0.30	1.0	
Total Conc		NA	0.0		NA	NA	0.0		NA	NA	0.0		NA	NA	
WATER BY 8270E															
2-Methylnaphthalene	ug/l	30	0.53	U	0.53	10	0.53	U	0.53	10	0.53	U	0.53	10	
Naphthalene	ug/l	300	0.54	U	0.54	2.0	1.1	J	0.54	2.0	0.54	U	0.54	2.0	
Total Conc	ug/l	NA	0.0		NA	NA	1.1		NA	NA	0.0		NA	NA	
WATER BY 335.4															
Cyanide, Total	mg/l	NA	0.020		0.0040	0.010	0.019		0.0040	0.010	0.0040	U	0.0040	0.010	0
WATER BY SM 4500 CN G															
Cyanide, Amenable	mg/l	0.1***	0.020		0.010	0.010	0.019		0.010	0.010	0.010	U	0.010	0.010	0

Legend:

***GWQS for "free cyanide"

J : Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

U : Indicates the analyte was analyzed for but not detected.

NA: Not Applicable

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aecom.com

Comings, Elaine M

From: Humerick, Zachary <zachary.humerick@aecom.com>
Sent: Friday, September 24, 2021 9:07 AM
To: srp_submissions@dep.nj.gov
Cc: Morrow, David; Maranhao, Claudius; Comings, Elaine M; Johnston, Elizabeth
Subject: [EXTERNAL] PI #010630_DGW Permit-By-Rule Monitoring Report 14_Subject Item ID: DGWD0000167212
Attachments: Final_DGW Permit-by-Rule Performance Monitoring Report 14_09242021.pdf

Hello,

On behalf of Jersey Central Power and Light Company, I have attached Discharge To Groundwater Permit-By-Rule Monitoring Report #14 for the Former Dover Manufactured Gas Plant Site:

DGW PBR Monitoring Report 14
Dover Former Manufactured Gas Plant Site,
Intersection of East Blackwell and Carrel Street,
Town of Dover/Rockaway Township,
Morris County, New Jersey 07801;
Program Interest Number: 010630;
Subject Item ID: DGWD0000167212

Thank you,

Zachary Humerick
Process Engineer, Design and Consulting Services Group (DCS)
D +1-973-883-8660
M +1-860-940-8192
zachary.humerick@aecom.com

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1255 Broad St., Suite 201
Clifton, NJ 07013-3398, United States
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aecom.com

DGW PERMIT-BY-RULE MONITORING REPORT #14

PASSIVE GROUNDWATER TREATMENT VAULT PERFORMANCE MONITORING

Former Dover MGP Site
Town of Dover, New Jersey
PI # 010630

Prepared for

Jersey Central Power & Light
A FirstEnergy Company
Morristown, New Jersey

September 2021

Prepared by

AECOM
1255 Broad Street, Suite 201
Clifton, NJ 07013

Project Number: 60390438

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Comings, Elaine M

From: Craig, Marion <marion.craig@aecom.com>
Sent: Friday, December 3, 2021 1:51 PM
To: VanEck, David
Cc: Comings, Elaine M; Maranhao, Claudius
Subject: [EXTERNAL] RE: Dover Former MGP site (PI#010630)

Hello Mr. VanEck –

Please see responses to your questions below regarding JCP&L's CEA application for the Dover Former MGP site.

1. During the Phase I RI in the early 1990's, potential LNAPL was identified in three areas of the Site: adjacent to Spartan Oil; along Carrell Street near MW-8A; Test Pit TP-05 near the south end of the former Plant at the Dover/Rockaway Municipal Boundary. Subsequent investigations into the potential presence of LNAPL in each of these areas were conducted. Temporary well points were installed adjacent to Spartan Oil; small amounts of LNAPL were initially observed in the temporary well with a bailer, but no measureable LNAPL was observed in the temporary wells later in the day (Phase II RI, 1997). Temporary well points were installed in the vicinity of MW-8A and no measurable LNAPL was detected (Phase II RI, 1997). Investigations of potential LNAPL in the vicinity of TP-05 indicated no LNAPL was present (Phase II RI, 1997). Possible LNAPL was observed in shallow test pits over a length of approximately 250 ft along East Blackwell Street during pipeline installation by NJNG in October 2010 and June through August 2011. A subsequent investigation was conducted from November 2011 through March 2012 to evaluate the potential presence of LNAPL. No measureable LNAPL was detected in temporary observation wells or monitoring MW-11A during the investigation.

2. A Historic Fill CEA application will be submitted shortly. Should we send it directly to your attention?

Please let us know if you have any further questions or concerns.

Thanks for your help –

Marion Craig, LSRP
Principal Scientist, Remediation, NY Metro
D +1-973-883-8689
M +1-973-699-0879
marion.craig@aecom.com

AECOM
1255 Broad Street
Suite 201
Clifton, NJ 07013, USA
T +1-973-883-8500
aecom.com

From: VanEck, David <David.VanEck@dep.nj.gov>
Sent: Monday, November 26, 2018 7:56 AM
To: Craig, Marion <marion.craig@aecom.com>
Subject: Dover Former MGP site (PI#010630)

Hello Mr. Craig,

I am the geologist assigned to process the Classification Exception Area (CEA) for the JCP&L site in Dover and Rockaway. I just have a couple of issues I want to run by you before I continue.

1. The reports note LNAPL, so it should be added to the list of contaminants. The closest options would probably be #2, #4 or #6 fuel oil. Which would you say would be the best fit at this site?
2. The area is mapped as having historic fill, and historic fill is also confirmed in borings (Section K of the RI form). Also, the CEA form notes that "several other analytes exceeded the GWQS, but are considered regional water quality issues...". I would recommend submitting a separate "Historic Fill CEA" application, and restrict the other CEA to site-related contaminants.

Please let me know.

David

...

David Van Eck, Supervising Geologist
NJ Dept. of Environmental Protection
Bureau of Ground Water Pollution Abatement
P.O. Box 420, Mail Code 401-05V, Trenton, New Jersey 08625-0420
Phone: 609-633-2427
David.VanEck@dep.nj.gov

Comings, Elaine M

From: VanEck, David [DEP] <David.VanEck@dep.nj.gov>
Sent: Monday, December 6, 2021 8:09 AM
To: Craig, Marion
Cc: Comings, Elaine M; Maranhao, Claudius
Subject: [EXTERNAL] RE: Dover Former MGP site (PI#010630)

Hello Mr. Craig,

Thanks for your response. That takes LNAPL off the table.

You can send the historic fill CEA form to me, and I'll upload it into NJEMS. Don't forget to also submit a GIS-compatible shape to srpgis_cea@dep.nj.gov , and copy me on the email, so that I know to look for it.

David

...

David Van Eck, Supervising Geologist
NJ Dept. of Environmental Protection
Bureau of Ground Water Pollution Abatement
P.O. Box 420, Mail Code 401-05V, Trenton, New Jersey 08625-0420
Phone: 609-633-2427
David.VanEck@dep.nj.gov

From: Craig, Marion <marion.craig@aecom.com>
Sent: Friday, December 3, 2021 1:51 PM
To: VanEck, David [DEP] <David.VanEck@dep.nj.gov>
Cc: Comings, Elaine M <ecomings@firstenergycorp.com>; Maranhao, Claudius <claudius.maranhao@aecom.com>
Subject: [EXTERNAL] RE: Dover Former MGP site (PI#010630)

Hello Mr. VanEck –

Please see responses to your questions below regarding JCP&L's CEA application for the Dover Former MGP site.

1. During the Phase I RI in the early 1990's, potential LNAPL was identified in three areas of the Site: adjacent to Spartan Oil; along Carrell Street near MW-8A; Test Pit TP-05 near the south end of the former Plant at the Dover/Rockaway Municipal Boundary. Subsequent investigations into the potential presence of LNAPL in each of these areas were conducted. Temporary well points were installed adjacent to Spartan Oil; small amounts of LNAPL were initially observed in the temporary well with a bailer, but no measureable LNAPL was observed in the temporary wells later in the day (Phase II RI, 1997). Temporary well points were installed in the vicinity of MW-8A and no measurable LNAPL was detected (Phase II RI, 1997). Investigations of potential LNAPL in the vicinity of TP-05 indicated no LNAPL was present (Phase II RI, 1997). Possible LNAPL was observed in shallow test pits over a length of approximately 250 ft along East Blackwell Street during pipeline installation by NJNG in October 2010 and June through August 2011. A subsequent investigation was conducted from November 2011 through March 2012 to evaluate the potential presence of LNAPL. No measureable LNAPL was detected in temporary observation wells or monitoring MW-11A during the investigation.

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Please let us know if you have any further questions or concerns.

Thanks for your help –

Marion Craig, LSRP
Principal Scientist, Remediation, NY Metro
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FORTUNE WORLD'S MOST ADMIRED COMPANIES

From: VanEck, David <David.VanEck@dep.nj.gov>
Sent: Monday, November 26, 2018 7:56 AM
To: Craig, Marion <marion.craig@aecom.com>
Subject: Dover Former MGP site (PI#010630)

Hello Mr. Craig,

I am the geologist assigned to process the Classification Exception Area (CEA) for the JCP&L site in Dover and Rockaway. I just have a couple of issues I want to run by you before I continue.

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Please let me know.

David

...

David Van Eck, Supervising Geologist
NJ Dept. of Environmental Protection
Bureau of Ground Water Pollution Abatement
P.O. Box 420, Mail Code 401-05V, Trenton, New Jersey 08625-0420
Phone: 609-633-2427
David.VanEck@dep.nj.gov

AECOM
1255 Broad Street
Suite 201
Clifton, NJ 07013
Tel 973.883.8500
www.aecom.com

CERTIFIED – RETURN RECEIPT REQUESTED

December 10, 2021

JCP&L
Attention: Frank Lawson
Supervisor – Site Remediation
300 Madison Avenue
PB Box 1911
Morristown, NJ 07962

RE: Historic Fill Classification Exception Area (CEA) for:
Dover Former Manufactured Gas Plant Site
Block 2313, Lot 1, Block 2318, Lot 1 (Dover), and Block 10202, Lots 34 and 36 (Rockaway)
PI #010630
Carrol St and East Blackwell St
Morris County
Dover/Rockaway, New Jersey, 07801

Dear Mr. Lawson:

AECOM, on behalf Jersey Central Power & Light Company (JCP&L), is providing notification of a Historic Fill (HF) Classification Exception Area (CEA) application for groundwater at the above-referenced site. The HF CEA is an administrative mechanism to provide notice of an area of groundwater impacted by the presence of constituents related to historic fill at the former manufactured gas plant site. The HF CEA application was prepared in accordance with New Jersey Department of Environmental Protection (NJDEP) guidance and the Administrative Requirements for the Remediation of Contaminated Sites (N.J.A.C. 7:26C-7.3).

For additional information on CEAs, please visit the NJDEP website:
http://www.nj.gov/dep/srp/guidance/cea/ceaguid2.pdf.

If you have any questions or require additional information, please do not hesitate to contact me at (973) 883-8689.

Sincerely,

Marion Craig

Marion Craig
Licensed Site Remediation Professional
AECOM
marion.craig@aecom.com

AECOM

Person Responsible for Conducting the Remediation: Jersey Central Power & Light Company

Enclosures:

Classification Exception Area/Well Restriction Area (CEA/WRA) Fact Sheet Form
Site Location Map
Classification Exception Area Map

cc: John P. Schmidt, Acting Town of Dover Municipal Clerk
Trevor Weigle, Town of Dover Health Officer
Christina Clipperton, RMC, CMR, Rockaway Township Municipal Clerk
Peter Tabbot, Rockaway Township Health Officer
Ann F. Grossi, Esq, Morris County Clerk
Morris County Planning Board
Carlos Perez, Jr. M.P.A, Morris County Office of Health Management

New Jersey Department of Environmental Protection
Site Remediation and Waste Management Program

CLASSIFICATION EXCEPTION AREA / WELL RESTRICTION AREA (CEA/WRA) FACT SHEET FORM

Date Stamp
(For Department use only)

SECTION A. SITE INFORMATION

Site Name: Dover Former Manufactured Gas Plant Site

Program Interest (PI) Number(s): 010630

Case Tracking Number(s) for this submission: None

This form must be attached to the Cover / Certification Form if not submitted through the Remedial Phase Report Online Service

1. Indicate the reason for submission of this form *(see instructions)*:

☐ New CEA ☐ Revise CEA ☐ Reestablish CEA ☐ Existing CEA with no changes
☒ CEA for historic fill ☐ CEA for Historically Applied Pesticides (HAP) ☐ CEA lift/removal

If you are submitting this form for an existing CEA provide the CEA Subject Item ID: _____

2. Indicate the type of ground water Remedial Action (RA):

☒ Natural ☐ Active ☐ Final RA not yet selected

3. Is this form being submitted with a Remedial Action Permit (RAP) Form (for Soil or Ground Water)?.... ☐ Yes ☒ No

SECTION B. CEA COMPONENT AND VAPOR INTRUSION INFORMATION

Name of document that includes the CEA Fate and Transport Description: N/A

Date of document: N/A

1. **Ground Water Classification:** What is the ground water classification within the CEA as per N.J.A.C. 7:9C?

(Check all that apply)

☐ Class I-A
☐ Class I-PL Pinelands Protection Area
☐ Class I-PL Pinelands Preservation Area
☒ Class II-A
☐ Class III-A
☐ Class III-B

2. **Contaminant Data:** This CEA/WRA applies only to the contaminants listed below with concentrations above, or assumed to be above, numeric values established for the applicable classification area via the Ground Water Quality Standards (GWQS), N.J.A.C. 7:9C. Except for historic fill CEAs based on assumed ground water contamination, list the maximum contaminant value for all ground water data that could be representative of **current** conditions for any well or sampling point used to establish the CEA. See form instructions before entering data into the below table.

Contaminant	Concentration [1]	GWQS [2]	SWQS [3]	GWSL [4]
Benzo(a)anthracene	0.69	0.1	0.038	No Standard
Benzo(a)pyrene	0.41	0.1	0.0038	No Standard
Benzo(b)fluoranthene	0.73	0.2	0.038	No Standard
Indeno(1,2,3-c,d)pyrene	0.56	0.2	0.038	No Standard
Aluminum	1860	200	No Standard	No Standard

Notes:
(1) Maximum concentration in Micrograms Per Liter
(2) New Jersey Ground Water Quality Standards, N.J.A.C. 7:9C-1.7 and 1.9(c)
(3) Surface Water Quality Standards, N.J.A.C. 7:9B - Applicable only where contaminants in the CEA may discharge to a surface water body.
(4) Current NJDEP Vapor Intrusion (VI) Ground Water Screening Levels (GWSL) available at http://www.nj.gov/dep/srp/guidance/vaporintrusion/

☒ Check if attaching the form Addendum to list additional contaminants and associated information.

3. CEA Boundaries and VI Pathway Status: Year of tax map used: 2017

Are there volatile contaminants in the CEA? ☐ Yes ☒ No

Is there LNAPL currently found in the CEA? ☐ Yes ☒ No

For CEA revisions only:

☐ Check if CEA Boundary has changed (*See instructions*)

☐ Check if Block and Lot numbers have changed (*See instructions*)

List the block(s) and lot(s) included in the areal extent of the CEA and check the appropriate boxes:

Block	Lot(s)	Check if off-site	Check if VI pathway was evaluated*	Check if VI pathway status is indeterminate*
2313	1 (Dover)	☐	☐	☐
2318	1 (Dover)	☐	☐	☐
10202	34 (Rockaway)	☐	☐	☐
10202	36 (Rockaway)	☐	☐	☐
		☐	☐	☐
		☐	☐	☐
		☐	☐	☐

☐ Check if attaching an Addendum to list additional Blocks/Lots and associated information. *(see instructions)*

*Follow instructions for parcels where the vapor intrusion (VI) pathway was evaluated and the status is indeterminate.

Direction of ground water flow: south/SSW (*If multiple water bearing zones exist within the CEA and/or there is no predominant flow direction, see instructions.*)

Vertical depth of CEA: 30 (ft bgs) **and** ~521 NAVD 88 (msl).

Horizontal extent of CEA: 302408 Indicate units: ☐ acres or ☒ square feet

Name(s) of the affected Geologic Formation(s)/Unit(s) (*see instructions if multiple formations/units affected)*:

Late Wisconsinan Glaciofluvial Terrace Deposits.

Narrative description of proposed CEA boundaries:

Regional historic fill is assumed to be responsible for the contamination included in this historic fill CEA. The CEA boundaries are the footprint of the site (Block 2313 Lot 1 and Block 2318 Lot 1 in Dover, and Block 10202 Lots 34 adn 36 in Rockaway). The vertical depth of the CEA is the approximate depth of groundwater impacted by historic fill-related constituents.

4. Projected Term of CEA: *(Based on modeling/calculations in the fate and transport description)*

Proposed Duration in Years: _____ Anticipated Expiration Date: _____

or ☒ Indeterminate (*Review instructions before selecting* "Indeterminate" *for the CEA duration.*)

5. ATTACH AND/OR SUBMIT THE FOLLOWING: (*see instructions for additional information/requirements*)

Exhibit A: Site Location Maps – Based on USGS Quadrangle Map;

Exhibit B: CEA Map and Cross Section Figure – See N.J.A.C 7:26C- 7.3(c)1 and 2 and instructions regarding what is required to be included on the map and the cross-section figure.

Exhibit C: GIS Deliverables – CEA Boundary Extent Map. The CEA Boundary Extent Map shall be submitted via email to srpgis_cea@dep.nj.gov. (*See the instructions for detailed GIS deliverable requirements.)*

Identify format of CEA Boundary Extent Map being submitted: ..... ☐ Shape File ☒ CAD File ☐ N/A

If there is a CEA map already on NJ-GeoWeb, does it need to be revised? ..... ☐ Yes ☐ No ☒ N/A

SECTION C. CURRENT GROUND WATER USE DOCUMENTATION

1. Indicate the year of the most recent well search completed per N.J.A.C. 7:26E-1.14: 2019

2. If this Fact Sheet form is for a revised CEA or an existing CEA with no changes, have new wells been installed since the CEA was established? ☐ Yes ☐ No ☒ N/A

3. Are there any pumping wells (e.g., potable, industrial, irrigation or recovery wells) within the foot print of the CEA? ☐ Yes ☒ No

   If "Yes" list/attach list of the type and status of any pumping well(s) within CEA:

SECTION D. WELL RESTRICTION INFORMATION

Certain well restrictions relevant to potable ground water use, such as "Double Case Wells", "Sample Potable Wells", and "Evaluate Production Wells", are consistently set within the boundaries of all CEAs established by the NJDEP in Class I and II-A areas (*see instructions*).

1. Are there any other site-specific well restrictions relevant to potable ground water use that should be set within or near the boundaries of the proposed CEA? ☐ Yes ☒ No

   If "Yes", describe below any such site-specific well restrictions proposed for this CEA:

SECTION E. PUBLIC NOTIFICATION REQUIREMENTS

1. Indicate which of the following entities have been notified pursuant to N.J.A.C. 7:26C-7.3(d) and the dates each notification was sent. (*check all that apply*)

   ☒ Municipal and county clerk(s) ..... Dated mailed: 12/09/2021

   ☒ Local, county or regional health department(s) ..... Dated mailed: 12/09/2021

   ☒ Designated County Environmental Health Act agency (if applicable) ..... Dated mailed: 12/09/2021

   ☒ County Planning Board ..... Dated mailed: 12/09/2021

   ☐ Pinelands Commission (if applicable) ..... Dated mailed:

   ☒ Owners of real property overlying CEA foot print ..... Dated mailed: 12/09/2021

2. **List of Names and Addresses** – List below and/or in an attachment, the names/addresses of all persons notified pursuant to N.J.A.C. 7:26C-7.3(d) based on the proposed CEA boundaries. If the site property owner differs from the person responsible for conducting the remediation, check here ☐ and enter the site owner's name and address first in the table below. *See instructions for more information regarding the address list.*

Entity or Owner Name	Notification Address Used If owner address differs from property address overlying CEA, add an " * " after the address.	Blocks/Lots overlying CEA owned by this person Block	Lot(s)
JCP&L, Attn: Frank Lawson, Supervisor - Site Remediation	Attention: Supervisor - Site Remediation, 300 Madison Avenue, PO Box 1911, Morristown, NJ 0798	2313, 2318, 10202, 10202	1 (Dover), 1 (Dover), 34 (Rockaway), 38 (Rockaway)
John P. Schmidt, Acting Dover Municipal Clerk	37 North Sussex Street, Dover, NJ 07801	N/A	N/A
Christine Clipperton, RMC, CMR, Rockaway Municipal Clerk	65 Mt. Hope Road, Rockaway, NJ 07866	N/A	N/A
Ann F. Grossi, Esq, County Clerk	PO Box 315, Morristown, NJ 07963-0315	N/A	N/A
Trevor Weigle, Dover Health Officer	37 North Sussex Street, Dover, NJ 07801	N/A	N/A
Peter Tabbot, Rockaway Health Officer	65 Mt. Hope Road, Rockaway, NJ 07866	N/A	N/A
Carlos Perez, Jr., Ph.D., County Health Officer	Division of Public Health, PO Box 900, Morristown, NJ 07963-090	N/A	N/A
Morris County Planning Board	PO Box 900, Morristown, NJ 07963-0900	N/A	N/A

ADDENDUM
Classification Exception Area / Well Restriction Area
Fact Sheet Form

Section B. CEA Component and Vapor Intrusion Information

1. **Contaminant Data** (continued): This CEA/WRA applies only to the contaminants listed on page 1 and in the table below with concentrations above, or assumed to be above, numeric values established for the applicable classification area via the GWQS, N.J.A.C. 7:9C. Except for historic fill CEAs based on assumed ground water contamination, list below the maximum contaminant value for all ground water data that could be representative of **current** conditions for any well or sampling point used to establish the CEA. See form Instructions before entering data into the tables below.

Contaminant	Concentration (1)	GWQS (2)	SWQS(3)	VI GWSL(4)
Iron	292,000	300	No Standard	No Standard
Manganese	11,400	50	No Standard	No Standard
Sodium	1,530,000	50,000	No Standard	No Standard
Cadmium	16.7	4	3.4	No Standard
Lead	34.5	5	5.0	No Standard
Arsenic	86.6	3	0.017	No Standard
Dibenz(a,h)anthracene	0.40	0.3	0.0038	No Standard

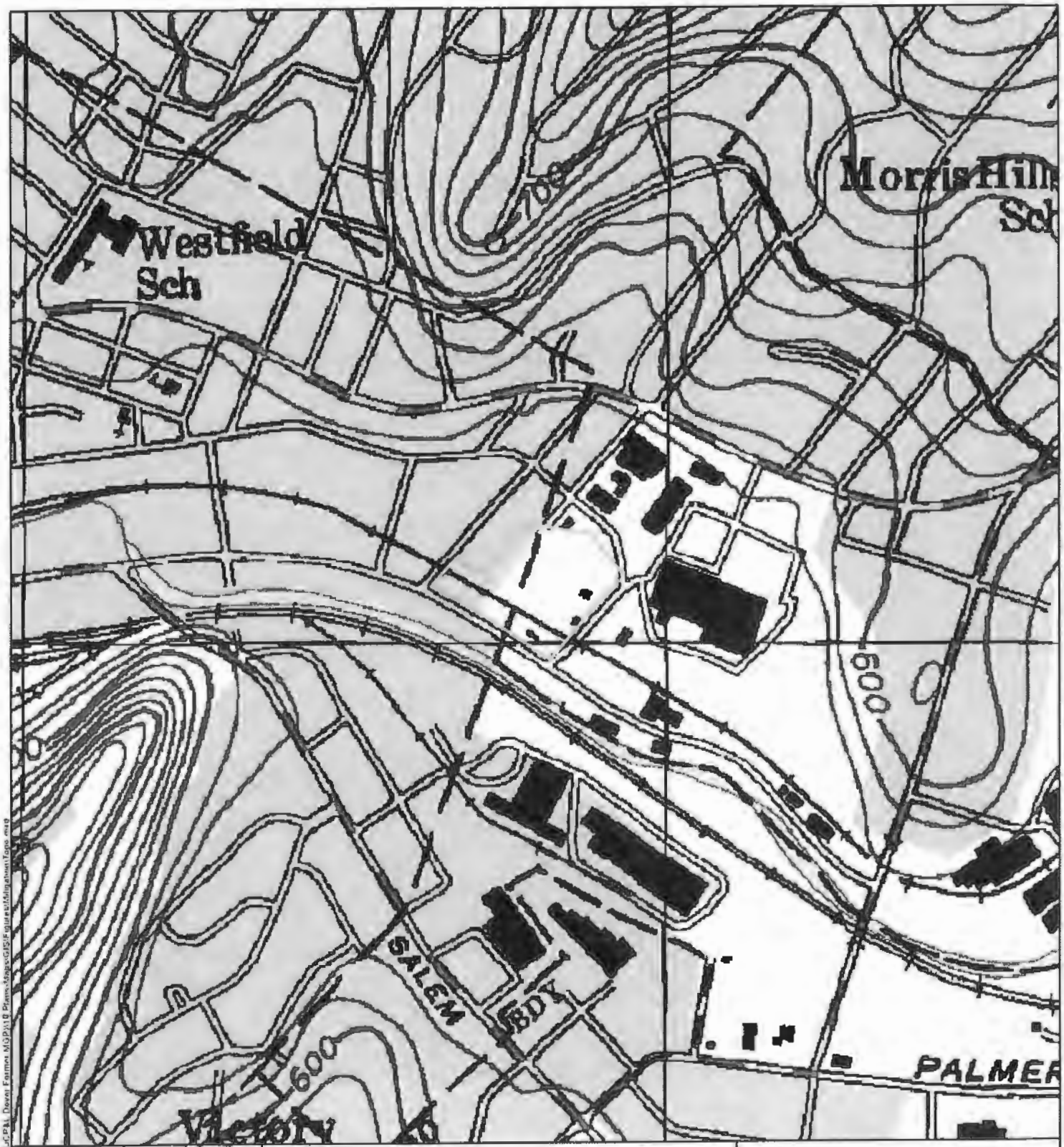
Notes: (1) Maximum concentration in Micrograms Per Liter
(2) New Jersey Ground Water Quality Standards, N.J.A.C. 7:9C-1.7 and 1.9(c)
(3) Surface Water Quality Standards, N.J.A.C. 7:9B - Applicable only where contaminants in the CEA may discharge to a surface water body.
(4) Current NJDEP Vapor Intrusion (VI) Ground Water Screening Levels (GWSL)

2. **CEA Boundaries and VI Pathway Status** (continued): List additional parcels included in the CEA. Attach additional Addendum sheets if necessary to list all blocks and lots within the CEA.

For CEA revisions, check here if block and lot numbers have changed: ☐

Block	Lot(s)	Check if off-site	Check if VI pathway was evaluated*	Check if VI pathway status is indeterminate*
		☐	☐	☐
		☐	☐	☐
		☐	☐	☐
		☐	☐	☐
		☐	☐	☐
		☐	☐	☐
		☐	☐	☐
		☐	☐	☐
		☐	☐	☐

* Follow instructions for parcels where the vapor intrusion (VI) pathway was evaluated and status is indeterminate.



Legend

Dover Former MGP Site

N
W E
S

Map Source:
USGS Topographic Quadrangles: Dover, NJ

USGS Topographic Map

JCP&L Dover Former MGP Site

Rockaway and Dover, New Jersey

0 350 700 Feet

MAP FORMATED FOR "A" (8.5" X 11") SIZE SHEET
SCALE NOT VALID FOR DIFFERENT PAGE SIZE

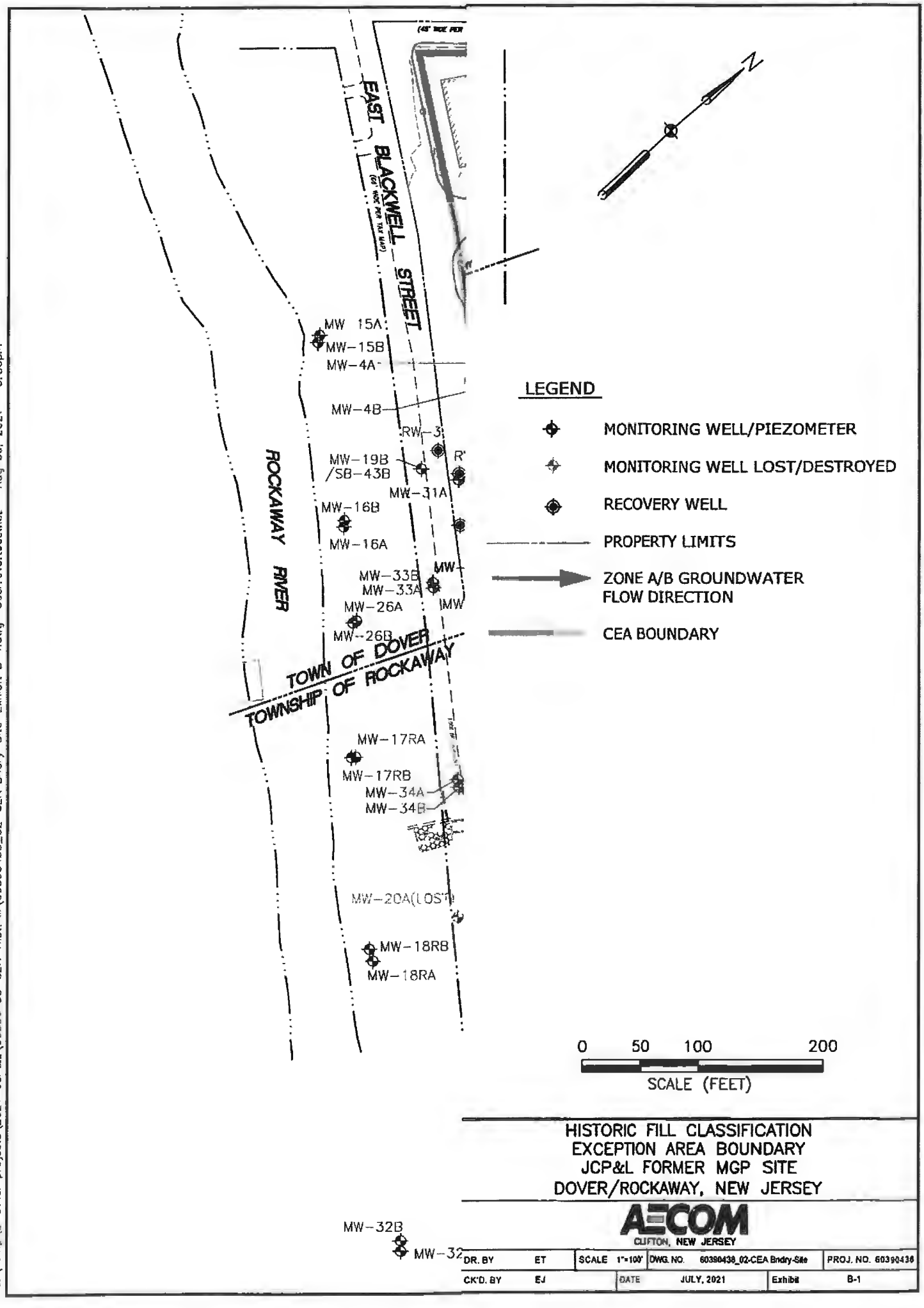
AECOM
Clifton, New Jersey

PROJECT NUMBER: 38580312

DATE: 11/18/2021

FIGURE NUMBER: **Exhibit A**

TM L:\Legacy\Jobs\60605\Projects\Environmental\38580312_JCP&L_Dover Former MGP\Plots\Plans\MapsGIS\Figures\Migration\Topo.mxd



HISTORIC FILL CLASSIFICATION
EXCEPTION AREA BOUNDARY
JCP&L FORMER MGP SITE
DOVER/ROCKAWAY, NEW JERSEY

AECOM
CLIFTON, NEW JERSEY

DR. BY	ET	SCALE 1"=100'	DWG. NO. 60390438_02-CEA Bndry-Site		PROJ. NO. 60390438
CK'D. BY	EJ	DATE JULY, 2021		Exhibit	B-1

C:\Temp\Z-other projects\2021-JCP&L\60390438-CEA-Hist.Fill\60390438_02-CEA Bndry-Site-Exhibit B-1.dwg User: eva.tucewicz Aug 06, 2021 - 3:30pm

New Jersey Department of Environmental Protection
Site Remediation and Waste Management Program

COVER/CERTIFICATION FORM

(Submit with Remedial Phase Report, Receptor Evaluation, and CEA Forms)

Date Stamp
(For Department use only)

SECTION A. SITE INFORMATION

Site Name: Dover Former Manufactured Gas Plant Site

AKAs: New Jersey Natural Gas Dover Operations

Street Address: Intersection of East Blackwell Street and Carrel Street

Municipality: Town of Dover/Rockaway Township (*Township, Borough or City*)

County: Morris Zip Code: 07801

Program Interest (PI) Number(s): 010630

Case Tracking Number(s) for this submission: None

Date Remediation Initiated Pursuant to N.J.A.C. 7:26C-2: 10/15/1991

State Plane Coordinates for a central location at the site: Easting: 481290 Northing: 747060

List current Municipal Block and Lot Numbers of the Site:

Block # 2313	Lot #(s) 1 (Dover)	Block # 10202	Lot #(s) 34 (Rockaway)
Block # 2318	Lot #(s) 1 (Dover)	Block # 10202	Lot #(s) 36 (Rockaway)
Block #	Lot #(s)	Block #	Lot #(s)
Block #	Lot #(s)	Block #	Lot #(s)

SECTION B. SUBMISSION STATUS

1. Indicate how the Electronic Data Deliverable (EDD) for this submission is being provided to the NJDEP:

   ☒ Via Email at srpedd@dep.nj.gov (attach NJDEP confirmation email); or

   ☐ CD (attach to this submission)

   ☐ Not Applicable – No EDD

2. Complete the following Submission and Permit Status Table:

Remedial Phase Documents	N/A	Included in this Submission	Previously Submitted	Date of Submission	Date of Revised Submission	Date of Previous NJDEP Approval	Date of Document Withdrawal
Preliminary Assessment Report	☐	☐	☒	09/28/1990		10/15/1991	
Site Investigation Report	☐	☐	☒	09/28/1990		10/15/1991	
Remedial Investigation Report	☐	☐	☒	08/05/2011	05/06/2014		
Remedial Action Work Plan	☐	☐	☒	08/22/2017	08/24/2018		
Remedial Action Report	☒	☐	☐				
Response Action Outcome	☒	☐	☐				
Other Submissions							
Alternative Soil Remediation Standard and/or Screening level Application Form	☒	☐	☐				
Case Inventory Document		☒					
Classification Exception Area / Well Restriction Area (CEA/WRA)	☐	☒	☐				
Discharge to Ground Water Permit by Rule Authorization Request	☐	☐	☒	08/22/2017		02/23/2018	

IEC Engineered System Response Action Report	☒	☐	☐				
Immediate Environmental Concern Report	☒	☐	☐				
LNAPL Interim Remedial Measure Report	☒	☐	☐				
Public Notification	☐	☐	☒	11/06/2017			
Receptor Evaluation	☐	☐	☒	10/12/2011		02/28/2012	
Technical Impracticability Determination	☒	☐	☐				
Vapor Concern Mitigation Report	☒	☐	☐				
Permit Application – list:	☒						
		☐	☐				
		☐	☐				
		☐	☐				
		☐	☐				
Radionuclide Remedial Action Report	☒	☐	☐				
Radionuclide Remedial Action Workplan	☒	☐	☐				
Radionuclide Remedial Investigation Report	☒	☐	☐				
Radionuclide Remedial Investigation Workplan	☒	☐	☐				

SECTION C. SITE USE

Current Site Use: (*check all that apply*)

- ☐ Industrial
- ☐ Residential
- ☐ Commercial
- ☐ School or child care
- ☐ Agricultural
- ☐ Park or recreational use
- ☒ Vacant
- ☐ Government
- ☐ Other: _____

Intended Future Site Use, if known: (*check all that apply*)

- ☐ Industrial
- ☐ Residential
- ☐ Commercial
- ☐ School or child care
- ☐ Park or recreational use
- ☐ Vacant
- ☐ Government
- ☒ Future site use unknown
- ☐ Other: _____

SECTION D. CASE TYPE: (*check all that apply*)

- ☒ Administrative Consent Order (ACO)
- ☐ Brownfield Development Area (BDA)
- ☐ Child Care Facility
- ☐ Chrome Site (Chromate chemical production waste)
- ☒ Coal Gas
- ☐ Due Diligence with RAO
- ☐ Hazardous Discharge Remediation Fund (HDSRF) Grant/Loan
- ☐ ISRA
- ☐ Landfill (SRP subject only)
- ☐ Regulated Underground Storage Tank (UST)
- ☐ Remediation Agreement (RA)/Remediation Certification
- ☐ School Development Authority (SDA)
- ☐ School facility
- ☐ Spill Act Defense – Government Entity
- ☐ Spill Act Discharge
- ☐ UST Grant/Loan
- ☐ Other: _____

Federal Case (*check all that apply*)

☐ RCRA GPRA 2020 ☐ CERCLA/NPL ☐ USDOD ☐ USDOE

1. Is the party conducting remediation a government entity? ..... ☐ Yes ☒ No

   If "Yes," check one: ☐ Federal ☐ State ☐ Municipal ☐ County

SECTION E. PUBLIC FUNDS

Did the remediation utilize public funds? ..... ☐ Yes ☒ No

If "Yes," check applicable:

- ☐ UST Grant
- ☐ HDSRF Grant
- ☐ Spill Fund
- ☐ UST Loan
- ☐ HDSRF Loan
- ☐ Schools Development Authority
- ☐ Brownfield Reimbursement Program
- ☐ Landfill Reimbursement Program
- ☐ Environmental Infrastructure Trust

SECTION F. LICENSED SITE REMEDIATION PROFESSIONAL INFORMATION AND STATEMENT

LSRP ID Number: 591601

First Name: Marion Last Name: Craig

Phone Numbers: (973) 883-8689 Ext.: N/A Fax: (973) 883-8501

Mailing Address: 1255 Broad Street, Suite 201

Municipality: Clifton State: New Jersey Zip Code: 07013-3398

Email Address: marion.craig@aecom.com

This statement shall be signed by the LSRP who is submitting this notification in accordance with N.J.S.A. 58:10C-14, and N.J.S.A. 58:10B-1.3b(1) and (2).

(1) I certify, as a Licensed Site Remediation Professional authorized pursuant to N.J.S.A. 58:10C-1 et seq. to conduct business in New Jersey, that for the remediation described in this submission, and all attachments included in this submission, I personally: Managed, supervised, or performed the remediation conducted at this site that is described in this submission, and all attachments included in this submission; and/or periodically reviewed and evaluated the work performed by other persons that forms the basis for the information in this submission; and/or completed the work of another site remediation professional, licensed or not, after having: (1) reviewed all available documentation on which I relied; (2) conducted a site visit and observed the then-current conditions and verified the status of as much of the work as was reasonably observable; and (3)concluded, in the exercise of my independent professional judgment, that there was sufficient information upon which to complete any additional phase of remediation and prepare workplans and reports related thereto.

(2) I certify:

- *That I have read this submission and all attachments to this submission;*
- *That in performing the professional services as the licensed site remediation professional for the entire site or each area of concern, I adhered to the professional conduct standards and requirements governing licensed site remediation professionals provided in N.J.S.A. 58:10C-16;*
- *That the remediation conducted at the entire site or each area of concern, that is described in this submission and all attachments to this submission, was conducted pursuant to and in compliance with the remediation requirements in N.J.S.A. 58:10C-14.c;*
- *That the remediation described in this submission, and all attachments to this submission, was conducted pursuant to and in compliance with the regulations of the Site Remediation Professional Licensing Board at N.J.A.C. 7:26I; and*
- *That the information contained in this submission and all attachments to this submission is true, accurate, and complete.*

(3) I certify, when this submission includes a response action outcome, that the entire site or each area of concern has been remediated in compliance with all applicable statutes, rules, and regulations and is protective of public health and safety and the environment.

(4) I certify that no other person is authorized or able to use any password, encryption method, or electronic signature that the Board or the Department have provided to me.

(5) I certify that I understand and acknowledge that:

- *If I knowingly make a false statement, representation, or certification in any document or information I submit to the Department I may be subject to civil and administrative enforcement pursuant to N.J.S.A. 58:10C-17.a.1(a)through (f) by the Board, including but not limited to license suspension, revocation, or denial of renewal; and*
- *If I purposely, knowingly, or recklessly make a false statement, representation, or certification in any application, form, record, document or other information submitted to the Department or required to be maintained pursuant to the Site Remediation Reform Act, I shall be guilty, upon conviction, of a crime of the third degree and shall, notwithstanding the provisions of subsection b. of N.J.S.2C:43-3, be subject to a fine of not less than $5,000 nor more than $75,000 per day of violation, or by imprisonment, or both.*

(6) I certify that I have read this certification prior to signing, certifying, and making this submission.

LSRP Signature: Marion Craig Date: 12/9/21

LSRP Name: Marion Craig

Company Name: AECOM

SECTION G. PERSON RESPONSIBLE FOR CONDUCTING THE REMEDIATION INFORMATION AND CERTIFICATION

Full Legal Name of the Person Responsible for Conducting the Remediation: Jersey Central Power & Light Company

Representative First Name: Frank Representative Last Name: Lawson

Title: Supervisor - Site Remediation

Phone Number: (973) 401-8309 Ext.: N/A FAX: (973) 644-4165

Mailing Address: Attention: Supervisor - Site Remediation, 300 Madison Avenue, PO Box 1911

Municipality: Morristown State: New Jersey Zip code: 07962

Email Address: flawson@firstenergycorp.com

This certification shall be signed by the person responsible for conducting the remediation who is submitting this notification in accordance with Administrative Requirements for the Remediation of Contaminated Sites rule at N.J.A.C. 7:26C-1.5(a).

I certify under penalty of law that I have personally examined and am familiar with the information submitted herein, including all attached documents, and that based on my inquiry of those individuals immediately responsible for obtaining the information, to the best of my knowledge, I believe that the submitted information is true, accurate and complete. I am aware that there are significant civil penalties for knowingly submitting false, inaccurate or incomplete information and that I am committing a crime of the fourth degree if I make a written false statement which I do not believe to be true. I am also aware that if I knowingly direct or authorize the violation of any statute, I am personally liable for the penalties.

Signature: Frank D Lawson Date: 12-7-21

Name/Title: Frank Lawson/Supervisor - Site Remediation

For CEA Submissions:

☒ Check this box if the person above is also the property owner of the site or their representative. If this person is not the site property owner, please ensure the site property owner's name and address is in the first line of the table in Section E.2 of the Classification Exception Area / Well Restriction Area (CEA/WRA) Fact Sheet Form.

Completed forms should be sent to:

Bureau of Case Assignment & Initial Notice
Site Remediation Program
NJ Department of Environmental Protection
401-05H
PO Box 420
Trenton, NJ 08625-0420

Comings, Elaine M

From: Naumoff, Peter <peter.naumoff@aecom.com>
Sent: Tuesday, December 14, 2021 5:33 AM
To: srpgis_cea@dep.nj.gov
Cc: Craig, Marion
Subject: 010630 CEA2
Attachments: CEA2_010630_12132021.shx; CEA2_010630_12132021.dbf; CEA2_010630_12132021.prj; CEA2_010630_12132021.shp

Name of GIS author Company and mailing address: AECOM, 1255 Broad St, Clifton, NJ 07013
Name and license number of any LSRP overseeing work: Marion Craig, 591601
Email for LSRP overseeing work: marion.craig@aecom.com
Name of professional performing GIS work: Eva Tucewicz
Email for Professional performing GIS work: eva.tucewicz@aecom.com
Phone Number for Professional performing GIS work: 973-883-8557
Program Interest Number for Site: 010630
Name of Site as known to NJDEP: Dover Former Manufactured Gas Plant
Physical address of Site: Intersection of East Blackwell Street and Carrel Street
Submission Type Suffix: CEA
Subject Item ID:
If submission is a CEA, is associated remedial action "natural remediation", "active remediation" or "not yet selected": active remediation
If submission is CEA, is the boundary the "site boundary" or a modeled extent "within the site boundary"?: site boundary

Submitted by Peter Naumoff

Peter G. Naumoff
Environmental Department
Senior Geologist
973 883 8690
peter.naumoff@aecom.com

AECOM
1255 Broad Street, Suite 201, Clifton, New Jersey 07013-3398
973 883 8500

Comings, Elaine M

From: Naumoff, Peter <peter.naumoff@aecom.com>
Sent: Tuesday, December 14, 2021 10:25 AM
To: srpgis_cea@dep.nj.gov
Cc: Craig, Marion
Subject: RE: 010630 CEA2 CORRECTION

The remedial action was incorrectly listed as "active remediation" in the original email. The correct remedial action is "natural remediation".

Name of GIS author Company and mailing address: AECOM, 1255 Broad St, Clifton, NJ 07013
Name and license number of any LSRP overseeing work: Marion Craig, 591601
Email for LSRP overseeing work: marion.craig@aecom.com
Name of professional performing GIS work: Eva Tucewicz
Email for Professional performing GIS work: eva.tucewicz@aecom.com
Phone Number for Professional performing GIS work: 973-883-8557
Program Interest Number for Site: 010630
Name of Site as known to NJDEP: Dover Former Manufactured Gas Plant
Physical address of Site: Intersection of East Blackwell Street and Carrel Street
Submission Type Suffix: CEA
Subject Item ID:
If submission is a CEA, is associated remedial action "natural remediation", "active remediation" or "not yet selected": natural remediation
If submission is CEA, is the boundary the "site boundary" or a modeled extent "within the site boundary"?: site boundary

---

From: Naumoff, Peter
Sent: Tuesday, December 14, 2021 5:33 AM
To: srpgis_cea@dep.nj.gov
Cc: Craig, Marion <marion.craig@aecom.com>
Subject: 010630 CEA2

Name of GIS author Company and mailing address: AECOM, 1255 Broad St, Clifton, NJ 07013
Name and license number of any LSRP overseeing work: Marion Craig, 591601
Email for LSRP overseeing work: marion.craig@aecom.com
Name of professional performing GIS work: Eva Tucewicz
Email for Professional performing GIS work: eva.tucewicz@aecom.com
Phone Number for Professional performing GIS work: 973-883-8557
Program Interest Number for Site: 010630
Name of Site as known to NJDEP: Dover Former Manufactured Gas Plant
Physical address of Site: Intersection of East Blackwell Street and Carrel Street
Submission Type Suffix: CEA
Subject Item ID:
If submission is a CEA, is associated remedial action "natural remediation", "active remediation" or "not yet selected":
If submission is CEA, is the boundary the "site boundary" or a modeled extent "within the site boundary"?: site boundary

Submitted by Peter Naumoff
Peter G. Naumoff

Environmental Department
Senior Geologist
973 883 8690
peter.naumoff@aecom.com

AECOM
1255 Broad Street, Suite 201, Clifton, New Jersey 07013-3398
973 883 8500

URS

TRANSMITTAL

TO: Andrew Jensen
NJDEP Division of Land Use Regulation
501 East State Street, 2nd Floor
Trenton, NJ 08609
(609) 777-0454

DATE: December 23, 2021

PROJECT NO.: 60390438

PROJECT NAME: JCP&L Dover Former MGP Site

FROM: Taralyn Myers
Ecologist

☒ Enclosed	☐ Contracts	☐ Photographs	☐ As Requested
☐ Under Separate Cover	☐ Copy of Letter	☐ Prints	☐ Approved
☐ First Class Mail	☒ Report	☐ _____	☐ Approved As Noted
☐ Messenger	☐ Project Memo	☐ _____	☐ Re-Submit
☒ Federal Express	☐ Documents	☐ For Comments	☐ Return
☐ Special Delivery	☐ Test Results	☐ For Approval	☐ Corrected Prints
☐ UPS	☐ Drilling Logs	☐ For Your Use	☒ **Required Submittal**
☐ _____	☐ Specifications	☐ For Your Files	

Ref: NJDEP FHA IP, 1400-17-0003.1 FHA170001 and FWWGP#4, 1400-17-0003.1 FWW170001

No. of Copies	Description	Date
	JCP&L Dover Former MGP Site - 2021 Mitigation Status Report	December 2021
3	Paper copies of mitigation status report	
1	CD containing electronic copy of mitigation status report	

cc: Elaine Comings, JCP&L
Claudius Maranhao, AECOM

Clifton Office
1255 Broad Street, Suite 201 • Clifton, New Jersey 07013
direct: 973-883-8542 • main: 973-883-8500
taralyn.myers@aecom.com

JCP&L Dover Former MGP Site
2021 Mitigation Status Report

Town of Dover & Township of Rockaway
Morris County, New Jersey

Submitted to:

NJDEP Division of Land Use Regulation
501 East State Street
Station Plaza 5, 2nd Floor
Trenton, New Jersey 08609

Prepared by:

AECOM
1255 Broad Street, Suite 201
Clifton, New Jersey 07013

December 2021

Project No. 60390438

TABLE OF CONTENTS

Attachment MFR-3c

Service Information

Service ID:	1202017
Service Type:	Apply for a Land Use Authorization or Permit - Land Use Authorization or Permit
Service Name/PI Name:	NEWTON COAL GAS 2 SITE AOC C2
Service Comments:	Implementation of Pre-Design Investigations (PDI) activities associated with Newton Coal Gas 2 Sites Area of Concern (AOC) C2 - Off-Site MGP-Related Soil Impacts. PDI activities are proposed on the 2-10 East Clinton Street, Newton, New Jersey property to further delineate MGP-related impacts which require remediation in accordance with N.J.A.C 7:26C and N.J.A.C 7:26E.
Created On:	03/19/2021

Project Description

Do you know what permit you are applying for? **Yes**

Is this permit/authorization application filed as a follow-up to an Emergency Authorization issued by the Division of Land Resource Protection? **No**

Is the proposed project for linear development? **No**

Project Description:
Briefly describe the proposed activities to be conducted within areas regulated by the Division of Land Use Regulation (DLUR).
Installation of soil borings within a Wetland Transition Area to further delineate environmental impacts which require remediation. The wetland transition area primarily consists of a paved parking area located at the rear of the property.

Have any Land Use permits been issued for this site? **Yes**

Please list all File Numbers:

File #
1915-06-0002.1

Is the proposed project located in the Meadowlands District, the Highlands, or the Pinelands? **No**

Site Information

Location Address: 2-10 East Clinton Street
Newton,NJ 07860

Location Description: No location description provided.

County: Sussex

Municipality: Newton Town

Coordinates: 423167.00,811397.00 - 01 - NJ State Plane (NAD83) - USFEET

Block and Lot:

Block	Lot	County	Municipality
9.03	27	Sussex	Newton Town

Permit Scope - General

Is the applicant or co-applicant a public entity? **No**

Stormwater

Does the entire proposed project meet the definition of a "**major development**" pursuant to the Stormwater Management rules at N.J.A.C. 7:8-1.2? **No**

Permit Type Selection

Are you applying for a Coastal Permit? **No**

Are you applying for a Flood Hazard Permit and/or Verification? **No**

Are you applying for a Freshwater Wetlands Permit? **Yes**

Permit Details - General

Is the applicant the sole owner of all properties, including easements and rights-of-way, where the project is proposed? **No**

Have ALL owners of each property, including easements and rights-of-way, where the project is proposed signed a Property Owner Certification Form consenting to the construction of the project on their property? **Yes**

Gas Pipeline:

Does the proposed project include the construction of a gas pipeline? **No**

Watershed Management Area:

Enter the Watershed information for all watershed area(s) where the proposed project is located:

Watershed Management Area	Watershed	Sub-Watershed	Name	Class	Type
Upper Delaware River	Paulins Kill (above Stillwater Village)	Paulins Kill (above Rt 15)	Paulins Kill	FW2-NT Non-trout	Stream

Riparian Zone

Is the proposed project located within 300 ft. of a regulated water body? **Yes**

Is the proposed project located in a riparian zone as defined in the Flood Hazard Area Control Act Rules (N.J.A.C 7:13) or the Coastal Zone Management Rules (N.J.A.C 7:7)? **Yes**

As accurately as possible, please select the width of the riparian zone. **150 Feet**

Based on the estimated riparian zone width that you determined, specify the square footage of riparian zone vegetation that will be disturbed by the proposed project. **0** Sq. Ft. - **0** Acres

Provide the name of the report and relevant page(s) documenting the proposed project's compliance with the "Requirements for a regulated activity in a riparian zone", in the Flood Hazard Area Control Rules.

Name of Report	Page #(s) in Report
Attachment E Statement of Compliance	E-10

Site Plans Requiring Elevation Measurements

Do the site plans reference the National Geodetic Vertical Datum of 1929 (NGVD29)? **No**

What is the conversion factor from NAVD88 to NGVD29 in feet? **0.68**

Endangered and Threatened Species Evaluations

Has an NJDEP, Office of Natural Lands Management, Natural Heritage Database data request response for endangered or threatened species of flora or fauna, including a landscape map report, been obtained for the proposed project? **Yes**

Provide the page #(s) of the report that documents the required evaluation of the proposed project with respect to endangered and threatened species:

Name of Report	Page #(s) in Report
Attachment H: Natural Heritage Program Database Reivew	All
Attachment G: Wetland Delineation Report	2

Mitigation

Does the proposed project require mitigation? **No**

Conservation Restrictions

Is any portion of the site subject to an existing conservation restriction? **No**

Permit Scope - Freshwater

Select all Permit Types that apply (Transition Area Waiver (TAW) types will be listed in a separate table):

Permit Type	Fee
GP12 Surveying/Investigating	$1,000

Are there any Transition Area Waiver (TAW) types included in this application? **No**

Permit Details - Freshwater

All FWW Applications

Has a Letter of Interpretation (LOI) been issued for the site? **No**

How many square feet of wetlands and/or State open waters currently exist on the property? **9000** Sq. Ft. - **0.207** Acres

All FWW GPs and IPs

What date did the current owner purchase the project area? **08/18/2008**

Provide a history of the ownership of the property beginning June 30, 1988 to the present and a listing of contiguous lots that were in common ownership with the site where the activities are proposed. The history of ownership is requested here to establish the extent of the site and determine the Freshwater Wetlands Permitting history of the site.

In the table below, please provide the owner's name, current property use, and start and end dates of ownership (if currently owned, enter today's date for the end date). Please use a separate row for each successive owner, or to indicate when contiguous lots changed ownership. If the site has not been subdivided since June 30, 1988 or if no contiguous lots were owned by the applicant, enter 0 in the columns titled "Contiguous Blocks Same Owner" and "Contiguous Lots Same Owner."

Name of Owner	Property Use	Contiguous Block Same Owner	Contiguous Lot Same Owner	Start Date	End Date
Acquiring Enterprises	Commercial	0	0	08/18/2008	03/19/2021
Michael P. Dana and Guilio Mastrobattista	Commercial	0	0	02/14/1952	08/18/2008

All GP and IP Regulated Disturbances

GP12 Surveying/Investigating

For the specified permit, will the proposed activity involve any temporary regulated disturbances? **Yes**

Enter the total square footage of cleared and/or excavated wetlands, transition areas, and State Open Waters for this permit. Cleared and/or excavated wetlands, transition areas, and State Open Waters equate to a temporary disturbance. NOTE: Filled wetlands/transition areas/State Open Waters equate to a permanent disturbance and should be recorded in a separate table (below).

Temporary Disturbance Type	Sq. Ft.	Acres
Wetlands	0	0
Transition Area	25	0.001
State Open Water	0	0

For the specified permit, will the proposed activity involve any permanent regulated disturbances? **No**

All GP-Specific Information

FWW Permit Summary

The following table tallies the disturbances and linear footages entered in response to questions in this service as well as the total acreage disturbed for previously approved permits based on data that resides in the Department's NJ Environmental Management System (NJEMS). Be advised that the total below may not contain all previous approvals that are maintained in the Department's legacy databases or in our existing database due to administrative error or incomplete information. The total amount of acreage disturbed from previous approvals will be confirmed by NJDEP staff upon review.

Permit Type	Allowable Limit Permanent Disturbance (acres)	Mitigation Trigger Limit (acres)	Allowable Linear Limit (feet)	Total Linear Feet	Total Temporary Disturbance (acres)	Total Permanent Disturbance (acres)
GP12 Surveying/Investigating					0.001	0
					Proposed Total for all Applicable GPs: (Note: this totals the last column for all blue highlighted rows)	0
					GP Grand Total: Subject to Allowable Disturbance Limits	0

Contacts

Name: Frank Lawson
Title: Supervisor - Site Remediation
Contact Type: Applicant
Organization Name: JCP&L
Organization Type: Utility
E-Mail: flawson@firstenergycorp.com
Phone: (973) 401-8309 (Work Phone Number)
Contact Address: 300 Madison Avenue
Morristown (Morris), New Jersey 07962

Name: Steve DePasquale
Title:
Contact Type: Property Owner
Organization Name: Acquiring Enterprises LLC
Organization Type: Corporation
E-Mail: Not_Available@NA.com
Phone: (201) 247-8023 (Work Phone Number)
Contact Address: 135 Jefferson Place
Totowa (Passaic), New Jersey 07512

Name:	Lorraine Read
Title:	Municipal Clerk / Registrar
Contact Type:	Municipal Clerk
Organization Name:	Town of Newton
Organization Type:	Municipal
E-Mail:	lread@newtontownhall.com
Phone:	(973) 383-3521 (Work Phone Number)
Contact Address:	39 Trinity St. Newton Town (Sussex), New Jersey 07860

Name:	Jeffery Parrot
Title:	County Clerk
Contact Type:	County Clerk
Organization Name:	Sussex County Clerk
Organization Type:	County
E-Mail:	info@sussexcountyclerk.org
Phone:	(973) 579-0900 (Work Phone Number)
Contact Address:	83 Spring St Suite 304 Newton (Sussex), New Jersey 07860

Name:	Peter Randazzo
Title:	LSRP
Contact Type:	Agent
Organization Name:	Brown and Caldwell
Organization Type:	Corporation
E-Mail:	PRandazzo@Brwncald.com
Phone:	(201) 518-2416 (Work Phone Number)
Contact Address:	Two Radnor Corporate Center 100 Matsonford Road Suite 250 Radnor, Pennsylvania 19087

Uploaded Attachments

Attachment Type	Attachment Description	File Name
Environmental Report with Site Location Maps	Environmental Report with Site Location Maps	Att_G_Wetland_Report.pdf
Site Plans	Site Plans	C-100-SNS.pdf
Color Photos and Photo Location Map	Color Photos and Photo Location Map	Photo_Log.pdf
Public Notice Form	Public Notice Form	PN_Form.pdf
Property Owners Certification Form	Property Owners Certification Form	Att_B_Property_Owner_Cert_Form.pdf
Natural Heritage Program Letter	Natural Heritage Program Letter	Att_H_Natural_Heritage_Letter.pdf
Other	Application Form	Att_A_Application_Form.pdf
Other	Compliance Statement	Att_E_Compliance_Statement_GP12.pdf
Other	Site Location Maps	Att_F_Maps_Reduced.pdf
Other	Comprehensive Application with Cover Letter	Freshwater_Wetlands_General_Permit_12_Application_March_22_2021.pdf

Certification

Certifier: Brendan Quann
Certifier ID: BQUANN
Challenge/Response Question: What is your favorite sport?
Challenge/Response Answer: ******
Certification PIN: ******
Date/Time of Certification: 03/25/2021 15:23

"I certify under penalty of law that I believe the information provided in this document is true, accurate, and complete. I am aware that there are significant civil and criminal penalties, including the possibility of fine or imprisonment or both, for submitting false, inaccurate or incomplete information."

Brendan Quann
General

03/25/2021
Date

Fee Summary

Service ID: 1202017
Service Type: Apply for a Land Use Authorization or Permit
Created Date: 03/19/2021

Freshwater Wetlands

Freshwater Wetlands - Permit/Fee Type	Fee
GP12 Surveying/Investigating	$1,000

Total Freshwater Wetlands Fees: $1,000

Total Fees: $1,000

Payment Information

Status:	Paid
Confirmation Number(s):	06261T
Total Payment Amount:	$1,000.00
Payment Date:	03/25/2021
Payment Method:	Pay via Credit Card
Credit Card Service Fee:	$20.50
Total Amount Charged:	$1,020.50

SUMMARY

Service Information

Service ID: 1202017

Service Type: Apply for a Land Use Authorization or Permit - Land Use Authorization or Permit

Service Name/PI Name: NEWTON COAL GAS 2 SITE AOC C2

Service Comments: Implementation of Pre-Design Investigations (PDI) activities associated with Newton Coal Gas 2 Sites Area of Concern (AOC) C2 - Off-Site MGP-Related Soil Impacts. PDI activities are proposed on the 2-10 East Clinton Street, Newton, New Jersey property to further delineate MGP-related impacts which require remediation in accordance with N.J.A.C 7:26C and N.J.A.C 7:26E.

Created On: 03/19/2021

Project Description

Do you know what permit you are applying for?
Yes

Is this permit/authorization application filed as a follow-up to an Emergency Authorization issued by the Division of Land Resource Protection?
No

Is the proposed project for linear development?
No

Project Description:
Briefly describe the proposed activities to be conducted within areas regulated by the Division of Land Use Regulation (DLUR).
Installation of soil borings within a Wetland Transition Area to further delineate environmental impacts which require remediation. The wetland transition area primarily consists of a paved parking area located at the rear of the property.

Have any Land Use permits been issued for this site?
Yes

Please list all File Numbers:

File #
1915-06-0002.1

Is the proposed project located in the Meadowlands District, the Highlands, or the Pinelands?
No

Site Information

Location Address: 2-10 East Clinton Street
Newton,NJ 07860

Location Description: No location description provided.

County: Sussex

Municipality: Newton Town

Coordinates: 423167.00,811397.00 - 01 - NJ State Plane (NAD83) - USFEET

Block and Lot:

Block	Lot	County	Municipality
9.03	27	Sussex	Newton Town

Permit Scope - General

Is the applicant or co-applicant a public entity?
No

Stormwater

Does the entire proposed project meet the definition of a "**major development**" pursuant to the Stormwater Management rules at N.J.A.C. 7:8-1.2?
No

Permit Type Selection

Are you applying for a Coastal Permit?
No

Are you applying for a Flood Hazard Permit and/or Verification?
No

Are you applying for a Freshwater Wetlands Permit?
Yes

Permit Details - General

Is the applicant the sole owner of all properties, including easements and rights-of-way, where the project is proposed?
No

Have ALL owners of each property, including easements and rights-of-way, where the project is proposed signed a Property Owner Certification Form consenting to the construction of the project on their property?
Yes

Gas Pipeline:

Does the proposed project include the construction of a gas pipeline?
No

Watershed Management Area:

Enter the Watershed information for all watershed area(s) where the proposed project is located:

Watershed Management Area	Watershed	Sub-Watershed	Name	Class	Type
Upper Delaware River	Paulins Kill (above Stillwater Village)	Paulins Kill (above Rt 15)	Paulins Kill	FW2-NT Non-trout	Stream

Riparian Zone

Is the proposed project located within 300 ft. of a regulated water body?
Yes

Is the proposed project located in a riparian zone as defined in the Flood Hazard Area Control Act Rules (N.J.A.C 7:13) or the Coastal Zone Management Rules (N.J.A.C 7:7)?
Yes

As accurately as possible, please select the width of the riparian zone.
150 Feet

Based on the estimated riparian zone width that you determined, specify the square footage of riparian zone vegetation that will be disturbed by the proposed project.
0 Sq. Ft. - **0** Acres

Provide the name of the report and relevant page(s) documenting the proposed project's compliance with the "Requirements for a regulated activity in a riparian zone", in the Flood Hazard Area Control Rules.

Name of Report	Page #(s) in Report
Attachment E Statement of Compliance	E-10

Site Plans Requiring Elevation Measurements

Do the site plans reference the National Geodetic Vertical Datum of 1929 (NGVD29)?
No

What is the conversion factor from NAVD88 to NGVD29 in feet?
0.68

Endangered and Threatened Species Evaluations

Has an NJDEP, Office of Natural Lands Management, Natural Heritage Database data request response for endangered or threatened species of flora or fauna, including a landscape map report, been obtained for the proposed project?
Yes

Provide the page #(s) of the report that documents the required evaluation of the proposed project with respect to endangered and threatened species:

Name of Report	Page #(s) in Report
Attachment H: Natural Heritage Program Database Reivew	All
Attachment G: Wetland Delineation Report	2

Mitigation

Does the proposed project require mitigation?
No

Conservation Restrictions

Is any portion of the site subject to an existing conservation restriction?
No

Permit Scope - Freshwater

Select all Permit Types that apply (Transition Area Waiver (TAW) types will be listed in a separate table):

Permit Type	Fee
GP12 Surveying/Investigating	$1,000

Are there any Transition Area Waiver (TAW) types included in this application? **No**

Permit Details - Freshwater

All FWW Applications

Has a Letter of Interpretation (LOI) been issued for the site?
No

How many square feet of wetlands and/or State open waters currently exist on the property? **9000** Sq. Ft. - **0.207** Acres

All FWW GPs and IPs

What date did the current owner purchase the project area? **08/18/2008**

Provide a history of the ownership of the property beginning June 30, 1988 to the present and a listing of contiguous lots that were in common ownership with the site where the activities are proposed. The history of ownership is requested here to establish the extent of the site and determine the Freshwater Wetlands Permitting history of the site.

In the table below, please provide the owner's name, current property use, and start and end dates of ownership (if currently owned, enter today's date for the end date). Please use a separate row for each successive owner, or to indicate when contiguous lots changed ownership. If the site has not been subdivided since June 30, 1988 or if no contiguous lots were owned by the applicant, enter 0 in the columns titled "Contiguous Blocks Same Owner" and "Contiguous Lots Same Owner."

Name of Owner	Property Use	Contiguous Block Same Owner	Contiguous Lot Same Owner	Start Date	End Date
Acquiring Enterprises	Commercial	0	0	08/18/2008	03/19/2021
Michael P. Dana and Guillo Mastrobattista	Commercial	0	0	02/14/1952	08/18/2008

All GP and IP Regulated Disturbances

GP12 Surveying/Investigating

For the specified permit, will the proposed activity involve any temporary regulated disturbances?
Yes

Enter the total square footage of cleared and/or excavated wetlands, transition areas, and State Open Waters for this permit. Cleared and/or excavated wetlands, transition areas, and State Open Waters equate to a temporary disturbance. NOTE: Filled wetlands/transition areas/State Open Waters equate to a permanent disturbance and should be recorded in a separate table (below).

Temporary Disturbance Type	Sq. Ft.	Acres
Wetlands	0	0

Temporary Disturbance Type	Sq. Ft.	Acres
Transition Area	25	0.001
State Open Water	0	0

For the specified permit, will the proposed activity involve any permanent regulated disturbances?
No

All GP-Specific Information

FWW Permit Summary

The following table tallies the disturbances and linear footages entered in response to questions in this service as well as the total acreage disturbed for previously approved permits based on data that resides in the Department's NJ Environmental Management System (NJEMS). Be advised that the total below may not contain all previous approvals that are maintained in the Department's legacy databases or in our existing database due to administrative error or incomplete information. The total amount of acreage disturbed from previous approvals will be confirmed by NJDEP staff upon review.

Permit Type	Allowable Limit Permanent Disturbance (acres)	Mitigation Trigger Limit (acres)	Allowable Linear Limit (feet)	Total Linear Feet	Total Temporary Disturbance (acres)	Total Permanent Disturbance (acres)
GP12 Surveying/Investigating					0.001	0
Proposed Total for all Applicable GPs: (Note: this totals the last column for all blue highlighted rows)						0
GP Grand Total: Subject to Allowable Disturbance Limits						0

Contacts

Name: Frank Lawson
Title: Supervisor - Site Remediation
Contact Type: Applicant
Organization Name: JCP&L
Organization Type: Utility
E-Mail: flawson@firstenergycorp.com
Phone: (973) 401-8309 (Work Phone Number)
Contact Address: 300 Madison Avenue
Morristown (Morris), New Jersey 07962

Name: Steve DePasquale
Title:
Contact Type: Property Owner
Organization Name: Acquiring Enterprises LLC
Organization Type: Corporation
E-Mail: Not_Available@NA.com
Phone: (201) 247-8023 (Work Phone Number)
Contact Address: 135 Jefferson Place
Totowa (Passaic), New Jersey 07512

Name: Lorraine Read
Title: Municipal Clerk / Registrar
Contact Type: Municipal Clerk
Organization Name: Town of Newton
Organization Type: Municipal
E-Mail: lread@newtontownhall.com
Phone: (973) 383-3521 (Work Phone Number)
Contact Address: 39 Trinity St.
Newton Town (Sussex), New Jersey 07860

Name: Jeffery Parrot
Title: County Clerk
Contact Type: County Clerk
Organization Name: Sussex County Clerk
Organization Type: County
E-Mail: info@sussexcountyclerk.org
Phone: (973) 579-0900 (Work Phone Number)
Contact Address: 83 Spring St
Suite 304
Newton (Sussex), New Jersey 07860

Name: Peter Randazzo
Title: LSRP
Contact Type: Agent
Organization Name: Brown and Caldwell
Organization Type: Corporation
E-Mail: PRandazzo@Brwncald.com
Phone: (201) 518-2416 (Work Phone Number)
Contact Address: Two Radnor Corporate Center
100 Matsonford Road
Suite 250
Radnor, Pennsylvania 19087

Uploaded Attachments

Attachment Type	Attachment Description	File Name
Environmental Report with Site Location Maps	Environmental Report with Site Location Maps	Att_G_Wetland_Report.pdf
Site Plans	Site Plans	C-100-SNS.pdf
Color Photos and Photo Location Map	Color Photos and Photo Location Map	Photo_Log.pdf
Public Notice Form	Public Notice Form	PN_Form.pdf
Property Owners Certification Form	Property Owners Certification Form	Att_B_Property_Owner_Cert_Form.pdf
Natural Heritage Program Letter	Natural Heritage Program Letter	Att_H_Natural_Heritage_Letter.pdf
Other	Application Form	Att_A_Application_Form.pdf
Other	Compliance Statement	Att_E_Compliance_Statement_GP12.pdf
Other	Site Location Maps	Att_F_Maps_Raduced.pdf
Other	Comprehensive Application with Cover Letter	Freshwater_Wetlands_General_Permit_12_Application_March_22_2021.pdf

Certification

Certifier:	Brendan Quann
Certifier ID:	BQUANN
Challenge/Response Question:	What is your favorite sport?
Challenge/Response Answer:	******
Certification PIN:	******
Date/Time of Certification:	03/25/2021 15:23

"I certify under penalty of law that I believe the information provided in this document is true, accurate, and complete. I am aware that there are significant civil and criminal penalties, including the possibility of fine or imprisonment or both, for submitting false, inaccurate or incomplete information."

Brendan Quann	03/25/2021
General	**Date**

Fee Summary

Freshwater Wetlands

Freshwater Wetlands - Permit/Fee Type	Fee
GP12 Surveying/Investigating	$1,000

Total Freshwater Wetlands Fees: $1,000

Total Fees: $1,000

Payment Information

Status:	Paid
Confirmation Number(s):	06261T
Payment Amount:	$1,000.00
Payment Date:	03/25/2021
Payment Method:	Pay via Credit Card
Credit Card Service Fee:	$20.50
Total Amount Charged:	$1,020.50

Comings, Elaine M

From: Peter Randazzo
Sent: Monday, March 22, 2021 3:34 PM
To: Fradel, Joel
Subject: RE: Technical Consultation: Newton Coal Gas 2 Site; P.I. G000005460

Thanks, Joel. I believe having someone attend from BRAP would be most helpful to help us sort out the best way to address RAPs for the various impacted properties.

Peter Randazzo
Brown and Caldwell
PRandazzo@brwncald.com
T 201.574.4755 | C 201.341.2680

From: Fradel, Joel <Joel.Fradel@dep.nj.gov>
Sent: Monday, March 22, 2021 12:45 PM
To: Peter Randazzo <PRandazzo@Brwncald.com>
Subject: RE: Technical Consultation: Newton Coal Gas 2 Site; P.I. G000005460

Hi Peter,

I will discuss with Mary Anne next week when she is back at work. I'm sure that she will want to also include someone from BRAP. She does have openings in the weeks ahead.

Best Regards,

Joel

From: Peter Randazzo <PRandazzo@Brwncald.com>
Sent: Friday, March 19, 2021 1:05 PM
To: Fradel, Joel <Joel.Fradel@dep.nj.gov>
Subject: [EXTERNAL] FW: Technical Consultation: Newton Coal Gas 2 Site; P.I. G000005460

Hi Joel:

I understand that MaryAnne Kuserk has been out. We've been trying to schedule a technical consultation with the Department by haven't had any luck as yet. Any help would be appreciated in getting one scheduled. The issues are described in the original email below. The PRCR is JCP&L and this is for an MGP site which involves several properties. We're hoping to get a consultation scheduled within the upcoming month so that we can keep this project moving along.

Thanks!

Peter Randazzo
Brown and Caldwell

PRandazzo@brwncald.com
T 201.574.4755 | C 201.341.2680

From: Peter Randazzo
Sent: Friday, March 19, 2021 1:00 PM
To: 'Kuserk, MaryAnne' <MaryAnne.Kuserk@dep.nj.gov>
Cc: 'Sanderson, Gary' <Gary.Sanderson@dep.nj.gov>
Subject: RE: Technical Consultation: Newton Coal Gas 2 Site; P.I. G000005460

Hi MaryAnne:

Just following up on the request below. We'd like to set up a technical consultation with the Department to discuss the issues noted below. Please let me know what the availability is for the Department over the upcoming month.

Thank you!

Peter Randazzo
Brown and Caldwell
PRandazzo@brwncald.com
T 201.574.4755 | C 201.341.2680

From: Peter Randazzo
Sent: Friday, February 19, 2021 3:09 PM
To: 'Kuserk, MaryAnne' <MaryAnne.Kuserk@dep.nj.gov>
Cc: 'Sanderson, Gary' <Gary.Sanderson@dep.nj.gov>
Subject: RE: Technical Consultation: Newton Coal Gas 2 Site; P.I. G000005460

Hi MaryAnne:

I hope you are well and healthy in this time of Covid.

Before the holiday we exchanged emails regarding a technical consultation for the reference case. It has since fallen off the radar but I would like to resurrect it. As noted in my initial email, we are dealing with a complicated MGP case involving multiple properties in some very tight spaces. We've spent $7 million in an ISS remedy in 2020 on the primary MGP property (source area) and are soon to move to the most impacted downgradient offsite property where we expect to spend an additional $3 million in remediation in 2021. Those are the easy properties. There are several other impacted properties.

We'd like to have a technical consultation to discuss these and other properties to be sure that we are going in the right direction as well as to gain some NJDEP advice both technically and administratively. I would very much appreciate if you can send me three times and dates in the coming month when we can schedule a virtual call.

I look forward from hearing from you.

Stay well.

Peter Randazzo
Brown and Caldwell
PRandazzo@brwncald.com
T 201.574.4755 | **C** 201.341.2680

From: Peter Randazzo
Sent: Tuesday, September 29, 2020 2:51 PM
To: Kuserk, MaryAnne <MaryAnne.Kuserk@dep.nj.gov>
Cc: Sanderson, Gary <Gary.Sanderson@dep.nj.gov>
Subject: RE: Technical Consultation: Newton Coal Gas 2 Site; P.I. G000005460

Hi MaryAnne:

I apologize for the delayed response. JCP&L (the Responsible Party) was trying to schedule around vacations and medical leaves. They are asking if we can schedule the Technical Consultation during the last week of October or first week of November.

Thank you.

Peter Randazzo
Brown and Caldwell
PRandazzo@brwncald.com
T 201.574.4755 | **C** 201.341.2680

From: Kuserk, MaryAnne <MaryAnne.Kuserk@dep.nj.gov>
Sent: Friday, September 18, 2020 12:47 PM
To: Peter Randazzo <PRandazzo@Brwncald.com>
Cc: Sanderson, Gary <Gary.Sanderson@dep.nj.gov>
Subject: RE: Technical Consultation: Newton Coal Gas 2 Site; P.I. G000005460

Peter,
I can set up a technical consultation to discuss. I can include the staff from the Bureau of Remedial Action Permitting, so someone from that group can attend as well.

Based on the description below, if NAPL recovery will be on-going with an active system, that is acceptable.

Also note that a few of the situations described below may fall under the Technical Impracticability purview.

We can discuss in more detail during the Tech Consult.

Here are some date where the Department is available.

Fri 9/25 all day
Mon9/28 all day
Wed 9/30 10-11 am
Thurs 10/1 11-12 am
Fri 10/2 – all day

From: Peter Randazzo <PRandazzo@Brwncald.com>
Sent: Tuesday, September 8, 2020 5:21 PM
To: Kuserk, MaryAnne <MaryAnne.Kuserk@dep.nj.gov>
Subject: [EXTERNAL] Technical Consultation: Newton Coal Gas 2 Site; P.I. G000005460

Hi MaryAnne:

I hope you are doing well and staying both safe and healthy. I would like to schedule a technical consultation to discuss the reference site, particularly with regard to the impact of the policy statement on NAPL recovery sent out last week by the Department. If you are not the person who would handle this topic, please direct me to the appropriate person in the Department.

In this particular case, we have MGP NAPL that has migrated offsite onto adjacent properties. We recently completed an ISS remedy on the former MGP site itself (source location). However, there remain significant amount of NAPL material on nearby offsite properties. We intend to address accessible offsite NAPL mass through either excavation or ISS. However, there is mass in several offsite areas that are not accessible to active remediation. These include 1) NAPL occurring beneath the entrance of a neighboring dialysis center. Active remediation in this location would block the dialysis center entrance, thereby placing risk on the center's patients than would be posed by leaving the NAPL in place. 2) NAPL within the footprint of a heavily traveled road that has a significant number of subsurface utilities beneath it. 3) NAPL occurring under a commercial building on a third property. In each of these cases, active remedies to remove the NAPL are not practicable.

We were planning on NAPL removal through excavation or ISS where it was achievable in offsite areas. In areas where NAPL removal by active remedies such as ISS, excavation, or ISCO is not possible and where the NAPL is mobile in those areas, we were planning physical removal using wells (along with Deed Notices, Engineering controls and a CEA). Note that the NAPL is fully delineated horizontally and vertically and there are no completed pathways to receptors. Considering last week's policy statement on NAPL removal, we do not want to go too far down the road of NAPL recovery to only have it not approved under a RAP. Thus, we'd like to discuss whether NAPL removal as a part of the final remedy is acceptable in this particular case.

Please let me know if a technical consultation on this issue is possible. I'm assuming that we can do one virtually. I can set up a Microsoft Teams meeting to accommodate a virtual meeting.

Department advise would be much appreciated.

Thank you.

Peter Randazzo, PG, LSRP
Vice President
Brown and Caldwell | Radnor, PA
PRandazzo@brwncald.com
T 201.574.4755 | **C** 201.341.2680

Two Radnor Corporate Center
100 Matsonford Road, Suite 250
Radnor, Pennsylvania 19087

T: 201.574.4755

Brown AND Caldwell

March 22, 2021

Division of Land Use Regulation
New Jersey Department of Environmental Protection
5 Station Plaza
501 East State Street
PO Box 420, Mail Code 501-02A
Trenton, New Jersey 08625-0420

155834.200.001

Subject: Freshwater Wetlands General Permit 12 Application
Newton Coal Gas 2 Site – AOC C2: Off-Site MGP-Related Soil Impacts
Newton, New Jersey
NJDEP SRP Program Interest No. G000005460

Dear Sir or Madam:

Attached for your review is a Freshwater Wetlands General Permit 12 Application that is required for the implementation of Pre-Design Investigations (PDI) activities associated with Newton Coal Gas 2 Site's Area of Concern (AOC) C2 - Off-Site Manufactured Gas Plant (MGP)-Related Soil Impacts. PDI activities are proposed on the 2-10 East Clinton Street, Newton, New Jersey property to further delineate MGP-related impacts which require remediation in accordance with New Jersey Administrative Code (N.J.A.C.) 7:26C and N.J.A.C 7:26E.

General Permit 12 Application Checklist:

1. Completed Application Form: Refer to Attachment A
2. Completed Property Owner Certification Form: Refer to Attachment B
3. Public Notice: Refer to Attachment C
4. Application Fees: Attached.
5. Site Plans: Refer to Attachment D
6. Photographs: Refer to Appendix C of Attachment G
7. Compliance Statement: Refer to Attachment E
8. Site Maps: Refer to Attachment F
9. Wetlands Location: Refer to Attachment D and Attachment G
10. Calculations and Analyses: Not applicable. The proposed project does not meet the definition of a major development as defined by N.J.A.C 7:8-1.2
11. Natural Heritage Program Letter: Refer to Attachment H
12. Additional Requirements:
    a. Proof of Ownership: Not applicable. The current property owner purchased the property after June 30, 1988.
    b. Phase IA Historical and Archaeological Survey: Not applicable. The Site does not reflect any of the characteristics defined within N.J.A.C 7:7A- 19.5(l)

c. Highlands Applicability Determination: Not applicable
d. Conservation Restriction: Not applicable

If you have any questions, please do not hesitate to call me at 201-574-4755.

Very truly yours,

Brown and Caldwell

Peter Randazzo, LSRP
Vice President

cc: Elaine Comings, JCP&L
David DePasquale, Acquiring Enterprises LLC

Attachments (9)

1. Attachment A: Application Form
2. Attachment B: Property Owner Certification Form
3. Attachment C: Public Notice Documentation
4. Attachment D: Site Plan
5. Attachment E: Compliance Statement
6. Attachment F: Maps
7. Attachment G: Wetland Delineation Report
8. Attachment H: Natural Heritage Program Database Review
9. Attachment I: CD-ROM of Entire Application

Attachment A: Application Form

State of New Jersey
Department of Environmental Protection
Division of Land Use Regulation
Application Form for Permit(s)/Authorization(s)

501 E. State Street Mail Code 501-02A P.O. Box 420
Trenton, NJ 08625-0420
Phone #: (609) 777-0454 Web: www.nj.gov/dep/landuse

Please print legibly or type the following: Complete all sections and pages unless otherwise noted. **Is this project a NJDOT Priority 1 Repair Project?** Yes ☐ No ☒

Initial Application ☒ **Response to DLUR Deficiency** ☐ **Extension / Modification** ☐ **Is this project a NJDOT Priority 2 Repair Project?** Yes ☐ No ☒

1. **Applicant Name:** ~~Mr./Ms./Mrs~~ JCP&L, Co. E-Mail:
   Address: 300 Madison Avenue Daytime Phone: Ext.
   City/State: Morristown, NJ Zip Code 07962 Cell Phone:
2. **Agent Name:** Mr./~~Ms./Mrs~~ Peter Randazzo
   Firm Name: Brown and Caldwell E-Mail: prandazzo@brwncald.com
   Address: Two Radnor Corporate Center, 100 Matsonford Rd, Suite 250 Daytime Phone: 201-574-4755 Ext.
   City/State: Radnor, PA Zip Code 19087 Cell Phone:
3. **Property Owner:** ~~Mr./Ms./Mrs~~ Acquiring Enterprises LLC E-mail:
   Address: 135 Jefferson Place Daytime Phone: 201-247-8023 Ext.
   City/State: Totowa, NJ Zip Code 07512 Cell Phone:
4. **Project Name:** Newton Coal Gas 2 Site - Off-Site Investigation Address/Location: 2-10 East Clinton Street
   Municipality: Town of Newton County: Sussex Zip Code 07860
   Block(s): 9.03 Lot(s): 27
   N.A.D. 1983 State Plane Coordinates (feet) E(x): 423167 N(y): 811397 ***Not** Longitude/Latitude*
   Watershed: Upper Delaware (WMA 01) Subwatershed: Upper Paulins Kill (HUC 11 02040105040)
   Nearest Waterway: Paulins Kill
5. **Project Description:** Installation of soil borings to verify the extent of environmental impacts at the Site, and to collect supplemental geotechnical and waste characterization information to support the selection and design of a remedial action to address environmental impacts at the Site.

Provide if applicable: Previous LUR File # (s): Waiver request ID # (s):

A. SIGNATURE OF APPLICANT (required):

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining and preparing the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for knowingly submitting false information, including the possibility of fine and imprisonment. If the applicant is an organization such as a corporation, municipal entity, home-owners association etc., the party responsible for the application shall sign on behalf of the organization.

Frank D Lawson
Signature of Applicant

2-9-21
Date

Frank Lawson, Supervisor - Site Remediation
Print Name

Signature of Applicant

Date

Print Name

B. PROPERTY OWNER'S CERTIFICATION

I hereby certify that the undersigned is the owner of the property upon which the proposed work is to be done. This endorsement is certification that the owner/easement holder grants permission for the conduct of the proposed activity. In addition, written consent is hereby given to allow access to the site by representatives or agents of the Department for the purpose of conducting a site inspection(s) or survey(s) of the property in question.

SIGN & DATE

addition, the undersigned property owner hereby certifies:

1. Whether any work is to be done within an easement? Yes ☐ No ☒
   (If answer is "Yes" – Signature/title of responsible party is required below)
2. Whether any part of the entire project will be located within property belonging to the State of New Jersey? Yes ☐ No ☒
3. Whether any work is to be done on any property owned by any public agency that would be encumbered by Green Acres? Yes ☐ No ☒
4. Whether this project requires a Section 106 (National Register of Historic Places) Determination as part of a federal approval? Yes ☐ No ☒

Signature of Owner

3-3-2021
Date

Steve DeRosquale
Print Name

Signature of Owner/Easement Holder

Date

Print Name/Title

C. APPLICANT'S AGENT

I Frank Lawson, the Applicant/~~Owner~~ and _____, ~~co-Applicant/Owner~~ authorize to act as my agent/representative in all matters pertaining to my application the following person:

Peter Randazzo, LSRP
Name of Agent

Vice President
Occupation/Profession of Agent

Frank D Lawson
Signature of Applicant/Owner

Signature of co-Applicant/Owner

AGENT'S CERTIFICATION:

I agree to serve as agent for the above-referenced applicant

Signature of Agent

Brown and Caldwell
Name of Firm

D. STATEMENT OF PREPARER OF PLANS, SPECIFICATIONS, SURVEYOR'S OR ENGINEER'S REPORT

I certify under penalty of law that have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining and preparing the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for knowingly submitting false information, including the possibility of fine and imprisonment.

Not Applicable - FWGP-12 Permit Application
Signature

Print Name

Position & Name of Firm

Professional License #

Date

E. STATEMENT OF PREPARER OF APPLICATION, REPORTS AND/OR SUPPORTING DOCUMENTS (other than engineering)

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining and preparing the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for knowingly submitting false information, including the possibility of fine and imprisonment.

Teresa M. Caputi
Signature

Teresa Caputi
Print Name

Associate, Environmental Science; Brown and Caldwell
Position & Name of Firm

Professional License # (If Applicable)

3/9/2021
Date

FEE CALCULATION TIPS:

- Whenever the calcuation requires an acreage figure (including the Stormwater calculations), you will need to round UP to the nearest whole number, for example: 0.25 acres gets rounded up to one (1) acre or 2.61 acres gets rounded up to three (3) acres.
- The maximum fee for a CAFRA Individual permit, an Upland Waterfront Development permit, or an In-Water Waterfront Development permit is $30,000 per permit type. For example: if you are applying for both an upland and an in-water Waterfront Development the maximum fee is applied to each permit for a maximum total of $60,000 plus any applicable stromwater review fee.
- The stormwater review fee is applied only one time per project, maximum of $20,000, regardless of multiple applications.

APPLICATION(S) FOR: Please check each permit/authorization that you are applying for and fill in the calculated fee (for each) in the "Fee Paid" column

	Coastal General Permits	Fee Amount	Fee Paid
☐	**CZMGP1** Amusement Pier Expansion	$1,000.00	
☐	**CZMGP2** Beach/Dune Activities	$1,000.00	
☐	**CZMGP3** Voluntary Reconstruction Certain Residential/Commercial Dev.	$1,000.00	
☐	**CZMGP4** Development of one or two SFH or Duplexes	$1,000.00	
☐	**CZMGP5** Expansion or Reconstruction SFH/Duplex	$1,000.00	
☐	**CZMGP6** New Bulkhead/Fill Lagoon	$1,000.00	
☐	**CZMGP7** Revetment at SFH/Duplex	$1,000.00	
☐	**CZMGP8** Gabions at SFH/Duplex	$1,000.00	
☐	**CZMGP9** Support Facilities at a Marina	$1,000.00	
☐	**CZMGP10** Reconstruction of Existing Bulkhead	$1,000.00	
☐	**CZMGP11** Hazard Waste Clean-up	$1,000.00	
☐	**CZMGP12** Landfall of Utilities	$1,000.00	
☐	**CZMGP13** Recreation Facility at Public Park	$1,000.00	
☐	**CZMGP14** Bulkhead Construction & Fill Placement	$1,000.00	
☐	**CZMGP15** Construction of Piers/Docks/Ramps in Lagoons	$1,000.00	
☐	**CZMGP16** Minor Maintenance Dredging in Lagoons	$1,000.00	
☐	**CZMGP17** Eroded Shoreline Stabilization	$1,000.00	
☐	**CZMGP18** Avian Nesting Structures	$1,000.00	
☐	**CZMGP19** Modification of Electrical Substations	$1,000.00	
☐	**CZMGP20** Legalization of the Filling of Tidelands	$1,000.00	
☐	**CZMGP21** Construction of Telecommunication Towers	$1,000.00	
☐	**CZMGP22** Construction of Tourism Structures	$1,000.00	
☐	**CZMGP23** Geotechnical Survey Borings	$1,000.00	
☐	**CZMGP24** Habitat Creation, Restoration, Enhancement, Living Shorelines	No Fee	No Fee
☐	**CZMGP25** 1 to 3 Turbines < 200 Feet	$1,000.00	
☐	**CZMGP26** Wind Turbines < 250 Feet	$1,000.00	
☐	**CZMGP27** Dredge Lagoon (post storm event)	$1,000.00	
☐	**CZMGP28** Dredge post Bulkhead Failure	$1,000.00	
☐	**CZMGP29** Dredge Marina (post storm event)	$1,000.00	
☐	**CZMGP30** Aquaculture Activities	$1,000.00	
☐	**CZMGP31** Placement of Shell (shellfish areas)	$1,000.00	
☐	**CZMGP32** Application of Herbicide in Coastal Wetlands	$1,000.00	
☐	**CZM Permit-by-Certification** *(On-line application ONLY)*	$1000.00	

	Coastal Individual Permits	Fee Amount	Fee Paid
☐	CAFRA – IP SFH or Duplex	$2,000	
☐	CAFRA – IP Residential not SFH/duplex	$3,000 x_____# of units	
☐	CAFRA – IP Commercial, Industrial or Public	$3,000 x_____acres of the site	
☐	WFD - IP SFH or Duplex (Upland/Landward of MHWL)	$2,000	
☐	WFD – IP Residential not SFH/duplex (Upland/Landward of MHWL)	$3,000 x_____# of units	
☐	WFD – IP Commercial, Industrial or Public Development (Upland/Landward of MHWL)	$3,000 x_____acres of the site	
☐	WFD - IP SFH or Duplex (Waterward of MHWL)	$2,000	
☐	WFD – IP Residential not SFH/duplex (Waterward of MHWL)	$3,000 x_____acres of water area impacted	
☐	WFD – IP Commercial, Industrial or Public Development (Waterward of MHWL)	$3,000 x_____acres of water area impacted	
☐	CSW – IP SFH or Duplex	$2,000	
☐	CSW – IP All Development not SFH/duplex	$3,000 x_____acres of wetlands disturbed	

	Additional Coastal Authorizations	Fee Amount	Fee Paid
☐	Modification of a Coastal GP	$500	
☐	Minor Technical Modification of a Coastal Wetland Permit	$500 x_____# of items to be revised	
☐	Minor Technical Modification of a CAFRA IP	$500 x_____# of items to be revised	
☐	Minor Technical Modification of a Waterfront IP	$500 x_____# of items to be revised	
☐	Major Technical Modification of a Coastal Wetland Permit	0.30 x_____original fee = Fee (Minimum $500)	
☐	Major Technical Modification of a CAFRA IP	0.30 x_____original fee = Fee (Minimum $500)	
☐	Major Technical Modification of a Waterfront IP	0.30 x_____original fee = Fee (Minimum $500)	
☐	Zane Letter (Waterfront Development Exemption)	$500	
☐	CAFRA Exemption Request	$500	
☐	CZM General Permit Extension	$240 x_____# of GPs to be extended	
☐	Waterfront Development Individual Permit – Extension (Waterward of MHWL)	0.25 x_____original fee = Fee (Maximum $3,000)	
☐	Meadowlands District Water Quality Certificate	$5,000 + ($2,500 x _____ # acres regulated area disturbed)	
☐	Individual Permit Equivalency/CERCLA	No Fee	No Fee

	Consistency Determination	Fee Amount	Fee Paid
☐	Water Quality Certificate (NOTE: No fee required under the coastal program)	$5,000 + ($2,500 x _____ # acres regulated area disturbed)	
☐	Federal Consistency	No Fee	No Fee

APPLICATION(S) FOR: Please check each permit/authorization that you are applying for and fill in the calculated fee (for each) in the "Fee Paid" column

	Freshwater Wetlands General Permits	Fee Amount	Fee Paid
☐	**FWGP1** Main. & Repair Exist Feature	$1,000.00	
☐	**FWGP2** Underground Utility Lines	$1,000.00	
☐	**FWGP3** Discharge of Return Water	$1,000.00	
☐	**FWGP4** Hazard Site Invest/Cleanup	$1,000.00	
☐	**FWGP5** Landfill Closures	$1,000.00	
☐	**FWGP6** Filling of Non-Tributary Wetlands	$1,000.00	
☐	**FWGP6A** TA Adj. to Non-Tributary Wetlands	$1,000.00	
☐	**FWGP7** Human-made Ditches/Swales in Headwaters	$1,000.00	
☐	**FWGP8** House Additions	$1,000.00	
☐	**FWGP9** Airport Sight-line Clearing	$1,000.00	
☐	**FWGP10A** Very Minor Road Crossings	$1,000.00	
☐	**FWGP10B** Minor Road Crossings	$1,000.00	
☐	**FWGP11** Outfalls / Intakes Structures	$1,000.00	
☒	**FWGP12** Surveying and Investigating	$1,000.00	$1,000.00
☐	**FWGP13** Lake Dredging	$1,000.00	
☐	**FWGP14** Water Monitoring Devices	$1,000.00	
☐	**FWGP15** Mosquito Control Activities	$1,000.00	
☐	**FWGP16** Creation/Restoration/Enhancement Habitat	No Fee	No Fee
☐	**FWGP17** Trails / Boardwalks	$1,000.00	
☐	**FWGP17A** Non-Motorized Multi-Use Paths	$1,000.00	
☐	**FWGP18** Dam Repairs	$1,000.00	
☐	**FWGP19** Docks and Piers	$1,000.00	
☐	**FWGP20** Bank Stabilization	$1,000.00	
☐	**FWGP21** Above Ground Utility Lines	$1,000.00	
☐	**FWGP22** Expansion Cranberry Growing (Pinelands)	No Fee	No Fee
☐	**FWGP23** Spring Developments	$1,000.00	
☐	**FWGP24** Malfunctioning Individual Septic Systems	No Fee	No Fee
☐	**FWGP25** Minor Channel / Stream Cleaning	$1,000.00	
☐	**FWGP26** Redevelop Previously Disturbed Site	$1,000.00	
☐	**FWGP27** Application of herbicide in wetlands	$1,000.00	

	Highlands	Fee Amount	Fee Paid
☐	Pre-application Meeting	$500.00	
☐	Resource Area Determination Boundary Delineation < one acre	$500.00	
☐	Resource Area Footprint of Disturbance	$500 + ($50 x_____# of acres of the site	
☐	Resource Area Determination Verification (> one acre)	$750 + ($100 x _____# of acres of the site)	
☐	Resource Area Determination Extension	0.25 x_____original fee (Minimum $250)	
☐	HPAAGP 1/ Habitat Creation/Enhance	No Fee	No Fee
☐	HPAAGP 2 Bank Stabilization	$500.00	
☐	Preservation Area Approval (PAA)		
☐	PAA with Waiver (Specify type below)		
	Waiver Type:		
☐	HPAA Extension	$1,000	

	Freshwater Individual Permits	Fee Amount	Fee Paid
☐	FWW IP-SFH/Duplex-Wetlands	$2,000	
☐	FWW IP-Wetlands (not SFH/Duplex)	$5,000 + ($2,500 x _____# acres FWW disturbed)	
☐	FWW IP-SFH/Duplex-Open Water	$2,000	
☐	FWW IP-Open Water (not SFH/Duplex)	$5,000 + ($2,500 x _____# acres FWW disturbed)	

	Freshwater Wetlands Transition Area Waivers	Fee Amount	Fee Paid
☐	TAW Averaging Plan	*With valid LOI* $1,000 + ($100 x _____# acres TA disturbed)	
☐	TAW Hardship Reduction		
☐	TAW Reduction per N.J.A.C. 7:7A-8.1(d)		
☐	TAW Special Activity Individual Permit		
☐	TAW Special Activity Linear Development	*Without valid LOI* $1000 + ($100 x _____acres TA disturbed) **+ LOI Fee**	
☐	TAW Special Activity Redevelopment		
☐	TAW Special Activity Stormwater		

	Letter of Interpretation	Fee Amount	Fee Paid
☐	LOI Presence Absence	$1,000.00	
☐	LOI Footprint of Disturbance (3 Maximum)	$1,000.00 each	
☐	LOI Delineation < 1.00 Acres	$1,000.00	
☐	LOI Verification	$1,000 + ($100 x_____# of acres of the site)	
☐	LOI Partial Site Verification	$1,000 + ($100 x_____# of acres of the site subject to LOI)	
☐	LOI Extension Presence/Absence, Footprint, Delineation < 1 acre (Re-Issuance)	$500	
☐	LOI Extension Line Verification (Re-Issuance)	0.50 x_____original fee (Minimum $500)	

	Additional Freshwater Wetlands Authorizations	Fee Amount	Fee Paid
☐	FWGP Administrative Modification	No fee	No Fee
☐	FWGP Minor technical modification	$500.00	
☐	FWGP Major technical modification	$500.00	
☐	Individual Permit Administrative Modification	No Fee	No Fee
☐	Individual Permit Minor Technical Modification	$500.00	
☐	Individual Permit Major Technical Modification	0.30 x_____original fee (Minimum $500)	
☐	TAW Administrative Modification	No Fee	No Fee
☐	TAW Minor Technical Modification	$500.00	
☐	TAW Major Technical Modification	0.30 x_____original fee (Minimum $500)	
☐	FWGP Extension	$500 x_____# of items to be extended	
☐	Individual Permit/Open Water Permit Extension	0.30 x_____original fee (Minimum $500)	
☐	TAW Extension	$500 x_____# of items to be extended	
☐	Freshwater Wetlands Exemption	$500.00	
☐	TAW Exemption	$500.00	
☐	Permit Equivalency/CERCLA	No Fee	No Fee

APPLICATION(S) FOR: Please check each permit/authorization that you are applying for and fill in the calculated fee (for each) in the "Fee Paid" column

	Flood Hazard Area General Permits	Fee Amount	Fee Paid
☐	**FHAGP1** Channel Clean w/o Sediment Removal	No Fee	
☐	**FHAGP1** Channel Clean w/Sediment Removal	No Fee	
☐	**FHAGP2** Mosquito Control	$1,000.00	
☐	**FHAGP3** Scour Protection Bridges/Culverts	$1,000.00	
☐	**FHAGP4** Creation/Restoration/Enhancement of Habitat and Water Quality Values and Functions	No Fee	
☐	**FHAGP5** Reconstruction and/or Elevation of Building in a Floodway	No Fee	
☐	**FHAGP6** Construction of One SFH/Duplex and Driveway	$1,000.00	
☐	**FHAGP7** Relocation of Manmade Roadside Ditches for Public Roadway Improvements	$1,000.00	
☐	**FHAGP8** Placement of Storage Tanks	$1,000.00	
☐	**FHAGP9** Construction/Reconstruction of Bride/Culvert Across Water < 50 Acres	$1,000.00	
☐	**FHAGP10** Construction/Reconstruction of Bride/Culvert Across Water > 50 Acres	$1,000.00	
☐	**FHAGP11** Stormwater Outfall Along Regulated Water <50 Acres	$1,000.00	
☐	**FHAGP12** Construction of Footbridges	$1,000.00	
☐	**FHAGP13** Construction of Trails and Boardwalks	$1,000.00	
☐	**FHAGP14** Application of herbicide in riparian zone	$1,000.00	

	Flood Hazard Area Individual Permits	Fee Amount	Fee Paid
☐	FHA - IP SFH and/or Accessory Structures	$2,000	
☐ Individual Permit (Fee is calculated by adding the base fee to the specific elements below)		$3,000 Base Fee	
	FHA – IP Utility*	+ ($1,000 x_____# of water crossings)	
	FHA - IP Bank/Channel (No Calculation Review) *	+ $1,000	
	FHA - IP Bank/Channel (With Calculation Review) *	+ ($4,000 + ($400 x_____per 100 linear ft.))	
	FHA - IP Bridge/Culvert/Footbridge/Low Dam (No Calculation Review)*	+ ($1,000 x_____# of structures)	
	FHA - IP Bridge/Culvert/Footbridge/Low Dam (With Calculation Review) *	+ ($4,000 x_____# of structures)	
	FHA – Review of Flood Storage Displacement (net fill) Calculations*	+ $4,000	
	Total	IP Review Fee	

	Flood Hazard Area Verifications	Fee Amount	Fee Paid
☐	Verification-Delineation of Riparian Zone Only	$1,000	
☐	Verification-Method 1 (DEP Delineation) *	$1,000	
☐	Verification-Method 2 (FEMA Tidal Method) *	$1,000	
☐	Verification-Method 3 (FEMA Fluvial Method) *	$1,000	
☐	Verification-Method 4 (FEMA Hydraulic Method)	$4,000 + ($400 x _____per 100 linear feet)	
☐	Verification-Method 5 (Approximation Method) *	$1,000	
☐	Verification-Method 6 (Calculation Method)	$4,000+($400 x _____per 100 linear feet)	

*Fee not applicable to (1) SFH

	Additional Flood Hazard Area Authorizations	Fee Amount	Fee Paid
☐	FHA Hardship Exception Request	$4,000	
☐	FHA GP Administrative Modification	No Fee	No Fee
☐	FHA GP Minor technical modification	$500 x_____# of proejct elements to be revised	
☐	FHA GP Major technical modification	0.30 x_____original fee (Minimum $500)	
☐	FHA Individual Permit Administrative Modification	No Fee	No Fee
☐	FHA Individual Permit Minor Technical Modification	$500 x_____# of proejct elements to be revised	
☐	FHA Individual Permit Major Technical Modification	0.30 x_____original fee (Minimum $500)	
☐	FHA Verification Administrative Modification	No Fee	No Fee
☐	FHA Verification Minor Technical Modification	$500 x_____# of proejct elements to be revised	
☐	FHA Verification Major Technical Modification	0.30 x_____original fee (Minimum $500)	
☐	FHA GP Extension	$240	
☐	FHA Individual Permit Extension	0.25 x_____original fee	
☐	FHA Verification Extension of Methods 1, 2, 3, 5, or Riparian Zone Only	$240	
☐	FHA Verification Extension of Methods 4 or 6	0.25 x_____original fee	
☐	FHA Individual Permit Equivalency/CERCLA	No Fee	No Fee
☐	FHA GP Administrative Modification	No Fee	No Fee

Stormwater Review Fee (Maximum Fee = $20,000)		Fee Amount (Round UP to the nearest whole number)	Fee Paid
☐ Stormwater Review (Fee is calculated by adding the base fee to the specific elements below)		$3,000 Base Fee	
	Review of Groundwater Calculations	+ $250 x_____# acres disturbed	
	Review of Runoff Quantity Calculations	+ $250 x_____# acres disturbed	
	Review of Water Quality Calculations	+ $250 x_____# acres impervious surface	
	Total	Stormwater Review Fee	

	Applicability Determination	Fee Amount	Fee Paid
☐	Coastal Applicability Determination	No Fee	No Fee
☐	Flood Hazard Applicability Determination	No Fee	No Fee
☐	Highlands Jurisdictional Determination	No Fee	No Fee
☐	Executive Order 215	No Fee	No Fee

TOTAL FEE:	$1,000.00
CHECK NUMBER:	

*Fee not applicable to (1) SFH

APPLICANT NAME: _____ FILE # (if known): _____

APPLICATION FORM - APPENDIX I

Section 1: Please provide the following information for the overall project site. All area measurements shall be recorded **in acres to the nearest thousandth** (0.001 acres).

PROPOSED:	*PRESERVED*	*UNDISTURBED*	*DISTURBED*
RIPARIAN ZONE			
CZMRA FORESTED *(CZMRA IP – Only)*			
E & T HABITAT *Endangered and/or Threatened*		0.022	
FRESHWATER WETLANDS		0.008	

Section 2: Please provide the following information for each permit/authorization requested pursuant to the Freshwater Wetlands Protection Act. All area measurements shall be recorded **in acres to the nearest thousandth** (0.001 acres). Use additional sheets if necessary

PERMIT TYPE: GP-12 WETLAND TYPE *Emergent, Forest, Shrub, Etc.*: Scrub/Shrub RESOURCE CLASSIFICATION *Ordinary, Intermediate, Exceptional, EPA, Etc.*: Exceptional

PROPOSED DISTURBANCE:	*WETLANDS*	*TRANSITION AREA*	*SOW*
FILLED	0	0	0
EXCAVATED	0	0	0
CLEARED	0	0	0
TEMPORARY DISTURBANCE	0	0.001	0

PERMIT TYPE: _____ WETLAND TYPE *Emergent, Forest, Shrub, Etc.*: _____ RESOURCE CLASSIFICATION *Ordinary, Intermediate, Exceptional, EPA, Etc.*: _____

PROPOSED DISTURBANCE:	*WETLANDS*	*TRANSITION AREA*	*SOW*
FILLED			
EXCAVATED			
CLEARED			
TEMPORARY DISTURBANCE			

Attachment B: Property Owner Certification Form

New Jersey Department of Environmental Protection
Land Use Management Program
Division of Land Use Regulation

PROPERTY OWNER CERTIFICATION

INSTRUCTIONS: All applicants are required to complete Sections A and B of this form. Applicants who are individual owners of record of the property upon which the activities will occur must also complete Section C.

All other persons who are required to certify to this application in accordance with N.J.A.C. 7:7-23.2(d), N.J.A.C. 7:7A-16.2(d), and N.J.A.C. 7:13-18.2(d) must complete Sections A and C.

Separate forms may be submitted for each signatory, or a single form may be submitted with all required signatures.

SECTION A. SITE INFORMATION (required)

Project Name: Newton Coal Gas 2 Site

Applicant's Name: JCP&L Co.

Street Address: 2-10 East Clinton Street

Municipality: Town of Newton County: Sussex Zip Code: 07860

Blocks and Lots: Block 9.03, Lot 27

SECTION B. SIGNATURE OF APPLICANT

The undersigned applicant hereby certifies that he/she is one of the following: 1) an owner of the site on which the activity is proposed or conducted; 2) an agent designated by the site owner(s) to obtain the permit, verification, or letter of interpretation on the owner's behalf; 3) a representative of a public entity proposing an activity within a right-of-way or easement that is held or controlled by that entity or that will be appropriated by the entity under the power of eminent domain; OR 4) a person with the legal authority to perform the proposed activities.

The undersigned applicant also certifies to the following:

1. Does the application include any activities within an easement or right-of-way? ☐ Yes ☐ No

   If "**Yes**," has written consent from all easement or right-of-way holders in accordance with N.J.A.C. 7:7-23.2(g), 7:7A-16.2(g), and 7:13-18.2(g) been attached to this form? ☐ Yes ☐ No
2. Will any part of the project be located within property belonging to the State of New Jersey? ☐ Yes ☐ No
3. Does the application include activities on any property owned by any public agency that would be encumbered by Green Acres? ☐ Yes ☐ No
4. Does this project require a Section 106 (National Register of Historic Places) Determination as part of a federal approval? ☐ Yes ☐ No

Applicant's Name: Frank Lawson, Supervisor - Site Remediation Date: 02/09/2021

Applicant's Signature: Frank D Lawson

Applicant's Name: _____ Date: _____

Applicant's Signature: _____

Applicant's Name: _____ Date: _____

Applicant's Signature: _____

Applicant's Name: _____ Date: _____

Applicant's Signature: _____

SECTION C. PROPERTY OWNER'S CERTIFICATION

All individual owners of record of the property upon which the activities will occur must certify to this application unless the applicant is a corporation, partnership, sole proprietorship, municipality, or State, Federal, or other public entity. If the applicant is a corporation, a principal executive officer of at least the level of vice president must certify below. In the case of partnerships and sole proprietorships, a general partner or the proprietor, respectively, is required to certify. For a municipality or for a State, Federal, or other public entity, the certification must be provided by either a principal executive officer or ranking elected official.

A duly authorized representative may sign this application on behalf of any individual who is required to certify provided that the authorization is made in writing and is submitted as part of this application. Please note that in lieu of a property owner's signature, a legal agreement with the current property owner may be attached to this form. Acceptable legal agreements include, but are not limited to, certificates of eminent domain and certificates of inverse condemnation. **Please note that contracts of sale are not considered an acceptable substitute for a property owner's signature.**

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining and preparing the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for knowingly submitting false information, including the possibility of fine and imprisonment. I hereby grant permission for the conduct of the proposed activities and consent to allow access to the site by representatives or agents of the Department for the purpose of conducting a site inspection(s) of the property in question.

Name of Owner/Easement Holder: Steve DePasquale Date: 3-3-2021

Signature: [signature]

Specific Block(s) and Lot(s) Owned: Block 9.03, Lot 27

Name of Owner/Easement Holder: _____ Date: _____

Signature: _____

Specific Block(s) and Lot(s) Owned: _____

Name of Owner/Easement Holder: _____ Date: _____

Signature: _____

Specific Block(s) and Lot(s) Owned: _____

Name of Owner/Easement Holder: _____ Date: _____

Signature: _____

Specific Block(s) and Lot(s) Owned: _____

Name of Owner/Easement Holder: _____ Date: _____

Signature: _____

Specific Block(s) and Lot(s) Owned: _____

Name of Owner/Easement Holder: _____ Date: _____

Signature: _____

Specific Block(s) and Lot(s) Owned: _____

Attachment C: Public Notice Documentation

Notification List
Public Notification form
Certified 200 Foot Property List
Notification Letter
Certified Mail Receipts

List of Municipal and County Officials Receiving Notice of Application Submission.
Newton Coal Gas 2 Site Town of Newton, Sussex County, New Jersey.

Received a complete copy of the application package:

Lorraine Read, RMC
Municipal Clerk
39 Trinity Street
Newton, NJ 07860

Received a copy of the notice letter:

Katherine Citterbart, Administrator
Municipal Planning Board
39 Trinity Street
Newton, NJ 07860

Joe Butto
Municipal Construction Official
39 Trinity Street
Newton, NJ 07860

Sussex County Planning Board Letter Only
Planning Director
County Administrative Center
One Spring Street, 3rd Floor
Newton, NJ 07860

All property owners within 200 feet of the Site (refer to the enclosed certified list of property owners for a list property owners that received notification).

New Jersey Department of Environmental Protection
Land Use Management Program
Division of Land Use Regulation

PUBLIC NOTICE

SECTION A. SITE INFORMATION

Applicant's Name: JCP&L Co.

Street Address: 2-10 East Clinton Street

Municipality: Town of Newton County: Sussex Zip Code: 07860

Blocks and Lots: Block 9.03, Lot 27

SECTION B. STANDARD NOTICE REQUIREMENTS

Except as provided at item 6 below, public notice of the application shall be provided no more than 30 calendar days prior to submitting the application and no later than the date the application is submitted to the Department.

1. Public notice is required for all of the following (*check all that apply*):

- ☐ A flood hazard area general permit authorization (except general permit 1)
- ☐ A flood hazard area individual permit
- ☐ A flood hazard area verification
- ☐ A coastal general permit authorization
- ☐ A CAFRA individual permit
- ☐ An in-water waterfront development individual permit
- ☐ An upland waterfront development individual permit
- ☐ A coastal wetlands individual permit
- ☐ A freshwater wetlands individual permit
- ☐ A freshwater wetlands transition area waiver
- ☒ A freshwater wetlands general permit authorization (except general permit 15)
- ☐ A freshwater wetlands general permit 15 **(please skip to Section C)**

2. Has a copy of the entire application been sent to the municipal clerk of each municipality in which the proposed activity or project is located? ☒ Yes ☐ No

Note: For electronic submissions, the application consists of a description of the project, which must include the lot and block, municipality, and county, the specific permit(s)/authorization(s) being sought, and all items that will be uploaded to the submission service, including all required items on the applicable application checklist(s).

If "**Yes**," did you attach a copy of the certified United States Postal Service white mailing receipt, or other written receipt, and a copy of any letter sent with the application to this form? ☒ Yes ☐ No

3. Have both a notice letter, including a brief description of the proposed activity or project, and a legible copy of the site plans been sent to the all following applicable agencies? ☒ Yes ☐ No

- The construction official of each municipality in which the site is located
- The environmental commission, or other government agency with similar responsibilities, of each municipality in which the site is located
- The planning board of each municipality in which the site is located
- The planning board of each county in which the site is located

If "**Yes**," did you attach **both** of the following to this form? ☒ Yes ☐ No

- A copy of the certified United States Postal Service white mailing receipt or other written receipt
- A copy of the notice letter

4. Is the application for a coastal permit for an activity within the 12-mile circle with Delaware, as described at N.J.A.C. 7:7-1.2(c), or within 200 feet of the 12-mile circle? ☐ Yes ☒ No

   If "**Yes**," have both a notice letter, including a brief description of the proposed activity or project, and a legible copy of the site plans been sent to the State of Delaware, Department of Natural Resources & Environmental Control, Delaware Coastal Management Program, 89 Kings Highway, Dover, DE 19901? ☐ Yes ☐ No

   If "**Yes**," did you attach **both** of the following to this form? ☐ Yes ☐ No

   - A copy of the certified United States Postal Service white mailing receipt or other written receipt
   - A copy of the notice letter

5. Is the application for a waterfront development individual permit to install a submarine cable in the ocean or to perform sand mining in the ocean? ☐ Yes ☒ No

   If "**Yes**," have you submitted a description of the project, the specific permit(s)/authorization(s) being sought, and a copy of the NOAA nautical chart showing the proposed cable route or the limits of the proposed sand mining area to **all** of the following entities? ☐ Yes ☐ No

   - Garden State Seafood Association
   - National Fisheries Institute
   - North Atlantic Clam Association
   - Rutgers Cooperative Extension
   - New Jersey Shellfisheries Council
   - New Jersey Marine Fisheries Council

6. Does the application include a CAFRA individual permit? ☐ Yes ☒ No

   If "**No**," skip to Question 7.

   If "**Yes**," has newspaper notice, consisting of a legal notice or display advertisement, been published in the official newspaper of the municipality in which the site is located or a newspaper of general circulation in the municipality? ☐ Yes ☐ No

   If "**Yes**," did you attach a copy of the published newspaper notice, the date of publication, and the name of the newspaper to this form? ☐ Yes ☐ No

   If "**No**," did you verify that a newspaper notice, consisting of a legal notice or display advertisement, will be published in the official newspaper of the municipality in which the site is located or a newspaper of general circulation in the municipality no more than **10 calendar days** after the application is submitted to the Department? ☐ Yes ☐ No

   Note: A copy of the published newspaper notice, the date of publication, and the name of the newspaper must be submitted to the Department within this timeframe.

7. Does the application include one or more of the activities listed below (**other than those proposed in a freshwater wetlands individual permit application**)? ☐ Yes ☒ No

   - A delineation of one-half mile or longer of a regulated water
   - A mosquito control activity subject to flood hazard general permit 2
   - A linear project of one-half mile or longer
   - A shore protection development, including beach nourishment, beach and dune maintenance, or dune creation of one-half mile or longer
   - A public development on a site of 50 acres or more
   - An industrial or commercial development on a site of 100 acres or more
   - A project to remove sediment or debris from a channel of one-half mile or longer
   - Maintenance dredging of a State navigation channel of one-half mile or longer
   - A trail or boardwalk of one-half mile or longer subject to a freshwater wetlands general permit or transition area waiver

If you answered "**No**," to question 7:

Have both a notice letter, including a brief description of the proposed activity or project, and a legible copy of the site plans been sent to all owners of real property, including easements, located **within 200 feet of the property boundary of the site**? ☒ Yes ☐ No

If "**Yes**," did you attach **all** of the following to this form? ☒ Yes ☐ No

- A copy of the certified United States Postal Service white mailing receipt or other written receipt
- A copy of the notice letter
- A certified list of **all** owners of real property, including easements, within 200 feet of the property boundary, prepared by the municipality with a date of certification no earlier than one year prior to the date of the application

If you answered "**Yes**," to question 7, answer questions I. and II. below:

I. Have both a notice letter, including a brief description of the proposed activity or project, and a legible copy of the site plans been sent to all owners of property, including easements, **within 200 feet of any proposed above-ground structure**? ☐ Yes ☐ No

If "**Yes**," did you attach **all** of the following to this form? ☐ Yes ☐ No

- A copy of the certified United States Postal Service white mailing receipt or other written receipt
- A copy of the notice letter
- A certified list of all owners of real property, including easements, within 200 feet of the property boundary, prepared by the municipality with a date of certification no earlier than one year prior to the date of the application

II. For all applications, **except CAFRA individual permits**, has newspaper notice, consisting of a legal notice or display advertisement been published in the official newspaper of the municipality in which the site is located or a newspaper of general circulation in the municipality? ☐ Yes ☐ No

If "**Yes**," did you attach a copy of the published newspaper notice, the date of publication, and the name of the newspaper to this form? ☐ Yes ☐ No

8. Will the proposed activity or project disturb 5,000 square feet of land or more? ☐ Yes ☒ No

If "**Yes**," have both a notice letter, including a brief description of the proposed activity or project, and a legible copy of the site plans been sent to the local Soil Conservation District? ☐ Yes ☐ No

If "**Yes**," did you attach a copy of the certified United States Postal Service white mailing receipt or other written receipt **and** a copy of the notice letter to this form? ☐ Yes ☐ No

9. Is the proposed activity or project located within the Pinelands Area as designated under the Pinelands Protection Act at N.J.S.A. 13:18A-11(a)? ☐ Yes ☒ No

If "Yes," you are also required to complete Section D of this form.

10. Does the application include a freshwater wetlands individual permit application? ☐ Yes ☒ No

If "**No**," skip to Question 11.

If "**Yes**," does the proposed project involve more than 10 acres of fill? ☐ Yes ☐ No

If "**Yes**," has newspaper notice been published in a newspaper with regional circulation in the region in which the site is located? ☐ Yes ☐ No

If "**Yes**," did you attach a copy of the published newspaper notice, the date of publication, and the name of the newspaper to this form? ☐ Yes ☐ No

If "**No**," has newspaper notice consisting of a legal notice or display advertisement been published in the official newspaper of the municipality in which the site is located or a newspaper of general circulation in the municipality? ☐ Yes ☐ No

If "**Yes**," did you attach a copy of the published newspaper notice, the date of publication, and the name of the newspaper to this form? ☐ Yes ☐ No

11. Does the application include a flood hazard individual permit based on a hardship exception? ☐ Yes ☒ No

If "**Yes**," do all notice letters and published newspaper notices attached to this form (under questions 3, 4, 7, and 8 above, as applicable) include a description of the nature of the hardship as well as the citation and subject matter of each requirement for which the hardship exception is being requested? ☐ Yes ☐ No

SECTION C. FRESHWATER WETLANDS GENERAL PERMIT 15

This section only applies to applications that include a freshwater wetlands general permit 15.

1. Is the applicant a Federal agency conducting activities on Federal land? ☐ Yes ☐ No

If "Yes," public notice is not required for this activity.

2. Has a display advertisement describing the proposed activities, at least four column inches in size, been published in a newspaper with local circulation (including the municipality) and in a newspaper with regional circulation (including the county)? ☐ Yes ☐ No

If "**Yes**," did you attach a copy of the published newspaper notices, the dates of publication, and the names of the newspapers to this form? ☐ Yes ☐ No

SECTION D. PINELANDS

This section only applies to applications where the proposed activity or project is located within the Pinelands Area as designated under the Pinelands Protection Act at N.J.S.A. 13:18A-11.a.

1. Does the application include a flood hazard general permit or individual permit? ☐ Yes ☐ No

If "**Yes**," has a description of the project, including the lot and block, municipality, county, and specific permit(s)/authorization(s) being sought, been sent to the New Jersey Pinelands Commission? ☐ Yes ☐ No

If "**Yes**," did you attach a copy of the certified United States Postal Service white mailing receipt or other written receipt and a copy of any letter provided with the project description to this form? ☐ Yes ☐ No

2. Does the application include a coastal general permit or individual permit? ☐ Yes ☐ No

If "**Yes**," has a copy of the entire application been sent to the New Jersey Pinelands Commission? ☐ Yes ☐ No

Note: For electronic submissions, the application consists of a description of the project, which must include the lot and block, municipality, and county, the specific permit(s)/authorization(s) being sought, and all items that will be uploaded to the submission service, including all required items on the applicable application checklist(s).

If "**Yes**," did you attach a copy of the certified United States Postal Service white mailing receipt or other written receipt and a copy of any letter provided with the application to this form? ☐ Yes ☐ No

3. Is the application solely for a freshwater wetlands general permit(s)? ☐ Yes ☐ No

If "Yes," do not submit the application to the Department. Submit the application to the New Jersey Pinelands Commission.

Town of Newton
39 Trinity Street
Newton, NJ 07860

Scott J. Holzhauer, CTA
Tax Assessor

Phone: (973) 383-3521 x234
Fax: (973) 383-8961
Email: assessor@newtontownhall.com

Teresa Caputi
Brown and Caldwell
500 North Franklin Turnpike, suite 306
Ramsey, NJ 07446

November 20, 2020

RE: **Certified List of Property Owners @ 200-ft:** ***(Cama List #666)***
Property Owner: ACQUIRING ENTERPRISES, LLC
Property Location: 2-10 EAST CLINTON ST., NEWTON
Block / Lot(s) ID: 9.03 / 27

Dear Applicant:

Attached please find a complete list of all property owners in the Town of Newton (Sussex County) that appear to be situated within 200-feet of the above referenced parcel(s). This information is certified as that which appears in the Town of Newton Tax Book, including any ownership changes that have been recently received in the form of new deeds.

The initial printout titled "Owner & Address Report" takes data directly from the Mod IV file in the Assessor's computer. The properties provided on the list were determined by taking scaled offsets from the subject property as identified on the most recent Tax Map for the municipality. The attached "Addendum" includes any other entities that require notification in accordance with the provisions of the M.L.U.L. and pursuant to Subsection (h) of N.J.S.A. 40:55D-12 (agencies that have registered to receive notice with regard to Planning and/or Zoning applications).

If you have any questions, feel free to contact my office.

Sincerely,

Town of Newton

Scott J. Holzhauer, CTA, SCGREA
Tax Assessor

Attch.

Cc: Planning Board/Board of Adjustment

(LIST CERTIFIED FOR 90 DAYS FROM DATE OF ISSUE)

Subject Blk / Lot: 9.03 / 27

200-FT Notification List *(Continued)*

List Date: November 20, 2020

ADDENDUM

Pursuant to Subsection (h) of N.J.S.A. 40:55D-12, the following entities marked "**X**" must also be included in the 200-ft notification for the subject property in question:

INCLUDE	ROADS/ ASSOCIATIONS / UTILITIES	ADDRESS / CONTACT INFO
X	State Highways: • Route 206	State of NJ – DOT 1035 Parkway Ave CN 600 Trenton, NJ 08625 --- NJDOT Permit Section 200 Stierli Court Mt. Arlington, NJ 07856
X	County Roads: • All County Roads	Sussex County Planning Board Administration Building One Spring St Newton, NJ 07860
	Railroads: •	
	Associations: •	None known or specified
X	Utilities Companies: • NJ Bell Telephone	NJ Bell Telephone Co. 540 Broad St Newark, NJ 07101
X	• United Telephone	United Telephone Co. c/o Embarq 5454 West 110th St Overland Park, KS 66207
	Adjacent Municipalities: •	Subject is within 200-ft of adjacent municipality. You must obtain a list of additional Property Owners from them.

OWNER & ADDRESS REPORT

NEWTON

FROM SUBJECT PROPERTY 9.03 / 27
2-10 EAST CLINTON ST., NEWTON

BLOCK	LOT	QUAL	CLA	PROPERTY OWNER	PROPERTY LOCATION	Add'l Lots
5.05	18		4A	HEIDE CORPORATION PO BOX 397 NEWTON, NJ 07860	62 - 64 WATER ST	
5.07	10		1	GARGIULO, C/O J ROSSILLI INTER 306 E 61ST ST FRONT 1 NEW YORK, NY 10065	72 WATER ST	
5.07	11		2	DOWCHES, CAROL A & JOHN J 7 BETONY CT NEWTON, NJ 07860	66 WATER ST	
9.02	1		4A	59 WATER, LLC 792 RT 17 NO PARAMUS, NJ 07652	63 WATER ST	
9.02	2		4A	SOLOMAN FAMILY INVEST/DAVITA INC PO BOX 1476 TACOMA, WA 98401	7 E CLINTON ST	
9.02	3		1	JERSEY CENTRAL POWER & LIGHT CO 800 CABIN HILL DRIVE GREENSBURG, PA 15601	15 E CLINTON ST	
9.02	4		4A	J M R VENTURE ASSOCIATES, LLC 21 E CLINTON ST NEWTON, NJ 07860	21 E CLINTON ST	
9.02	10		2	KOCUR, TERESA ANN 29 HAMILTON ST NEWTON, NJ 07860	29 HAMILTON ST	
9.02	11		2	BALLAJ, XHAFER 27 HAMILTON ST NEWTON, NJ 07860	27 HAMILTON ST	
9.02	12		2	25 HAMILTON, LLC 116 HUNTS POND RD NEWTON, NJ 07860	25 HAMILTON ST	
9.02	13		2	LOMBARDO, ROSOLINO 116 HUNTS POND RD NEWTON, NJ 07860	23 HAMILTON ST	
9.02	14		2	LOMBARDO, FRANCESCO 10 E CLINTON ST NEWTON, NJ 07860	19-21 HAMILTON ST	
9.02	15		2	ILIFF, TERRY T 149 E SHORE CULVERS LK RD BRANCHVILLE, NJ 07826	15 HAMILTON ST	
9.02	16		2	VAZQUEZ-FRAGOSO, JOSE R 11 HAMILTON ST NEWTON, NJ 07860	11 HAMILTON ST	
9.02	17		2	REBISZ, JOSEPH & PENNY 9 HAMILTON ST NEWTON, NJ 07860	9 HAMILTON ST	
9.02	18		2	BEZNEY, MICHAEL ET AL 1 BARTEK LN WHARTON, NJ 07885	7-7-1/2 HAMILTON ST	
9.02	19		2	PREMIER REHAB SOLUTION, LLC 845 AVE Z, FLOOR #1 BROOKLYN, NY 11235	5 HAMILTON ST	
9.02	20		4A	59 WATER, LLC 792 RT 17 NO PARAMUS, NJ 07652	3 HAMILTON ST	
9.03	1		4A	LAKE LAND LEASE, LLC 64 MAIN ST, 2ND FL MILLBURN, NJ 07041	61 WATER ST	

OWNER & ADDRESS REPORT

FROM SUBJECT PROPERTY 9.03 / 27
2-10 EAST CLINTON ST., NEWTON

BLOCK	LOT	QUAL	CLA	PROPERTY OWNER	PROPERTY LOCATION	Add'l Lots
9.03	2		4A	UNITY BANK 64 OLD HWY 22 CLINTON, NJ 08809	67 WATER ST	
9.03	3		4A	69-71 WATER STREET, LLC 230 ATLANTIC AVE-1-R LYNBROOK, NY 11563	69-71 WATER ST	
9.03	4		4A	77 WATER STREET, LLC/DENITZIO, T J 230 ATLANTIC AVE., APT 1R LYNBROOK, NY 11563	WATER ST	
9.03	5		1	BELLE MEADOWS C/O J BELLUSH PO BOX 2674 BRANCHVILLE, NJ 07826	WATER ST	
9.03	6		15C	STATE OF NEW JERSEY D O T 1035 PARKWAY AVE EWING, NJ 00000	83 WATER ST	
9.04	4		15C	STATE OF NJ DPT LAW & PBL 25 MARKET ST TRENTON N J 08625	22-24 E CLINTON ST& MORAN	
9.04	5		4A	WALASZCZYK, THOMAS 51 POLKVILLE RD COLUMBIA, NJ 07832	40 MORAN ST	

NOTIFICATION TO MUNICIPAL/COUNTY OFFICIALS AND PROPERTY OWNERS

Date: March 19, 2021

To: Municipal Official, County Official or Property Owner

From: Brown and Caldwell (on behalf of JCP&L)

Applicant: JCP&L
300 Madison Avenue
Morristown, NJ 07962

Subject: Notice of Submission of NJDEP Division of Land Use Regulation Freshwater Wetlands General Permit 12 Application
Newton Coal Gas 2 Site – Area of Concern C2: Off-Site MGP-Related Soil Impacts
2-10 East Clinton Street
Block 9.03, Lot 27
Town of Newton, Sussex County, New Jersey

This letter is to provide you with legal notification that an application for a Freshwater Wetland General Permit 12 will be submitted to the New Jersey Department of Environmental Protection, Division of Land Use Regulation for the above-referenced site. A brief description of the proposed project follows:

A pre-design investigation (PDI) soil boring program is proposed to be implemented within a portion of the 2-10 East Clinton Street property to further delineate the extent of environmental impacts associated with the Newton Coal Gas 2 Site - Area of Concern C2: Off-Site MGP-Related Soil Impacts. The Newton Coal Gas 2 Site is registered with the NJDEP Site Remediation Program as Case ID No. G000005460. PDI activities are necessary to verify the extent of environmental impacts at the Site, and to collect supplemental geotechnical and waste characterization information to support the selection and design of a remedial action to address the environmental impacts.

Investigation activities are proposed within an area of the 2-10 East Clinton Street property considered to be a Freshwater Wetland Transition Area regulated under the Freshwater Wetlands Protection Act Rules, N.J.A.C. 7:7A. In order to comply with the Freshwater Wetlands Protection Act Rules, a Freshwater Wetlands General Permit 12 (Surveying and Investigation Permit) application is being submitted to the New Jersey Department of Environmental Protection, Division of Land Use Regulation.

The complete permit application package can be reviewed at the municipal clerk's office in the municipality in which the site subject to the application is located or by appointment at the Department's Trenton Office. In addition, an electronic copy of the initial application can be provided via an OPRA request by contacting https://www.nj.gov/dep/opra/opraform.html from the Department's Trenton Office. The NJDEP welcomes comments and any information that you may provide concerning the proposed development and site. Please submit your written comments within 45 calendar days of receiving this letter to:

New Jersey Department of Environmental Protection
Division of Land Use Regulation
P.O. Box 420, Code 501-02A
Trenton, New Jersey 08625
Attn: Town of Newton Supervisor

If you have any questions regarding this notification, please contact Teresa Caputi of Brown and Caldwell at (201) 574-4782.

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1.	Katherine Citterbart, Administrator Municipal Planning Board 39 Trinity Street Newton, NJ 07860	$0.50	$0.41	Handling Charge - if Registered and over $50,000 in value				Adult Signature Required	Adult Signature Restricted Delivery	Restricted Delivery	Return Receipt	Signature Confirmation	Signature Confirmation Restricted Delivery	Special Handling
2.	Joe Butto Municipal Construction Official 39 Trinity Street Newton, NJ 07860	$0.50	$0.41											
3.	Planning Director - Sussex County Planning Board County Administrative Center One Spring Street, 3rd Floor Newton, NJ 07860	$0.50	$0.41											
4.	Heide Corporation PO Box 397 Newton, NJ 07860	$0.50	$0.41											
5.	Garguilo, c/o J. Rossilli 306 E 61st Street, Front 1 New York, NY 10065	$0.50	$0.41											
6.	Carol & John Dowches 7 Betony Court Newton, NJ 07860	$0.50	$0.41											
7.	59 Water LLC 792 Rt. 17 North Paramus, NJ 07652	$0.50	$0.41											
8.	Soloman Family Invest/Davita Inc. PO Box 1476 Tacoma, WA 98401	$0.50	$0.41											

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1.	ICP&L 800 Cabin Hill Drive Greensburg, PA 15601	$0.50	$0.41	Handling Charge - if Registered and over $50,000 in value				Adult Signature Required	Adult Signature Restricted Delivery	Restricted Delivery	Return Receipt	Signature Confirmation	Signature Confirmation Restricted Delivery	Special Handling
2.	JMR Venture Associates, LLC 21 E. Clinton Street Newton, NJ 07860	$0.50	$0.41											
3.	Teresa Kocur 29 Hamilton Street Newton, NJ 07860	$0.50	$0.41											
4.	Xhafer Ballai 27 Hamilton Street Newton, NJ 07860	$0.50	$0.41											
5.	25 Hamilton LLC 116 Hunts Pond Road Newton, NJ 07860	$0.50	$0.41											
6.	Rosolino Lombardo 116 Hunts Pont road Newton, NJ 07860	$0.50	$0.41											
7.	Francesco Lombardo 10 E. Clinton Street Newton, NJ 07860	$0.50	$0.41											
8.	Terry Iliff 149 E. Shore Culvers Lake Road Branchville, NJ 07826	$0.50	$0.41											

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1.	Jose Vazquez-Fragoso 11 Hamilton Street Newton, NJ 07860	$0.50	$0.41	Handling Charge - if Registered and over $50,000 in value				Adult Signature Required	Adult Signature Restricted Delivery	Restricted Delivery	Return Receipt	Signature Confirmation	Signature Confirmation Restricted Delivery	Special Handling
2.	Joseph & Penny Rebisz 9 Hamilton Street Newton, NJ 07860	$0.50	$0.41											
3.	Michael Bezney et al. 1 Bartek Lane Wharton, NJ 07885	$0.50	$0.41											
4.	Premier Rehab Solution, LLC 845 Avenue Z, Floor #1 Brooklyn, NY 11235	$0.50	$0.41											
5.	Lake Land Lease, LLC 64 Main Street, 2nd Floor Millburn, NJ 07041	$0.50	$0.41											
6.	Unity Bank 64 Old Highway 22 Clinton, NJ 08809	$0.50	$0.41											
7.	69-71 Water Street, LLC 230 Altantic Avenue, 1-R Lynbrook, NY 11563	$0.50	$0.41											
8.	77 Water Street, LLC/T.J. Denitzio 230 Atlantic Ave. Apt. 1R Lynbrook, NY 11563	$0.50	$0.41											

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1.	Belle Meadows c/o J. Bellush PO Box 2674 Branchville, NJ 07826	$0.50	$0.41	Handling Charge - if Registered and over $50,000 in value				Adult Signature Required	Adult Signature Restricted Delivery	Restricted Delivery	Return Receipt	Signature Confirmation	Signature Confirmation Restricted Delivery	Special Handling
2.	State of NJ DOT 1035 Parkway Avenue, CN 600 Trenton, NJ 08625	$0.50	$0.41											
3.	NJDOT - Permit Section 200 Stierli Court Mt. Arlington, NJ 07856	$0.50	$0.41											
4.	State of NJ Dept. Law & PBL 25 Market Street Trenton, NJ 08625	$0.50	$0.41											
5.	Thomas Walaszczyk 51 Polkville Road Columbia, NJ 07832	$0.50	$0.41											
6.	"Current Occupant" 72 Water Street Newton, NJ 07860	$0.50	$0.41											
7.	"Current Occupant" 66 Water Street Newton, NJ 07860	$0.50	$0.41											
8.	"Current Occupant" 63 Water Street Newton, NJ 07860	$0.50	$0.41											

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1.	"Current Occupant" 7 E. Clinton Street Newton, NJ 07860	$0.50	$0.41	Handling Charge - if Registered and over $50,000 in value				Adult Signature Required	Adult Signature Restricted Delivery	Restricted Delivery	Return Receipt	Signature Confirmation	Signature Confirmation Restricted Delivery	Special Handling
2.	"Current Occupant" 15 E. Clinton Street Newton, NJ 07860	$0.50	$0.41											
3.	"Current Occupant" 23 Hamilton Street Newton, NJ 07860	$0.50	$0.41											
4.	"Current Occupant" 19 Hamilton Street Newton, NJ 07860	$0.50	$0.41											
5.	"Current Occupant" 20 Hamilton Street Newton, NJ 07860	$0.50	$0.41											
6.	"Current Occupant" 21 Hamilton Street Newton, NJ 07860	$0.50	$0.41											
7.	"Current Occupant" 15 Hamilton Street Newton, NJ 07860	$0.50	$0.41											
8.	"Current Occupant" 7-71/2 Hamilton Street Newton, NJ 07860	$0.50	$0.41											

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1.	"Current Occupant" 5 Hamilton Street Newton, NJ 07860	$0.50	$0.41	Handling Charge - if Registered and over $50,000 in value				Adult Signature Required	Adult Signature Restricted Delivery	Restricted Delivery	Return Receipt	Signature Confirmation	Signature Confirmation Restricted Delivery	Special Handling
2.	"Current Occupant" 3 Hamilton Street Newton, NJ 07860	$0.50	$0.41											
3.	"Current Occupant" 61 Water Street Newton, NJ 07860	$0.50	$0.41											
4.	"Current Occupant" 67 Water Street Newton, NJ 07860	$0.50	$0.41											
5.	"Current Occupant" 69 Water Street Newton, NJ 07860	$0.50	$0.41											
6.	"Current Occupant" 70 Water Street Newton, NJ 07860	$0.50	$0.41											
7.	"Current Occupant" 71 Water Street Newton, NJ 07860	$0.50	$0.41											
8.	"Current Occupant" 83 Water Street Newton, NJ 07860	$0.50	$0.41											

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1.	"Current Occupant" 22 E. Clinton Street & Moran Newton, NJ 07860	$0.50	$0.41											
2.	"Current Occupant" 23 E. Clinton Street & Moran Newton, NJ 07860	$0.50	$0.41											
3.	"Current Occupant" 24 E. Clinton Street & Moran Newton, NJ 07860	$0.50	$0.41											
4.	"Current Occupant" 40 Moran Street Newton, NJ 07860	$0.50	$0.41											
5.														
6.														
7.														
8.														

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Restricted Delivery
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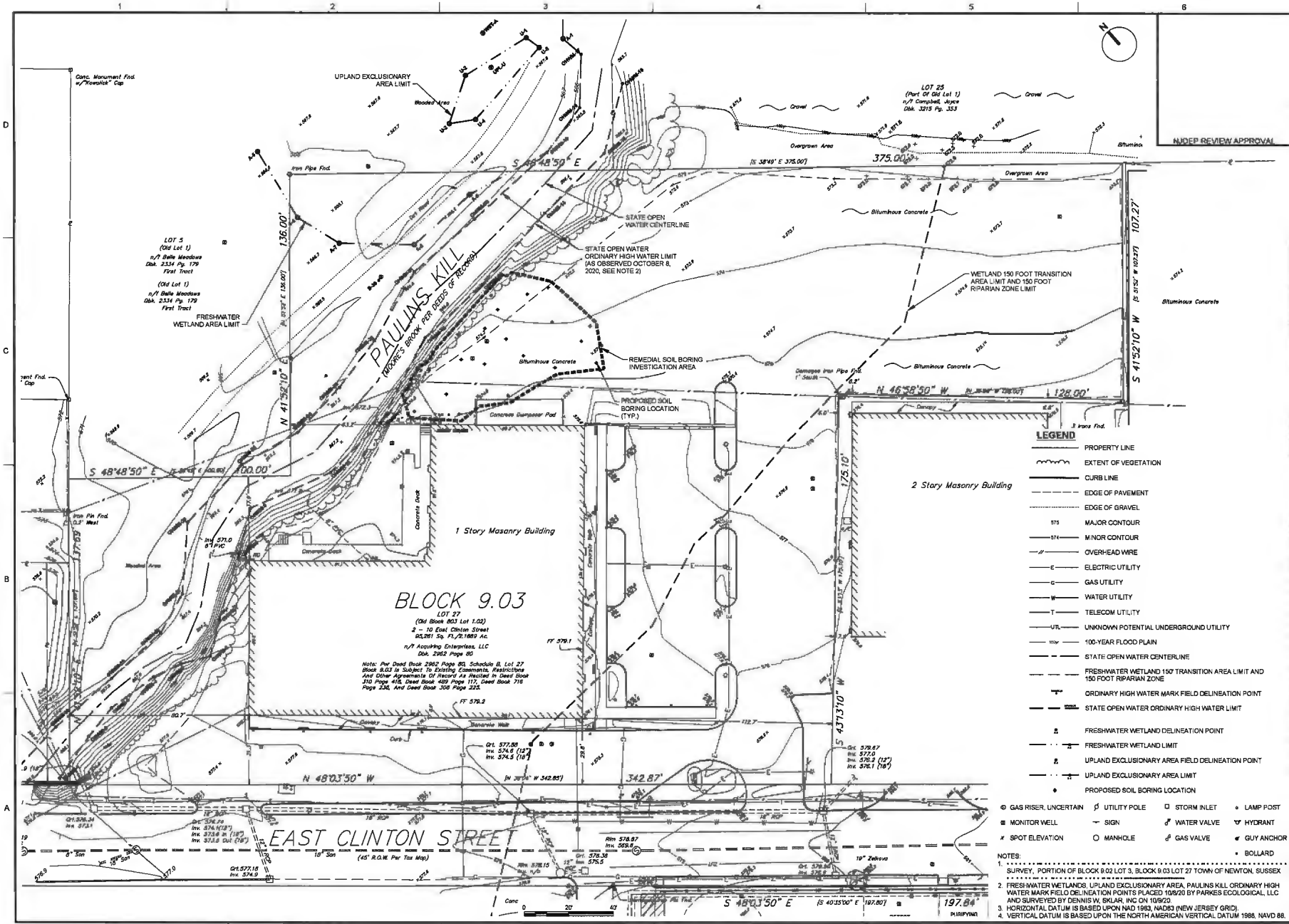
Attachment D: Site Plan



LEGEND

- PROPERTY LINE
- EXTENT OF VEGETATION
- CURB LINE
- EDGE OF PAVEMENT
- EDGE OF GRAVEL
- 575 MAJOR CONTOUR
- 574 MINOR CONTOUR
- OVER-HEAD WIRE
- E ELECTRIC UTILITY
- G GAS UTILITY
- W WATER UTILITY
- T TELECOM UTILITY
- UTL UNKNOWN POTENTIAL UNDERGROUND UTILITY
- 100yr 100-YEAR FLOOD PLAIN
- STATE OPEN WATER CENTERLINE
- FRESHWATER WETLAND 150' TRANSITION AREA LIMIT AND 150 FOOT RIPARIAN ZONE
- ORDINARY HIGH WATER MARK FIELD DELINEATION POINT
- STATE OPEN WATER ORDINARY HIGH WATER LIMIT
- FRESHWATER WETLAND DELINEATION POINT
- FRESHWATER WETLAND LIMIT
- UPLAND EXCLUSIONARY AREA FIELD DELINEATION POINT
- UPLAND EXCLUSIONARY AREA LIMIT
- PROPOSED SOIL BORING LOCATION

- GAS RISER, UNCERTAIN
- MONITOR WELL
- SPOT ELEVATION
- UTILITY POLE
- SIGN
- MANHOLE
- STORM INLET
- WATER VALVE
- GAS VALVE
- LAMP POST
- HYDRANT
- GUY ANCHOR
- BOLLARD

NOTES:
1. SURVEY, PORTION OF BLOCK 9.02 LOT 3, BLOCK 9.03 LOT 27 TOWN OF NEWTON, SUSSEX
2. FRESHWATER WETLANDS, UPLAND EXCLUSIONARY AREA, PAULINS KILL ORDINARY HIGH WATER MARK FIELD DELINEATION POINTS PLACED 10/8/20 BY PARKES ECOLOGICAL, LLC AND SURVEYED BY DENNIS W. SKLAR, INC ON 10/9/20.
3. HORIZONTAL DATUM IS BASED UPON NAD 1983, NAD83 (NEW JERSEY GRID).
4. VERTICAL DATUM IS BASED UPON THE NORTH AMERICAN VERTICAL DATUM 1988, NAVD 88.

NJDEP REVIEW APPROVAL

Brown AND Caldwell
24GA2804310000
N.J. C.A.
RAMSEY, N.J.

MAREK OSTROWSKI, PE
PROFESSIONAL ENGINEER
LIC. NO. 24GE04784400

Jersey Central Power & Light
A FirstEnergy Company

JCP&L NEWTON II
FORMER MGP SITE
AOC-C2
NEWTON, N.J.

REVISIONS

REV	DATE	DESCRIPTION
	3/10/21	GP-12 PERMIT APP

LINE IS 2 INCHES AT FULL SIZE

DESIGNED: J. BRAUN
DRAWN: A. SANTIAGOR JOHNSON
CHECKED: S. OLIANN
CHECKED:
APPROVED: M. OSTROWSKI
FILENAME: GP-12 PERMIT APPLICATION.DWG
BC PROJECT NUMBER: 154111
CLIENT PROJECT NUMBER:

CIVIL

GP-12 PERMIT APPLICATION SITE PLAN

DRAWING NUMBER: C-100
SHEET NUMBER: 1 OF 1

Path: C:\BCPW\D0366375 FILENAME: GP-12 PERMIT APPLICATION.DWG PLOT DATE: 3/9/2021 4:04 PM CAD USER: RICHARD JOHNSON
JCP1.tcp.jpg

Attachment E: Compliance Statement

STATEMENT OF COMPLIANCE
Newton II Former Manufactured Gas Plant Site
(PI Number: G000005460)

This statement of compliance has been prepared in accordance with the requirements of the New Jersey Department of Environmental Protection (NJDEP) Freshwater Wetlands Protection Act Rules, New Jersey Administrative Code (N.J.A.C.) 7:7A-7.12, General Permit 12 – Surveying and Investigating and N.J.A.C. 7:7A-5.7, Conditions that apply to all General Permit Authorizations. This statement of compliance includes the following items:

- A description of the project location and all proposed regulated activities.
- A list of the limits and requirements in the general permit (GP-12) which apply to the proposed activities.
- A list of the limits and requirements in the freshwater wetlands rules for conditions that apply to all general permits that apply to the proposed activities.
- An explanation of how the proposed activities comply with each limit or requirement.

1. Site Location and Description

The activities will be performed on behalf of Jersey Central Power & Light (JCP&L) on a property known as the Newton Shopping Center (Site), which is located at the address of 2-10 East Clinton Street and has the local tax designation of Block 9.03, Lot 27. The property is 2.41 acres in area and is owned by Acquiring Enterprises of 135 Jefferson Place, Totowa, New Jersey. Acquiring Enterprises has owned the property since August 18, 2005. Prior to this date the property was owned by Barbara Mastrobattista, Margaret Warner, Barbara D. Ryan and Dianne M. Danna (through Michael P. Dana and Guilio Mastrobattista) as of February 14, 1952. A listing of owners of properties within 200 feet of the subject property is included in Attachment C to this submittal.

The Site is located in an urbanized setting within the town limits of Newton, New Jersey. The surrounding properties are largely commercial, and include an office building to the southeast, a commercial enterprise to the east, an automotive repair shop and the Newton Coal Gas 2 Site (now vacant) to the south, a dialysis center to the west, a gasoline service station to the west, and an automotive repair facility and retail mall to the northwest. The property to the north is largely undeveloped.

The Site itself is operated as a retail mall. It consists of one structure that is subdivided into four retail spaces. The Site is bisected by a perennial stream, which is known locally as Moore's Brook, but which is identified on the New Jersey Geographic Information System database as the Paulins Kill. Within the limits of the town of Newton, the Paulins Kill flows in an east-northeastward direction and is designated as an FW2-NT stream. The portion of the Site located south of the Paulins Kill is developed and consists of the Site's building and a paved and gravel parking area. The portion of the Site north of the Paulins Kill is undeveloped and consists of a deciduous scrub/shrub environment. Wetlands have been delineated along the banks of the Paulins Kill, and in the forested and scrub/shrub area to the north of Paulin Kill.

2. Project Description

The activities to be performed on the Site consist of pre-design investigation (PDI) activities that are associated with the remediation of the NJDEP Site Remediation Program's Newton Coal Gas 2 Site's Area of Concern (AOC) C2 - Off-Site MGP-Related Soil Impacts (PI# G000005460). PDI activities are proposed on the 2-10 East Clinton Street Site to further delineate MGP-related impacts which require remediation in accordance with N.J.A.C 7:26C and N.J.A.C 7:26E.

Previous investigations performed on behalf of JCP&L in relation to the former MGP operations included a Preliminary Site Investigation conducted by Ebasco Environmental in 1985, a Phase I Remedial Investigation performed by EA Engineering, Science and Technology in 1995 (EA, 1996), a Phase II Remedial Investigation conducted by EA Engineering, Science and Technology between August 2000 and September 2002 (EA, 2003a), a Supplemental Investigation conducted by EA Engineering, Science and Technology performed between December 2001 and June 2003 to delineate contaminants downgradient of the former MGP property, including the vicinity of the Paulins Kill (EA, 2003b). In addition, Brown and Caldwell performed additional remedial investigation and PDI activities from 2006 to 2007, and from 2011 to 2013 to complete the horizontal and vertical delineation of possible MGP constituents in the vicinity of the Paulins Kill.

Investigations have also been performed on the Site by other parties to address environmental issues unrelated to former MGP operations. These included a soil and groundwater investigation and remedial actions performed by a former owner of the Newton Shopping Plaza to investigate and mitigate discharges from underground storage tanks formerly located on the Site. In addition, a groundwater investigation was performed by Amerada Hess that included the installation of a monitoring well on the Site north of the Paulins Kill. The Amerada Hess investigation was performed to investigate the extent of contamination from leaking underground storage tanks located on a Water Street property to the north of the Site.

The proposed PDI activities include the installation of soil borings to verify the extent of environmental impacts at the Site, and to collect supplemental geotechnical and waste characterization information to support the selection and design of a remedial action to address environmental impacts at the Site.

2.1 Proposed Soil Boring Installation

Up to 26 soil borings will be installed, as shown on Attachment D Drawing C-100. The borings will be installed primarily using direct push drilling method. Alternative drilling methods may be utilized as necessary to facilitate the PDI activities. The drilling locations will be accessed from the existing paved and gravel parking area associated with the Site. Thus, no site clearing is necessary.

2.2 Location of Wetlands

Wetlands were delineated at the Site along Paulins Kill on October 8, 2020. A Wetland Delineation Report is included as Attachment G to this submittal. 0.27 acre of wetlands was delineated in the immediate vicinity of the site as shown in Figure 8 of Appendix G. Because of the documented observations of a State endangered species (bobcat [*Lynx rufus*]) in the site vicinity, the wetlands have a regulated 150' transition area. Soil borings will be limited to the paved/gravel area at the rear of the 2-10 East Clinton Street property, which overlaps with the regulated wetland transition area. Soil borings are not proposed within Paulins Kill or the delineated wetland areas adjacent to Paulins Kill. No permanent or temporary wetland disturbances will result from the proposed soil borings.

3. Compliance with Freshwater Wetlands Rules

3.1 N.J.A.C. 7:7A-5.14 General Permit 12 – Surveying and Investigating

a. *General permit 12 permits disturbance to freshwater wetlands, freshwater wetland transition areas and/or State open waters for surveying and investigative activities such as:*
   1. *Soil borings dug by machines;*
   2. *Hand dug soil borings larger than 3 feet in diameter or dept. A hand dug soil boring three feet or less in diameter and depth is not regulated pursuant to N.J.A.C. 7:7A-2.2(c) and thus does not require Department approval;*
   3. *Cutting of vegetation by machine for a survey line that is no wider than 5 feet;*
   4. *Cutting of vegetation by hand for a survey line larger than 3 feet wide. Cutting of vegetation by hand for a survey line that is three feet wide or less is not regulated pursuant to N.J.A.C. 7:7A-2.2(c) and thus does not require Department approval; and*
   5. *Digging exploratory pits and/or other temporary activities necessary for a geotechnical or archaeological investigation.*

This project includes the installation of up to 26 soil borings within the wetland transition zone boundary that will be used to verify the extent of environmental impacts at the Site, and to collect supplemental geotechnical and waste characterization information to support the selection and design of a remedial action to address environmental impacts at the Site. This work will be done in accordance with in accordance with N.J.A.C 7:26C and N.J.A.C 7:26E.

b. *The Department shall issue a general permit 12 authorization only if all applicable requirements at N.J.A.C. 7:7A-5.7 and 20.3 are met and:*
   1. *Disturbance is the minimum necessary to obtain the desired information; and*
   2. *If activities disturb soil, the soil is restored to its pre-existing elevation, retaining its original soil layers, unless the soil disturbance is six inches in diameter or smaller. This paragraph shall not apply if other permits that allow permanent impacts in the same location have been obtained.*

Soil borings will be no larger than 6 inches in diameter, and no disturbance to soils other than the borings themselves will take place. Boring holes will be filled in and the boring surface cover will be restored to match pre-existing conditions.

3.2 N.J.A.C. 7-7A-5.7 Conditions Applicable to an Authorization Pursuant to a General Permit-by-certification or a General Permit

a. *A person conducting regulated activities pursuant to an authorization under a general permit-by-certification or a general permit shall comply with:*
   1. *The conditions set forth in the general permit-by-certification or general permit itself;*
   2. *The conditions that apply to all general permits-by-certification and general permits set forth at (b) below;*
   3. *The conditions that apply to all permits at N.J.A.C. 7:7A-20.2;*
   4. *The limits on the use of multiple permits-by-certification or general permits in N.J.A.C. 7:7A-5.4;*
   5. *If required under a particular general permit, mitigation pursuant to N.J.A.C. 7:7A-11; and*
   6. *Any additional conditions imposed under (f) below.*

b. *The following conditions apply to all activities conducted under the authority of a general permit-by-certification or general permit:*

1. *Activities performed under a general permit-by-certification or general permit shall be associated with a proposed project. The Department shall not authorize activities under a general permit-by-certification or general permit for the purpose of eliminating a natural resource in order to avoid regulation. For the purpose of this subsection, project shall mean the use and configuration of all buildings, pavement, roadways, storage areas and structures, and all associated activities.*

It is not the purpose of this investigation to eliminate natural resources in order to avoid regulation. The work is being done to further delineate the horizontal and vertical extent of soil impacts which require remediation and to support the selection and design of a remedial action.

2. *The regulated activity shall not occur in the proximity of a public water supply intake;*

There are no public water supply intakes in close proximity to the Site. The Town of Newton Water and Sewer Utility is provided water from the Morris Lake reservoir located in Sparta Township. A Receptor Evaluation, prepared by BC in 2014 as part of the Remedial Investigation Report for the Newton Coal Gas 2 Site, did not identify any water supply wells in close proximity to the Site.

3. *The activities shall not destroy, jeopardize, or adversely modify a present or documented habitat for threatened or endangered species; and shall not jeopardize the continued existence of any local population of a threatened or endangered species;*

Both the drilling location and access to that location will be through a paved parking area. Thus, no disturbance of habitat or endangered species is anticipated. During the investigation all waste soil cuttings and other investigation derived wastes will be drummed for disposal off-site at an approved facility.

4. *The activity will not occur in a component of either the Federal or State Wild and Scenic River System; nor in a river officially designated by Congress or the State Legislature as a "study river" for possible inclusion in either system while the river is in an official study status; except that the activity may occur in these waters if approved by the National Park Service in accordance with 40 CFR 233;*

The Site is not located in any of the above referenced features.

5. *The activities shall not adversely affect properties which are listed or are eligible for listing on the New Jersey or National Register of Historic Places unless the applicant demonstrates to the Department that the proposed activity avoids or minimizes impacts to the maximum extent practicable or the Department determines that any impact to the affected property would not impact the property's ability to continue to meet the criteria for listing at N.J.A.C. 7:4-2.3 or otherwise negatively impact the integrity of the property or the characteristics of the property that led to the determination of listing or eligibility. The Department shall not issue a conditional permit if it finds that the mitigation proposed is inadequate to compensate for the adverse effect. Any permit for an activity which may adversely affect a property listed or eligible for listing on the New Jersey or National Register of Historic Places shall contain conditions to ensure that any impact to the property is minimized to the maximum extent practicable and any unavoidable impact is mitigated.*

i. *If the permittee, before or during the work authorized, encounters a probable historic property, as described at N.J.A.C. 7:7A-19.5(1) that is or may be eligible for listing in the New Jersey or National Register, the permittee shall immediately notify the Department and proceed as directed;*

ii. *The Department shall not issue a general permit-by-certification or general permit authorization if the applicant, it consultants, engineers, surveyors and/or agents significantly adversely affect a historic property to which the general permit authorization applies, unless the Department determines that circumstances justify issuing the general permit-by-certification or general permit authorization;*

The project does not include the removal or demolition of any historic buildings.

6. *Any discharge of dredged or fill material shall consist of clean, suitable material free from toxic pollutants (see 40 CFR 401) in toxic amounts, and shall comply with all applicable Department rules and specifications regarding use of dredged or fill material;*

The project does not include the discharge of dredged or fill material. All waste soil cuttings and other investigation derived wastes generated during the soil boring activities will be drummed for disposal off-site at an approved facility.

7. *Any structure or fill authorized shall be maintained as specified in the construction plans;*

No structures or filling will be undertaken during this project

8. *The activities will not result in a violation of the Flood Hazard Area Control Act, N.J.S.A. 58:16A-50 or implementing rules at N.J.A.C. 7:13;*

The project will not result in a violation of these regulations. The proposed activities either do not meet the definition of a regulated activity defined within N.J.A.C. 7:13.

9. *If activities under the general permit meet the definition of "major development" at N.J.A.C. 7:8-1.2, then the project of which the activities area a part shall comply in its entirety with the Stormwater Management Rules at N.J.A.C. 7:8.*

Activities will not result in an increase of ¼ acre or greater of impervious surfaces or the disturbance of one (1) acre or greater and are therefore not considered to be a "major development."

10. *If activities under the general permit-by-certification or general permit involve excavation or dredging, the applicant shall use an acceptable disposal site for the excavated or dredged material. No material shall be deposited or dewatered in freshwater wetlands, transition areas, State open waters or other environmentally sensitive areas. The Department may require testing of dredged material if there is reason to suspect that the material is contaminated. If any dredged material is contaminated with toxic substances, the dredged material shall be removed and disposed of in accordance with Department-approved procedures;*

There are no excavations or dredging activities to be undertaken during this project.

11. *The amount of rip-rap or other energy dissipating material shall not exceed the minimum necessary to prevent erosion, as calculated under the Standards for Soil Erosion and Sediment Control in New Jersey at N.J.A.C 2:90;*

There are no construction activities to be undertaken during this project that would require the use of any of the mentioned materials.

12. *Best management practices, shall be followed whenever applicable;*

For the duration of the project, best management practices will be followed whenever applicable. Soil cuttings will be placed within drums to minimize the migration of sediments from the work area. No other sources of sediments are anticipated.

13. *If the general permit activities are subject to the Department's Water Quality Management Planning rules at N.J.A.C. 7:15, the activities shall be consistent with those rules and with the applicable approved Water Quality Management Plan (208 Plan) adopted under New Jersey Water Quality Planning Act, N.J.S.A. 58:11A-1 et seq.; and*

In accordance with N.J.A.C. 7:15-3.2(f), this project does not require a formal consistency determination review under N.J.A.C. 7:15-3.2.

14. *The timing requirements at (c) below shall be met; and*
15. *Activities authorized under a general permit-by-certification or general permit shall not take place in a vernal habitat, or in a transition are adjacent to a vernal habitat, with the exception of activities associated with general permits 1, 6, 6A, and 16, which shall be reviewed on a case-by-case basis in accordance with N.J.A.C. 7:7A-5.3(e).*

No vernal habitats were identified on the Site. See below for response to #14.

c. *In order to protect the fishery resources and/or the spawning of the fish population, any activity which may introduce sediment into a stream or cause a stream to become turbid shall not be performed during the time periods listed in Table 5.7 (included in N.J.A.C. 7:7A-5.7 (c)).*

Sediment will not be introduced to the Paulins Kill during any phase of the investigation. Therefore, restricted time periods for waters with fishery resources as presented in Table 5.7 of the NJDEP Freshwater Wetlands Protection Act Rules will not be affected.

d. *The Department shall reduce, extend, or otherwise modify a timing restriction listed in Table 5.7, if it determines that one or more of the following requirements is satisfied:*
    1. *Potential adverse impacts to the fishery resource are likely to be reduced if a regulated activity occurs during a restricted time period rather than during an unrestricted time period;*
    2. *A regulated activity is subject to more than one restricted time period, the combined effect of which would limit the regulated activity to fewer than 183 calendar days per year. In such a case, the Department shall allow regulated activities to occur for up to 183 calendar days, provided the applicant demonstrates that additional measures will be taken to reduce potential adverse impacts to fishery resources to a level acceptable to the Department. Note that the 183-calendarday period during which the Department determines that activities may occur need not be consecutive. For example, the Department may determine that restricting activities for three months in the spring and three months in the fall best protects fishery resources in a particular case;*
    3. *The observance of a timing restriction would adversely impact public health, safety, and/or welfare, and the applicant demonstrates that additional measures are taken where necessary to reduce adverse impacts to fishery resources to an acceptable level; or*
    4. *Due to the nature of the project or an unusual circumstance on site, the timing restriction must be modified in order to prevent a substantial adverse impact to the fishery resource, to the aquatic environment, or to a threatened or endangered species or its habitat.*

As stated above, sediment will not be introduced to the Paulins Kill during any phase of the investigation. Therefore, restricted time periods for waters with fishery resources as presented in Table 5.7 of the NJDEP Freshwater Wetlands Protection Act Rules will not be affected.

e. *If an activity will take place in a non-delegable water, and the activity requires approval from the USACE under the Federal 404 program, the activities authorized under the general permit or general permit-by-certification shall not begin until the permittee obtains the required Federal 404 program approval.*

The proposed activity will not take place within a non-delegable water and will not require approval from the USACE under the Federal 404 program.

f. *In addition to the conditions that apply to every authorization pursuant to a general permit under (a) above, the Department shall establish additional conditions in a specific authorization pursuant to a general permit, on a case-by-case basis in accordance with N.J.A.C. 7:7A-20.3, as required to ensure the authorized regulated activity meets all applicable requirements of this chapter and its enabling statutes.*

Additional permit conditions are discussed in Section 3.3 below.

3.3 N.J.A.C. 7-7A-20.3 Establishing Permit Conditions

a. *In addition to the standard conditions required in all permits under N.J.A.C. 7:7A-20.2, the Department shall establish conditions in a permit, including a waiver or general permit authorization, as required on a case-by-case basis, to assure compliance with all applicable requirements of the Federal Act, the Freshwater Wetlands Protection Act, the Water Pollution Control Act, this chapter and other applicable rules or regulations. For the purposes of this subsection, an applicable requirement is a statutory or regulatory requirement which takes effect before the Department's final administrative decision on a permit, or before the modification or termination and reissuance of a permit.*

b. *In addition to the standard requirements in N.J.A.C. 7:7A-20.2, each permit shall include information meeting the following requirements, when applicable:*

1. *A specific identification and description of the authorized activity, including:*

i. *The name and address of the permittee and the permit application identification number;*

JCP&L First Energy located at 300 Madison Avenue Morristown, NJ 07962.

ii. *The use or purpose of the regulated activity;*

To verify the extent of environmental impacts at the Site, and to collect supplemental geotechnical and waste characterization information to support the selection and design of a remedial action to address environmental impacts at the Site.

iii. *The type and quantity of the materials to be discharged or used as fill;*

There will be no filling or materials discharged during this investigation.

iv. *Any structures proposed to be erected;*

No structures will be erected during this project.

v. *The location and boundaries of the activity site(s), including a detailed sketch and the name and description of affected freshwater wetlands, State open waters, and transition areas, identification of the HUC 11 and watershed management area; and*

Attachment D – Drawing C-100 shows the wetlands and transition zone boundaries, and the Paulins Kill. The Paulins Kill is in HUC 11 02040105040 (Upper Paulins Kill), within the Upper Delaware watershed management area (WMA 01).

vi. *A reference to the specific site plans depicting the approved regulated activity(ies);*

Soil boring locations are located on Attachment D - Drawing C-100 included in this permit application.

2. *Provisions ensuring that the regulated activity will be conducted in compliance with the environmental guidelines issued under section 404(b)(1) of the Federal Act at 40 CFR Part 230, the Freshwater Wetlands Protection Act, and this chapter, including conditions to ensure that the regulated activity shall be conducted in a manner which minimizes adverse impacts upon the physical, chemical, and biological integrity of the waters of the United States and/or waters of the State, such as requirements for restoration or mitigation;*

There will be no activities that will impact the integrity of any waters of the United States or water of the State in the vicinity of the investigation area.

3. *Any requirements necessary to comply with water quality standards established under applicable Federal or State law. If an applicable water quality standard is promulgated or modified after the permit or waiver is issued, the permit or waiver shall be modified as provided in N.J.A.C. 7:7A-20.6;*

The permit application has been prepared in accordance with applicable standards.

4. *Requirements necessary to comply with any applicable toxic effluent standard or prohibition under section 307(a) of the Federal Act or applicable State or local law. If an applicable toxic effluent standard or prohibition is promulgated or modified after the permit or waiver is issued, the permit or waiver shall be modified as provided in N.J.A.C. 7:7A-20.6;*

There will be no discharges as part of the proposed activities.

5. *Applicable best management practices (BMPs);*

For the duration of the project, best management practices will be followed whenever applicable. Sediment transport barriers (i.e., silt fences, straw bales, etc.) will be constructed around the perimeter of the work area to minimize the migration of sediments from the work area.

6. *Any conditions necessary for general permits as required under N.J.A.C. 7:7A-5 or 7;*

Activities will be conducted in accordance with requirements of N.J.A.C. 7:7A-7.12 General Permit 12—Surveying and Investigating.

7. *A specific date on which the permit shall automatically expire if the authorized work has not been commenced, unless before the automatic expiration date the permit is terminated and reissued, or modified, or extended; and*

The permit authorization will specify the expiration date of the permit.

8. *Reporting of monitoring results. All permits and waivers shall specify:*
   i. *Requirements concerning the proper use, maintenance, and installation, when appropriate, of monitoring equipment or methods (including biological monitoring methods when appropriate);*

Soil borings will be installed in accordance with the NJDEP Field Sampling Procedure Manual, 2005.

   ii. *Required monitoring including type, intervals, and frequency sufficient to yield data which are representative of the monitored activity including, when appropriate, continuous monitoring; and*

The soil boring activities to be performed on the Site consist of pre-design investigation (PDI) activities that are associated with the remediation of the NJDEP Site Remediation Program's Newton Coal Gas 2 Site's Area of Concern (AOC) C2 - Off-Site MGP-Related Soil Impacts (PI# G000005460). PDI activities are proposed on the 2-10 East Clinton Street Site to further delineate MGP-related impacts which require remediation in accordance with N.J.A.C 7:26C and N.J.A.C 7:26E.

   iii. *Applicable reporting requirements based upon the impact of the regulated activity.*

The results of the PDI soil boring and sampling activities will be included in a Remedial Action Workplan which will be prepared and submitted to the NJDEP.

c. *The Department may in some cases include a permit condition requiring a preconstruction meeting on the site of permitted activities. Such a condition shall specify how many days prior to construction the permittee must notify the Department so that the preconstruction meeting can be scheduled.*

A preconstruction meeting may take place if it is requested by the NJDEP.

d. *All permit conditions shall be incorporated either expressly or by reference. If incorporated by reference, a specific citation to the applicable rules or regulations or requirements shall be given in the permit.*

The permit conditions will reference N.J.A.C. 7:7A-7.12. General Permit 12.

4. Compliance with Flood Hazard Area Riparian Zone Rules

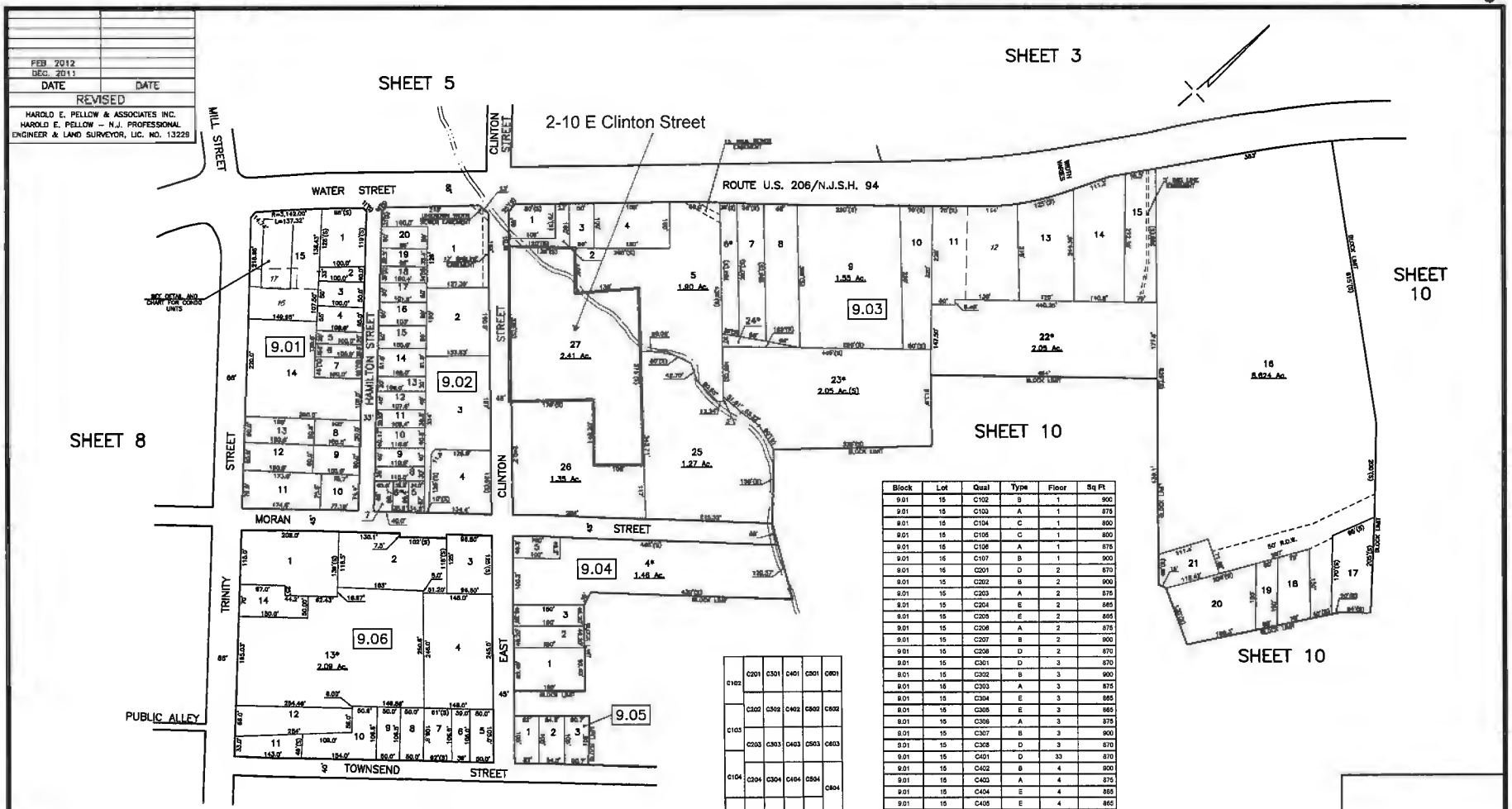
The riparian zone associated with Paulins Kill has been determined to have a width of 150 feet per N.J.A.C. 7-12-4.1(c)2iii, since the waterway flows through an area that contains habitat for a threatened or endangered species.

The proposed investigation activities will be limited to existing paved or gravel surfaces. No clearing, cutting, and/or removal of the vegetation in the riparian zone will occur. All pavement surfaces which are currently present in the riparian zone are necessary to provide access to the property's building. No new impervious surfaces will be created as part of this investigation.

Attachment F: Maps

FEB. 2012	
DEC. 2011	
DATE	DATE
REVISED	

HAROLD E. PELLOW & ASSOCIATES INC.
HAROLD E. PELLOW – N.J. PROFESSIONAL
ENGINEER & LAND SURVEYOR, LIC. NO. 13229



Block	Lot	Qual	Type	Floor	Sq Ft
9.01	15	C102	B	1	900
9.01	15	C103	A	1	875
9.01	15	C104	C	1	800
9.01	15	C105	C	1	800
9.01	15	C106	A	1	875
9.01	15	C107	B	1	900
9.01	15	C201	D	2	870
9.01	15	C202	B	2	900
9.01	15	C203	A	2	875
9.01	15	C204	E	2	865
9.01	15	C205	E	2	865
9.01	15	C206	A	2	875
9.01	15	C207	B	2	900
9.01	15	C208	D	2	870
9.01	15	C301	D	3	870
9.01	15	C302	B	3	900
9.01	15	C303	A	3	875
9.01	15	C304	E	3	865
9.01	15	C305	E	3	865
9.01	15	C306	A	3	875
9.01	15	C307	B	3	900
9.01	15	C308	D	3	870
9.01	15	C401	D	33	870
9.01	15	C402	B	4	900
9.01	15	C403	A	4	875
9.01	15	C404	E	4	865
9.01	15	C405	E	4	865
9.01	15	C406	A	4	875
9.01	15	C407	B	4	900
9.01	15	C408	D	4	870
9.01	15	C501	D	5	870
9.01	15	C502	B	5	900
9.01	15	C503	A	5	875
9.01	15	C504	C2	5	805
9.01	15	C505	C2	5	805
9.01	15	C506	A	5	875
9.01	15	C507	B	5	900
9.01	15	C508	D	5	870
9.01	15	C601	D	6	870
9.01	15	C602	B	6	900
9.01	15	C603	F	6	1,135
9.01	15	C604	G	6	1,135
9.01	15	C606	F	6	1,135
9.01	15	C607	B	6	900
9.01	15	C608	D	6	870

C102	C201	C301	C401	C501	C601
C103	C202	C302	C402	C502	C602
	C203	C303	C403	C503	C603
C104	C204	C304	C404	C504	C604
C105	C205	C305	C405	C505	C605
C106	C206	C306	C406	C506	C606
	C207	C307	C407	C507	C607
C107	C208	C308	C408	C508	C608

BLOCK 9.01, TAX LOT 15
1 TRINITY STREET
CONDOMINIUM

MAP REFERENCES:

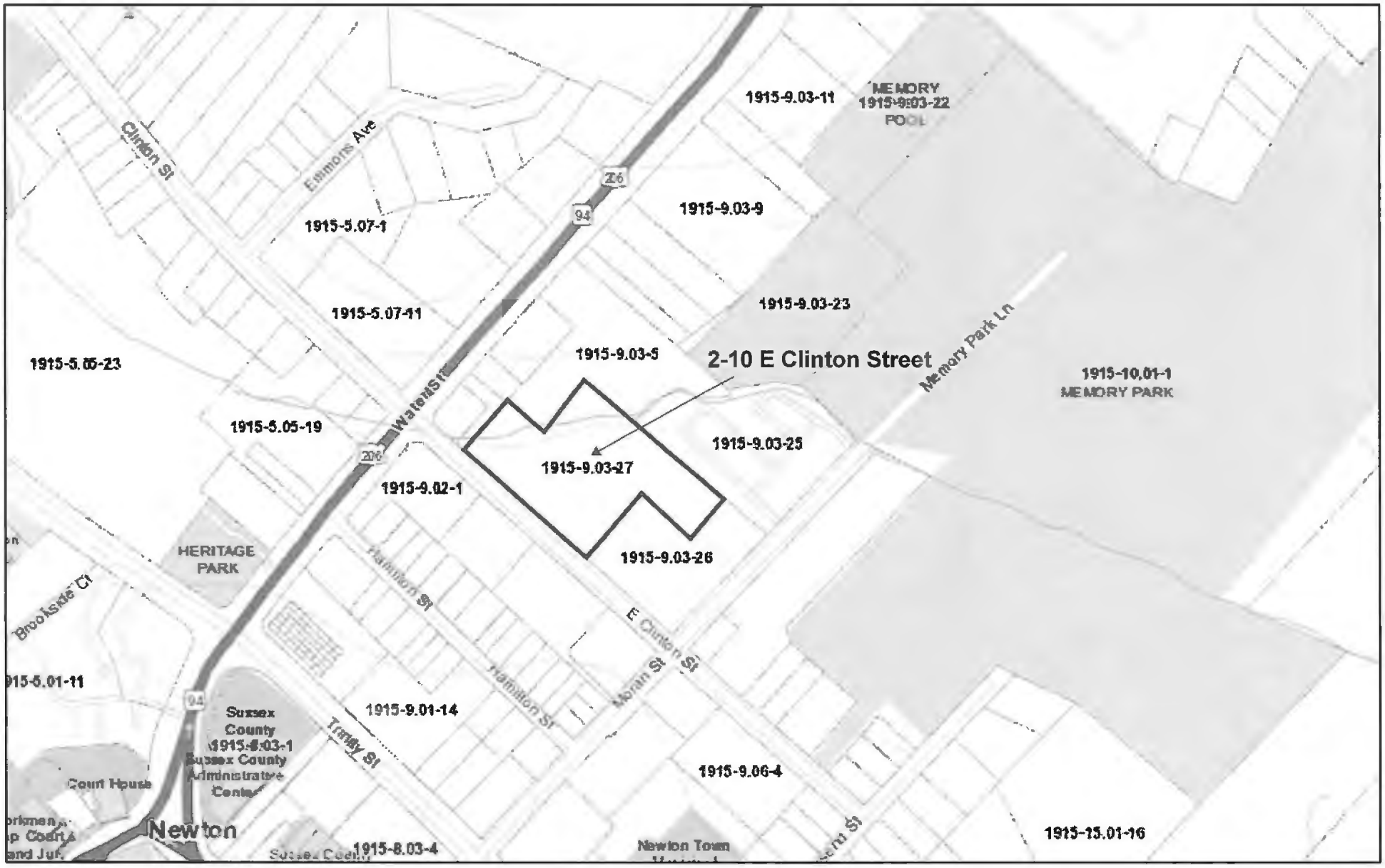
1. THIS SHEET HAS BEEN REDRAWN USING COMPUTER AIDED DRAFTING/DESIGN (CAD/D) BASED ON THE MAP PREPARED BY W.J. HARDIN, DATED 1943, AND THE GENERAL REVISIONS THERETO, PRIOR TO JULY 2007. FOR REVISIONS AND CONDITIONS PRIOR TO JULY 2007, SEE APPROVED ORIGINAL MAPS ON FILE IN THE MUNICIPAL TAX ASSESSOR'S OFFICE.

EXEMPTED LOTS *

BLOCK	LOT	ACREAGE	PROPERTY OWNER	REASON FOR EXEMPTION
9.02	6	0.063	"KATIE'S HOUSE, INC."	RESIDENCE
9.03	6	0.149	STATE OF NEW JERSEY D O T	HIGHWAY
9.03	23	2.05	TOWN OF NEWTON	POOL
9.03	23	2.05	TOWN OF NEWTON	STORAGE
9.03	24	0.041	TOWN OF NEWTON	VACANT LAND
9.04	4	1.46	STATE OF NJ DPT LAW & PSE	INSPECTION STATION
9.06	13	2.09	TOWN OF NEWTON	MUNICIPAL BLDG

TAX MAP
TOWN OF NEWTON
SUSSEX COUNTY, NEW JERSEY
SCALE: 1" = 100' OCT. 2009
Prepared By
HAROLD E. PELLOW
NEW JERSEY PROFESSIONAL ENGINEER AND
LAND SURVEYOR, LIC. #13229
HAROLD E. PELLOW & ASSOCIATES, INC.
17 PLAINS ROAD, AUGUSTA, NEW JERSEY
* TO SHOW CORRECTIONS AS OF FEB. 2012

County Road Map - Newton, NJ



November 23, 2020

TaxParcel_4K

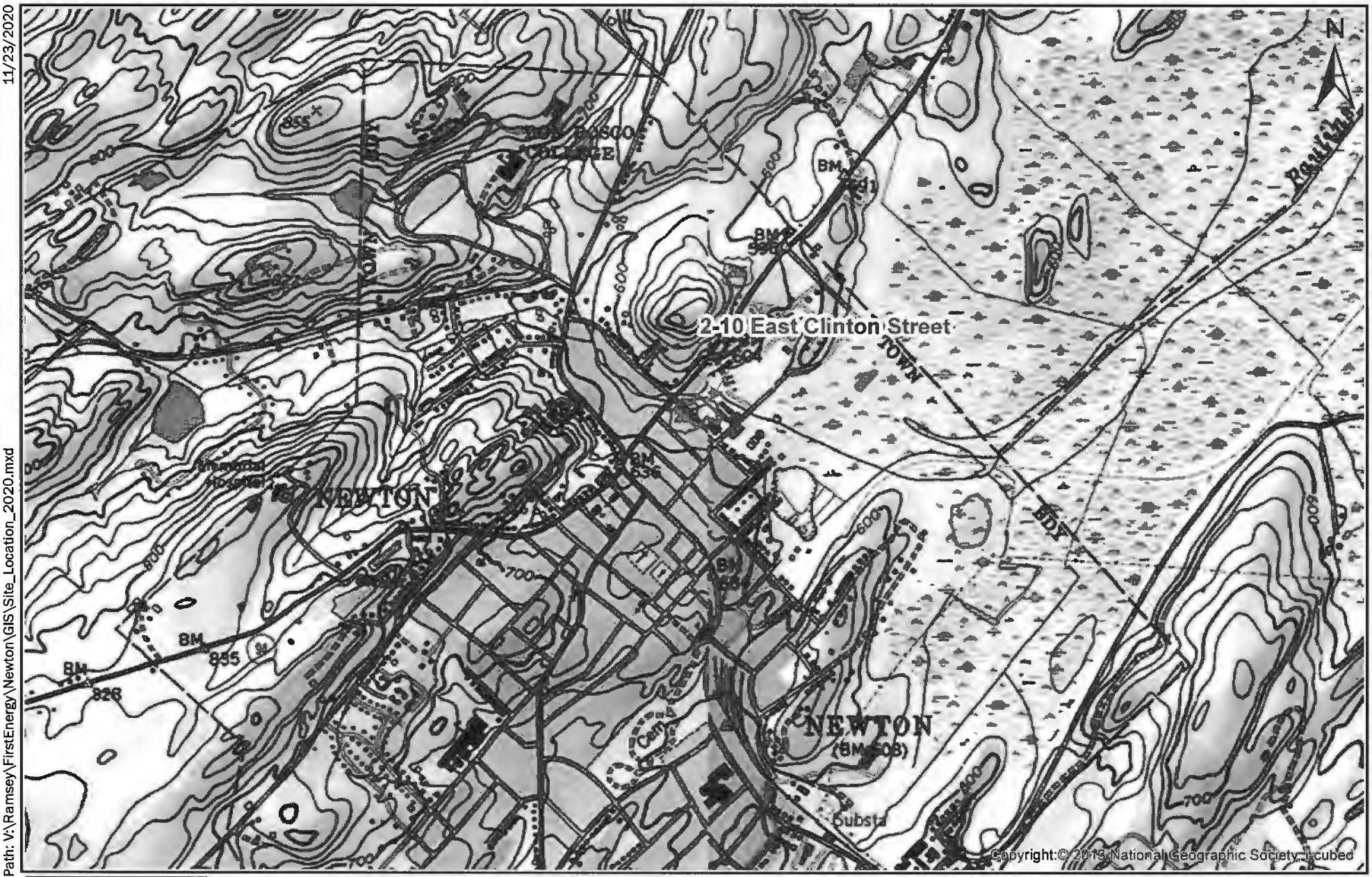
TaxParcel

1:4,514

0 0.03 0.06 0.11 mi

0 0.04 0.09 0.18 km

County of Sussex, NJ, State of New Jersey, Esri, HERE, Garmin,



Source: Newton East and Newton West USGS 7.5 Minute Digital Topographic Quadrangle Maps.

Brown AND Caldwell

USGS TOPOGRAPHIC MAP
JCP&L NEWTON II FORMER MGP SITE, NEWTON, NEW JERSEY

0 990 1,980
Feet

11/23/2020

Author: TCaputi Path: V:\Ramsey\FirstEnergy\Newton\GIS\Site_Location_2020.mxd

Attachment G: Wetland Delineation Report

PARKES
ECOLOGICAL LLC

WETLAND DELINEATION REPORT: 2-10 E. CLINTON ST., NEWTON NJ

January 21, 2021

Prepared for:

Brown and Caldwell

535 Route 38 East, Suite 355
Cherry Hill, NJ 08002

120 Hawley St,
Binghamton, NY 13901

ParkesEcological.com

(979) 777-1745

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List of Figures:

1.0 INTRODUCTION

This report communicates the results of a wetlands investigation concerning the property on 2-10 East Clinton Street in Newton, New Jersey (Figure 1). The site can be reached by turning southeast off of Water Street then the property is on the left (Figure 2). This investigation supports environmental due diligence during remedial investigation and design.

2.0 WETLANDS

2.1 Methods

A desktop analysis was performed before inspecting the study sites on the ground. This analysis included inspecting aerial photos and topographic maps, gathering state (New Jersey Department of Environmental Conservation {NJDEP}) and federal (U.S. Fish and Wildlife Service {USFWS}) wetland maps, and obtaining soil survey data from the Natural Resources Conservation Service (NRCS).

A ground survey of the investigation areas for jurisdictional wetlands was performed on October 8th, 2020. The delineation was performed in accordance with the three-parameter approach outlined in the *1989 Federal Manual for Identifying and Delineating Jurisdictional Wetlands* (United States Federal Interagency Committee for Wetland Delineation 1989), pursuant to the requirements of N.J.A.C. 7:7A-2.3 and with reference to the *1987 Federal Manual for Identifying and Delineating Jurisdictional Wetlands* (Environmental Laboratory 1987) and its *2011 Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Northcentral and Northeast Region* (USACE 2011).

Wetland hydrology was determined by visual observation of the presence of positive indicators of wetland hydrology, such as inundated or saturated soils, water marks, water-stained leaves, sediment deposits on plant stems and/or morphological plant adaptations (e.g., shallow rooting, buttressed trunks).

The dominant plant species observed in each stratum in each sampling plot were identified. The percent cover within the sample plot was visually estimated and the wetland indicator status of each plant species was identified using the National Wetland Plant List (Lichvar et al. 2016).

Soil borings were advanced within each sample plot using a Dutch auger. Soils were evaluated for texture, hydric soil indicators (i.e., color, redoximorphic features) and wetness (i.e., saturation). Munsell Soil Color Charts were used to establish soil color (Munsell Color, 2010). General soil descriptions and classification information was obtained from U.S. Department of Agriculture (USDA), NRCS soil surveys. Soils that exhibited the hydric soil field indicators were determined to be hydric.

Boundaries of wetlands/waters were flagged and recorded using a hand-held GPS with sub-meter precision (Trimble Geo-XT) and labeled alphanumerically.

2.2 Desktop Analysis

Reference wetland data depicted wetlands/waters within and nearby the investigation area (Figures 3 and 4 {USFWS 2014, NJDEP 2012}). The purpose of these data is for guidance and they are not regulatory in fact. A perennial stream, Paulins Kill, is depicted on the USGS topographic map (Figure 5). This reach of Paulins Kill has a NJDEP Surface Water Quality Classification of FW2-NT. The topographic map also indicated the site being relatively flat, with higher elevations to the north and west, and an area of wetlands to the east of the site. Natural Resources Conservation Service (NRCS) soil data indicated one soil series, Urban Land-Nassau-Manlius complex (0-8% slopes), rated as non-hydric intersecting the study area (NRCS 2020, Figure 6, Appendix A). Review of NJDEP Landscape Project Data indicated suitable habitat and an observation of a state endangered species, bobcat (*Lynx rufus*), in the study area (NJDEP 2017, Figure 7).

2.3 Field Evaluation

Figure 8 shows where wetlands/waters were delineated within the study area. Wetland Delineation Field Forms can be found in Appendix B and Site Photos in Appendix C. Paulins Creek was delineated as a perennial stream. For much of this reach the channel is incised which does not allow flow over the banks precluding the formation of wetlands from flood flow. A portion of one wetland, Wetland A (0.27 acres delineated) was delineated abutting the creek. Wetland A continues to the north outside the study area. Dominant wetland plant species include silver maple (*Acer saccharinum*), common reed (*Phragmites australis*), and Japanese stilt-grass (*Microstegium vimineum*). Surrounding uplands are mixed hardwood forest dominated by sugar maple (Acer sacharrum). Wetland A has a regulated 150' transition area due to documented observations of a State-endangered species, the bobcat.

3.0 CONCLUSION

A perennial stream, Paulins Creek, was delineated within the study area. The stream and its regulated riparian zone are subject to Flood Hazard Area Control Act Rules (N.J.A.C 7:13). A forested freshwater wetland was delineated. This wetland is expected to have a regulated 150' transition area due to documented observations of a state-endangered species, the bobcat, in the study area. The wetland and its transition area are regulated by Freshwater Wetland Protection Act Rules (N.J.A.C 7:7A). If project activities requiring ground disturbance or vegetation clearing are anticipated within the delineated wetlands/riparian zone and cannot be avoided, regulatory coordination with NJDEP Department of Land Use will likely be required.

4.0 REFERENCES

Environmental Laboratory. 1987. Corps of Engineers Wetlands Delineation Manual. Technical Report Y-87-1. Vicksburg, MS: U.S. Army Engineer Waterways Experiment Station. (http://el.erdc.usace.army.mil/wetlands.pdfs/wlman87.pdf).

Lichvar, R.W., D.L. Banks, W.N. Kirchner and N.C. Melvin. The National Wetland Plant List: 2016 ratings. Phytonueuron 2016: 1-17. Published 28 April 2016.

Munsell Color. 2010. Munsell soil color charts: with genuine Munsell color chips. Grand Rapids, MI: Munsell Color.

NJDEP. 2017. NJDEP Species Based Habitat, Skylands Region, Version 3.3, 20170509. NJDEP Division of Information Technology, Bureau of Geographic Information Systems. https://www.nj.gov/dep/gis/digidownload/zips/landscape/skylands_v3_3gdb.zip

NJDEP. 2012. NJDEP Land Use Map, Land Use/Land Cover 2012 Update, Edition 20150217, Sub-basin 02030104 (Sandy Hook-Staten Island). Trenton, NJ.

NRCS. 2020. Soil Survey Staff, Natural Resources Conservation Service, U.S. Department of Agriculture. Web Soil Survey. Available online. Accessed 10/1/2020.

United States Federal Interagency Committee for Wetland Delineation. 1989. Federal Manual for Identifying and Delineating Jurisdictional Wetlands: An Interagency Cooperative Publication. Washington, D.C.

USACE. 2011. Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Northcentral and Northeast Region (Version 2.0), ed. J.S. Wakeley, R.W. Lichvar, C.V. Noble, and J.F. Berkowitz. ERDC/EL TR-12-1. Vicksburg, MS: U.S. Army Engineer Research and Development Center.

FIGURES

PARKES
ECOLOGICAL LLC

Figure 1: Site Location (Overview)

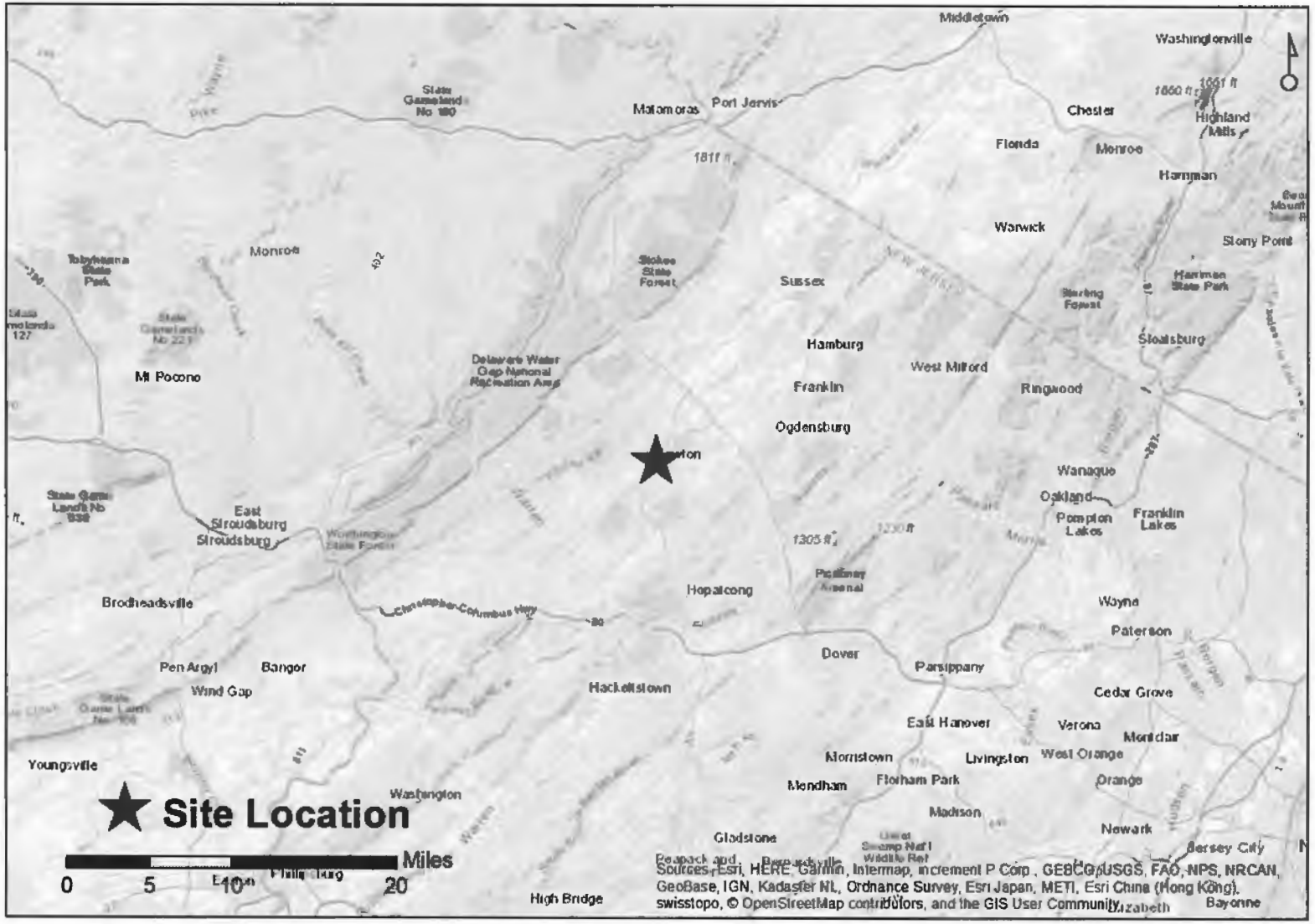

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Figure 2: Site Location (Streets)

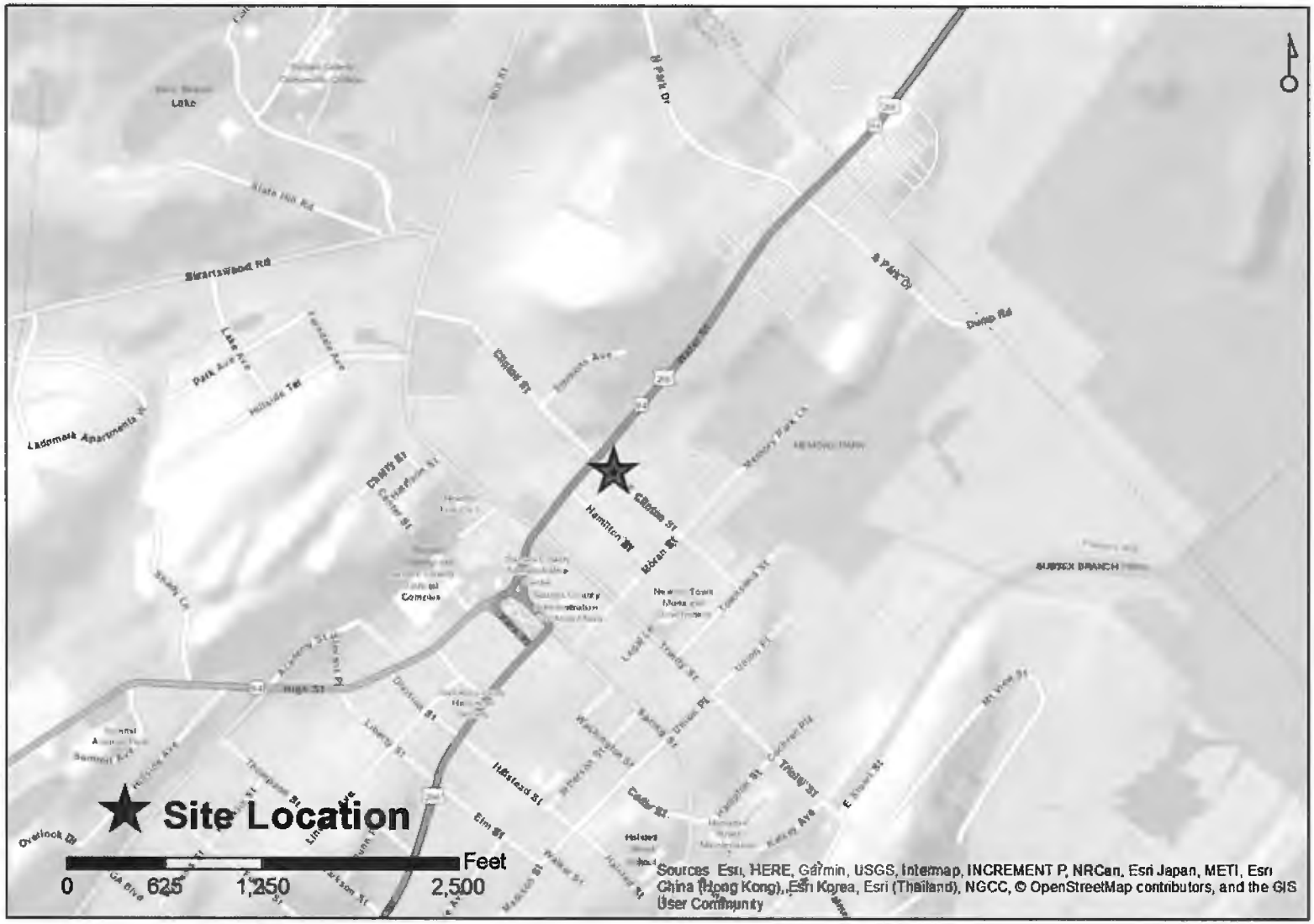

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Figure 3: National Wetland Inventory Map

Figure 4: NJDEP Wetlands from Land Use/Land Cover Database

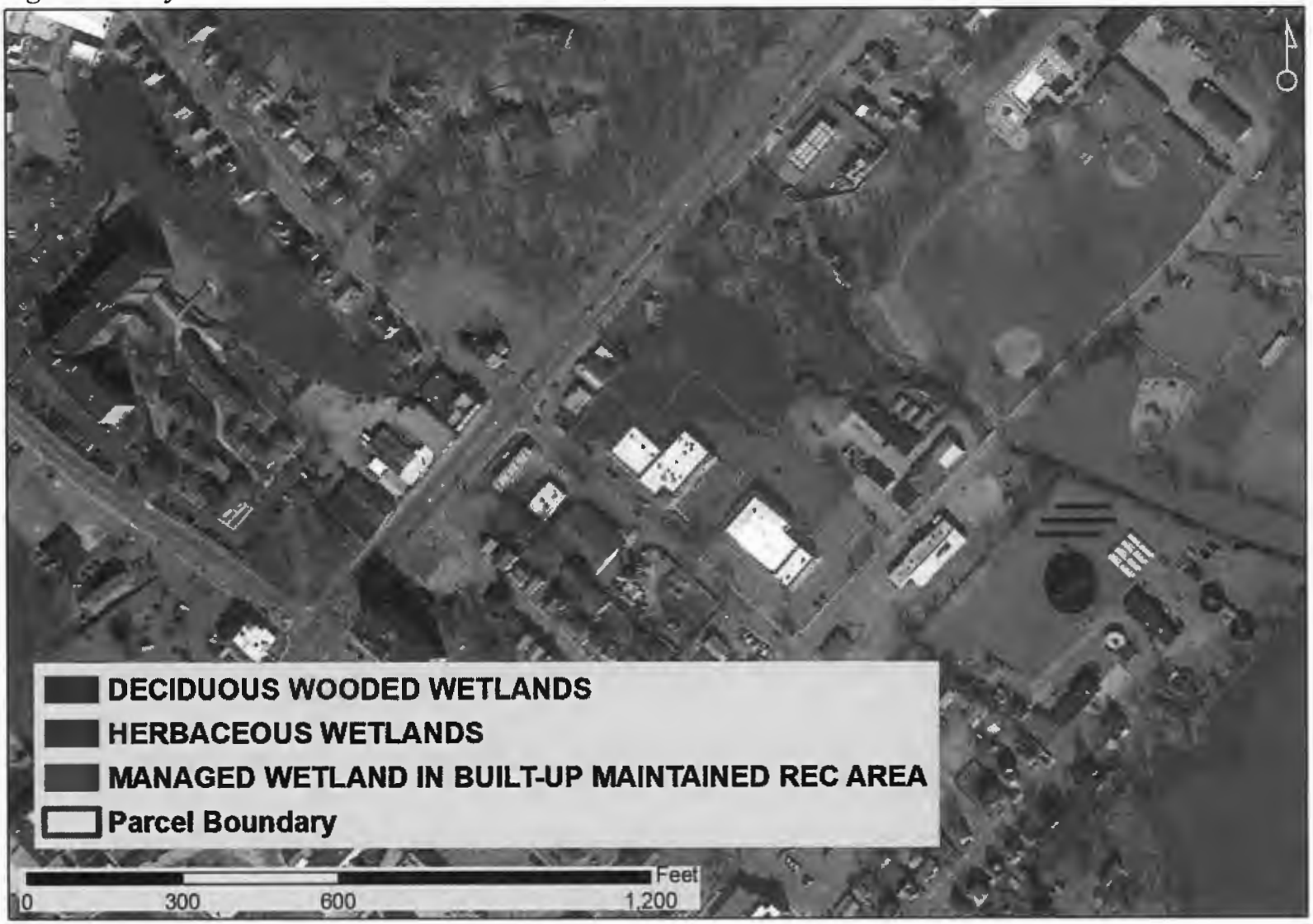

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Figure 5: USGS Topographic Map

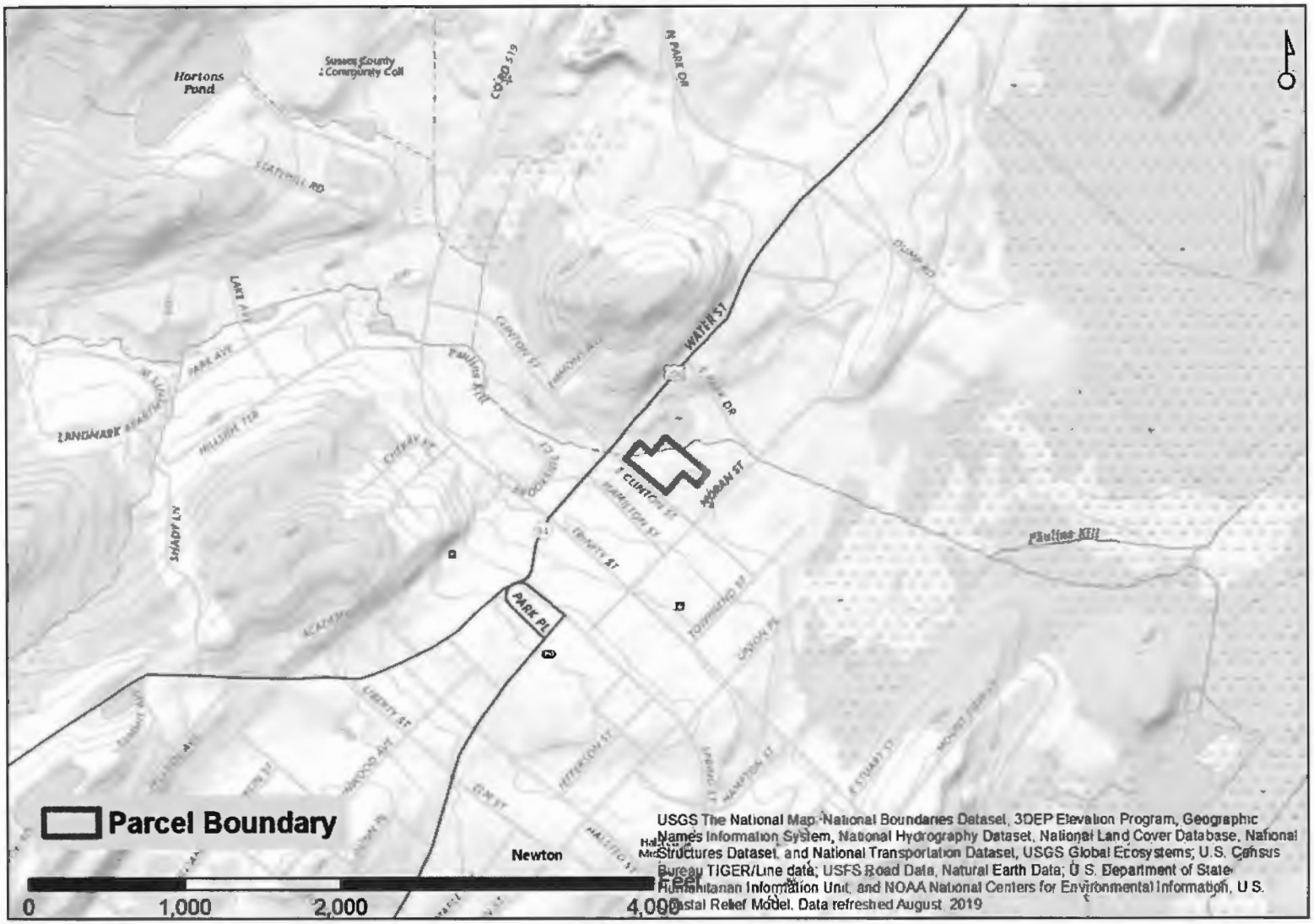

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Figure 6: Natural Resource Conservation Service Soils Map

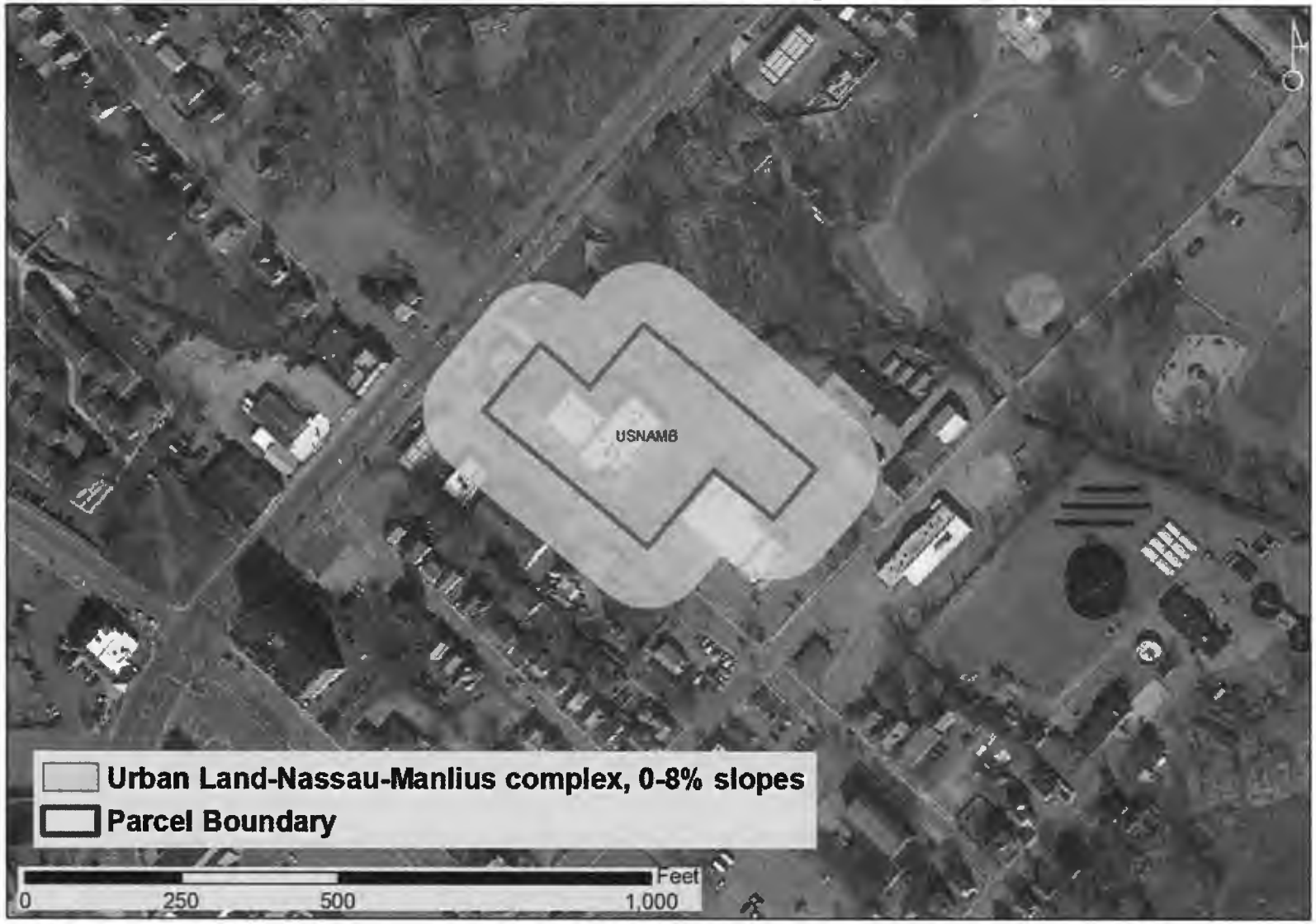

Figure 7: NJDEP Landscape Project Polygons

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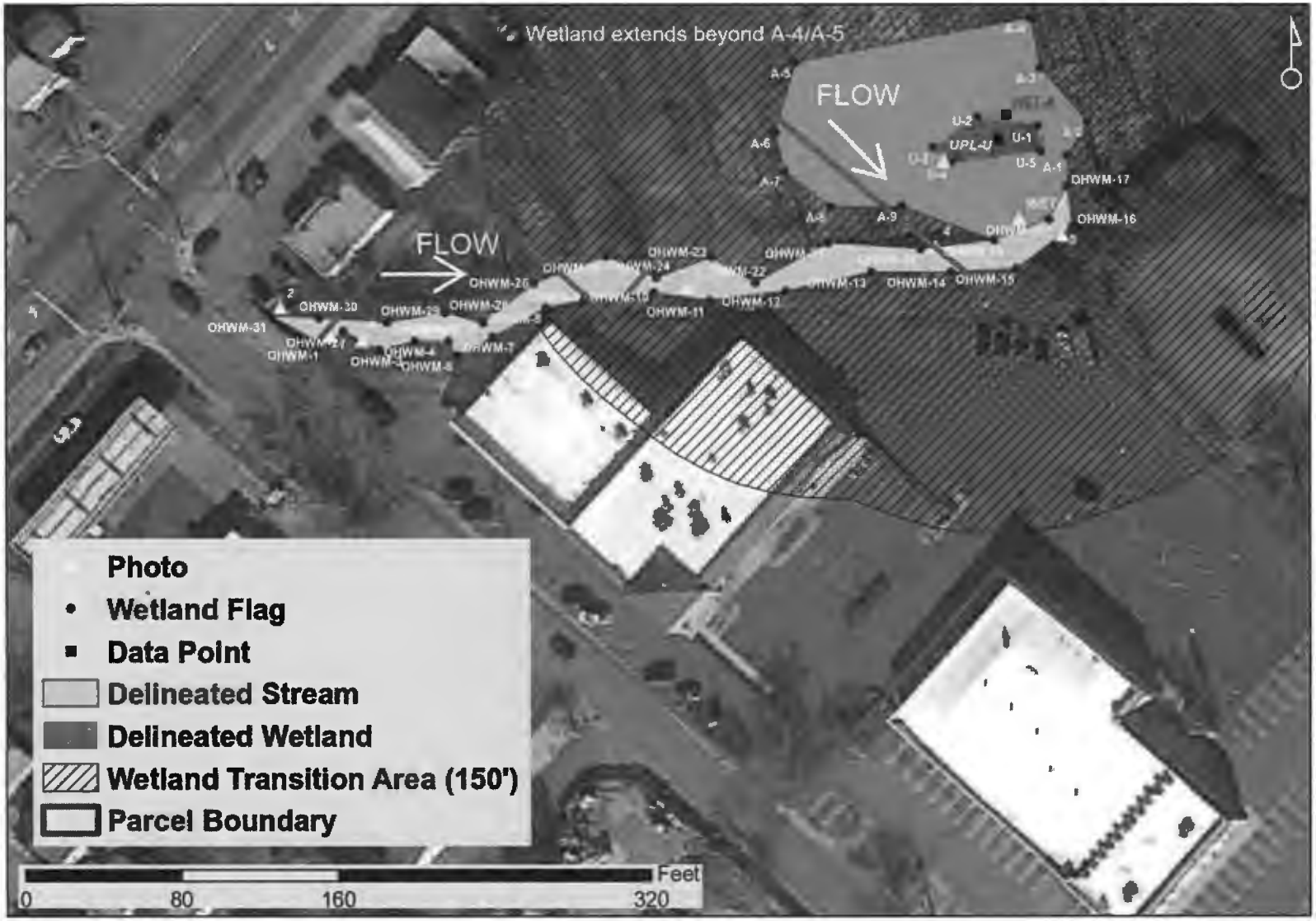
Figure 8: Wetland/Stream Delineation



APPENDIX A

Map Unit Description

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions in this report, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named, soils that are similar to the named components, and some minor components that differ in use and management from the major soils.

Most of the soils similar to the major components have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Some minor components, however, have properties and behavior characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit descriptions along with some characteristics of each. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or landform segments that have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, however, onsite investigation is needed to define and locate the soils and miscellaneous areas.

An identifying symbol precedes the map unit name in the map unit descriptions. Each description includes general facts about the unit and gives important soil properties and qualities.

Soils that have profiles that are almost alike make up a *soil series*. All the soils of a series have major horizons that are similar in composition, thickness, and arrangement. Soils of a given series can differ in texture of the surface layer, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases*. Most of the areas shown on the detailed soil maps are phases of soil series. The name of a soil phase commonly indicates a feature that affects use or management. For example, Alpha silt loam, 0 to 2 percent slopes, is a phase of the Alpha series.

Some map units are made up of two or more major soils or miscellaneous areas. These map units are complexes, associations, or undifferentiated groups.

A *complex* consists of two or more soils or miscellaneous areas in such an intricate pattern or in such small areas that they cannot be shown separately on the maps. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas. Alpha-Beta complex, 0 to 6 percent slopes, is an example.

An *association* is made up of two or more geographically associated soils or miscellaneous areas that are shown as one unit on the maps. Because of present or anticipated uses of the map units in the survey area, it was not considered practical or necessary to map the soils or miscellaneous areas separately. The pattern and relative proportion of the soils or miscellaneous areas are somewhat similar. Alpha-Beta association, 0 to 2 percent slopes, is an example.

An *undifferentiated group* is made up of two or more soils or miscellaneous areas that could be mapped individually but are mapped as one unit because similar interpretations can be made for use and management. The pattern and proportion of the soils or miscellaneous areas in a mapped area are not uniform. An area can be made up of only one of the major soils or miscellaneous areas, or it can be made up of all of them. Alpha and Beta soils, 0 to 2 percent slopes, is an example.

Some surveys include *miscellaneous areas*. Such areas have little or no soil material and support little or no vegetation. Rock outcrop is an example.

Additional information about the map units described in this report is available in other soil reports, which give properties of the soils and the limitations, capabilities, and potentials for many uses. Also, the narratives that accompany the soil reports define some of the properties included in the map unit descriptions.

Sussex County, New Jersey

USNAMB—Urban land-Nassau-Manlius complex, 0 to 8 percent slopes

Map Unit Setting

National map unit symbol: s97h
Elevation: 400 to 1,550 feet
Mean annual precipitation: 30 to 64 inches
Mean annual air temperature: 46 to 79 degrees F

Frost-free period: 131 to 178 days
Farmland classification: Not prime farmland

Map Unit Composition

Urban land, nassau substratum: 45 percent
Nassau and similar soils: 30 percent
Manlius and similar soils: 25 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Urban Land, Nassau Substratum

Setting

Landform: Ground moraines
Landform position (three-dimensional): Lower third of mountainflank
Down-slope shape: Linear, convex
Across-slope shape: Linear
Parent material: Buildings, pavement, and other impervious surfaces over loamy till derived from acid shale

Typical profile

H1 - 0 to 12 inches: material
H2 - 12 to 13 inches: extremely channery silt loam
2R - 13 to 80 inches: bedrock

Properties and qualities

Slope: 0 to 3 percent
Depth to restrictive feature: 10 to 20 inches to lithic bedrock
Runoff class: Very high
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.57 to 5.95 in/hr)
Available water capacity: Very low (about 0.1 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 8s
Hydric soil rating: Unranked

Description of Nassau

Setting

Landform: Ground moraines
Down-slope shape: Convex
Across-slope shape: Linear
Parent material: Loamy till derived from acid shale

Typical profile

Ap - 0 to 7 inches: very channery silt loam
Bw - 7 to 13 inches: extremely channery silt loam
2R - 13 to 80 inches: bedrock

Properties and qualities

Slope: 0 to 8 percent
Depth to restrictive feature: 10 to 20 inches to lithic bedrock
Drainage class: Somewhat excessively drained

Runoff class: Low
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.57 to 5.95 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water capacity: Very low (about 1.7 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 3e
Hydrologic Soil Group: D
Ecological site: F144AY033MA - Shallow Dry Till Uplands
Hydric soil rating: No

Description of Manlius

Setting

Landform: Ground moraines
Down-slope shape: Convex
Across-slope shape: Linear
Parent material: Loamy till derived from acid shale

Typical profile

Ap - 0 to 9 inches: very channery silt loam
Bw - 9 to 20 inches: extremely channery silt loam
CB - 20 to 29 inches: extremely channery silt loam
2R - 29 to 80 inches: bedrock

Properties and qualities

Slope: 0 to 8 percent
Depth to restrictive feature: 20 to 39 inches to lithic bedrock
Drainage class: Well drained
Runoff class: Low
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.57 to 5.95 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water capacity: Very low (about 2.9 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 2s
Hydrologic Soil Group: B
Ecological site: F144AY034CT - Well Drained Till Uplands
Hydric soil rating: No

Data Source Information

Soil Survey Area: Sussex County, New Jersey
Survey Area Data: Version 17, Jun 1, 2020

APPENDIX B

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: JCP&L Newton II Former MGP Site City/County: Newton/Sussex Sampling Date: 10/7/20 (8)

Applicant/Owner: First Energy State: NJ Sampling Point: WET-A

Investigator(s): Michael Parkes, Teresa Caputi Section, Township, Range:

Landform (hillslope, terrace, etc.): Swale Local relief (concave, convex, none): Concave Slope (%): 1

Subregion (LRR or MLRA): LRR-R Lat: 811585 Long: 423273 Datum: NJSP/WGS84

Soil Map Unit Name: Urban Land NWI classification: PSS1D

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? No Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? No (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No ____	**Is the Sampled Area within a Wetland?** Yes X No ____
Hydric Soil Present?	Yes X	No ____	
Wetland Hydrology Present?	Yes X	No ____	If yes, optional Wetland Site ID: ____

Remarks: (Explain alternative procedures here or in a separate report.)

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- X High Water Table (A2)
- X Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- X Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- X Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- X Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No X	Depth (inches): ____
Water Table Present?	Yes X	No ____	Depth (inches): 12
Saturation Present? (includes capillary fringe)	Yes X	No ____	Depth (inches): 6

Wetland Hydrology Present? Yes X No ____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION – Use scientific names of plants.

Sampling Point: WET-A

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1. Acer Saccharinum	35	Yes	FAC
2. Fraxinus pennsylvanica	10	Yes	FACW
3.			
4.			
5.			
6.			
7.			
	45	= Total Cover	

Sapling/Shrub Stratum (Plot size: 15')			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
		= Total Cover	

Herb Stratum (Plot size: 5')			
1. Phragmites australis	35	Yes	FACW
2. Microstegium vimineum	40	Yes	FAC
3. Impatiens capensis	5	No	FACW
4. Toxicodendron radicans	3	No	FAC
5. Pilea pumila	2	No	FAC
6. Ageratina altissima	1	No	FACW
7.			
8.			
9.			
10.			
11.			
12.			
	86	= Total Cover	

Woody Vine Stratum (Plot size: 5')			
1.			
2.			
3.			
4.			
		= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 4 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	–	x 1 =	–
FACW species	85	x 2 =	170
FAC species	45	x 3 =	135
FACU species	1	x 4 =	4
UPL species	–	x 5 =	–
Column Totals:	131 (A)		309 (B)

Prevalence Index = B/A = 2.36

Hydrophytic Vegetation Indicators:

- ___ 1 - Rapid Test for Hydrophytic Vegetation
- X 2 - Dominance Test is >50%
- X 3 - Prevalence Index is ≤3.0[1]
- ___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes X No ___

Remarks: (Include photo numbers here or on a separate sheet.)

Photo ID: WET-A
Direction: North

SOIL

Sampling Point: WET-A

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-2	10YR2/1	100					Silt	
2-5	10YR4/1	95	10YR5/6	5	C	M	Silt	
5-14+	10YR5/1	90	10YR5/8	10	C	M	clayey silt	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- X Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7) **(LRR R, MLRA 149B)**
- ___ Polyvalue Below Surface (S8) **(LRR R, MLRA 149B)**
- ___ Thin Dark Surface (S9) **(LRR R, MLRA 149B)**
- ___ Loamy Mucky Mineral (F1) **(LRR K, L)**
- ___ Loamy Gleyed Matrix (F2)
- X Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(LRR K, L, MLRA 149B)**
- ___ Coast Prairie Redox (A16) **(LRR K, L, R)**
- ___ 5 cm Mucky Peat or Peat (S3) **(LRR K, L, R)**
- ___ Dark Surface (S7) **(LRR K, L)**
- ___ Polyvalue Below Surface (S8) **(LRR K, L)**
- ___ Thin Dark Surface (S9) **(LRR K, L)**
- ___ Iron-Manganese Masses (F12) **(LRR K, L, R)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 149B)**
- ___ Mesic Spodic (TA6) **(MLRA 144A, 145, 149B)**
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (If observed):

Type: —

Depth (inches): —

Hydric Soil Present? Yes X No ___

Remarks:

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: JCP&L City/County: Newton/Sussex Sampling Date: 10/7/20 (8)

Applicant/Owner: First Energy State: NJ Sampling Point: UPL-U

Investigator(s): Michael Parkes, Teresa Caputi Section, Township, Range: _____

Landform (hillslope, terrace, etc.): Terrace Local relief (concave, convex, none): convex Slope (%): 1

Subregion (LRR or MLRA): LRR-R Lat: 811572 Long: 423269 Datum: NJSP/WGS84

Soil Map Unit Name: Urban Land NWI classification: PSSID

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? No Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? No (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X No _____	**Is the Sampled Area within a Wetland?**	**Yes** _____ **No** X
Hydric Soil Present?	Yes X No _____	If yes, optional Wetland Site ID:	
Wetland Hydrology Present?	Yes _____ No X		

Remarks: (Explain alternative procedures here or in a separate report.) Upland exclusion Lacks hydrology

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes _____	No X	Depth (inches): _____
Water Table Present?	Yes _____	No X	Depth (inches): _____
Saturation Present? (includes capillary fringe)	Yes _____	No X	Depth (inches): _____

Wetland Hydrology Present? Yes _____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION – Use scientific names of plants.

Sampling Point: UPL-U

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1. Acer saccharinum	40		
2. Fraxinus americana	10		
3.			
4.			
5.			
6.			
7.			
	= Total Cover		

Sapling/Shrub Stratum (Plot size: 15')			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	= Total Cover		

Herb Stratum (Plot size: 5')			
1. Microstegium vimineum	70		
2. Ageratina altissima	2		
3. Lonicera japonica	10		
4. Elymus sp. virginicus	5		
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	= Total Cover		

Woody Vine Stratum (Plot size: 5')			
1. Rosa multiflora	2		
2.			
3.			
4.			
	= Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	–	x 1 =	–
FACW species	55	x 2 =	110
FAC species	80	x 3 =	240
FACU species	2	x 4 =	8
UPL species	–	x 5 =	–
Column Totals:	137 (A)		358 (B)

Prevalence Index = B/A = 2.61

Hydrophytic Vegetation Indicators:

- ___ 1 - Rapid Test for Hydrophytic Vegetation
- X 2 - Dominance Test is >50%
- X 3 - Prevalence Index is ≤3.0[1]
- ___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes X No ___

Remarks: (Include photo numbers here or on a separate sheet.)

Photo ID: UPL-U
Direction: East

SOIL

Sampling Point: UPL-A

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-6	7.5 YR 3/1	100					loam	
6-12+	7.5 YR 5/1	75	7.5YR 4/6	25	C	M	silt	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- X Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7) **(LRR R, MLRA 149B)**
- ___ Polyvalue Below Surface (S8) **(LRR R, MLRA 149B)**
- ___ Thin Dark Surface (S9) **(LRR R, MLRA 149B)**
- ___ Loamy Mucky Mineral (F1) **(LRR K, L)**
- ___ Loamy Gleyed Matrix (F2)
- X Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(LRR K, L, MLRA 149B)**
- ___ Coast Prairie Redox (A16) **(LRR K, L, R)**
- ___ 5 cm Mucky Peat or Peat (S3) **(LRR K, L, R)**
- ___ Dark Surface (S7) **(LRR K, L)**
- ___ Polyvalue Below Surface (S8) **(LRR K, L)**
- ___ Thin Dark Surface (S9) **(LRR K, L)**
- ___ Iron-Manganese Masses (F12) **(LRR K, L, R)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 149B)**
- ___ Mesic Spodic (TA6) **(MLRA 144A, 145, 149B)**
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: —

Depth (inches): —

Hydric Soil Present? Yes X No ___

Remarks:

APPENDIX C

PARKES
ECOLOGICAL LLC

Photographs

Photo ID: 1 Direction: W

Photo ID: 2 Direction: S

Photo ID: 3 Direction: W

Photo ID: 4 Direction: E

Photo ID: 5 Direction: NE

Photo ID: 6 Direction: E

PARKES
ECOLOGICAL LLC

Photo ID: UPL-A Direction: E

Photo ID: WET-A Direction: N

APPENDIX D

MICHAEL L. PARKES, M.S
CHIEF ECOLOGIST/OWNER

PARKES ECOLOGICAL LLC

EDUCATION

Texas A&M University, M.S. Ecology
Virginia Tech, B.S. Wildlife Ecology

YEARS EXPERIENCE: 16

SUMMARY OF QUALIFICATIONS

I am a Certified Ecologist who serves as the Chief Ecologist/Owner of a consulting firm I founded in 2013. The firm's scope of services mirrors my expertise and interests; wetland ecology, wildlife ecology, and Geographical Information Systems (GIS).

I have personally delineated over 100 wetlands in several states. These wetland types have included tidal salt marsh, vernal pools, freshwater tidal wetlands, alpine wet meadows, wetlands within Pine Barrens, and many others. I have also authored approved permits and mitigation plans for activities within wetlands in compliance with Section 404 of the Federal Clean Water Act, as well as State and Municipal wetland regulations.

SELECT PROFESSIONAL EXPERIENCE

Wetlands

Brownfield Remediation, Restoration and Redevelopment Project, Fords, NJ – Project manager for ecological components of a 180-acre brownfield cleanup for a large natural gas company. Personally performed the wetland delineation (>85 acres) and was the lead author for numerous approved permit applications including New Jersey Department of Environmental Protection Letter of Interpretation, General Permits 4 and 12, Freshwater Wetland Individual Permit, Mitigation Plan, Waterfront Development Permit, Flood Hazard Permit and Tidelands License as well as U.S. Army Corps of Engineers Jurisdictional Determination, Nationwide Permit 38 and Mitigation Plan. Other tasks managed included ecological investigations, wetland mitigation design, mitigation construction oversight, ecological risk assessment and stakeholder coordination.

Wetland Delineation for Wind Farm Development, Ellenburg, NY. Completed wetland delineations in support of a large wind farm (~449 MW, ~135 turbines, ~25,000 acres leased) in Northern New York State.

Wetland Delineation, Atco, NJ – Wetland delineation in support of a remediation project in the Pine Barrens of New Jersey.

Water Flow Study and Aquatic Plant Survey, Alexandria Bay NY – Designed, implemented, and reported results of a water flow study and aquatic plant survey required for permits to apply herbicide to treat Eurasian water-milfoil in a bay in the St. Lawrence River for a local non-profit organization.

Wetland Delineation, Wildlife Surveys, and SEQRA Support. Lowville, NY. Completed wetland delineation and permitting, wildlife surveys, and SEQRA documentation in support of waste water treatment plant and sanitary sewer construction.

Major League Soccer Wetland Investigation and Permitting, Queens, NY. Lead ecologist for wetland delineation, water quality investigation, ecological analyses, and compensatory mitigation strategy

development for a large corporate client. Work involved wetland permitting and restoration design, production of comprehensive analytical reports, consultation for regulatory strategy, and coordination with multiple private and public stakeholders.

Expert Witness, New York, NY – Represented a local non-profit in effort to prevent the inadequate replacement of wetlands associated with pier replacement. The group sought consultation on the proposed mitigation plan and permits and our comments were submitted as evidence.

Marine Terminal Mitigation Planning, Staten Island, NY – Project manager leading data collection and conceptual restoration design of a 40+ acre salt marsh mitigation for a private client. Project included gathering ecological information from the site, public data sources, and GIS portals then incorporating these with a design team into a comprehensive restoration plan.

Wetland Investigation and Permitting, Phillipstown, NY. Wetland delineation, USACE Jurisdictional Determination and permitting strategy development in support of a residential development along the Hudson River.

Tidal Wetland Mitigation Restoration Design and Permitting, New York, NY – Lead ecological designer for a New York City Parks Department ecological park along the East River in the Bronx, NY. Designed grading, planting, soils, specifications, and details for a 1.6 acre tidal restoration to satisfy a municipal wetland mitigation requirement submitted to New York Department of Environmental Conservation. In addition, the plants, soils, maintenance and monitoring for the upland habitats to be installed in the park were specified.

Wetland Delineation and Permitting, South Huntington, NY – Project manager for the delineation and development of mitigation plans for project activities associated with a cell phone tower taking place within the NYS DEC regulated areas. Completed wetland delineation and detailed assessment report submitted for an U.S. Army Corps of Engineers Jurisdictional Determination and a NYSDEC Freshwater Wetlands Permit. Provided onsite construction expertise and guidance to ensure permit compliance.

Wetland Mitigation Bank Site Evaluations, Mesa and Gunnison Counties, CO – These projects involved the assessment of hydrology, vegetation, and soils of several existing wetland banks to produce Geographic Information Systems (GIS) habitat maps and ensure compliance with banking instruments. Sites for potential wetland mitigation bank creation were similarly evaluated.

Salt Marsh Restoration, New York, NY – Oversaw a salt marsh restoration from an ecological perspective. This included ensuring proper grading in relation to tide levels, inspection of plants and planting, and adjustment of barrier placement for the reduction of tidal scour.

Water Treatment Plant Wetland System, Bronx, NY – Collaborated on design of a wetland system that treats and detains water while acting as an educational, ecological, and design amenity. The depth and roof area of the new Croton Water Treatment Plant cause significant excesses of storm and ground water on site. This water is directed to created emergent marsh, rocky glens, bioswales, and irrigation ponds on-site.

SG Interests Bull Mountain Pipeline Wetland Delineation, Rifle CO. Demarcated wetlands along a proposed 25 mile natural gas pipeline. Tasks included field mobilization/demobilization, GPS and GIS data management, and wetland flagging.

Landscape Level Wetland Delineation, Fort Drum, NY – Large scale (parcels of 500+ acres) delineation of wetlands on Fort Drum, NY. Duties included producing GIS maps and operating Geographic Positioning System (GPS) units, plant identification, soil core evaluation, quality assurance and control, assessment of mitigation banks, and restoration compliance evaluation.

PROFESSIONAL AFFILIATIONS

Ecological Society of America
Society of Wetland Scientists
Society of Ecological Restoration
Wildlife Society
International Society of Waterbirds

CERTIFICATIONS

Certified Ecologist – Ecological Society of America
Graduate GIS Certificate – Texas A&M University
OSHA 40-hour HAZWOPER
NYSDEC Erosion and Sediment Control Training
USFWS Phase I Bog Turtle Surveyor Certification

PEER REVIEWED PUBLICATIONS

Parkes, M.L., M.A. Mora, and R. Feagin. 2012. Using scale, cover type, and GIS to evaluate nuisance egret colony site selection. Waterbirds 35: 56-63.

Kelly, J.P., K. Etienne, C. Strong, M. McCaustland, and **M.L. Parkes**. 2007. Status, trends and implications for the conservation of heron and egret nesting colonies in the San Francisco Bay Area. Waterbirds 30: 455- 478.

Parkes, M. L. 2005. Inter-nest infanticide in Ardeids. Waterbirds 28: 256-257.

OTHER SELECT PUBLICATIONS

Parkes, M.L. USACE Jurisdictional Determination, Phillipstown, NY (NAN-2014-00997). Approved October 2014.

Parkes, M.L. and E. DeCelles. NYSDEC Freshwater Wetland Permit for construction of a cell tower for T-Mobile, Huntington, NY (File # 1-4726-02247/00001). Approved May 2011.

Parkes, M.L., J. Epstein, and E. DeCelles 2011. USACE Nationwide Permit 38 for EPEC Polymers Site, Fords, NJ (File # NAN-2010-00412-ESO). Approved September 2011.

Parkes, M.L., J. Epstein, and E. DeCelles 2011. NJDEP Department of Land Use Regulation Multi-permit for the Former Nuodex Corporation Site, Fords, NJ (File # 1225-02-0016.4). Freshwater Wetland Individual Permit, Flood Hazard Area Permit, Waterfront Development Permit, Wetland Mitigation Plan, and Tidelands License. Approved June 2011.

Parkes, M.L. NJDEP Department of Land Use Regulation Freshwater Wetland General Permits 12 and 14 and Letter of Interpretation for the Former Nuodex Corporation Site, Fords, NJ (File # 1225-02 0016.2). Approved March 2009.

SELECT PRESENTATIONS

Parkes, M.L. March 2014. Wetland Functional Analysis and Its Use in Wetland Mitigation Design. Lecture given at University of Pennsylvania, Philadelphia PA.

Parkes, M.L. February 2013. Integrated remediation and restoration: A case study in Woodbridge, New Jersey. Lecture given at University of Pennsylvania, Philadelphia PA.

Parkes, M.L. and E. DeCelles. April 2012. Integrated remediation and restoration: A case study in Woodbridge, New Jersey. An oral presentation to the Society of Ecological Restoration Mid-Atlantic/ New England Chapters Conference, Brooklyn, New York.

Attachment H: Natural Heritage Program Database Review

Brown AND Caldwell

State of New Jersey
MAIL CODE 501-04
DEPARTMENT OF ENVIRONMENTAL PROTECTION
DIVISION OF PARKS & FORESTRY
NEW JERSEY FOREST SERVICE
OFFICE OF NATURAL LANDS MANAGEMENT
P.O. BOX 420
TRENTON, NJ 08625-0420
Tel. (609) 984-1339 Fax (609) 984-0427

PHILIP D. MURPHY
Governor

SHEILA Y. OLIVER
Lt. Governor

CATHERINE R. McCABE
Commissioner

December 30, 2020

Teresa Caputi
Brown and Caldwell
500 North Franklin Tpke., Suite 306
Ramsey, NJ 07446

Re: JCP&L Newton II Former MGP Site
Block(s) - 9.03, Lot(s) - 27
Newton Town, Sussex County

Dear Ms. Caputi:

Thank you for your data request regarding rare species information for the above referenced project site.

Searches of the Natural Heritage Database and the Landscape Project (Version 3.3) are based on a representation of the boundaries of your project site in our Geographic Information System (GIS). We make every effort to accurately transfer your project bounds from the topographic map(s) submitted with the Natural Heritage Data Request Form into our Geographic Information System. We do not typically verify that your project bounds are accurate, or check them against other sources.

We have checked the Landscape Project habitat mapping and the Biotics Database for occurrences of any rare wildlife species or wildlife habitat on the referenced site. The Natural Heritage Database was searched for occurrences of rare plant species or ecological communities that may be on the project site. Please refer to Table 1 (attached) to determine if any rare plant species, ecological communities, or rare wildlife species or wildlife habitat are documented on site. A detailed report is provided for each category coded as 'Yes' in Table 1.

We have also checked the Landscape Project habitat mapping and Biotics Database for occurrences of rare wildlife species or wildlife habitat in the immediate vicinity (within ¼ mile) of the referenced site. Additionally, the Natural Heritage Database was checked for occurrences of rare plant species or ecological communities within ¼ mile of the site. Please refer to Table 2 (attached) to determine if any rare plant species, ecological communities, or rare wildlife species or wildlife habitat are documented within the immediate vicinity of the site. Detailed reports are provided for all categories coded as 'Yes' in Table 2. These reports may include species that have also been documented on the project site.

The Natural Heritage Program reviews its data periodically to identify priority sites for natural diversity in the State. Included as priority sites are some of the State's best habitats for rare and endangered species and ecological communities. Please refer to Tables 1 and 2 (attached) to determine if any priority sites are located on or in the immediate vicinity of the site.

A list of rare plant species and ecological communities that have been documented from the county (or counties), referenced above, can be downloaded from http://www.state.nj.us/dep/parksandforests/natural/heritage/countylist.html. If suitable habitat is present at the project site, the species in that list have potential to be present.

Status and rank codes used in the tables and lists are defined in EXPLANATION OF CODES USED IN NATURAL HERITAGE REPORTS, which can be downloaded from http://www.state.nj.us/dep/parksandforests/natural/heritage/nhpcodes_2010.pdf.

Beginning May 9, 2017, the Natural Heritage Program reports for wildlife species will utilize data from Landscape Project Version 3.3. If you have questions concerning the wildlife records or wildlife species mentioned in this response, we

recommend that you visit the interactive web application at the following URL, https://njdep.maps.arcgis.com/apps/webappviewer/index.html?id=0e6a44098c524ed99bf739953cb4d4c7, or contact the Division of Fish and Wildlife, Endangered and Nongame Species Program at (609) 292-9400.

For additional information regarding any Federally listed plant or animal species, please contact the U.S. Fish & Wildlife Service, New Jersey Field Office at http://www.fws.gov/northeast/njfieldoffice/endangered/consultation.html.

PLEASE SEE 'CAUTIONS AND RESTRICTIONS ON NHP DATA', which can be downloaded from http://www.state.nj.us/dep/parksandforests/natural/heritage/newcaution2008.pdf.

Thank you for consulting the Natural Heritage Program. The attached invoice details the payment due for processing this data request. Feel free to contact us again regarding any future data requests.

Sincerely,

Robert J. Cartica
Administrator

c: NHP File No. 20-4107417-20820

Table 1: On Site Data Request Search Results (6 Possible Reports)

Report Name	Included	Number of Pages
1. Possibly on Project Site Based on Search of Natural Heritage Database: Rare Plant Species and Ecological Communities Currently Recorded in the New Jersey Natural Heritage Database	No	0 pages included
2. Natural Heritage Priority Sites On Site	No	0 pages included
3. Rare Wildlife Species or Wildlife Habitat on the Project Site Based on Search of Landscape Project 3.3 Species Based Patches	Yes	1 page(s) included
4. Vernal Pool Habitat on the Project Site Based on Search of Landscape Project 3.3	No	0 pages included
5. Rare Wildlife Species or Wildlife Habitat on the Project Site Based on Search of Landscape Project 3.3 Stream Habitat File	No	0 pages included
6. Other Animal Species On the Project Site Based on Additional Species Tracked by Endangered and Nongame Species Program	Yes	1 page(s) included

Rare Wildlife Species or Wildlife Habitat on the Project Site Based on Search of Landscape Project 3.3 Species Based Patches

Class	Common Name	Scientific Name	Feature Type	Rank	Federal Protection Status	State Protection Status	Grank	Srank
Aves								
	Great Blue Heron	Ardea herodias	Foraging	2	NA	Special Concern	G5	S3B,S4N
Mammalia								
	Bobcat	Lynx rufus	Live Individual Sighting	4	NA	State	G5	S2
	Bobcat	Lynx rufus	On Road	4	NA	State	G5	S2

Other Animal Species On the Project Site Based on Additional Species Tracked by Endangered and Nongame Species Program

Scientific Name	Common Name	Federal Protection Status	State Protection Status	Grank	Srank
Invertebrate Animals					
Cucullia alfarata	A Moth			G4	S2?
Polites mystic	Long Dash			G5	S3?
Satyrium edwardsii	Edwards' Hairstreak			G5	S3

Total number of records: 3

Table 2: Vicinity Data Request Search Results (6 possible reports)

Report Name	Included	Number of Pages
1. Immediate Vicinity of the Project Site Based on Search of Natural Heritage Database: Rare Plant Species and Ecological Communities Currently Recorded in the New Jersey Natural Heritage Database	No	0 pages included
2. Natural Heritage Priority Sites within the Immediate Vicinity	No	0 pages included
3. Rare Wildlife Species or Wildlife Habitat Within the Immediate Vicinity of the Project Site Based on Search of Landscape Project 3.3 Species Based Patches	Yes	2 page(s) included
4. Vernal Pool Habitat In the Immediate Vicinity of Project Site Based on Search of Landscape Project 3.3	No	0 pages included
5. Rare Wildlife Species or Wildlife Habitat In the Immediate Vicinity of the Project Site Based on Search of Landscape Project 3.3 Stream Habitat File	No	0 pages included
6. Other Animal Species In the Immediate Vicinity of the Project Site Based on Additional Species Tracked by Endangered and Nongame Species Program	Yes	1 page(s) included

Rare Wildlife Species or Wildlife Habitat Within the Immediate Vicinity of the Project Site Based on Search of Landscape Project 3.3 Species Based Patches

Class	Common Name	Scientific Name	Feature Type	Rank	Federal Protection Status	State Protection Status	Grank	Srank
Aves								
	American Bittern	Botaurus lentiginosus	Breeding Sighting-Confirmed	4	NA	State Endangered	G5	S1B,S3N
	Bald Eagle	Haliaeetus leucocephalus	Foraging	4	NA	State Endangered	G5	S1B,S2N
	Bald Eagle	Haliaeetus leucocephalus	Nest	4	NA	State Endangered	G5	S1B,S2N
	Barred Owl	Strix varia	Breeding Sighting	3	NA	State Threatened	G5	S2B,S2N
	Barred Owl	Strix varia	Non-breeding Sighting	3	NA	State Threatened	G5	S2B,S2N
	Great Blue Heron	Ardea herodias	Foraging	2	NA	Special Concern	G5	S3B,S4N
	Least Bittern	Ixobrychus exilis	Breeding Sighting-Confirmed	2	NA	Special Concern	G5	S3B,S3N
	Red-shouldered Hawk	Buteo lineatus	Breeding Sighting	4	NA	State Endangered	G5	S1B,S3N
	Wood Thrush	Hylocichla mustelina	Breeding Sighting	2	NA	Special Concern	G4	S3B,S4N
Insecta								
	Northern Metalmark	Calephelis borealis	Casual Flyby	2	NA	Special Concern	G3G4	S3
Mammalia								
	Bobcat	Lynx rufus	Capture Location	4	NA	State Endangered	G5	S2

Rare Wildlife Species or Wildlife Habitat Within the Immediate Vicinity of the Project Site Based on Search of Landscape Project 3.3 Species Based Patches

Class	Common Name	Scientific Name	Feature Type	Rank	Federal Protection Status	State Protection Status	Grank	Srank
	Bobcat	Lynx rufus	Live Individual Sighting	4	NA	State Endangered	G5	S2
	Bobcat	Lynx rufus	On Road	4	NA	State Endangered	G5	S2
	Bobcat	Lynx rufus	Physical evidence	4	NA	State Endangered	G5	S2
	Bobcat	Lynx rufus	Telemetry: Home Range	4	NA	State Endangered	G5	S2

Other Animal Species
In the Immediate Vicinity of the Project Site Based on Additional Species Tracked by Endangered and Nongame Species Program

Scientific Name	Common Name	Federal Protection Status	State Protection Status	Grank	Srank
Invertebrate Animals					
Cucullia alfarata	A Moth			G4	S2?
Polites mystic	Long Dash			G5	S3?
Satyrium edwardsii	Edwards' Hairstreak			G5	S3

Total number of records: 3

Attachment I: CD-ROM of Entire Application

Comings, Elaine M

From: njdeponlinesupport@dep.nj.gov
Sent: Thursday, March 25, 2021 3:28 PM
To: flawson@firstenergycorp.com; Peter Randazzo; Not_Available@NA.com
Subject: LU eSubmission Received 1915-06-0002.2 NEWTON COAL GAS 2 SITE AOC C2 LUP210001
Attachments: 930777_LUP210001_30109589_submittal_pdf.pdf

Congratulations, your Land Use IP-GP service transaction on DEP Online has been received for processing.

SERVICE ID: 1202017
PROGRAM INTEREST ID: 1915-06-0002.2
PROJECT NAME: NEWTON COAL GAS 2 SITE AOC C2
ACTIVITY NUMBER: LUP210001

Attached you will find a PDF copy of your Land Use-IP-GP Submittal Summary.

You must have a PDF file reader to open.

Please print and/or save a copy of your Land Use IP-GP submittal summary for your records.

If you are unable to retrieve the attached file(s), please contact

https://nam04.safelinks.protection.outlook.com/?url=https%3A%2F%2Fmy.state.nj.us%2Fopenam%2FUI%2FLogin%3Fgoto%3Dhttps%3A%2F%2Fwww9.state.nj.us%2FDEP_RSP%2FAuthenticate.do%3Fmethod%3Dnjdep&data=04%7C01%7CPRandazzo%40Brwncald.com%7Cd044c926e3b54273904b08d8efc42a39%7Ccb2bab3d7d9044ea9e31531011b1213d%7C0%7C0%7C637522973267154695%7CUnknown%7CTWFpbGZsb3d8eyJWIjoiMC4wLjAwMDAiLCJQIjoiV2luMzIiLCJBTiI6Ik1haWwiLCJXVCI6Mn0%3D%7C1000&sdata=yE8rmuGtx%2FIuipsZKxy0M6LEhT%2BCj1Uh7evTpBdYvmw%3D&reserved=0

If you have any questions concerning this message, please contact the Division of Land Resource Protection Technical Support Center at (609) 777-0454.

You can now submit all supplemental application information using DEP Online at https://nam04.safelinks.protection.outlook.com/?url=http%3A%2F%2Fnjdeponline.com%2F&data=04%7C01%7CPRandazzo%40Brwncald.com%7Cd044c926e3b54273904b08d8efc42a39%7Ccb2bab3d7d9044ea9e31531011b1213d%7C0%7C0%7C637522973267154695%7CUnknown%7CTWFpbGZsb3d8eyJWIjoiMC4wLjAwMDAiLCJQIjoiV2luMzIiLCJBTiI6Ik1haWwiLCJXVCI6Mn0%3D%7C1000&sdata=ty41zYD7U6XGa3JZY4GioqRgQGj3MJst560JbkwLv0c%3D&reserved=0 . The new service can be found under the Division of Land Resource Protection services, click on 'Submit Additional Information for a Land Use Authorization or Permit.' All information will go directly into the Department's data system and will notify your project manager/engineer that additional information has been submitted. This service is convenient and free of charge. For more information visit our website at https://nam04.safelinks.protection.outlook.com/?url=https%3A%2F%2Fwww.nj.gov%2Fdep%2Flanduse%2Feservices%2Flur_auth_permits.html&data=04%7C01%7CPRandazzo%40Brwncald.com%7Cd044c926e3b54273904b08d8efc42a39%7Ccb2bab3d7d9044ea9e31531011b1213d%7C0%7C0%7C637522973267154695%7CUnknown%7CTWFpbGZsb3d8eyJWIjoiMC4wLjAwMDAiLCJQIjoiV2luMzIiLCJBTiI6Ik1haWwiLCJXVCI6Mn0%3D%7C1000&sdata=DLBeJPJLthUpX%2FuBpDu7Wte2h6e1NKKuw6H%2FIT8SByY%3D&reserved=0.

Email Control ID:
35188692

Comings, Elaine M

From: Dench, Stephen [DEP] <Stephen.Dench@dep.nj.gov>
Sent: Friday, July 2, 2021 11:11 AM
To: Brendan Quann
Subject: RE: FWW GP-12 Permit Application Status - 1915-06-0002.2 - NEWTON COAL GAS 2 SITE AOC C2

Hi Brendan,

I apologize for the delay in my response. Unfortunately, due to currently high workload, this application is still under review. I currently do not have any comments, but I have not yet received comments from our T&E species unit. Once I receive those, I should be able to move forward with my review. Additionally. at this stage I think it is very unlikely we will be able to complete the permit by the date you specified below, but I will make sure to get everything wrapped up as soon as possible. Let me know if you have any further questions

Sincerely,

Stephen M. Dench
Project Manager, Division of Land Resource Protection
NJ Department of Environmental Protection
Mail Code 501-02A
P.O Box 420,
Trenton, NJ 08625
stephen.dench@dep.nj.gov
T (609) 633-6563

NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION

From: Brendan Quann <bquann@BrwnCald.com>
Sent: Thursday, July 1, 2021 3:06 PM
To: Dench, Stephen [DEP] <Stephen.Dench@dep.nj.gov>
Subject: [EXTERNAL] RE: FWW GP-12 Permit Application Status - 1915-06-0002.2 - NEWTON COAL GAS 2 SITE AOC C2

Hello again Mr. Dench – Just wanted to follow up again regarding the status of the permit application mentioned below. We currently have staff and subcontractors scheduled to implement the proposed sampling program starting July 19th. With everyone's busy schedules these days, if we have to postpone we likely will not be able to re-schedule the sampling for a few months.

If you could offer any insight into when we can expect comments and/or the permit approval, it would be appreciated.
Thanks – Brendan

Brendan Quann, PE*
Brown and Caldwell
bquann@brwncald.com
T 856-330-9323 | C 215-939-1718
****Professional Registration in Specific States***

From: Brendan Quann
Sent: Monday, June 28, 2021 10:47 AM
To: stephen.dench@dep.nj.gov
Subject: FWW GP-12 Permit Application Status - 1915-06-0002.2 - NEWTON COAL GAS 2 SITE AOC C2

Hello – I was hoping you could provide an update on a Freshwater Wetland GP-12 permit application my company submitted in March 2021 (PI #: 1915-06-0002.2, Site Name: NEWTON COAL GAS 2 SITE AOC C2). The permit application was submitted so we could install some environmental investigation soil borings within a wetland transition area at a remediation site in Newton, NJ. I saw on the NJ DataMiner website that you were listed as the Technical Reviewer and that the 90-day review period elapsed a few days ago. Any update you can provide would be appreciated.

This Site is running up against a NJDEP Site Remediation deadline and we need to complete the proposed investigation activities to progress the Site to closure, so we are anxiously awaiting this permit. From a wetlands perspective, the scope is relatively benign. We just need to install some soil borings within an existing parking lot which is adjacent to a stream/wetland area. The scope of work will be limited to the parking lot and disturbances to the stream/wetland areas are not proposed.
Thanks – Brendan

Brendan Quann, PE*
Brown and Caldwell
bquann@brwncald.com
T 856-330-9323 | C 215-939-1718
****Professional Registration in Specific States***

Jersey Central Power & Light
A FirstEnergy Company

300 Madison Avenue
P.O. Box 1911
Morristown, New Jersey 07962-1911

July 6, 2021

New Jersey Department of Treasury
Division of Revenue
PO Box 417
Trenton, NJ 08646-0417

Certified Mail Article Number 7019 1120 0001 3792 0148

To whom it may concern:

Jersey Central Power and Light Company (JCP&L) encloses payment for the following NJDEP Annual Site Remediation Fee invoice:

Invoice No. 210752920
PI ID# 000005460
Period Covered: 1/20/2021 to 1/20/2021
Amount: $3,260.00
Newton II MGP Site

Sincerely,

Elaine Comings

Elaine Comings
Project Manager

Enclosures

FirstEnergy

2982967

VOID IF NOT CASHED WITHIN 90 DAYS

50-937
213

Check No. 2982967

CHECK DATE	AMOUNT
06 14 2021	******3,260.00

PAY TO THE ORDER OF
TREASURER STATE OF NEW JERSEY
NJ DEPARTMENT OF TREASURY
PO BOX 417
TRENTON, NJ 08646-0417

EXACTLY ******3,260 DOLLARS 00 CENTS

Steven R. Staub
Treasurer
FirstEnergy Corp.

JPMorgan Chase Bank, Syracuse, NY 13206

⑈2982967⑈ ⑆021309379⑆ 601864788⑈

VENDOR NO. 0210000188 DOC NO. 2000172956

PO NO	INVOICE / RCPT #	DATE	DOCUMENT #	VENDOR INV AMT	DISCOUNT	NET AMOUNT
	210752920	05/24/2021	1902321485	3,260.00	0.00	3,260.00

NJDEP Annual Site Remediation Fee Newton II MGP

FOR CHECK INQUIRY, CONTACT FIRSTENERGY ACCOUNTS PAYABLE AT APHELP@FIRSTENERGYCORP.COM.

Let's protect our earth

NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION

RECEIVED

JUN 8 2021

Environmental Department

ANNUAL SITE REMEDIATION FEE

INVOICE NO.
210752920

Program Interest	Type of Notice	Amount Due
NEWTON COAL GAS 2 (ETG) EAST CLINTON AVE Newton Town, NJ. 07860 G000005460	THIRD NOTICE	$ 3,260.00

Billing Date	Due Date	NJEMS Bill ID
05/24/21	06/23/21	000000220398800

Summary

Total Amount Assessed	3,260.00
Amount Received Before Creating Installment Plan (if installment plans is allowed)	0.00
Amount Transferred To Installment Plan	0.00
Installment Amount	0.00
Total Amount Credited	0.00
Total Amount Debited (Other Than Amounts Assessed)	0.00
Total Amount Due	3,260.00

REMINDER:
-RETURN THE PAYMENT STUB BELOW WITH A CHECK MADE PAYABLE TO: TREASURER - STATE OF NEW JERSEY
-WRITE THE INVOICE NUMBER ON YOUR CHECK
-PAYMENT CAN BE MADE ELECTRONICALLY VIA THE PAY A PAPER INVOICE LINK AT WWW.NJDEPONLINE.COM
-FOR 2ND OR 3RD NOTICE INVOICES OR DEP CONTACT INFORMATION, SEE BACK OF THIS PAGE
-FOR GENERAL INFORMATION, BILLING DISPUTES, AND FREQUENTLY ASKED QUESTIONS GO TO:
WWW.STATE.NJ.US/DEP/SRP/DIRECTBILLING
-INSTALLMENT PLANS ARE NOT AVAILABLE FOR PAYMENT OF LSRP ANNUAL FEES OR RFS 1% SURCHARGES.

See Back Of Page for Billing Inquiries

INVOICE NO.
210752920

D9901F (R 3/14/02)

Let's protect our earth

NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION
ANNUAL SITE REMEDIATION FEE

INVOICE NO.
210752920

NJEMS Bill ID
000000220398800

Program Interest ID	Type of Notice	Billing Date	Due Date	Amount Due
G000005460	THIRD NOTICE	05/24/21	06/23/21	$ 3,260.00

For name and/or address change, check box and write corrections on the back of this invoice. ☐

DO NOT FOLD; BEND OR MARK

Enter the Amount of your payment → $

RETURN THIS PORTION with your check made payable to:

TREASURER - STATE OF NEW JERSEY
and mail to:
NJ DEPARTMENT OF TREASURY
DIVISION OF REVENUE
PO BOX 417
TRENTON, NJ 08646-0417

89 JCP&L
ATTN: Frank Lawson
PO BOX 1911
Morristown NJ 07962-1911

EP10101010101700000000000504060011111100032600000021921075292018 91

NJDEP OFFICE OF DIRECT BILLING
& COST RECOVERY
MAIL CODE: 401-06L
PO BOX 0420
TRENTON, NJ 08625-0420
(609) 633-0701 (PHONE)
(609) 633-2360 (FAX)

2ND / 3RD NOTICE INVOICES:
FAILURE TO PAY WILL RESULT IN
ENFORCEMENT ACTION, PENALTY,
COLLECTION AGENCY AND/OR LIEN.

D9901B (Rev. 03-14-02)

REQUESTED CHANGES TO INFORMATION FOR PRIMARY BILLING PARTY

Contact Organization: _____

Contact Person: _____ Phone No.: _____

Street Address: _____

_____

_____

Postal City: _____ State: _____ Zip: _____

Comings, Elaine M

From: Lawson, Frank D
Sent: Wednesday, August 4, 2021 4:54 PM
To: Brendan Quann; Comings, Elaine M
Subject: FW: [EXTERNAL] LU eSubmission Final Decision... PI #:1915-06-0002.2 - NEWTON COAL GAS 2 SITE AOC C2 - LUP210001
Attachments: 930777_LUP210001_30611844.pdf

-----Original Message-----
From: patrick.ryan@dep.nj.gov <patrick.ryan@dep.nj.gov>
Sent: Wednesday, August 4, 2021 4:48 PM
To: Lawson, Frank D <flawson@firstenergycorp.com>; PRandazzo@Brwncald.com; lread@newtontownhall.com; BQuann@Brwncald.com
Cc: stephen.dench@dep.nj.gov; patrick.ryan@dep.nj.gov
Subject: [EXTERNAL] LU eSubmission Final Decision... PI #:1915-06-0002.2 - NEWTON COAL GAS 2 SITE AOC C2 - LUP210001

Please find attached the signed permit. Please disregard the previous unsinged version.

PROGRAM INTEREST ID: 1915-06-0002.2
PROJECT NAME: NEWTON COAL GAS 2 SITE AOC C2
ACTIVITY NUMBER: LUP210001

DO NOT REPLY TO THIS EMAIL

Attached you will find a copy of your approved Land Use permit.

You must have a PDF file reader to open.

Please print and save a copy of your Land Use permit for your records.

If you are unable to retrieve the attached file(s), or have any questions, please contact: Stephen Dench, stephen.dench@dep.nj.gov or by phone at (609)777-0454.

STATE OF NEW JERSEY
DEPARTMENT OF ENVIRONMENTAL PROTECTION
WATERSHED & LAND MANAGEMENT
Mail Code 501-02A, P.O. Box 420, Trenton, New Jersey 08625-0420
Telephone: (609) 777-0454 or Fax: (609) 777-3656
www.nj.gov/dep/landuse

PERMIT

In accordance with the laws and regulations of the State of New Jersey, the Department of Environmental Protection hereby grants this permit to perform the activities described below. This permit is revocable with due cause and is subject to the terms, conditions, and limitations listed below and on the attached pages. For the purpose of this document, "permit" means "approval, certification, registration, authorization, waiver, etc." Violation of any term, condition, or limitation of this permit is a violation of the implementing rules and may subject the permittee to enforcement action.	Approval Date **August 4, 2021** Expiration Date **August 3, 2026**

Permit Number(s):	**Type of Approval(s):**	**Governing Rule(s):**
1915-06-0002.2 LUP210001	FWW GP12 Surveying/Investigating	N.J.A.C. 7:7A-1.1(a)

Permittee:	**Site Location:**
Frank Lawson JCP&L 300 Madison Avenue Morristown, NJ 07962	Block(s) & Lot(s): [9.03, 27] Municipality: Newton Town County: Sussex

Description of Authorized Activities:

This document authorizes the installation of up to 26, 6" diameter, soil borings in association with a pre-design investigation for the remediation of the site on the parcel(s) referenced above.

Prepared by: **Stephen Dench**	**Received and/or Recorded by County Clerk:**
If the permittee undertakes any regulated activity, project, or development authorized under this permit, such action shall constitute the permittee's acceptance of the permit in its entirety as well as the permittee's agreement to abide by the requirements of the permit and all conditions therein.	

This permit is not valid unless authorizing signature appears on the last page.

STATEMENT OF AUTHORIZED IMPACTS:

The authorized activities allow for the permittee to undertake impacts to regulated areas as described below. Additional impacts to regulated areas without prior Department approval shall constitute a violation of the rules under which this document is issued and may subject the permittee and/or property owner to enforcement action, pursuant to N.J.A.C. 7:7A-19.11

FWW GP12 Surveying/Investigating	Permanent Disturbance (Acres)	Temporary Disturbance (Acres)
Freshwater wetlands	0	0
Transition areas	0	0 (5 SF)
State open waters	0	0

SPECIAL CONDITIONS:

1. The area of disturbance shall be the minimum necessary to obtain the desired information.

2. The placement of fill material within any freshwater wetland or transition area for equipment access is prohibited.

3. All excavated material and dredge material shall be disposed of in a lawful manner. The material shall be placed outside of any flood hazard area, riparian zone, regulated water, freshwater/coastal wetlands and adjacent transition area, and in such a way as to not interfere with the positive drainage of the receiving area.

4. Disturbance for soil borings in or adjacent to wetlands and associated transition areas on the above reference property shall be done in such a way as to minimize the removal of vegetation.

5. The soil shall be restored to its pre-existing elevation, retaining its original soil layers.

STANDARD CONDITIONS:

1. The issuance of a permit shall in no way expose the State of New Jersey or the Department to liability for the sufficiency or correctness of the design of any construction or structure(s). Neither the State nor the Department shall, in any way, be liable for any loss of life or property that may occur by virtue of the activity or project conducted as authorized under a permit.

2. The issuance of a permit does not convey any property rights or any exclusive privilege.

3. The permittee shall obtain all applicable Federal, State, and local approvals prior to commencement of regulated activities authorized under a permit.

4. A permittee conducting an activity involving soil disturbance, the creation of drainage structures, or changes in natural contours shall obtain any required approvals from the Soil Conservation District or designee having jurisdiction over the site.

5. The permittee shall take all reasonable steps to prevent, minimize, or correct any adverse impact on the environment resulting from activities conducted pursuant to the permit, or from noncompliance with the permit.

6. The permittee shall immediately inform the Department of any unanticipated adverse effects on the environment not described in the application or in the conditions of the permit. The Department may, upon discovery of such unanticipated adverse effects, and upon the failure of the permittee to submit a report thereon, notify the permittee of its intent to suspend the permit.

7. The permittee shall immediately inform the Department by telephone at (877) 927-6337 (WARN DEP hotline) of any noncompliance that may endanger public health, safety, and welfare, or the environment. The permittee shall inform the Watershed & Land Management by telephone at (609) 777-0454 of any other noncompliance within two working days of the time the permittee becomes aware of the noncompliance, and in writing within five working days of the time the permittee becomes aware of the noncompliance. Such notice shall not, however, serve as a defense to enforcement action if the project is found to be in violation of this chapter. The written notice shall include:

   i. A description of the noncompliance and its cause;

   ii. The period of noncompliance, including exact dates and times;

   iii. If the noncompliance has not been corrected, the anticipated length of time it is expected to continue; and

   iv. The steps taken or planned to reduce, eliminate, and prevent recurrence of the noncompliance.

8. Any noncompliance with a permit constitutes a violation of this chapter and is grounds for enforcement action, as well as, in the appropriate case, suspension and/or termination of the permit.

9. It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the authorized activity in order to maintain compliance with the conditions of the permit.

10. The permittee shall employ appropriate measures to minimize noise where necessary during construction, as specified in N.J.S.A. 13:1G-1 et seq. and N.J.A.C. 7:29.

11. The issuance of a permit does not relinquish the State's tidelands ownership or claim to any portion of the subject property or adjacent properties.

12. The issuance of a permit does not relinquish public rights to access and use tidal waterways and their shores.

13. The permittee shall allow an authorized representative of the Department, upon the presentation of credentials, to:

   i. Enter upon the permittee's premises where a regulated activity, project, or development is located or conducted, or where records must be kept under the conditions of the permit;

   ii. Have access to and copy, at reasonable times, any records that must be kept under the conditions of the permit;

   iii. Inspect, at reasonable times, any facilities, equipment, practices, or operations regulated or required under the permit. Failure to allow reasonable access under this paragraph shall be considered a violation of this chapter and subject the permittee to enforcement action; and

iv. Sample or monitor at reasonable times, for the purposes of assuring compliance or as otherwise authorized by the Federal Act, by the Freshwater Wetlands Protection Act, or by any rule or order issued pursuant thereto, any substances or parameters at any location.

14. The permittee shall not cause or allow any unreasonable interference with the free flow of a regulated water by placing or dumping any materials, equipment, debris or structures within or adjacent to the channel while the regulated activity, project, or development is being undertaken. Upon completion of the regulated activity, project, or development, the permittee shall remove and dispose of in a lawful manner all excess materials, debris, equipment, and silt fences and other temporary soil erosion and sediment control devices from all regulated areas.

15. The permittee and its contractors and subcontractors shall comply with all conditions, site plans, and supporting documents approved by the permit.

16. All conditions, site plans, and supporting documents approved by a permit shall remain in full force and effect, so long as the regulated activity, project, or development, or any portion thereof, is in existence, unless the permit is modified pursuant to the rules governing the herein approved permits.

17. The permittee shall perform any mitigation required under the permit in accordance with the rules governing the herein approved permits.

18. If any condition or permit is determined to be legally unenforceable, modifications and additional conditions may be imposed by the Department as necessary to protect public health, safety, and welfare, or the environment.

19. Any permit condition that does not establish a specific timeframe within which the condition must be satisfied (for example, prior to commencement of construction) shall be satisfied within six months of the effective date of the permit.

20. A copy of the permit and all approved site plans and supporting documents shall be maintained at the site at all times and made available to Department representatives or their designated agents immediately upon request.

21. The permittee shall provide monitoring results to the Department at the intervals specified in the permit.

22. A permit shall be transferred to another person only in accordance with the rules governing the herein approved permits.

23. A permit can be modified, suspended, or terminated by the Department for cause.

24. The submittal of a request to modify a permit by the permittee, or a notification of planned changes or anticipated noncompliance, does not stay any condition of a permit.

25. Where the permittee becomes aware that it failed to submit any relevant facts in an application, or submitted incorrect information in an application or in any report to the Department, it shall promptly submit such facts or information.

26. The permittee shall submit written notification to the Bureau of Coastal and Land Use Compliance and Enforcement, 401 East State Street, 4th Floor, PO Box 420, Mail Code 401-04C, Trenton, NJ 08625, at least three working days prior to the commencement of regulated activities.

27. The permittee shall record the permit, including all conditions listed therein, with the Office of the County Clerk (the Registrar of Deeds and Mortgages, if applicable) of each county in which the site is

located. The permit shall be recorded within 30 calendar days of receipt by the permittee, unless the permit authorizes activities within two or more counties, in which case the permit shall be recorded within 90 calendar days of receipt. Upon completion of all recording, a copy of the recorded permit shall be forwarded to Watershed & Land Management at the address listed on page one of this permit.

APPROVED PLAN(S):

The drawing(s) hereby approved consist of one sheet(s) prepared by Marek Ostrowski, PE of Brown and Caldwell, dated March 10, 2021, last revised July 19, 2021, and entitled:

"CIVIL GP-12 PERMIT APPLICATION SITE PLAN JCP&L NEWTON II FORMER MGP SITE AOC-C2 NEWTON, N.J."

APPEAL OF DECISION:

Any person who is aggrieved by this decision may submit an adjudicatory hearing request within 30 calendar days after public notice of the decision is published in the DEP Bulletin (available at www.nj.gov/dep/bulletin). If a person submits the hearing request after this time, the Department shall deny the request. The hearing request must include a completed copy of the Administrative Hearing Request Checklist (available at www.nj.gov/dep/landuse/forms.html). A person requesting an adjudicatory hearing shall submit the original hearing request to: NJDEP Office of Legal Affairs, Attention: Adjudicatory Hearing Requests, Mail Code 401-04L, P.O. Box 402, 401 East State Street, 7th Floor, Trenton, NJ 08625-0402. Additionally, a copy of the hearing request shall be submitted to the Director of Watershed & Land Management at the address listed on page one of this permit. In addition to your hearing request, you may file a request with the Office of Dispute Resolution to engage in alternative dispute resolution. Please see www.nj.gov/dep/odr for more information on this process.

If you need clarification on any section of this permit or conditions, please contact Watershed & Land Management's Technical Support Call Center at (609) 777-0454.

Approved By:

Patrick Ryan
2021.08.04
16:05:37
-04'00'

Patrick W. Ryan, Environmental Specialist IV
Watershed & Land Management

c: Municipal Clerk, Newton Town
Municipal Construction Official, Newton Town
Agent (original) – Peter Randazzo

Comings, Elaine M

From: Brendan Quann <bquann@BrwnCald.com>
Sent: Wednesday, August 4, 2021 9:13 PM
To: Comings, Elaine M
Cc: Peter Randazzo
Subject: RE: [EXTERNAL] LU eSubmission Final Decision... PI #:1915-06-0002.2 - NEWTON COAL GAS 2 SITE AOC C2 - LUP210001

Hi Elaine - Responses to your comments are below:
- We do not have to wait an additional 30 days for the appeal window to expire to begin work. Now that that the NJDEP authorized permit, we can begin the soil boring activities. If someone does file an appeal, the NJDEP first determines if the contest has merit and then determines if it warrants staying the authorized activity until the appeal is resolved. Activities authorized by the permit may continue until the NJDEP determines a stay is warranted. The procedures governing this process are laid out in the FWW Rules under section 7:7A-21.3, a snapshot of the relevant section is below.

> (b) When a person other than the permittee requests an adjudicatory hearing on a permit or authorization, the operation of the permit or authorization is not automatically stayed. The Department shall stay operation of the permit or authorization only if it determines that good cause to do so exists. If a stay is imposed, all permitted activities shall stop as of the date the stay is imposed, and shall not be started again until the matter is resolved, unless the Department grants an exception in writing.

- BC can handle filing the permit with the county clerk. Once we file it, there is an option via the NJDEP online portal specifically for uploading the permit with the clerk filing info stamped on it. Most of the NJ clerks office I've worked with lately have been closed to in-person services due to COVID restrictions, so we likely just need to send it in with the filing fee via certified mail.
- I'm working on getting the drillers and field staff rescheduled. Unfortunately since we had to postpone the mobilization date a few times while the permit approval was pending, we lost our spot on the drillers schedule. The soonest our preferred drilling firm has have availability is mid-September. I have a few requests out to other drilling firms to see if we can get an earlier date. I can also put together a simple figure showing the work/staging zones we'll need available for coordinating with the property owner. We should be able to stage most of the equipment at the main site to avoid it being left out in the open overnight.

Thanks – Brendan

Brendan Quann, PE*
Brown and Caldwell
bquann@brwncald.com
T 856-330-9323 | C 215-939-1718
*Professional Registration in Specific States

-----Original Message-----
From: Comings, Elaine M <ecomings@firstenergycorp.com>
Sent: Wednesday, August 4, 2021 6:01 PM
To: Brendan Quann <bquann@BrwnCald.com>

Cc: Peter Randazzo <PRandazzo@Brwncald.com>
Subject: FW: [EXTERNAL] LU eSubmission Final Decision... PI #:1915-06-0002.2 - NEWTON COAL GAS 2 SITE AOC C2 - LUP210001
Importance: High

Hi Brendan,

Please see the conditions of the permit noted in paragraphs 26-27 and the appeal of decision clause allowing "any person who is aggrieved by this decision may submit an adjudicatory hearing request within 30 calendar days after public notice of the decision is published in the DEP Bulletin (available at https://nam04.safelinks.protection.outlook.com/?url=http%3A%2F%2Fwww.nj.gov%2Fdep%2Fbulletin&data=04%7C01%7Cbquann%40brwncald.com%7C348eeadbbfb2431bcde308d9579358a3%7Ccb2bab3d7d9044ea9e31531011b1213d%7C0%7C0%7C637637112805497146%7CUnknown%7CTWFpbGZsb3d8eyJWIjoiMC4wLjAwMDAiLCJQIjoiV2luMzIiLCJBTiI6Ik1haWwiLCJXVCI6Mn0%3D%7C1000&sdata=0L%2BPNZN9JdEAH2Y%2BTyikP83p0VlrDi2ZxlNtYLRSn9Q%3D&reserved=0)". I am assuming that we are unable to begin work until the period allowing an appeal of decision has expired? There is also a requirement to record the approved permit with the Office of the County Clerk. Is BC set up to do this or should I plan on coordinating with our attorney on this item? Let me know what the revised schedule will be to implement the investigation. We need to notify the property owner about the start date and any steps that should be taken to prepare the area of investigation (ie staging of equipment during the work day/overnight; areas of restricted parking within the footprint of the investigation, etc)

Thanks,
Elaine

-----Original Message-----
From: Lawson, Frank D <flawson@firstenergycorp.com>
Sent: Wednesday, August 4, 2021 4:54 PM
To: Brendan Quann <bquann@BrwnCald.com>; Comings, Elaine M <ecomings@firstenergycorp.com>
Subject: FW: [EXTERNAL] LU eSubmission Final Decision... PI #:1915-06-0002.2 - NEWTON COAL GAS 2 SITE AOC C2 - LUP210001

-----Original Message-----
From: patrick.ryan@dep.nj.gov <patrick.ryan@dep.nj.gov>
Sent: Wednesday, August 4, 2021 4:48 PM
To: Lawson, Frank D <flawson@firstenergycorp.com>; PRandazzo@Brwncald.com; lread@newtontownhall.com; BQuann@Brwncald.com
Cc: stephen.dench@dep.nj.gov; patrick.ryan@dep.nj.gov
Subject: [EXTERNAL] LU eSubmission Final Decision... PI #:1915-06-0002.2 - NEWTON COAL GAS 2 SITE AOC C2 - LUP210001

Please find attached the signed permit. Please disregard the previous unsinged version.

PROGRAM INTEREST ID: 1915-06-0002.2
PROJECT NAME: NEWTON COAL GAS 2 SITE AOC C2
ACTIVITY NUMBER: LUP210001

DO NOT REPLY TO THIS EMAIL

Attached you will find a copy of your approved Land Use permit.

You must have a PDF file reader to open.

Please print and save a copy of your Land Use permit for your records.

If you are unable to retrieve the attached file(s), or have any questions, please contact: Stephen Dench, stephen.dench@dep.nj.gov or by phone at (609)777-0454.

Jersey Central Power & Light
A FirstEnergy Company

300 Madison Avenue
P.O. Box 1911
Morristown, New Jersey 07962-1911

August 31, 2021

RE: Notification of Environmental Cleanup
Newton II Former Manufactured Gas Plant

Dear Property Owner or Tenant:

In accordance with New Jersey Department of Environmental Protection (NJDEP) regulations for "Notification and Public Outreach" (ARRCS, N.J.A.C. 7:26C-1.7), Jersey Central Power & Light Company (JCP&L) is providing notification relating to environmental investigative and remedial activities being conducted at the above referenced site. The Licensed Site Remediation Professional (LSRP) of record for this site is Peter Randazzo, Brown and Caldwell, who can be reached at (201) 574-4755 for further information about site activities.

The Town of Newton, like thousands of other communities throughout the United States, hosts a former manufactured gas plant (MGP) site. The Newton former MGP site (NJDEP Public Interest Number G000005460) is located at 15 East Clinton Street (Block 9.02, Lot 3), Town of Newton, Sussex County, New Jersey. The site is owned by JCP&L. The former MGP operations produced "town gas" or "coal gas" to serve the community's street lighting systems, and cooking and heating needs before the advent of natural gas. Town gas manufacturing was phased out at this location in the early 1910s. The former plant was owned and operated between 1869 and the early 1910s by a predecessor company of JCP&L.

Since 1996, JCP&L has been conducting environmental investigations at and in the vicinity of the site in accordance with New Jersey's Technical Requirements for Site Remediation and, since 2012, under the oversight of the LSRP. Numerous reports and studies documenting these activities have been submitted to and approved by the NJDEP. JCP&L has completed delineation of soil and groundwater impacts affected by historical MGP operations. The completed delineation was documented in a Remedial Investigation Report submitted to NJDEP in May 2014. Impacts to groundwater were also documented in a proposed Classification Exception Area (CEA) for groundwater, submitted in September 2019. Newton public water supplies are not affected and there is no risk to the public.

In 2020, JCP&L completed onsite remediation to stabilize impacted soils at depth and to render contaminants immobile. Remediation work is ongoing and additional work to remediate offsite impacts is planned for 2022.

We will continue to provide you with periodic updates about our progress. A copy of all of our reports regarding the work also will be made available to Town of Newton municipal officials, upon request. **If you have any questions or just want additional information about the project, please call Elaine Comings at 973-401-8784.**

Sincerely,

Elaine Comings

Elaine Comings
Project Manager

cc: Lorraine Read, Town of Newton Clerk
James R. McDonald III, Sussex County Division of Health
Jacqueline A. Espinoza, Area Manager-JCP&L
Peter Randazzo, Brown and Caldwell

Newton 2 Map

UNITED STATES POSTAL SERVICE®

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LUTZ, JEFFREY W & JENNY
5 OVERLOOK RD
NEWTON, NJ 07860

LITTLE, WILLIE JR
12-14 HAMILTON ST
NEWTON, NJ 07860

BARKER, SANDRA
16 HAMILTON ST
NEWTON, NJ 07860

FIELD, GERALD H & MARTINA
16 CORY RD
MORRISTOWN, NJ 07960

MCCORD, EVELYN M
70 HIGH ST
NEWTON, NJ 07860

MASINO, CAROLYN A
30 HAMILTON ST
NEWTON, NJ 07860

WEST, JOHN & KAREN
7 CHRISTY LN
SPARTA, NJ 07871

STORMS, JAMES M SR
& EBNER, K JSR
10 BUTTERNUT WAY
SPARTA, NJ 07871

SUSSEX BANK
(PROVIDENT BANK)
399 RT HWY 23
FRANKLIN, NJ 07416

59 WATER, LLC
792 RT 17
NO PARAMUS, NJ 07652

SOLOMAN FAMILY
INVEST/DAVITA INC
PO BOX 1476
TACOMA, WA 98401

JERSEY CENTRAL POWER &
LIGHT CO
800 CABIN HILL DRIVE
GREENSBURG, PA 15601

J MR VENTURE ASSOCIATES, LLC
21 E CLINTON ST
Newton, NJ 07860

BURR IN I, LINDA M
31 MORAN ST
NEWTON, NJ 07860

KATIE'S HOUSE, INC
PO Box 96
NEWTON, NJ 07860

ANDREASEN, JON D & JULIA A
27 MORAN ST
NEWTON, NJ 07860

RUFFEN, JASON 0
33 HAMILTON ST
NEWTON, NJ 07860

CHAPMAN, BETH A
31 HAMILTON ST
NEWTON, NJ 07860

KOCUR, TERESA ANN
29 HAMILTON ST
NEWTON, NJ 07860

BALLAJ , XHAFER
27 HAMILTON ST
NEWTON, NJ 07860

25 HAMILTON, LLC
116 HUNTS POND RD
NEWTON, NJ 07860

LOMBARDO, ROSOLINO
116 HUNTS POND RD
NEWTON, NJ 07860

LOMBARDO, FRANCESCO
10 E CLINTON ST
NEWTON, NJ 07860

ILIFF, TERRY T
149 E SHORE CULVERS LK RD
BRANCHVILLE, NJ 07826

VAZQUEZ-FRAGOSO, JOSE R
11 HAMILTON ST
NEWTON, NJ 07860

REBISZ, JOSEPH & PENNY
9 HAMILTON ST
NEWTON, NJ 07860

BEZNEY, MICHAEL ET AL
1 BARTEK LN
WHARTON, NJ 07885

PREMIER REHAB SOLUTION, LLC
845 AVE Z, FLOOR #1
BROOKLYN , NY 11235

20 CLINTON, LLC
ONE HOWE AVE
PASSAIC, NJ 07055

ACQUIRING ENTERPRISES, LLC
135 JEFFERSON PL
TOTOWA, NJ 07512

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WALASZCZYK, THOMAS
51 POLKVILLE RD
COLUMBIA, NJ 07832

HCS MITCHELL, LLC
29 TRINITY STREET
NEWTON, NJ 07860

26-30 MORAN ST, LLC
PO BOX 93
SPARTA, NJ 07871

SHANACHIE PROPERTIES
37 E CLINTON ST
NEWTON, NJ 07860

Aberlour at Newton, LLC
7 Boulder Hills Blvd.
Wantage, NJ 07461

Resident
1 Trinity Street Apt. C605
Newton , NJ 07860

Resident
1 Trinity Street Apt. C606
Newton , NJ 07860

Resident
1 Trinity Street Apt. C607
Newton , NJ 07860

Resident
1 Trinity Street Apt. C608
Newton , NJ 07860

Resident
23 Moran Street
Sparta, NJ 07871

Tony & Ming Li
203 North 3rd Street
Harrison, NJ 07029

Resident
32 Hamilton Street
Newton , NJ 07860

Kent L. & Effie E. Lowing
30 Hamilton Street
Newton , NJ 07860

Alexander and Evelyn McCord
70 High Street
Newton , NJ 07860

Resident
22 Hamilton Street
Newton , NJ 07860

Resident
18 Hamilton Street
Newton , NJ 07860

Resident
10 Hamilton Street
Newton , NJ 07860

Heide Corporation
P.O. Box 397
Newton , NJ 07860

Resident
8 Hamilton Street
Newton , NJ 07860

Resident
45 Water Street
Newton , NJ 07860

59 Water, LLC
792 Route 17 North
Paramus, NJ 07652

Resident
3 Hamilton Street
Newton , NJ 07860

Keith F. Jaconetti
231 Union Street Apt. 2A
Lodi, NJ 07644

Resident
5 Hamilton Street
Newton, NJ 07860

Michael Bezney, et al.
1 Bartek Lane
Wharton, NJ 07885

Resident
7 Hamilton Street
Newton , NJ 07860

Resident
7 1/2 Hamilton Street
Newton , NJ 07860

Robert R. Burns
9 Hamilton Street
Newton , NJ 07860

Terry T. Iliff
149 E. Shore, Culvers Lake
Branchville, NJ 07826

Resident
11 Hamilton Street
Newton , NJ 07860

Francesco Lombardo
10 E. Clinton Street
Newton , NJ 07860

Resident
19 Hamilton Street
Newton , NJ 07860

Rosolino Lombardo
116 Hunt Ponds Road
Newton , NJ 07860

Resident
23 Hamilton Street
Newton , NJ 07860

William T. & Elizabeth Street
25 Hamilton Street
Newton , NJ 07860

Thomas J. & Alberta N. Virtue
17 Glenn Terrace
Newton , NJ 07860

Resident
27 Hamilton Street
Newton , NJ 07860

Teresa Ann Kocur
29 Hamilton Street
Newton , NJ 07860

Beth A. Chapman
31 Hamilton Street
Newton , NJ 07860

Jon D. & Julia A. Andreasen
27 Moran Street
Newton , NJ 07860

Katie's House, Inc.
P. O. Box 96
Newton , NJ 07860

Resident
29 Moran Street
Newton , NJ 07860

Linda M. Burrini
31 Moran Street
Newton , NJ 07860

Shanachie Properties
37 E. Clinton Street
Newton , NJ 07860

Resident
34 Moran Street
Newton , NJ 07860

26-30 Moran Street, LLC
P.O. Box 93
Sparta, NJ 07871

Resident
26 Moran Street
Newton , NJ 07860

Antonia Poccia C/O Isaias
28 E. Clinton Street
Newton , NJ 07860

State of NJ, Dept. Law & Pbl
25 Market Street
Trenton, NJ 08625

Resident
40 Moran Street
Newton , NJ 07860

Belle Meadows
14 Chandoga Drive
Newton , NJ 07860

Lake Land Lease, LLC
64 Main Street, 2nd Fl.
Millburn, NJ 07041

Resident
61 Water Street
Newton , NJ 07860

Artler Realty, LLC
452 Route 46
Kenvil, NJ 07847

Resident
67 Water Street
Newton , NJ 07860

69-71 Water Street, LLC
230 Atlantic Avenue 1-R
Lynbrook, NY 11563

Resident
69 Water Street
Newton , NJ 07860

20 Clinton, LLC
One Howe Avenue
Passaic, NJ 07055

Resident
20 East Clinton Street
Newton , NJ 07860

State of New Jersey
Department of Transportation
1035 Parkway Avenue
Trenton, NJ 08625

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Administration Building
One Spring Street
Newton, NJ 07860

NJ Bell Telephone Co.
540 Broad Street
Newark, NJ 07101

United Telephone Co. c/o Embarq
5454 West 110th Street
Overland Park, KS 66207

Deborah Litts
6 Clinton Street
Newton, NJ 07860

Lorraine A. Read, Clerk
Town of Newton
39 Trinity Street
Newton , NJ 07860

James R. McDonald III
Sussex County Division of Health
201 Wheatsworth Road
Hamburg, NJ 07419

Peter Randazzo, LSRP
Brown and Caldwell
2 Park Way, Suite A
Saddle River, NJ 07458-2300

Resident
47 Water Street
Newton , NJ 07860

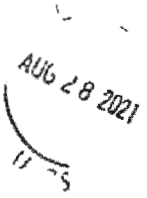
Resident
71 Water Street
Newton , NJ 07860

Resident
30 Moran Street
Newton , NJ 07860

Resident
21 Hamilton Street
Newton , NJ 07860

Resident
34 Hamilton Street
Newton , NJ 07860

Resident
25 Moran Street
Sparta, NJ 07871



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Brown AND Caldwell

500 N. Franklin Turnpike, Suite 306
Ramsey, NJ 07446p

T: 201.574.4700

Meeting Minutes

Project Title: Newton Coal Gas 2 Site
P.I. G000005460

Purpose of Meeting: Technical Consultation
Meeting Location: Remote meeting
Minutes Prepared by: Brendan Quann, BC

Date: September 3, 2021
Time: 10:00 a.m.

Attendees:
F. Lawson, JCP&L
E. Comings, JCP&L
P. Randazzo, BC
B. Quann, BC
M. Kuserk, NJDEP
C. Blake, NJDEP
G. Sanderson, NJDEP

Attachments: Technical Consultation Presentation, September 3, 2021

Presentation Summary

1) Review of Site and properties involved with Site.
2) Technical issues and questions to address during meeting:
   a. Issue: Physical access limitation prevent completion of DNAPL removal from several properties included within the area to be remediated
   b. Questions:
      i. Can JCP&L apply DNAPL recovery as an Active Remedy under a Remedial Action Permit?
      ii. Can JCP&L apply a Technical Impractability (TI) Waiver on properties where access is restricted due to structures (buildings) or site use?
3) Meeting Agenda
4) Site History
5) Extent of Contamination
   a. DNAPL – Present in mobile form at the Site, within portions of East Clinton Street, and in front of 2-10 East Clinton Street building. Present in residual form further down-gradient from the Site, including under and behind the 2-10 East Clinton Street building. DNAPL primarily present at 20-35 feet below grade within the Ablation Till layer. Relatively shallow pocket of DNAPL present at rear of 2-10 East Clinton Street Building – source of shallow DNAPL possibly a mixture of MGP waste and former 2-10 East Clinton Street UST contents. JCP&L planning to address shallow DNAPL through excavation or similar remedial action.
   b. Groundwater – Benzene and naphthalene principal constitutes of concern. Groundwater impacts primarily overlap limits of NAPL distribution, with one exception (a low-level benzene exceedance at MW-06).
   c. Soil – PAHs, including naphthalene, and VOCs, primarily benzene and ethylbenzene. Ethylbenzene became a constituent of concern requiring remediation as a result of the recent order of magnitude change in standard.

6) Remedial Actions Implemented to Date:
   a. Remedial construction of on-Site remedy implemented 2019 to 2020.
      i. In-situ stabilization (ISS) of 16,000 sq. ft. area down to a depth of 25 ft.
      ii. Surface cap engineering control across majority of Site.
   b. Institutional controls, including deed notice and CEA forthcoming
   c. On-Site remedial construction cost: $6 million.
7) Off-Site Properties Requiring Remedial Actions:
   a. 7 East Clinton Street (Dialysis Center)
      i. DNAPL present within subsurface in front of the facility entrance. DNAPL in the location is residual.
      ii. Maintaining patient access to the facility is of utmost importance.
      iii. Recommended Remedy: engineering control (pavement, building floor slab), Deed Notice, CEA, TI Waiver to allow DNAPL to remain in place since its removal would result in prolonged blockage of the facility entrance, thereby preventing patient access to the facility.
   b. 20 East Clinton Street (Commercial Building – used for government services including the Federal Social Security Administration)
      i. Recommend Remedy: engineering control (pavement, building floor slab), Deed Notice, CEA
   c. East Clinton Street
      i. Municipal road that provides access to a Dept. of Motor Vehicle inspection station and popular park. Town government considers roadway major throughfare and is sensitive to traffic disruptions. Underground and aboveground utilities present throughout road and right-of-way, which include natural gas, electric, water, fiber optics, sanitary sewer and storm sewer.
      ii. Recommended Remedy: engineering control (pavement), Notice in Lieu of Deed, CEA, and TI Waiver to address DNAPL underlying the roadway.
   d. 2-10 East Clinton Street (Retail Strip Mall)
      i. Mobile DNAPL at depth present at front of building. Residual DNAPL at depth present underneath the building. Isolated shallow DNAPL present at rear of building. NAPL is present in the glacial till. Underlying bedrock is not impacted by NAPL or dissolved-phase constituents.
      ii. Stream (Paulins Kill, locally called "Moore's Creek") at rear of building has been investigated (pore water sampling) and determined to be unimpacted by MGP-related constituents.
      iii. Recommended Remedy: Excavation/ISS of shallow DNAPL, recovery of mobile DNAPL at front of building, engineering controls (pavement and building slab), Deed Notice, and CEA.
      iv. Site overlaps areas regulated under DLRP Freshwater Wetland and Flood Hazard Area regulations. Intrusive remedial actions require land use permitting.
   e. 21 East Clinton Street (Automotive Repair Shop/U-Haul Rental)
      i. NAPL present along property boundary with former MGP-Site.
      ii. Recommended Remedy: Excavation DNAPL that occurs on the property line, engineering controls (pavement and building slab), Deed Notice, and CEA.
         1. Workplan for NAPL excavation developed. Pending access agreement with property owner to implement.

Meeting Discussion Notes

1) NAPL Distribution:
   a. MK asked for clarification on nature of NAPL. What are its properties and where is it mobile or residual?
      i. PR responded the former MGP Site had mobile NAPL flowing across East Clinton Street. Mobile NAPL is present in front 2-10 East Clinton Street building. The down-gradient portion of the NAPL distribution under the 2-10 East Clinton Street building is considered residual NAPL based on its absence in monitoring wells installed behind the building. Mobile DNAPL has not been observed within wells 7 East Clinton Street (Renal Center).
   b. CB asked if NAPL recovery is a consideration
      i. PR responded yes. Currently performing NAPL draw-down tests to evaluate recovery options on the 2-10 East Clinton Street property.
2) NAPL Recovery as an Active Remedy Component
   a. CB clarified that the listserv announcement regarding NAPL recovery not being an acceptable active remedy is primarily focused on passive NAPL recovery methods, including manual gauging/bailing, occasional HIT events, or isolated skimmer pump systems. CB elaborated these methods typically only address NAPL in a localized area around the well and are not typically effective at addressing entire source areas. More aggressive NAPL recovery methods, such as pump-and-treat system or systems that incorporate methods to draw in source NAPL are typically considered acceptable active remedies.
   b. PR asked if passive NAPL recovery would be considered acceptable for the Newton Site.
      i. CB responded that if a TI Waiver is procured for the source area, then passive recovery would be acceptable since the TI Waiver application would demonstrate that addressing the NAPL source is not viable. If a TI Waiver is not procured, then a more aggressive NAPL recovery approach would likely be required.
3) Applicability of a TI Waiver
   a. PR asked if this Site would be applicable for a TI waiver to address NAPL impacts within East Clinton Street and in front of 7 East Clinton Street given the access issues.
      i. MK asked if the NAPL in front of 7 East Clinton Street was recoverable.
         1. PR responded that recoverable NAPL is not present in the existing 7 East Clinton Street wells and is therefore considered to be residual and not recoverable.
      ii. CB asked if EPH data was available for the NAPL impacts.
         1. PR responded that EPH data is not available, since the investigations were completed prior to the NJDEP adoption of the EPH guidance.
      iii. GS asked for the status of VI investigations for the Site.
         1. PR responded that a VI investigations were completed for the former building located on-Site and the 2-10 East Clinton Street building. Conditions triggering a VI investigation are not present for 20 East Clinton Street and 21 East Clinton Street. A VI investigation was not conducted at 7 East Clinton Street, PR believes conditions causing a VI investigation trigger are not present, but would have to confirm (PR confirmed after the meeting that there is no VI trigger for the 7 East Clinton Street building structure).
      iv. CB asked how the shallow impacts at the rear of 2-10 East Clinton Street would be addressed.
         1. PR responded the shallow impacts would likely be excavated, although ISS is also under consideration.

v. MK asked CB and GS if the Site could be considered an 'Active Facility' since it has occupied businesses and could remediation of off-site NAPL be delayed until the businesses close.
   1. GS responded this Site is not considered an 'Active Facility' and deferring the NAPL remediation is not an option. The exact definition of an 'Active Facility' has not been defined yet, but it is intended for major facilities regulated under the Spill and Compensation Act with certain storage volumes of hazardous materials. CB cited refineries as an example.

vi. CB asked details about NAPL containment status. Is there continued downward movement and where does the free product partition to residual product?
   1. PR presented the Site cross-section and demonstrated NAPL has not migrated into the bedrock and generally partitions into residual product under the 2-10 East Clinton Street building.

vii. CB stated this Site has aspects that potentially justify a TI Waiver and recommended incorporating an aggressive NAPL recover program to address accessible source areas.

4) Discussion of 21 East Clinton Street Remedial Plan
   a. PR stated the plan is to excavate remaining NAPL impacts that straddle the property line.
   b. FL clarified that during the ISS implementation, there was a dispute over the property line limits with the 21 East Clinton Street property owner that resulted in the police being called to the Site. The remaining NAPL impacts along the property line could not be addressed while the ISS remedial construction was underway due to access issues. JCP&L is currently negotiating access with the property owner.
5) Discussion of Site History
   a. FL clarified another larger MGP site is present in Newton to explain why the former MGP site's footprint is relatively small.
6) CEA Status
   a. PR stated that CEA Fact Sheet for this Site has been submitted several years ago and the NJDEP have not taken any action reviewing the submittal to date.
      i. MK responded she would check into the CEA status. The NJDEP has a significant backlog of reviews but expected a review would occur relatively soon.
7) Future Actions
   a. Discussed preparing a Remedial Action Workplan for the off-Site properties which includes a TI Wavier request.
   b. GS noted that separate P.I.s for each off-site property would need to be established and each property would need an individual Soil-RAP. The NJDEP requires separate Soil-RAPs for individual properties. Matt Hose of NJDEP BCAIN can assist with establishing separate P.I.s.
8) Remedial Timeframe
   a. PR noted the Site's remedial deadline is approaching in May 2022 and JCP&L would be requesting an extension.
9) Order of Magnitude Standard Changes effect on Remedial Timeframes
   a. PR asked if the NJDEP had a policy on how order of magnitude standard changes effect a Site's remedial timeframe. If a standard change causes a Site's RI to no longer be complete, or require additional RA, is there a policy to extend the applicable remedial timeframes.
      i. MK responded the NJDEP does not have a formal policy on this matter.

Brown AND Caldwell

Newton, New Jersey

Technical Consultation
Newton Coal Gas 2 Site
P.I. G000005460

September 3, 2021

Properties involved in this Case

Technical Issues and Questions

- Issues: Physical access limitation prevent completion of DNAPL removal from several properties included within the area to be remediated.
- Questions:
  - Can JCP&L apply DNAPL recovery as an Active Remedy under a Remedial Action Permit?
  - Can JCP&L apply a Technical Impractability (TI) Waiver on properties where access is restricted due to structures (buildings) or site use?
    - Renal Center
    - Busy municipal road

Meeting Agenda

- Site History
- Extent of Soil and Groundwater Contamination
- Impacted Properties
- Remedial Actions Performed to Date
- Future Remedial Actions

Site History

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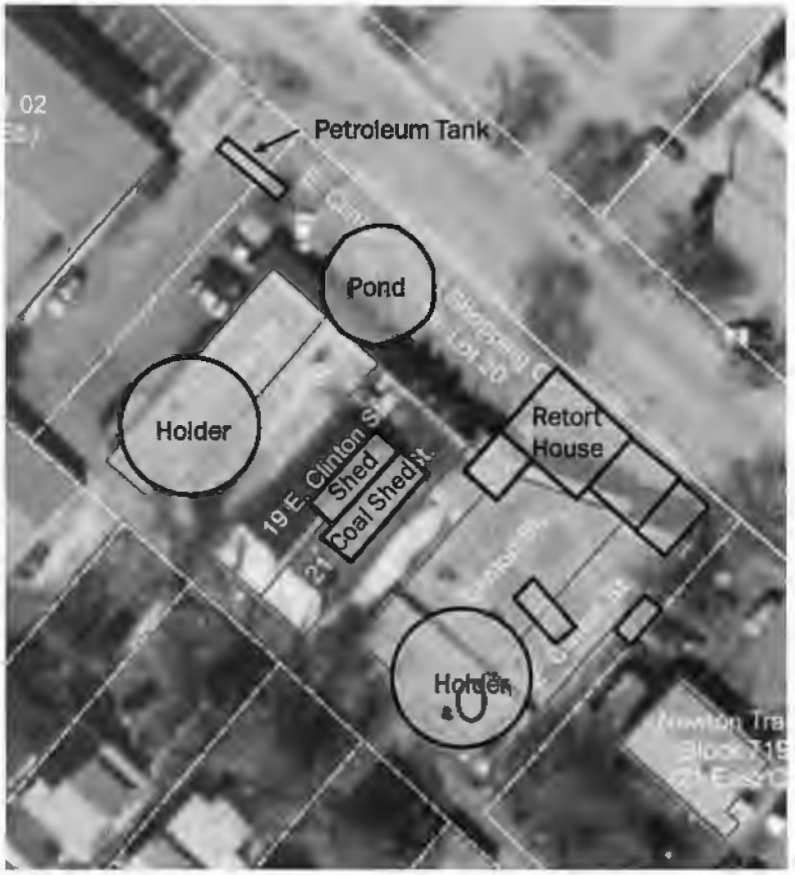
Site History

- Manufactured Gas Plant (~1869 to 1910)
  - Coal carbonization and carbureted water gas
- Commercial/Retail (1910 to 2011)
- JCP&L purchased the site in 2011 and subsequently demolished the site structure (strip mall) to prepare for remediation.



Extent of Contamination

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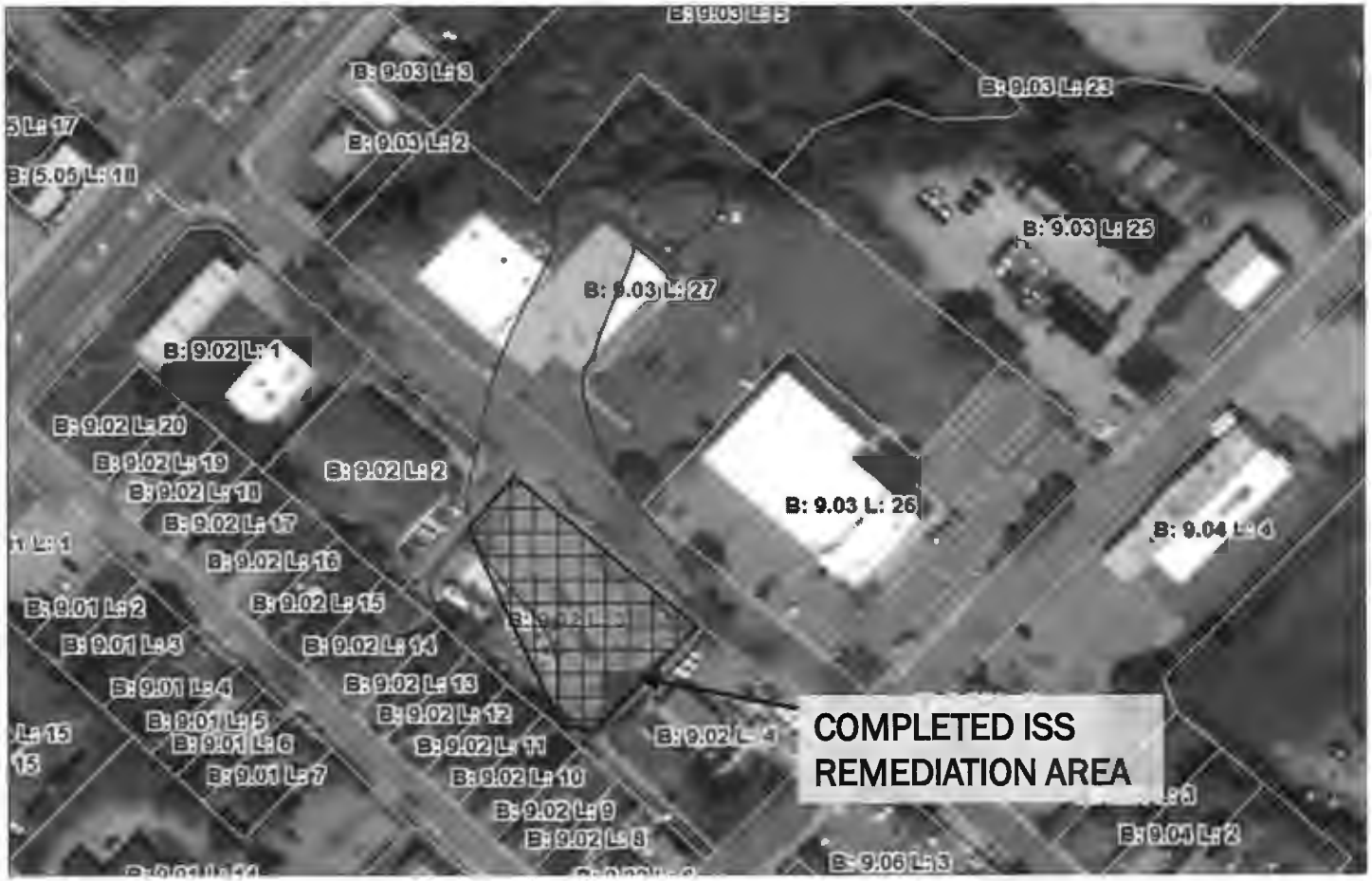
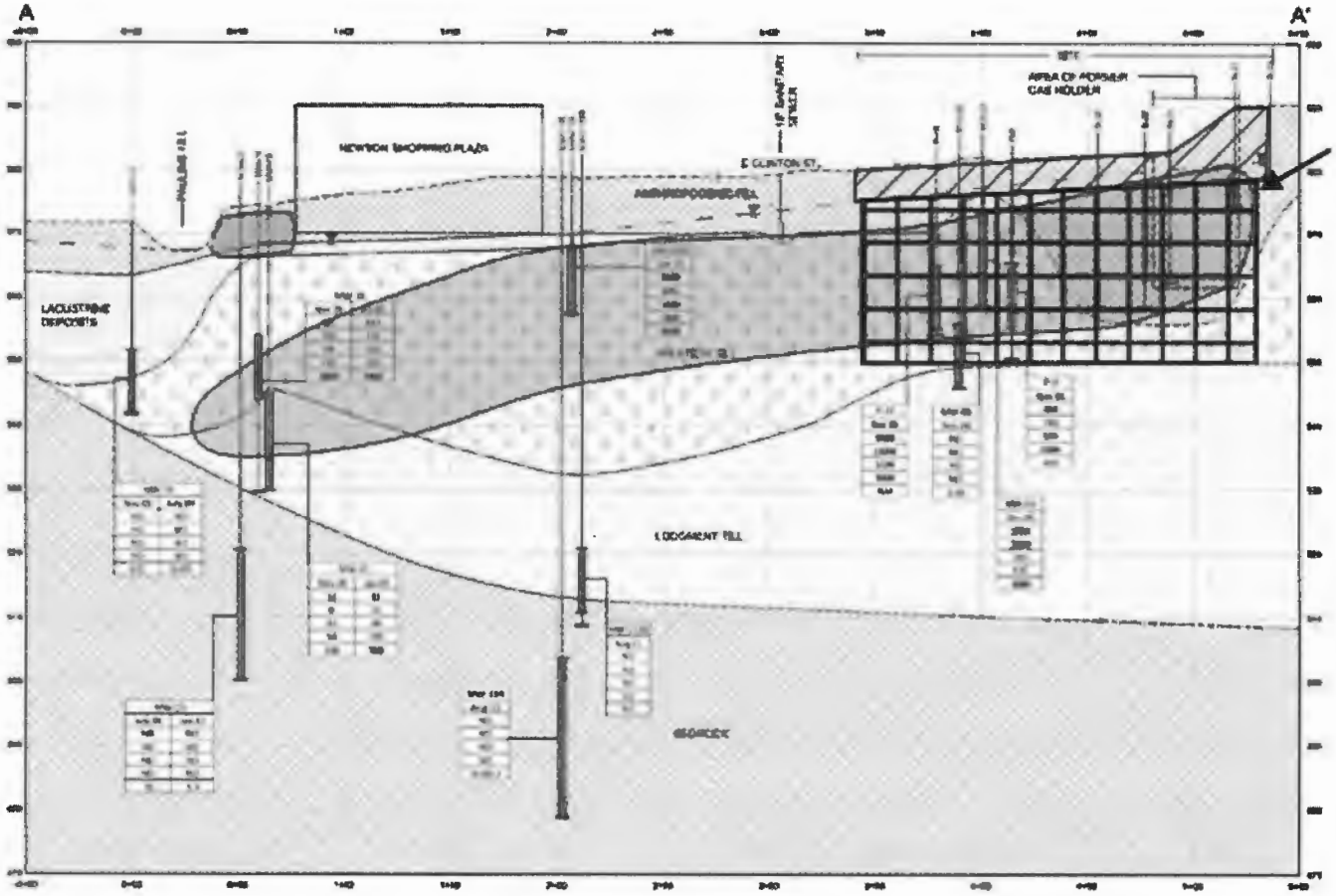
NAPL Distribution

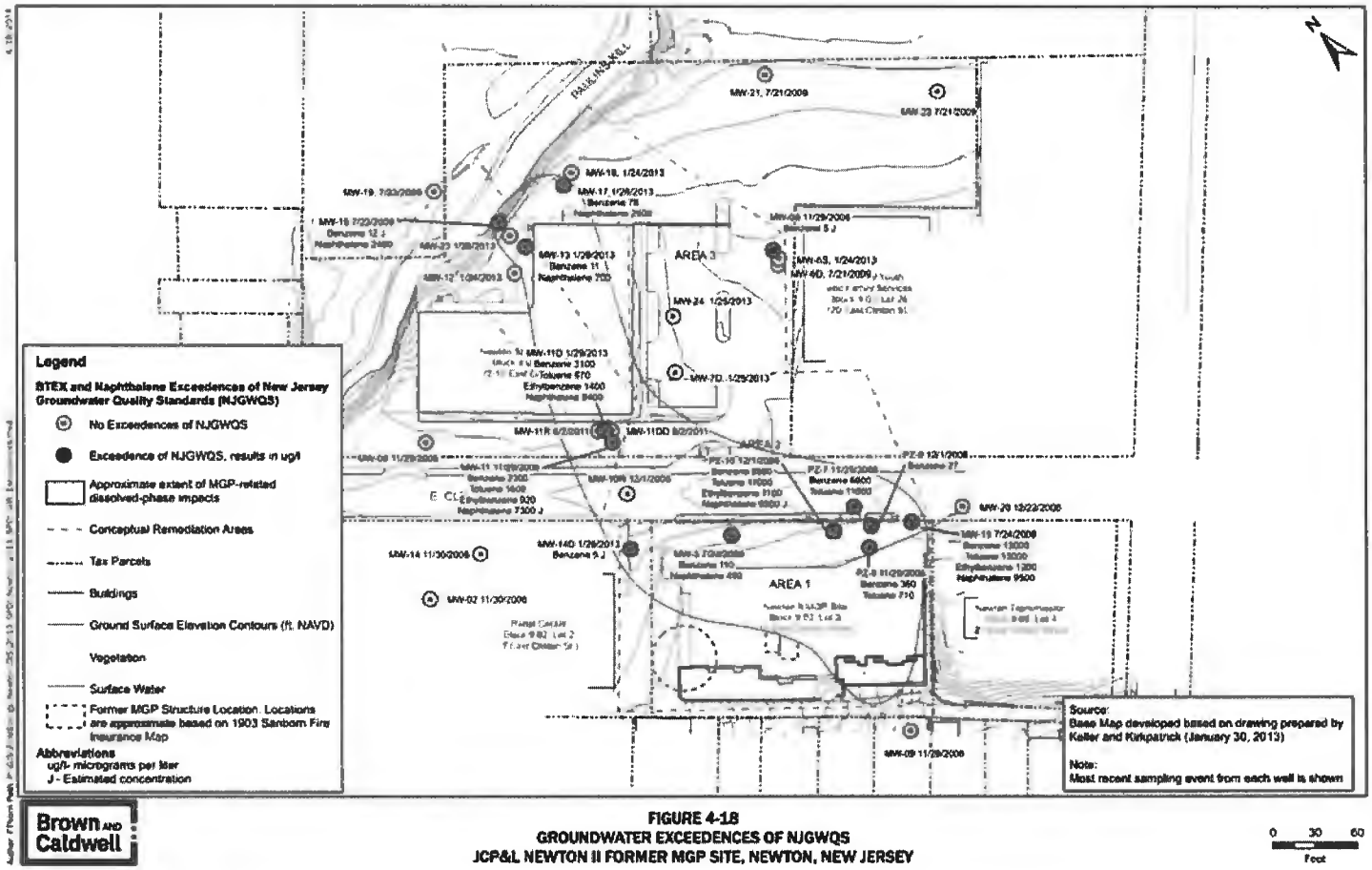


DNAPL Distribution



Groundwater Impacts

- Benzene
- Naphthalene



Soil Impacts

- PAHs including Naphthalene
- VOCs (Benzene and Ethylbenzene

Remedial Actions Implemented to Date

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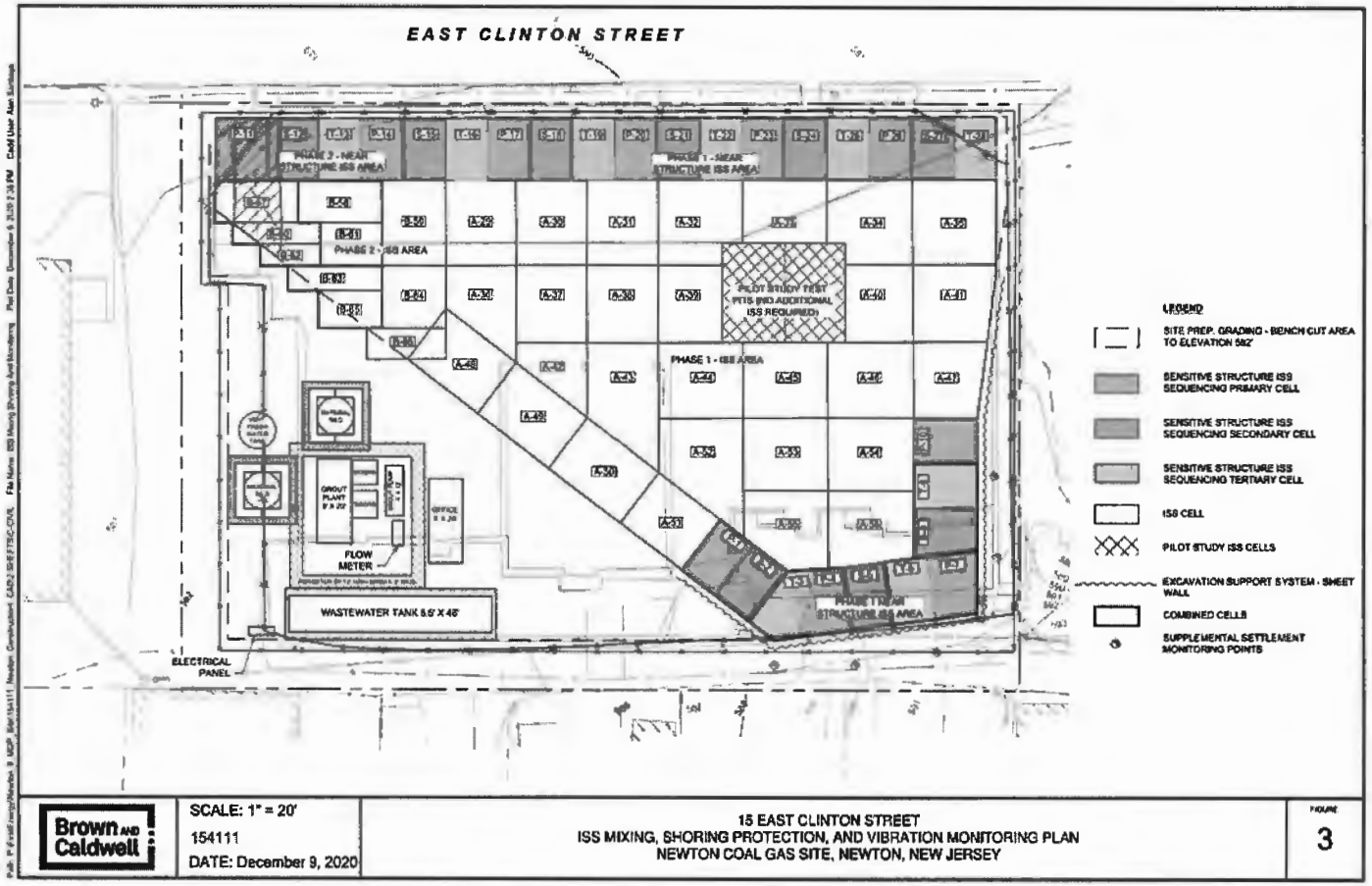
Remedial Action – Former MGP Site Property

- In Situ Stabilization of NAPL-Impacted Soil (completed)
- Engineering Control – Clean soil cover (completed)
- Deed Notice
- Classification Exception Area



Remedial Action – Former MGP Site Property

- Installation of sheetpile walls to stabilize southern and eastern property boundary
- Excavation of upper 4-8 feet of soil so ISS equipment could reach design depth and contain grout swell on-site
- Assembly of on-site grout plant

Remedial Action – Former MGP Site Property

- Mixing grout to depth of 25 feet
- Odor Control
- Implemented between 2019 and 2020 (during Covid!)
- $6 million cost

Remedial Action – Restored Former MGP Site Property

Future Remedial Actions

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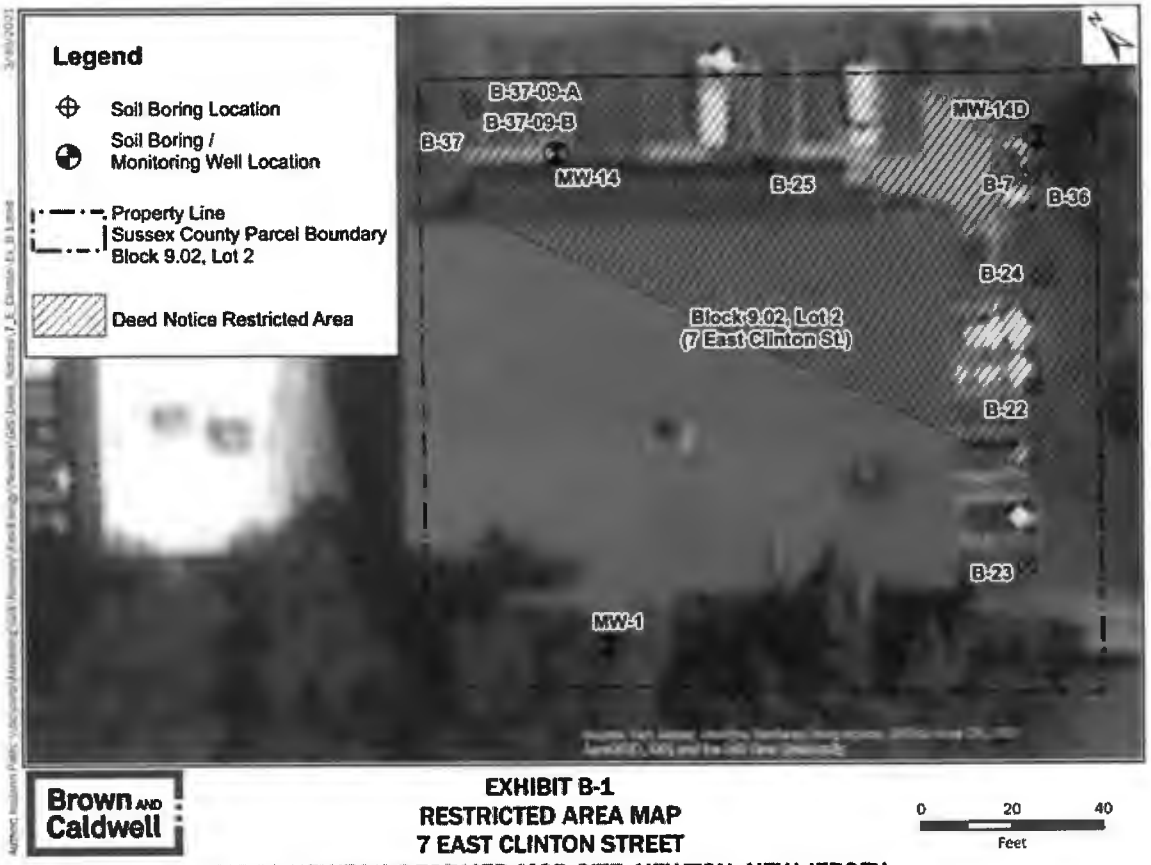
Properties to be Subject Remedial Actions

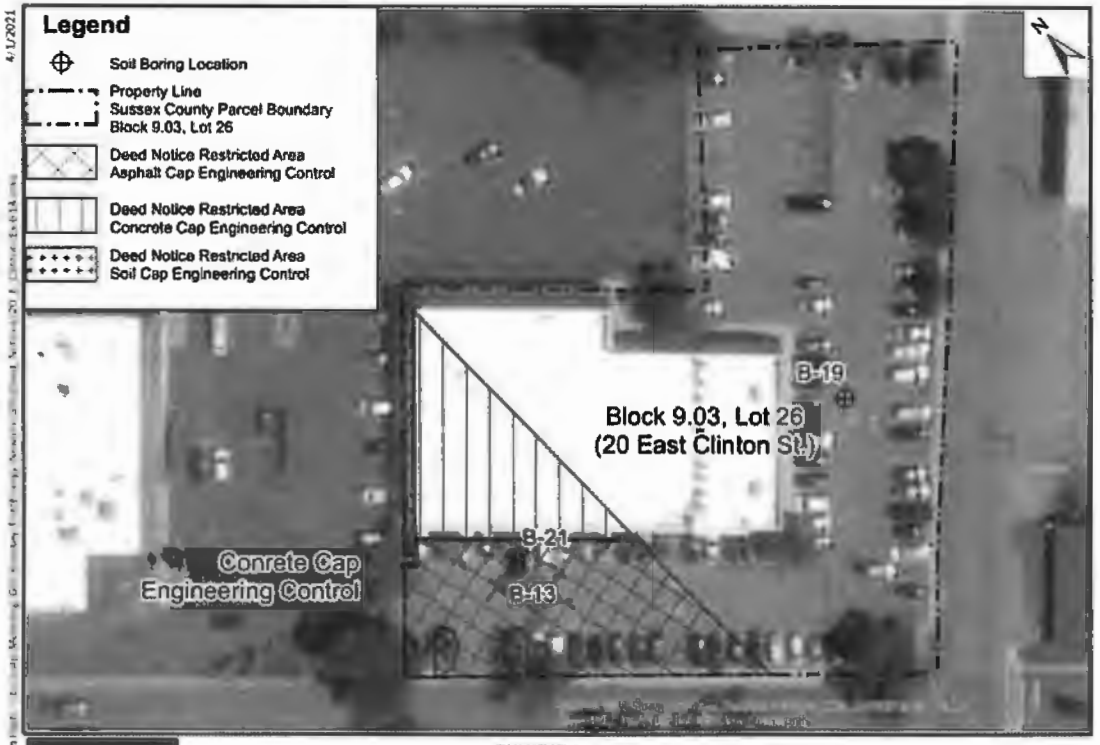
7 East Clinton Street

- Dialysis Center
- DNAPL is present in subsurface front of the facility entrance
- Primary Remedial Concern:
  - Maintaining patient access
- Recommended Remedy:
  - Engineering control (pavement, building floor slab)
  - Deed Notice
  - CEA
  - TI Waiver?



20 East Clinton Street

- Commercial Building (Used by the Federal Government)
- Recommended Remedy:
  - Engineering Control (pavement, building slab)
  - Deed Notice
  - CEA

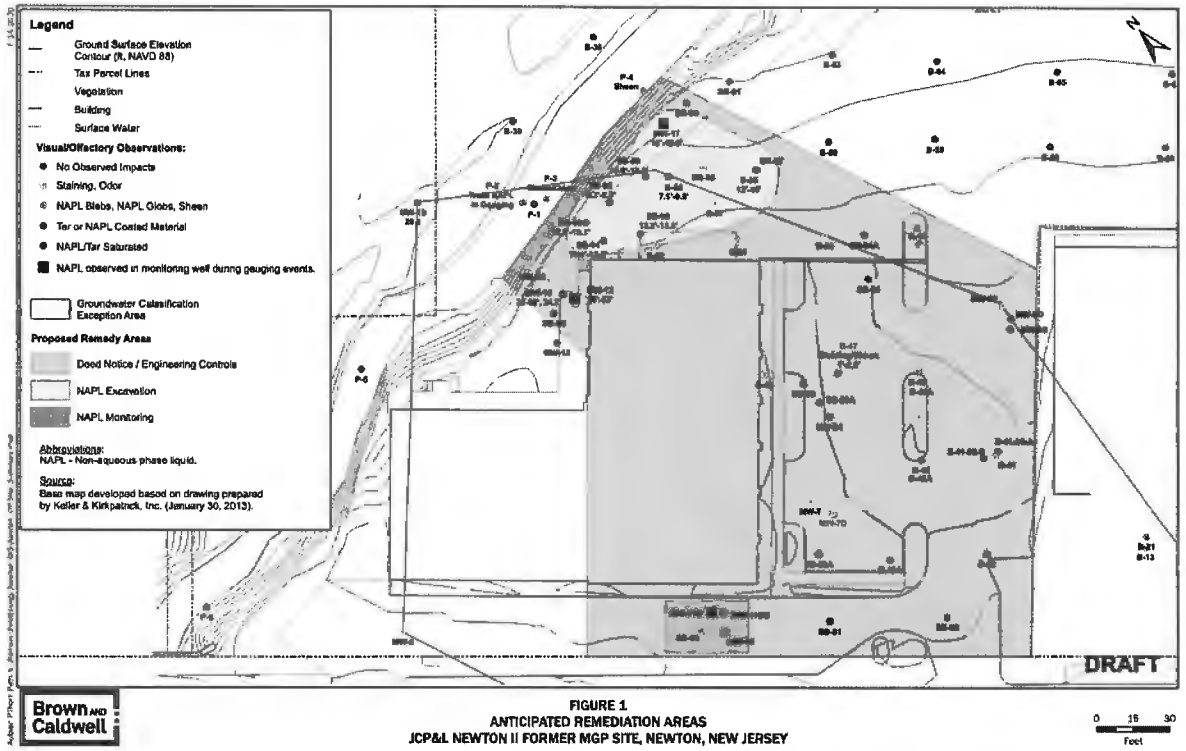


East Clinton Street

- Busy municipal Road
  - Busy roadway (access to DMV and popular park with ballfields and soccer fields, as well as retail)
- Utilities (water, sewer, gas, fiber optics; overhead lines on both sides of road)
- Recommended Remedy
  - Engineering Control (pavement)
  - Notice in Lieu of Deed
  - CEA
  - TI Waiver?

2-10 East Clinton Street

- Retail Strip Mall
- NAPL underlies strip mall building
- Land Use Permits Required
- Recommended Remedy
  - Excavation/ISS of shallow NAPL
  - Recovery of mobile NAPL on south side of strip mall building
  - Deed Notice for residual NAPL
  - Engineering Control
  - CEA



21 East Clinton Street

- Automotive Repair/U-Haul Rental
- NAPL occurs along northwestern property line.
- Recommended Remedy
  - Excavation of NAPL along property line
  - Deed Notice
  - Engineering Control
  - CEA

Classification Exception Area

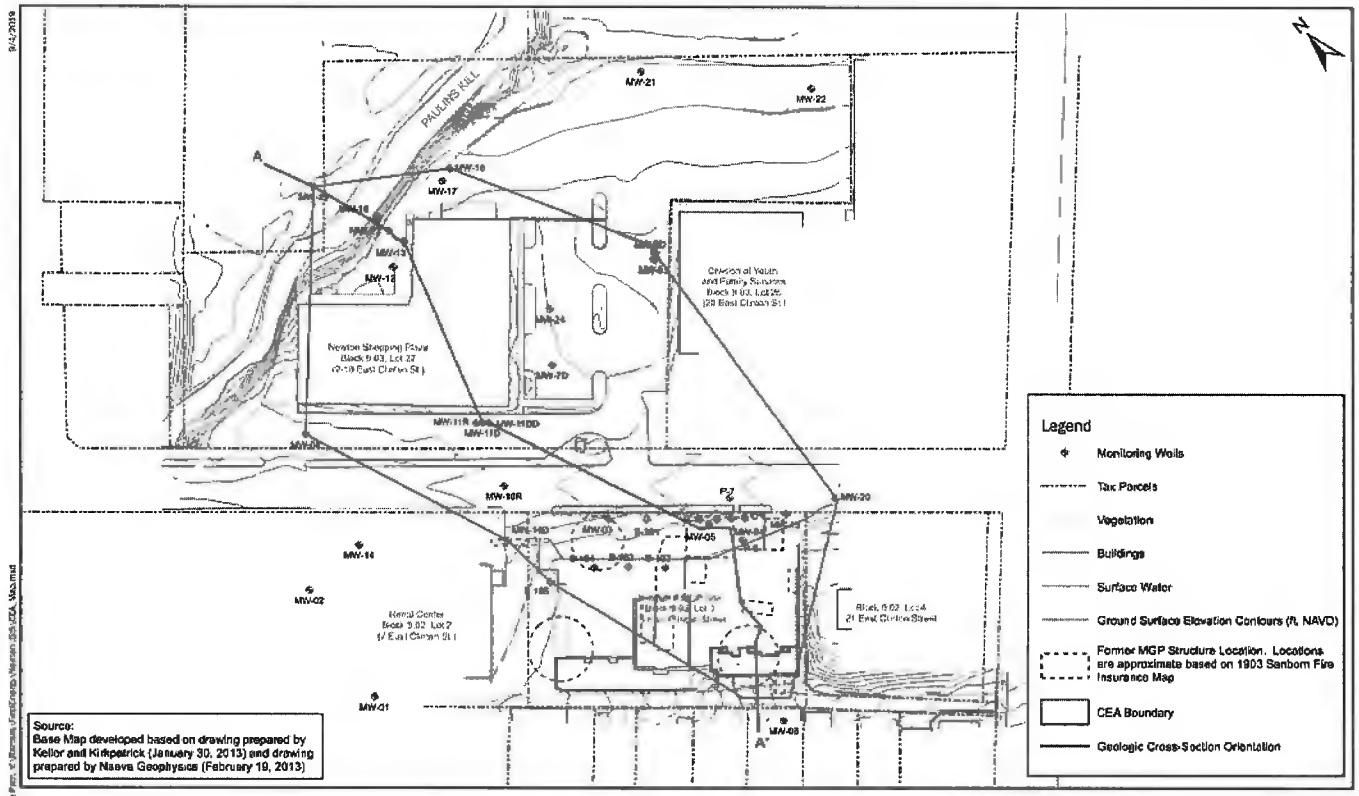
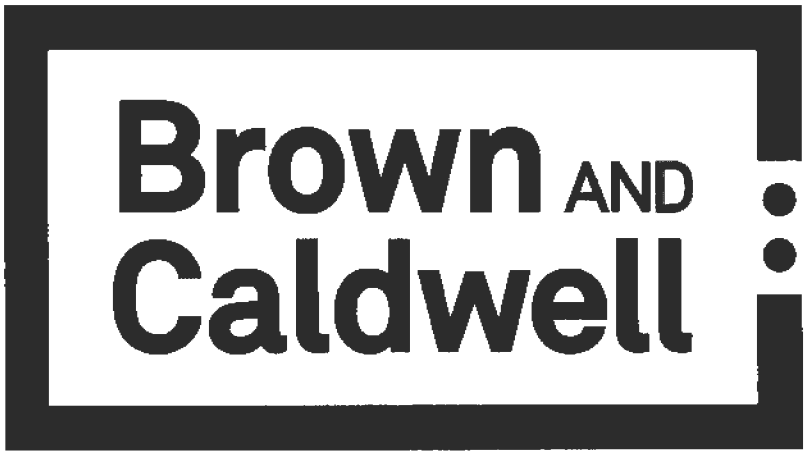


FIGURE 1
CEA BOUNDARY
JCP&L NEWTON II FORMER MGP SITE, NEWTON, NEW JERSEY


Brown AND
Caldwell

Comings, Elaine M

From: Kuserk, MaryAnne [DEP] <MaryAnne.Kuserk@dep.nj.gov>
Sent: Thursday, October 7, 2021 9:23 AM
To: Brendan Quann
Cc: Peter Randazzo; Sanderson, Gary [DEP]; Blake, Christopher [DEP]; Lawson, Frank D; Comings, Elaine M
Subject: RE: Technical Consultation - Newton Coal Gas 2 Site; P.I. G000005460

All,
We have reviewed the meeting summary for the Technical Consultation held on September 3, 2021 and find it acceptable. As stated in the technical consultation, I will put the summary and slide presentation n our NJEMS database for future reference.

Mary Anne Kuserk, Chief
Bureau of Ground Water Pollution Abatement
Hazardous Site Science Element
Site Remediation Waste Management Program
609-292-8427
maryanne.kuserk@dep.nj.gov

NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION

From: Brendan Quann <bquann@BrwnCald.com>
Sent: Wednesday, September 22, 2021 3:12 PM
To: Kuserk, MaryAnne [DEP] <MaryAnne.Kuserk@dep.nj.gov>
Cc: Peter Randazzo <PRandazzo@Brwncald.com>; Sanderson, Gary [DEP] <Gary.Sanderson@dep.nj.gov>; Blake, Christopher [DEP] <Christopher.Blake@dep.nj.gov>; Frank Lawson <flawson@firstenergycorp.com>; Comings, Elaine M <ecomings@firstenergycorp.com>
Subject: [EXTERNAL] RE: Technical Consultation - Newton Coal Gas 2 Site; P.I. G000005460

Hi MaryAnne – Please find attached .pdfs of the meeting notes and the presentation slides from the Newton Coal Gas Site (P.I. G000005460) Technical Consultation held on September 3, 2021.

I've also attached an editable word version of the meeting notes. If the NJDEP would like to propose any edits to the meeting notes, please provide them in track changes and we will incorporate them into a final .pdf version of the notes. If the NJDEP doesn't have any comments, then the current version of the notes may be entered into the project record.

Thanks – Brendan

Brendan Quann, PE*
Brown and Caldwell
bquann@brwncald.com
T 856-330-9323 | **C** 215-939-1718
****Professional Registration in Specific States***

-----Original Appointment-----
From: Peter Randazzo <PRandazzo@Brwncald.com>
Sent: Wednesday, September 1, 2021 8:41 AM
To: Peter Randazzo; 'Kuserk, MaryAnne [DEP]'; 'Sanderson, Gary [DEP]'; 'Blake, Christopher [DEP]'; Elaine Comings; Frank Lawson; Brendan Quann
Subject: Technical Consultation - Newton Coal Gas 2 Site; P.I. G000005460
When: Friday, September 3, 2021 10:00 AM-11:00 AM (UTC-05:00) Eastern Time (US & Canada).
Where: Microsoft Teams Meeting

Microsoft Teams meeting

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A Brown and Caldwell Teams meeting has been created for this event.

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