EXPLANATION OF SIGNIFICANT DIFFERENCE
OPERABLE UNIT NUMBER: 03
SARANAC LAKE GAS CO. INC

Village of Saranac Lake / Essex County / Site No. 516008 / March 2018

Prepared by the New York State Department of Environmental Conservation
Division of Environmental Remediation

1.0 INTRODUCTION

The purpose of this notice is to describe the progress of the cleanup at the Saranac Lake Gas Co. Inc. Site and to inform you about a change in the site remedy for Operable Unit Number: 03: Pontiac Bay on Lake Flower. The site has been separated into three Operable Units (OUs). The operable units are the former gasification plant (OU01), Brandy Brook running from the site to Pontiac Bay of Lake Flower (OU02), and Pontiac Bay/Lake Flower (OU03). The Site is located at Payeville Lane in the Town of North Elba, Essex County. OU02 and OU03 are considered offsite areas.

Operable Unit Number 03 is the subject of this document. A Record of Decision (ROD) was issued for OU 01 in March 2017 and for OU 02 in March 2016.

On March 30, 2015, the New York State Department of Environmental Conservation (Department) signed a ROD which selected a remedy to address manufactured gas plant (MGP)-related contamination within Pontiac Bay. The contaminants of concern are coal tar and BTEX (benzene, toluene, ethylbenzene, and xylene) compounds. Coal tar is a reddish brown oily liquid by-product of the MGP process.

The original remedy proposed an excavation method which included isolating and dewatering the bay to allow the use of an excavator to mechanically remove the MGP-impacted sediment.

Although isolation and dewatering of the bay to excavate contaminated sediment was deemed to be a viable option in the ROD, during the Remedial Design, it was determined to be infeasible based on constructability issues related to the handling of large volumes of contaminated construction water during the dewatering process. Additionally, there would be short-term impacts to the surrounding community since this body of water is surrounded by residential housing. Excavating the contaminated sediment without dewatering the bay was deemed to be a viable option that would achieve the goals of the March 2015 ROD, removing the same amount of contaminated sediment at a decreased cost and with less disruption to the community.

2.0 SITE DESCRIPTION AND ORIGINAL REMEDY

2.1 Site History, Contamination, and Selected Remedy

The Saranac Lake Gas Company site, a former MGP facility, is located in a residential setting on Payeville Lane in the Village of Saranac Lake, Essex County. The site is approximately 4.5 acres in size and lies

east of and adjacent to the Adirondack Scenic Railroad. Residential properties border the site to the north and east, and a college recreational facility and playing field borders to the south.

The main site is currently vacant with a fenced storage yard and small building. Other site features include Brandy Brook, a wooded area, and an access road on the northern portions of the property and woods and equipment storage on the southern portions.

From the late 1800s to approximately the 1940s, the site was used for manufacturing lighting gas via coal gasification for the Village of Saranac Lake. The operations consisted of two gas holders, a purifier, retort operations, along with coal storage areas and offices. No original structures exist on site today except for a raised concrete storage pad and concrete foundation for one of the gas holders. The past activities at the site have resulted in contamination, both on and off-site, including releases to OU3 Pontiac Bay.

A Remedial Investigation was conducted to define the nature and extent of any contamination resulting from previous activities at the site. Sediments throughout Pontiac Bay and extending into Lake Flower show evidence of impact from MGP-related contamination. These sediments are classified as Class C, meaning they are considered “highly contaminated and likely to pose a risk to aquatic life.” Coal tar in the form of dense non-aqueous phase liquid (DNAPL) product and/or staining was present in 11 of the 30 borings advanced into the lake bed during the remedial investigation.

Surface water samples collected from Pontiac Bay did not indicate evidence of site related compounds at concentrations exceeding their chemical-specific standards, criteria and guidance values.

The major components of the March 2015 Original Remedy were listed as follows:

1. A remedial design program will be implemented to provide the details necessary for the construction, operation, maintenance, and monitoring of the remedial program. Green remediation principals and techniques will be implemented to the extent feasible in the design, implementation, and site management of the remedy as per DER-31.

2. An area approximately 76,000 square feet in extent within Pontiac Bay containing MGP-related contamination exceeding Class A sediment guidance values will be excavated to an anticipated depth of seven feet. An estimated 16,900 cubic yards of sediment will be removed. This area of the bay will be isolated and dewatered to allow the use of an excavator to mechanically remove the MGP-impacted sediment. Following the excavation of visually contaminated sediment, over excavation will ensure that there are no deeper lenses of MGP waste. Confirmatory samples will be taken to ensure that the remedial objectives have been met prior to backfilling. The areas excavated will be backfilled with material meeting Class A sediment guidance values, comprised of sand in the subsurface and suitable habitat substrate in the top two feet.

The excavated sediments may require dewatering and pre-treatment prior to transport. This will be conducted in the upland areas adjacent to the bay prior to offsite disposal. The decanted water will be collected and treated as necessary prior to discharge.

3. The excavated area and any adjacent area disturbed during remediation will be restored, to the extent feasible, using a Department-approved Wetland Restoration Plan. This will include monitoring of the restoration to assure success of the restoration.

3.0 STATUS

Construction of the remedy is anticipated to be completed during 2018, except for minor restoration work which may need to be completed the following year.

4.0 DESCRIPTION OF SIGNIFICANT DIFFERENCE

4.1 New Information

During the completion of the Remedial Design for the selected remedy, isolating and pumping portions of Pontiac Bay was found to be infeasible based on constructability issues related to the handling of large volumes of contaminated construction water during the dewatering process. Due to the implementability issues, it was determined that excavating the sediment without dewatering (i.e., dredging) the bay would be more readily implementable. This method will remove the same volume and areas of contaminated sediments as the originally selected remedy. Sediment with MGP-related contamination exceeding Class A sediment guidance values will be excavated to an anticipated depth up to seven feet and disposed of off-site.

Both remedies include the removal of approximately 16,900 cubic yards of MGP-related contaminated sediment and each remedy required sediment dewatering and pre-treatment prior to off-site transport, backfilling of Pontiac Bay, and restoration using a Department-approved Wetland Restoration Plan. Additionally, excavation without isolating and dewatering the bay will eliminate short-term impacts to the surrounding community since many residential properties and a busy thoroughfare are located on/along Lake Flower, which includes Pontiac Bay. The original remedy was estimated to cost $9,222,00, while the new remedy is expected to cost a similar amount at $8,347,265.

Sediment excavation will be performed using an excavator equipped with a clamshell bucket placed on a floating platform. Use of the clamshell bucket will minimize the dispersion of contaminated sediments outside of the work area. Additionally, a turbidity curtain will be deployed surrounding the work area to prevent mobilization of impacted sediments further into the lake. Excavated sediment will be placed on a hopper barge for off-site loading inside a sprung structure, which is erected on shore. Following dewatering and stabilization, the sediment will be loaded into trucks for off-site disposal.

Additionally, during the pre-design investigation for Pontiac Bay, approximately 1,200 cubic yards of additional soil contamination was identified in an upland area located adjacent to the southeast end of Pontiac Bay. This soil will be addressed by in-situ solidification (ISS), an established remediation treatment technology for upland areas which involves the mixing of reagents with contaminated soil to create a low permeability mass to encapsulate the soil in place. This is a minor volume of contaminated material in relation to the overall project. The use of ISS will minimize the generation and handling of construction water for the upland area. The overall cost is minimal at 1% of the total project cost.

ISS will be performed on the upland soils from five to 10 feet below grade. The top five feet of soil will be excavated and removed prior to implementing ISS. A reagent will then be mixed with the contaminated soil that will solidify and entrap the contaminated material within a low permeability mass. Excavation of this upland soil was considered, but ultimately not selected. Concerns included potentially affecting the stability of nearby residential housing and Lake Flower Avenue, constructability issues related to

continuous dewatering to allow backfill and compaction, and management of large volumes of construction water.

The original remedy is being modified to excavate contaminated sediment without isolating and dewatering Pontiac Bay and include in-situ solidification of 1,200 cubic yards of upland soil. The original remedy was deemed not to be implementable due to constructability issues related to isolating and dewatering Pontiac Bay. The alternative of excavating without dewatering the bay will remove sediments which exceed the Class A Sediment Guidance Values, as contemplated by the originally selected remedy, at a slightly lower cost than originally proposed and with less disruption to the surrounding community. The newly identified upland soil is being addressed via ISS, which will achieve the goals of the March 2015 ROD.

4.2 Comparison of Changes with Original Remedy

A summary of the changes to the original ROD as proposed in this document are shown below. The 2015 ROD element is described, followed by any modifications or additions made by this ESD.

SUMMARY OF PROPOSED REMEDY CHANGES
Saranac Lake Gas Co. Inc. (No. 516008) ESD

2015 ROD	ESD Changes
1. A remedial design program will be implemented to provide the details necessary for the construction, operation, maintenance, and monitoring of the remedial program. Green remediation principals and techniques will be implemented to the extent feasible in the design, implementation, and site management of the remedy as per DER-31. The major green remediation components are as follows; • Considering the environmental impacts of treatment technologies and remedy stewardship over the long term; • Reducing direct and indirect greenhouse gas and other emissions; • Increasing energy efficiency and minimizing use of non-renewable energy; • Conserving and efficiently managing resources and materials; • Reducing waste, increasing recycling and increasing reuse of materials which would otherwise be considered a waste; • Maximizing habitat value and creating habitat when possible; • Fostering green and healthy communities and working landscapes which balance ecological, economic goals; and • Integrating the remedy with the end use where possible and encouraging green and sustainable re-development.	*No Change*
2. An area approximately 76,000 square feet in extent within Pontiac Bay containing MGP-related contamination exceeding Class A sediment guidance values will be excavated to an anticipated depth of seven feet. An estimated 16,900 cubic yards of sediment will be removed. This area of the bay will be isolated and dewatered to allow the use of an excavator to	*Modified* 2. An area approximately 76,000 square feet in extent within Pontiac Bay containing MGP-related contamination exceeding Class A sediment guidance values will be excavated to an anticipated depth of

mechanically remove the MGP-impacted sediment. Following the excavation of visually contaminated sediment, over-excavation will ensure that there are no deeper lenses of MGP waste. Confirmatory samples will be taken to ensure that the remedial objectives have been met prior to backfilling. The areas excavated will be backfilled with material meeting Class A sediment guidance values, comprised of sand in the subsurface and suitable habitat substrate in the top two feet. The excavated sediments may require dewatering and pre-treatment prior to transport. This will be conducted in the upland areas adjacent to the bay prior to off-site disposal. The decanted water will be collected and treated as necessary prior to discharge.	seven feet. An estimated 16,900 cubic yards of sediment will be removed. Excavation will occur in the wet. Following the excavation of contaminated sediment, confirmatory samples will be taken to ensure that the remedial objectives have been met prior to backfilling. The areas excavated will be backfilled with material meeting Class A sediment guidance values, comprised of sand in the subsurface and suitable habitat substrate in the top two feet. The excavated sediments will require dewatering and pre-treatment prior to transport. This will be conducted in the upland areas adjacent to the bay prior to off-site disposal. The decanted water will be collected and treated as necessary prior to discharge.
3. The excavated area and any adjacent area disturbed during remediation will be restored, to the extent feasible, using a Department-approved Wetland Restoration Plan. This will include monitoring of the restoration to assure success of the restoration.	*No change.*
	Addition to Remedy 4. Where a soil cover is required over an ISS treatment area, it will consist of a minimum of four feet of soil meeting the Soil Cleanup Objectives for unrestricted use. The solidified material itself will serve as the demarcation layer due to the nature of the material. The site management plan required by the March 2017 Record of Decision for OU1 will address the monitoring and maintenance of the soil cover.
	Addition to Remedy ISS will be implemented in an approximately 0.17-acre area located upland along a section at the southeast end of Pontiac Bay, as indicated on Figure 2. ISS is a process that uses a stabilizing agent which chemically changes contamination to make it less soluble. The contaminated soil will be mixed in place with stabilizing agents using an excavator or augers. The stabilized soil will then be covered with a cover system as described in element 4 to prevent direct exposure. This treatment changes the contamination from a soluble form to a stable, insoluble compound to reduce or eliminate the matrix as a source of groundwater contamination.

The remedy described in this ESD has been determined to be protective of human health and the environment and complies with New York State Standards, Criteria and Guidance. The new remedy will remove the same areas of sediment, providing the same degree of long-term effectiveness and reduction

in contaminant volume. This new remedy is less disruptive with respect to short-term impacts because the bay will not be dewatered, which would create impacts to the community. Mechanical excavation without dewatering the bay is more implementable and slightly more cost-effective than the original alternative.

5.0 SCHEDULE AND MORE INFORMATION

This Explanation of Significant Difference (ESD) will become part of the Administrative Record for this Site. The information here is a summary of what can be found in greater detail in documents that have been placed in the following repositories:

Saranac Lake Free Library
109 Main Street
Saranac Lake, NY 12983
(518) 891-4190

Office Hours:

Monday:	10 AM – 5:30 PM
Tuesday:	10 AM – 7 PM
Wednesday:	10 AM – 5:30 PM
Thursday:	10 AM – 7 PM
Fri, Saturday:	10 AM – 5:30 PM
Sunday:	Closed

Although this is not a request for comments, interested persons are invited to contact the Department's Project Manager for this site to obtain more information or have questions answered. The Project Manager's contact information is:

Sarah Saucier, P.E., Project Manager
NYS Department of Environmental Conservation
Division of Environmental Remediation
625 Broadway, 12th Floor
Albany, NY 12233-7017
(518) 402-9675
sarah.saucier@dec.ny.gov

Site-Related Health Questions

Wendy Kuehner
New York State Department of Health
Bureau of Environmental Exposure Investigation Empire State Plaza,
Corning Tower, Room 1787
Albany, NY 12237
(518) 402-7860
BEEI@health.ny.gov

3/30/2018
Date

Sarah Saucier

Sarah Saucier, P.E., Project Manager
Remedial Section A, Remedial Bureau E

3/30/2018
Date

David Harrington, P.E., Section Chief
Remedial Section A, Remedial Bureau E

3/30/2018
Date

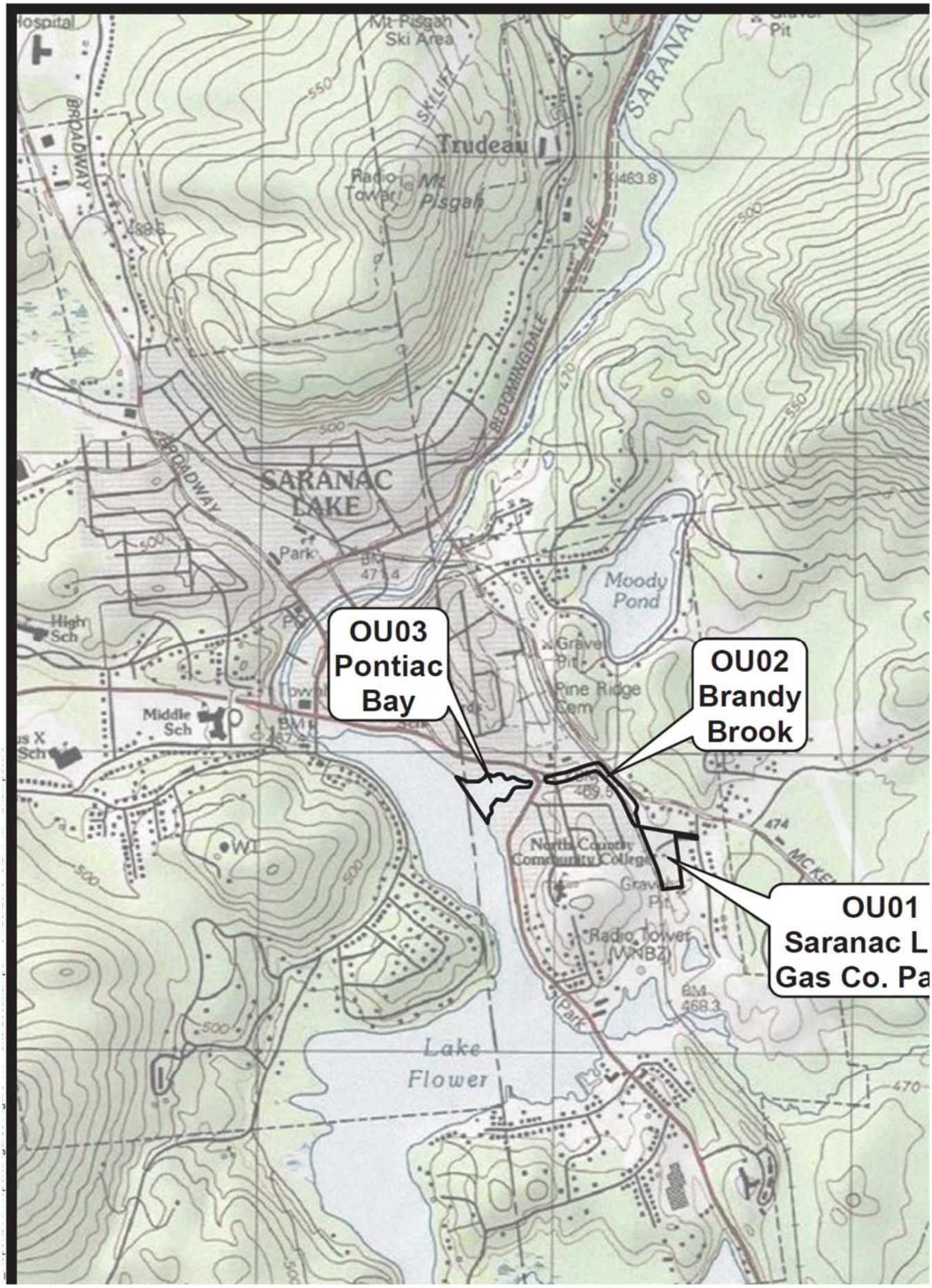
Michael Cruden, P.E., Bureau Director
Remedial Bureau E

3/30/2018
Date

Michael Ryan, P.E., Assistant Division Director
Division of Environmental Remediation

DECLARATION

The selected remedy is protective of public health and the environment, complies with State and Federal requirements that are legally applicable or relevant and appropriate to the remedial action to the extent practicable, and is cost effective. This remedy utilizes permanent solutions and alternative treatment or resource recovery technologies, to the maximum extent practicable, and satisfies the preference for remedies that reduce toxicity, mobility, or volume as a principal element


OU03
Pontiac
Bay
OU02
Brandy
Brook
OU01
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Gas Co. Pa
Mt Pisgah
Ski Area
Trudeau
Radio Tower
Mt
Pisgah
SARANAC
LAKE
Moody
Pond
Grave
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Pine Ridge
Cem
North Country
Community College
Radio Tower
(WNBZ)
Lake
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Park
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BROADWAY
BLOOMINGDALE
AVE
SKI LIFT
Hospital

Figure 2 – ISS Area