

VILLAGE OF SAUGERTIES – TINA CHORVAS PARK RESTORATION
Environmental Assessment



New York Governor's Office of Storm Recovery

May 3, 2017

Village of Saugerties – Tina Chorvas Park Restoration

Environmental Assessment

May 3, 2017

Project Name: Village of Saugerties – Tina Chorvas Park Restoration

Project Location: Tina Chorvas Park, 61 East Bridge Street
Village of Saugerties, Ulster County, NY

HTFC SHARS #: N/A

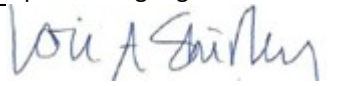
Federal Agency: U.S. Department of Housing and Urban Development
Responsible Entity: New York State Homes and Community Renewal HCR)

**Responsible Agency's
Certifying Officer:** Lori A. Shirley, Certifying Officer, Governor's Office of Storm Recovery, HCR

Project Sponsor: Village of Saugerties

Primary Contact: William Murphy, Mayor
43 Partition Street, Saugerties, NY 12477-1134
845.246.7669, bmurphy@villageofsaugerties.org

Project NEPA Classification: 24 CFR 58.36 (Environmental Assessment)

Environmental Finding:	<input checked="checked" type="checkbox"/> Finding of No Significant Impact - The project will not result in a significant impact on the quality of the human environment.
	<input type="checkbox"/> Finding of Significant Impact - The project may significantly affect the quality of the human environment.
Certification	The undersigned hereby certifies that New York State Homes and Community Renewal has conducted an environmental review of the project identified above and prepared the attached environmental review record in compliance with all applicable provisions of the National Environmental Policy Act of 1969, as amended (42 USC Sec. 4321 et seq.) and its implementing regulations at 24 CFR Part 58.
Signature	 Lori A. Shirley, Certifying Officer

Environmental Review Prepared By:

The Louis Berger Group, Inc. 48 Wall Street, 16 th Floor New York, NY 10005	Environmental Design & Research, Landscape Architecture, Engineering & Environmental Services, D.P.C. 217 Montgomery Street, Suite 1000, Syracuse, New York 13202
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CERTIFICATION OF NEPA CLASSIFICATION

It is the finding of the New York State Housing Trust Fund Corporation that the activity(ies) proposed in its 2016 NYS CDBG-DR project, Village of Saugerties – Tina Chorvas Park Restoration, are:

Check the applicable classification.

- ☐ Exempt as defined in 24 CFR 58.34 (a).
- ☐ Categorically Excluded as defined in 24 CFR 58.35(b).
- ☐ Categorically Excluded as defined in 24 CFR 58.35(a) and no activities are affected by federal environmental statutes and executive orders [i.e., exempt under 58.34(a)(12)].
- ☐ Categorically Excluded as defined in 24 CFR 58.35(a) and some activities are affected by federal environmental statutes and executive orders.
- ☒ “Other” neither exempt (24 CFR 58.34(a)) nor categorically excluded (24 CFR 58.35).
- ☒ Part or all of the project is located in an area identified as a floodplain or wetland. For projects located in a floodplain or wetland, evidence of compliance with Executive Orders 11988 and/or 11990 is required.

For activities excluding those classified as “Other,” attached is the appropriate Classification Checklist (Exhibit 2-4) that identifies each activity and the corresponding citation.



Signature of Certifying Officer

Lori A. Shirley

Print Name

May 3, 2017

Date

Certifying Officer

Title

CERTIFICATION OF SEQRA CLASSIFICATION

It is the finding of the New York State Housing Trust Fund Corporation that the activity(ies) proposed in its 2016 NYS CDBG-DR project, Village of Saugerties – Tina Chorvas Park Restoration, are:

Check the applicable classification:

- ☒ Type I Action (6NYCRR Section 617.4)
- ☐ Type II Action (6NYCRR Section 617.5)
- ☐ Unlisted Action (not Type I or Type II Action)

Check if applicable:

- ☐ Environmental Impact Statement (EIS) Prepared
- ☐ Draft EIS
- ☐ Final EIS



Signature of Certifying Officer

Lori A. Shirley

Print Name

May 3, 2017

Date

Certifying Officer

Title

Description of the Proposed Project [24 CFR 50.12 & 58.32; 40 CFR 1508.25]:

The Village of Saugerties is proposing an improvements project at Tina Chorvas Park, which is located at 61 East Bridge Street, in the Village of Saugerties, Ulster County, New York (see **Figures 1 and 2**) in response to damage resulting from the effects of Hurricane Irene and Tropical Storm Lee. The proposed project will be undertaken at the 1.10-acre Tina Chorvas Park located on East Bridge Street, as well as at an adjacent 1.5 acre parcel of vacant land bordering the north side of the Tina Chorvas Park (see Figure 2). That parcel is owned by Hudson River Sloop Clearwater Inc. which leases it to Arm-of-the-Sea Productions, Inc. (AOS), a private non-for-profit corporation. Together, the Tina Chorvas Park and the AOS property comprise the proposed project.

The proposed project will repair public facilities damaged during Tropical Storm Lee and Hurricane Irene and mitigate future impacts of tidal and coastal flooding to the public recreational facilities located at Tina Chorvas Park and adjacent AOS property. The current shoreline of Esopus Creek contains a bulkhead that has failed due to erosion caused by stormwater. The bulkhead extending along the park property and the AOS property will be replaced. This project will improve existing parkland and stabilize the shoreline at the edge of Esopus Creek along the park boundaries in order to alleviate further erosion and reduce the introduction of sediment that may reach the waterway bordering the park. The proposed project will revitalize the waterfront and stabilize the shoreline with the following measures: (1) Shoreline stabilization by construction of new bulkhead, (2) Site access improvements through access road construction, (3) Fencing, (4) Enhancing amenities, and (5) Improving site drainage.

The Village of Saugerties is bordered by on the north, south, and west by the Town of Saugerties, and east by sections of Esopus Creek. The project area encompasses approximately 2.6 acres (see Figure 2) and includes the Tina Chorvas Park and AOS property.

Tina Chorvas Park is a 1.10-acre parcel of land owned and maintained by the Village of Saugerties and used for public recreational purposes. The property is identified on the Ulster County Tax Map as Section-Lot-Block Number 18.70-1-16.200. There is a parking area on the southwest side of the property at elevation 24 feet. The site slopes down to a wooden bulkhead along Esopus Creek which is at elevation 5 feet. The site slopes from west to east with an average slope of approximately 12 percent. There are benches and picnic tables located throughout the property. An approximately 150 feet long section of the wooden bulkhead along the Esopus Creek was reconstructed in the late 1990s using 8" x 8" pressure treated timber cribbing backfilled with light riprap stone. The 50 linear feet of remaining wooden bulkhead on the northeast side of the site is deteriorated and collapsing.

The AOS property borders the north side of Tina Chorvas Park. The AOS property is a 1.5 acre parcel identified on the Ulster County Tax Map as Section-Lot-Block Number 18.70-1-16.120. The property contains building ruins from the former 19th Century Sheffield Paper Company operations. The site is heavily overgrown with trees and brush. The ruins of the former coal bin are located in the center of the site adjacent to the Esopus Creek. There is a former water sluiceway that crosses the site from west to east and crosses under the former coal bin ruins and discharges into the Esopus Creek. The former building ruins on the northwest side of the property contain several rooms supported by concrete pillars and a concrete ceiling. The former timber bulkhead along the Esopus Creek is deteriorated and/or non-existent.

After the improvements are finished, the Tina Chorvas Park will continue to be used as a public recreation area offering picnicking, fishing, swimming and access to the Esopus Creek. The AOS property will be used for theatrical productions.

The proposed project, as illustrated in the attached site plans (see **Appendix L**), will be funded by the Community Development Block Grant-Disaster Recover (CDBG-DR) program and will include the following improvements:

Shoreline Stabilization

- Construct approximately 245 linear feet of new bulkhead to stabilize the Esopus Creek shoreline along the east side of the project site. The bulkhead will be installed to the north end of the existing coal bin ruins. The bulkhead will be constructed by driving H-piles into the river every six feet on-center. Pile driven steel panels will be placed between the H-piles and the void behind will be filled and leveled to the existing ground surface.

Site Access – Road Construction

- Construct a gravel access road to provide public access to the AOS property. The gravel access road will be constructed from the existing Tina Chorvas Park parking lot through a 16-foot right-of-way to southern boundary of the AOS property
- Construct an 18-foot wide road gate at the park entrance
- Construct a retaining wall on the west side of the 16-foot wide two-lane gravel access road
- Construct a 10-foot wide gravel road through the AOS property to provide access to the northern half of the AOS property
- Clear trees and brush up to 12.5 feet from the centerline of the road (minimum of 25 feet total clearing width) and as needed to construct the access road
- To provide for the access road, the roof slab and brick pillars will be removed from the building ruins on the AOS property. The east wall will remain in place
- Backfill void areas on the AOS property for the access road
- Construct a construction staging area on the AOS property that can be used in the future for additional vehicle parking
- Install a simple road gate near the Tina Chorvas parking lot to control access between the two properties

Fencing

- Install eight foot high (8') chain-link fencing around the perimeter property line and around the ruins area on the northwest side of AOS property
- Clear trees and brush within five feet of the proposed fence locations. Trees and brush will be cut off at ground level and the stumps and roots will be left in-place

Enhancement

- Construct a kayak/canoe ramp
- Relocate grills and tables

- Remove fencing and bollards no longer needed

Drainage

- Excavate an existing sluice way on the AOS property and install a culvert
- Install piping, headwalls and riprap for drainage

Construction:

- Prepare an erosion and sediment control plan
- Create a construction staging area on the existing parking lot on the southern portion of the park
- Construct a stabilized construction entrance
- Install silt fencing and turbidity curtain for erosion control
- Remove small area of asphalt from the current parking area

Required easements between the Tina Chorvas Park and Hudson River Sloop Clearwater, Inc. have been granted and permits from the NYS Department of Environmental Conservation (NYSDEC) have been obtained. The overall construction activity should take from 4 to 6 months to complete, with the proposed improvements to project site being constructed anytime during the normal construction period from May to December.

Overall, project benefits will include disaster risk reduction through bulkhead replacement, which will increase the storm resiliency of this public amenity and reduce the risk of flooding and flood damage from future storms. This project will replace the existing failed bulkhead in Tina Chorvas Waterfront Park and AOS property along Esopus Creek, a staging area (future parking) and access road will be constructed, park amenities will be increased, and a chain-link fence will be installed around building ruins. The bulkhead replacement is in preparation for predicted sea level rise and will provide enhanced public access and allow for redevelopment along the abandoned waterfront industrial site. These improvements match goals that are included in the Village of Saugerties' Local Waterfront Revitalization Plan.

Statement of Purpose and Need for the Proposal [40 CFR 1508.9(b)]:

As a riverine community, the Village of Saugerties experiences flooding from overflows from the lower Esopus Creek and its tributaries during intense rain events, as well as storms such as Hurricane Irene and Tropical Storm Lee. As a coastal community, the Village also absorbed the impact of storm surges from the Hudson River during Superstorm Sandy. These events caused damage at Tina Chorvas Park. Low-lying tidal areas are most impacted by flooding due to wave action from the Hudson River and/or heavy flows from Esopus Creek. Among other improvements, the proposed project will mitigate flooding by replacing damaged bulkhead.

The project is needed to repair public facilities that suffered impacts in previous storm events and help mitigate future impacts of tidal and coastal flooding to this public facility. Project goals include repairing public facilities, stabilizing the shoreline and supporting structures, and protecting aquatic species and habitat in the Esopus Creek during periods of high velocity flooding.

Existing Conditions and Trends [24 CFR 58.40(a)]:

The project will occur within the Village of Saugerties in Ulster County, New York. Specific conditions and trends for the project site are as follows.

Location

As depicted in **Figures 1 and 2**, the project area is located in the Village of Saugerties on the banks of Esopus Creek. The park is located north of East Bridge Street.

Land Use

The character of land use in the project area is predominantly residential, with low to medium density residential as the dominant uses. Some aquatic commercial land uses, such as small marinas, which serve the many boats docked in the community, can be found along Esopus Creek. An existing three-story multi-unit residential apartment complex ("The Mill") is located immediately west of the park on East Bridge Street. Tina Chorvas Park is located in an area of Saugerties zoned as PW ("Planned Waterfront"). The Town of Saugerties describes the purpose of the Waterfront Overlay District as "protect[ing] the water quality, floodways, shorelines, embankments and slopes of the Hudson River, Esopus Creek, and Plattekill Creek within the Town of Saugerties against erosion, filling, diversion or other land activities and development which will degrade property or public enjoyment of these unique resources."

Floodplain Management

As depicted on the Flood Insurance Rate Map (FIRM) Panel 36111C0305E, dated September 25, 2009, project activities are located in the 100 year flood plain (see **Figure 3**). The project area is adjacent to Esopus Creek, which is classified as Riverine in the National Wetlands Inventory and may contain wetlands along the edges of the main waterway (see **Figure 8**).

Coastal Zone Management

The project is located within the boundary of the New York State Coastal Zone (see **Figure 4**). The Village of Saugerties also participates in the Local Waterfront Revitalization Program. It has a Local Waterfront Revitalization Plan, adopted in 1985.

Cultural and Ecological Resources

No historic resources were detected on or substantially contiguous to the site by the NYS DEC EAF Mapper. The New York State Historic Preservation Office (SHPO) concurred on October 25, 2016 that no historic properties will be affected by the project. The park is located within the Ulster-North Scenic Area of Statewide Significance (see **Figure 9**) in the Hudson River Valley. According to the EAF Mapper (see **Appendix F, p. 14**), the project site is adjacent to a designated significant natural community of Freshwater Tidal Marsh, Freshwater Tidal Swamp and Freshwater Intertidal Mudflats. The site is located alongside the Esopus Estuary, an approximately 970-acre area that includes the lower portion of Esopus Creek (see **Figure 1**). Freshwater tidal marsh and intertidal flats are located downstream from the proposed project.

Funding Information

Estimated Total HUD Funded Amount: \$260,000.00

Estimated Total Project Cost (HUD and non-HUD funds) [24 CFR 58.32(d)]: \$260,000.00

Compliance with 24 CFR 58.5 and 58.6 Laws and Authorities

Record below the compliance or conformance determinations for each statute, executive order, or regulation. Provide credible, traceable, and supportive source documentation for each authority. Where applicable, complete the necessary reviews or consultations and obtain or note applicable permits or approvals. Clearly note citations, dates/names/titles of contacts, and page references. Attach additional documentation as appropriate.

Compliance Factors: Statutes, Executive Orders, and Regulations listed at 24 CFR §58.5 and §58.6	Are formal compliance steps or mitigation required?	Compliance determinations
STATUTES, EXECUTIVE ORDERS, AND REGULATIONS LISTED AT 24 CFR 50.4 and 58.6		
Airport Hazards 24 CFR Part 51 Subpart D	Yes No <input type="checkbox"/> <input checked="" type="checkbox"/>	Based on HUD guidance in Fact Sheet #D1, the National Plan of Integrated Airport Systems (NPIAS) was reviewed for civilian, commercial service airports near the Project site, as projects within 2,500 feet of a civil airport or 15,000 feet of a military airport require consultation with the appropriate airport operator or confirmation that the site is not within a designated Runway Protection Zone/Clear Zone (RPZ/CZ). No active civil airports are within 2,500 feet of the Project site (see Figure 11). The Project is not within 15,000 feet of any military airport. No impacts will result. https://www.michigan.gov/documents/mshda/mshda_cd_nsp2_air_accident_315724_7.pdf
Coastal Barrier Resources Coastal Barrier Resources Act, as amended by the Coastal Barrier Improvement Act of 1990 [16 USC 3501]	Yes No <input type="checkbox"/> <input checked="" type="checkbox"/>	The project location is not located with the Coastal Barrier Resource Area or buffer zone (see Figure 5). No impacts will result. http://www.fws.gov/ecological-services/habitat-conservation/cbra/Maps/index.html
Flood Insurance Flood Disaster Protection Act of 1973 and National Flood Insurance Reform Act of 1994 [42 USC 4001-4128 and 42 USC 5154a]	Yes No <input type="checkbox"/> <input checked="" type="checkbox"/>	Flood Insurance Rate Map 36111C0305E shows that the proposed project activity site is located within Special Flood Hazard Area AE (see Figure 3). The Village of Saugerties is in good standing with the National Flood Insurance Program (NFIP), and proof of insurance is not a requirement for infrastructure projects (i.e., projects that do not involve a commercial or residential property holding flood insurance). A 5-step floodplain review conducted for the proposed project (see Appendix C) determined that there will not be any direct or indirect adverse impacts to the floodplain. https://msc.fema.gov/portal

STATUTES, EXECUTIVE ORDERS, AND REGULATIONS LISTED AT 24 CFR 50.4 & 58.5

<p>Clean Air Clean Air Act, as amended, particularly section 176(c) & (d); 40 CFR Parts 6, 51, 93</p>	<p>Yes No <input type="checkbox"/> <input checked="" type="checkbox"/></p>	<p>The proposed project is located in Ulster County, which is within an attainment area for both particulate matter (PM_{2.5}) and the eight-hour ozone standard.</p> <p>Temporary emissions will result from construction equipment used during site preparation. A conformity analysis was made according to the requirements of 40 CFR 93, Subpart B (federal general conformity regulations) and a screening analysis was performed (see Appendix D) assuming that the emission intensity for the project will be similar to the average intensity of the construction sector in surrounding counties. Projects with projected construction expenditure substantially lower than the average construction <i>de minimis</i> expenditure will clearly not exceed <i>de minimis</i> emissions levels for general conformity purposes.</p> <p>The project will incorporate restrictions on construction equipment to reduce air emissions.</p> <p>Improvements to the park will generate an increase in visitation, with an associated incremental increase in traffic. However, the project is not anticipated to result in a significant adverse impact on air quality due to such a negligible increase in traffic associated with the park. No significant impacts on air quality will occur.</p> <p>http://www.epa.gov/airquality/greenbook/adden.html</p>
<p>Coastal Zone Management Coastal Zone Management Act, sections 307(c) & (d)</p>	<p>Yes No <input checked="" type="checkbox"/> <input type="checkbox"/></p>	<p>The proposed project is located within the boundaries of the New York State Coastal Zone (see Figure 4). A New York State Coastal Consistency Assessment form and supporting documentation is attached (see Appendix K). The project is located with the Village of Saugerties Local Waterfront Revitalization Program (LWRP) boundary. GOSR determined that that the Project was consistent with both State and Local policies. The New York Department of State, Division of Coastal Resources, concurred with the assessment that the proposed project will be consistent with the State General Concurrence Criteria on December 9, 2016 (See Appendix K).</p> <p>http://www.dos.ny.gov/opd/atlas/</p>
<p>Contamination and Toxic Substances 24 CFR Part 50.3(i) & 58.5(i)(2)</p>	<p>Yes No <input type="checkbox"/> <input checked="" type="checkbox"/></p>	<p>The project site is located approximately 0.2 mile from Saugerties MGP (Site Code V00694 and 356018) at 16 Ferry Street (See Figure 6). This site is a Voluntary Cleanup Program Site as well as a Superfund Site. Saugerties MGP has low levels of surface soil impacts and confirmed contamination in sub-surface soils. Temporary well points advanced to characterize groundwater underlying the site indicate the presence of a low-level plume contained entirely within the site. In addition, the area is served by a public water supply,</p>

		<p>which will not be affected by groundwater contamination on-site at Saugerties MGP.</p> <p>In addition, soil sampling conducted in 2016 as part of a Phase II site investigation (see Appendix E) detected numerous volatile organic compounds, specifically polycyclic aromatic hydrocarbons. Five metals, one pesticide and several dioxin/furan compounds were detected in all of the soil samples collected. Additional soil analysis should be conducted prior to disposal or reuse of soil, with soil reuse and disposal in accordance with applicable local, State, and Federal regulations. This applies to soil reuse on the Proposed Project to ensure the safety of persons accessing the park. Lead concentrations at some of the soil sampling locations exceed human health risk based concentrations. Access to the locations with concentration above human health risk concentrations will be limited by fencing or other method approved by NYSDEC. All construction activities should be completed in accordance with Occupational Safety and Health Administration (OHSA) requirements where concentrations in soil may pose a threat to workers. Contractors will be provided a copy of the Phase II soil investigation. The sub-recipient will be required to inform contractors of the findings of the Phase II and required to limit access or mitigate exposure to onsite soils with concentrations above human health risk based concentrations (see Appendix E).</p> <p>http://www.dec.ny.gov/chemical/8437.html</p>
<p>Endangered Species Endangered Species Act of 1973, particularly section 7; 50 CFR Part 402</p>	<p>Yes No</p> <p><input checked="" type="checkbox"/> <input type="checkbox"/></p>	<p>The U.S. Fish & Wildlife Service (USFWS) IPaC Tool identifies two species that are managed by the Endangered Species Program within the vicinity of the project site, the Endangered Indiana Bat (<i>Myotis sodalists</i>) and Threatened Northern Long-eared Bat (<i>Myotis septentrionalis</i>). In addition, there are several migratory birds of concern that could potentially utilize proposed project. However, there is no critical habitat for any species within the project area.</p> <p>A Phase 1 Summer Bat Habit Assessment was conducted by a NYSDEC Wildlife Biologist on April 3, 2017. The assessment concluded that the project is approximately 10 miles from nearest known Indian bat and northern long-eared bat occurrence and the trees to be removed do NOT have exfoliated bark or cavities. Therefore it was determined that no suitable habit occurs at the site for either bat species. Based on the findings of the summer habitat assessment and supporting documentation, GOSR</p>

		<p>determined that the project would have “No Effect” on threatened or endangered species. USFWS concurred with this determination on April 20, 2017 (see Appendix G).</p> <p>USFWS also suggested modification of the proposed bulkhead replacement plan. The engineer for the proposed project provided a response to USFWS suggested changes to the bulkhead plans explaining why the suggested changes were not feasible. USFWS responded that they had no further comments on the project.</p> <p>Consultation with the New York State Department of Environmental Conservation’s Natural Heritage Program identified the Atlantic sturgeon (<i>Acipenser oxyrinchus oxyrinchus</i>) and shortnose sturgeon (<i>Acipenser brevirostrum</i>) as occurring in the Hudson River and lower portion of Hudson River Tributaries (see Appendix G). However, while these species may occur within the vicinity of the action area, they are not expected to frequent shallow waters such as the action area. Furthermore, no dredging is proposed as part of the project, and there will be no risk of entrapment. Construction will not result in an increase in vessel traffic in the area; therefore, there the project will not increase the risk of interactions between vessels and sturgeon. Notice of a No Effect Determination was sent to the National Marine Fisheries Service (NMFS) on January 26, 2017 (see Appendix H).</p> <p>The proposed project is expected to have no potential to affect protected species or habitats. Additionally, Best Management Practices such as the use of sediment barriers and silt fencing will be utilized to avoid or minimize potential impacts to riparian species along Esopus Creek.</p> <p>http://www.dec.ny.gov/imsmaps/ERM/viewer.htm http://ecos.fws.gov/ipac/</p>
Explosive and Flammable Hazards 24 CFR Part 51 Subpart C	Yes No <input type="checkbox"/> <input checked="" type="checkbox"/>	<p>This criterion is applicable to HUD-assisted projects that involve new residential construction, conversion of nonresidential buildings to residential use, rehabilitation of residential properties that increase the number of units, or restoration of abandoned properties to habitable condition. As the proposed project involves shoreline stabilization and repairs to existing infrastructure, that does not result in an increased number of people being exposed to hazardous operations by increasing residential densities, converting the type of use of a building to habitation, or making a</p>

		vacant building habitable, the provisions of 24 CFR Part 51 Subpart C do not apply. No hazardous operations handling conventional fuels or chemicals of an explosive or flammable nature were identified in the vicinity of the project site. No impacts will result.
Farmlands Protection Farmland Protection Policy Act of 1981, particularly sections 1504(b) and 1541; 7 CFR Part 658	Yes No <input type="checkbox"/> <input checked="" type="checkbox"/>	The Tina Chorvas Park project is located on soils designated as Farmland of Statewide Importance per the US Department of Agriculture (USDA) soil classifications (see Appendix B). However, the land is already developed as a park and is therefore exempt from further analysis. No impact will result. http://websoilsurvey.sc.egov.usda.gov/App/HomePage.htm
Floodplain Management Executive Order 11988, particularly section 2(a); 24 CFR Part 55	Yes No <input checked="" type="checkbox"/> <input type="checkbox"/>	Flood Insurance Rate Map 36111C0305E indicates that the proposed project activity site is located within Special Flood Hazard Area AE (see Figure 3). The proposed project will stabilize the shoreline and supporting structures at Tina Chorvas Park in the Village of Saugerties, which is in good standing in the Regular Program of the NFIP. Specific actions will include replacement of approximately 245 linear feet of bulkhead, which will be installed to stabilize the Esopus Creek shoreline along the east side of the project site and arrest further erosion of the shoreline. No structural footprints will be expanded and there will be no alteration of, increase or decrease in size of, or encroachment into any existing wetland, waterbody, shoreline, beach or adjacent area. Therefore, the action does not meet the thresholds for 'substantial improvement' under 24 CFR 55.2(b)(8), and a five-step decision making process applies (24 CFR 55.12(a)). The five-step floodplain management decision making process was followed and found that the proposed project will not have an impact on floodplain values (see Appendix C). Prior to construction, the Village of Saugerties must apply for and receive a Floodplain Development Permit from the appropriate local floodplain administrator. https://msc.fema.gov/portal
Historic Preservation National Historic Preservation Act of 1966, particularly sections 106 and 110; 36 CFR Part 800; Tribal notification for new ground disturbance.	Yes No <input type="checkbox"/> <input checked="" type="checkbox"/>	Consultation with the New York State Historic Preservation Office (SHPO) was initiated on October 7, 2016. On October 25th 2016, SHPO concurred with the opinion that there will be No Historic Properties Affected as a result of the proposed project (See Appendix I). Tribal consultation with the following tribes was also initiated: Delaware Nation; Delaware Tribe of Indians; Saint Regis Mohawk; Stockbridge-Munsee Community Band of Mohicans; Mohawk Nation (See Appendix J). In the event that a concentration of artifacts is discovered and/or human remains are accidentally unearthed during the course of the project activities, all work will be halted until

		appropriate tribal entities are notified and the site will be evaluated by a qualified archaeologist.
Noise Abatement and Control Noise Control Act of 1972, as amended by the Quiet Communities Act of 1978; 24 CFR Part 51 Subpart B	Yes No <input type="checkbox"/> <input checked="" type="checkbox"/>	The policies of 24 CFR 51.101(a)(3) do not apply to any action or emergency assistance under disaster assistance provisions or appropriations which are provided to save lives and protect public health and safety. The proposed activity involves restoration, stabilization and repairs to a park and will not result in a new facility that will generate noise on the project site, nor will it introduce any new or rehabilitate any existing noise sensitive uses. The proposed project will cause temporary increases in noise levels during construction that will be mitigated by complying with local noise ordinances using construction best practices. Improvements to the park will also generate an increase in visitation, with an associated increase in traffic. However, the project is not anticipated to result in a significant contribution to existing noise levels. Therefore, no significant noise impacts will occur as a result of the proposed project.
Sole Source Aquifers Safe Drinking Water Act of 1974, as amended, particularly section 1424(e); 40 CFR Part 149	Yes No <input type="checkbox"/> <input checked="" type="checkbox"/>	The proposed activity is not located in an area identified as a sole or principal source aquifer (see Figure 7). Therefore, the proposed activity is in compliance with the Safe Drinking Water Act; 40 CFR Par 149. http://www.dec.ny.gov/lands/36151.html
Wetlands Protection Executive Order 11990, particularly sections 2 and 5	Yes No <input type="checkbox"/> <input checked="" type="checkbox"/>	Tina Chorvas Park is adjacent to a portion of Esopus Creek that is classified as a Tidal Riverine system according to the National Wetlands Inventory (see Figure 5). Because no wetlands occur at the project site, and Esopus Creek is not classified as a wetland, the project will not result in effects to wetlands under Executive Order 11990. The proposed park restoration activity involves shoreline stabilization. Construction management practices will be utilized to avoid or minimize potential impacts to waters. Because activities associated with the Project are located either within or immediately adjacent to Esopus Creek, which is classified by the NYSDEC as a Class C stream, the following environmental permits have been obtained: <ul style="list-style-type: none"> • NYSDEC Article 15, Title 5, Stream Disturbance Permit to physically disturb the bed and banks of the Esopus Creek; • NYSDEC Article 15, Title 5, Excavation & fill in Navigable Waters Permit to allow excavation and filling below the mean water line; • NYSDEC under Section 401 of the Clean Water Act, Water Quality Certification; The proposed improvements will disturb less than one acre of land and therefore the Village will not have to apply for coverage under NYSDEC SPDES General Permit for Stormwater Discharges from Construction Activity

		<p>Permit No. GP-0-15-002. The proposed removal of a small area of asphalt from the current parking area, will involve stripping off the asphalt layer only and leaving the sub-base layer of gravel in place. An Erosion and Sediment Control Plan will be developed and provided on the final design plans.</p> <p>Given adherence to these permitting requirements and best management practices, the proposed project will not have an effect on wetlands and is in compliance with Executive Order 11990. http://www.fws.gov/wetlands/ http://www.dec.ny.gov/eafmapper/</p>
<p>Wild and Scenic Rivers Wild and Scenic Rivers Act of 1968, particularly section 7(b) and (c)</p>	<p>Yes No <input type="checkbox"/> <input checked="" type="checkbox"/></p>	<p>There are no Wild and Scenic Rivers as designated by the U.S. Department of the Interior within the project site. The project is not located along a Wild, Scenic, or Recreational River as determined by the NYSDEC. Therefore, the Project would not violate the Wild and Scenic Rivers Act. (Note that A 10.5 mile stretch of the Hudson River, from the confluence of the Cedar River to the confluence with the Boreas River, is considered a New York State wild river, and two stretches of the Hudson River, one being approximately 12.7 miles from the confluence with the Opalescent River to a point where Route 28N crosses the Hudson River at Newcomb and the other being approximately 45.9 miles from a point one mile north of the North River to the confluence with the Sacandaga River are designated scenic. However, these stretches are over 100 miles north of the project site.) http://www.rivers.gov/maps/conus.php</p>
ENVIRONMENTAL JUSTICE		
<p>Environmental Justice Executive Order 12898</p>	<p>Yes No <input type="checkbox"/> <input checked="" type="checkbox"/></p>	<p>The proposed project is located in or adjacent to potential environmental justice areas identified by the New York State Department of Environmental Conservation (see Figure 10). This project will not raise environmental justice issues and has no potential for new or continued disproportionately high and adverse human health and environmental effects on minority or low-income populations. http://www.dec.ny.gov/public/899.html</p>

Environmental Assessment Factors [24 CFR 58.40; Ref. 40 CFR 1508.8 &1508.27] Recorded below is the qualitative and quantitative significance of the effects of the proposal on the character, features and resources of the project area. Each factor has been evaluated and documented, as appropriate and in proportion to its relevance to the proposed action. Verifiable source documentation has been provided and described in support of each determination, as appropriate. Credible, traceable and supportive source documentation for each authority has been provided. Where applicable, the necessary reviews or consultations have been completed and applicable permits of approvals have been obtained or noted. Citations, dates/names/titles of contacts, and page references are clear. Additional documentation is attached, as appropriate. **All conditions, attenuation or mitigation measures have been clearly identified.**

Impact Codes: Use an impact code from the following list to make the determination of impact for each factor.

- (1) Minor beneficial impact
- (2) No impact anticipated
- (3) Minor Adverse Impact – May require mitigation
- (4) Significant or potentially significant impact requiring avoidance or modification which may require an Environmental Impact Statement

Environmental Assessment Factor	Impact Code	Impact Evaluation
LAND DEVELOPMENT		
Conformance with Plans / Compatible Land Use and Zoning / Scale and Urban Design	2	No impacts will occur. The proposed project will conform to land use regulations and zoning designations at and adjacent to the site. Tina Chorvas Park is located in an area of Saugerties zoned as PW ("Planned Waterfront"). The Town of Saugerties describes the purpose of the Waterfront Overlay District as "protect[ing] the water quality, floodways, shorelines, embankments and slopes of the Hudson River, Esopus Creek, and Plattekill Creek within the Town of Saugerties against erosion, filling, diversion, or other land activities and development which will degrade property or public enjoyment of these unique resources".
Soil Suitability/ Slope/ Erosion/ Drainage/ Storm Water Runoff	1	Beneficial impacts are anticipated. The proposed project involves the rehabilitation of an existing public park within the Village of Saugerties, including the rehabilitation of bulkheads which will result in shoreline stabilization and improvements that mitigate future impacts of tidal flooding and erosion. In addition, the removal of a small area of asphalt from the current parking area will contribute to total pervious surface area at the project site. Soil sampling conducted in 2016 as part of a Phase II site investigation (see Appendix E) detected numerous volatile organic compounds, specifically polycyclic aromatic hydrocarbons. Five metals, one pesticide and several dioxin/furan compounds were detected in all of the soil samples collected. Additional soil analysis will be conducted prior to disposal or reuse of soil, with soil reuse and disposal in accordance with applicable local, State, and Federal regulations. All construction activities should be completed in accordance with Occupational Safety

		<p>and Health Administration (OHSA) requirements where concentrations in soil may pose a threat to workers. Contractors will be provided a copy of the Phase II soil investigation. The sub-recipient will be required to inform contractors of the findings of the Phase II and required to limit access or mitigate exposure to onsite soils with concentrations above human health risk based concentrations.</p> <p>As a result of these measures taken to remediate contamination at the site, beneficial impacts will occur to soils.</p>
Hazards and Nuisances including Site Safety and Noise	3	<p>Minor adverse impacts will occur during construction, but these impacts will be temporary and will be mitigated. The development of the proposed project will consist of typical construction practices associated with landscape modifications and recreational facility upgrades. The proposed project will cause temporary increases in noise levels during construction that will be mitigated by complying with local noise ordinances using construction best practices. Measures will be implemented to minimize the exposure of workers and public to hazardous materials present on the site.</p>
Energy Consumption	2	<p>No impacts will occur. The proposed project will connect to existing energy utilities serving the area and will meet New York State energy requirements. During operation, the proposed project will not result in increased energy demand beyond current conditions at the site, nor will it impact electrical generation or distribution. No impacts will result.</p>
SOCIOECONOMIC		
Employment and Income Patterns	2	<p>No impacts will occur. The actions comprising the proposed project are limited to the rehabilitation of an existing public recreational amenity and have no potential to affect employment opportunities or income patterns. Short-term, localized beneficial effects to employment may occur as the result of temporary construction jobs related to the project. Moreover, although no permanent jobs are expected to be added, the proposed project has the potential to allow for a more pleasant waterfront, attracting additional tourists to the park and promoting the local tourism economy.</p>
Demographic Character Changes, Displacement	2	<p>No impacts will occur. The proposed project is being undertaken to rehabilitate an existing public recreational amenity. The project is not expected to induce any change in the demographic character of the adjoining neighborhood. In addition, the proposed project will not result in any new residential units and will therefore not change the demographic character of the area. Long-term beneficial effects related to public health will occur in the surrounding community as a result of the provision of an enhanced open space and recreational amenity in the village.</p>
COMMUNITY FACILITIES AND SERVICES		
Educational and Cultural Facilities	2	<p>No impacts will occur. The proposed project will not result in any new residential units. Therefore, the proposed project will not result in impacts to educational facilities. The proposed project will not adversely impact cultural facilities. Consultation with the New York State Historic Preservation Office (SHPO) was initiated on October 7, 2016. On October 25, 2016, SHPO concurred with the opinion that there will be</p>

		No Historic Properties Affected as a result of the proposed project (See Appendix I).
Commercial Facilities	2	No impacts will occur. The proposed project is limited to the rehabilitation of a public park and will not introduce any new development that will require retail services or other commercial facilities.
Health Care and Social Services	2	No impacts will occur. The proposed project is limited to the rehabilitation of an existing recreational amenity and will not introduce any new development that will affect the current availability of existing health care or social services, nor will it generate additional demand for these community services.
Solid Waste Disposal / Recycling	3	Minor impacts will occur. The proposed project will involve the restoration of existing parkland. Site preparation activities will result in the generation of small quantities of solid waste in the form of construction debris on site. While the quantity of solid waste generated during construction activities and project operation will present a measureable increase from existing conditions, it is not expected that solid waste generated from the project will exceed existing municipal solid waste disposal capacity. The proposed enhancements to a preexisting public park will not create a measurable increase in solid waste generation by recreational users that will be beyond the current solid waste management capacity of the Village of Saugerties.
Waste Water / Sanitary Sewers	2	No impacts will occur. The proposed project will not affect the capacity of the existing sanitary sewer system in the Village of Saugerties. The proposed improvements will not generate increased demand for wastewater treatment because no additional wastewater will be generated.
Water Supply	2	No impacts will occur. The proposed project is limited to the rehabilitation of bulkhead and park infrastructure and will not generate increased demand for water.
Public Safety - Police, Fire and Emergency Medical	3	Minor impacts will occur. The proposed project will result in the rehabilitation of an existing public recreation amenity within the Village of Saugerties. Improvements to the park will generate an increase in visitation, with an associated increased demand for police, fire and emergency medical services. However, the project is not anticipated to result in a significant adverse impact on these services because Tina Chorvas Park is a preexisting use within the community, and the anticipated increase in visitation will not present a burden to local public safety services.
Parks, Open Space and Recreation	1	Beneficial effects are anticipated. The proposed project will result in the rehabilitation of an existing public recreational facility, thereby providing a benefit in the form of improved and additional recreational amenities. As a result, the proposed project will result in minor beneficial effects to parks, open space or recreation resources.
Transportation and Accessibility	3	Minor impacts will occur. Improvements to the park will generate an increase in visitation, with an associated increase in traffic. However, the project is not anticipated to result in a significant adverse impact on transportation and accessibility because Tina Chorvas Park is a preexisting use within the community. Moreover, the rehabilitation of the park will not introduce a new development of the scale and degree

		that will require new or improved transportation connections or contribute significantly to existing demand on transportation services in the village. Temporary and localized minor adverse impacts to accessibility occurring as a result of construction-related vehicle trips during the period of renovation activities will be minimized through the use of a maintenance and protection of traffic (MPT) plan.
NATURAL FEATURES		
Unique Natural Features, Water Resources	2	<p>No impacts will occur. The Environmental Review Guide for CDBR Programs defines unique natural features as "primarily geological features which are unique in the sense that their occurrence is infrequent or they are of special social/cultural, economic, educational, aesthetic, or scientific value. Development on or near them may render them inaccessible to investigators or visitors or otherwise limit potential future use and appreciation of these resources. Examples of unique natural features include: sand dunes, waterfalls, unique rock outcroppings, caves with limestone or gypsum deposits, canyons, and petrified forests. Also included are unique stands of trees, such as redwoods, or unique colonies of animals, such as a prairie dog town. The NYSDEC lists no Critical Environmental Areas in the vicinity of the project site. In addition, the NYSDEC Environmental Assessment Form screening tool found that no unique geologic features occur in the project vicinity. The project location does not contain any agricultural lands and is not suited for agricultural uses.</p> <p>Tina Chorvas Park is adjacent to a portion of Esopus Creek that is classified as a Tidal Riverine system according to the National Wetlands Inventory. The Esopus Creek is classified by the NYSDEC as a Class C stream, Water Index Number H-171 which is in the Lower Esopus Creek Drainage Basin. This portion of the Esopus Creek is influenced by the tidal water level variations in the Hudson River located approximately 4,200 feet downstream. The tidal water levels in the Esopus Creek vary from a high tide at approximately Elevation 3.5 feet to a low tide at approximately Elevation -1.0 feet.</p>
Vegetation, Wildlife	3	<p>Impacts to vegetation and wildlife will be minor and short-term. The new bulkhead will be constructed within the same location of the existing, damaged bulkhead. However, upland vegetation may be present landward of the bulkheads, likely grass with some opportunistic herbaceous species, that may be damaged during construction or mobilization of construction equipment. Following construction, the pervious and impervious surfaces at each project location will be allowed to naturally revegetate following construction.</p> <p>Wildlife expected to occur within the vicinity of the project area include mobile species that can easily avoid the project area during construction. Terrestrial species such as raccoons, squirrels, rabbits, sparrows, and passerine birds, may be present within the uplands adjacent to project area bulkheads, but due to dense development the project areas do not support quality foraging, nesting, or shelter for wildlife species. Fish species likely to be found in the waters in the vicinity of the bulkheads include black sea bass (<i>Centropristis striata</i>), bluefish (<i>Pomatomus saltatrix</i>), tautog (<i>Tautoga onitis</i>), winter flounder</p>

		<p>(<i>Pseudopleuronectes americanus</i>) and forage species such as mummichog (<i>Fundulus heteroclitus</i>), and Atlantic silversides (<i>Menidia menidia</i>). Impacts to wildlife and fish will be limited to avoidance of the immediate project area during construction activity. Wildlife and fish species that may be temporarily displaced will be expected to return upon completion of construction. Best Management Practices such as the use of turbidity curtains, the placement of all fill landward of the bulkhead and the installation of new piles and sheeting via jetting will be utilized to avoid or minimize potential impacts to aquatic species.</p> <p>According to the USFWS IPaC Trust Resource Report and Official Species List of threatened and endangered species, there are two listed species under USFWS jurisdiction that may potentially occur with the project area (Indiana bat and NLEB), and nineteen migratory birds of concern that could potentially be affected by the proposed project. There is no critical habitat designated within the project area.</p> <p>The shoreline within the project area is bulkheaded and highly developed and does not provide suitable habitat for any listed species. In addition, the immediate vicinity of the project area is subject to frequent human activity that is not conducive to use by protected species. The proposed project does include tree removal, however, and could thus potentially affect migratory birds or listed bat species.</p> <p>A Phase 1 Summer Bat Habit Assessment was conducted by a NYSDEC Wildlife Biologist on April 3, 2017. The assessment concluded that the project is approximately 10 miles from nearest known Indian bat and northern long-eared bat occurrence and the trees to be removed do NOT have exfoliated bark or cavities. Therefore it was determined that no suitable habit occurs at the site for either bat species. Based on the findings of the summer habitat assessment and supporting documentation, GOSR determined that the project would have “No Effect” on threatened or endangered species. USFWS concurred with this determination on April 20, 2017 (see Appendix G).</p> <p>Atlantic sturgeon (<i>Acipenser oxyrinchus oxyrinchus</i>) and shortnose sturgeon (<i>Acipenser brevirostrum</i>) occur in the Hudson River and lower portion of Hudson River Tributaries. However, while these species may occur within the vicinity of the action area, they are not expected to frequent shallow waters such as the action area. Furthermore, no dredging is proposed as part of the project, and there will be no risk of entrapment. Construction will not result in an increase in vessel traffic in the area; therefore, there the project will not increase the risk of interactions between vessels and sturgeon. Notice of a No Effect Determination was sent to the National Marine Fisheries Service (NMFS) was initiated on January 26, 2017 (see Appendix H).</p> <p>Impacts to vegetation and wildlife will be minor and temporary. Impacts to wildlife will include avoidance of the immediate project area during construction activity. Impacts to vegetation will include disturbance to adjacent upland vegetation during mobilization or construction, but</p>
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		disturbed areas will be allowed to naturally revegetate following construction. No impact is anticipated to protected species or habitats.
Other Factors	2	There are no other factors applicable to the proposed project.

Additional Studies Performed

SEQRA Environmental Assessment- Negative Declaration issued May 2017.

Field Inspection (Date and completed by):

Soil Investigation and Field Inspection- Conducted by Foit-Albert Associates, Architecture, Engineering and Surveying, P.C., November 21, 2016.

Phase 1 Summer Bat Habitat Survey- Conducted by Amanda Bailey, NYSDEC, March 31, 2017

List of Sources, Agencies and Persons Consulted [40 CFR 1508.9(b)]:

Sources

Application for Funding Parks Restoration to NY State CDBG-Disaster Recovery Program, June 2015, Prepared by Hunt, Guillot, & Associates, LLC.

Subsurface Investigation for Tina Chorvas Park. Prepared by LiRo Engineers, Inc. January 20, 2017.

Engineering Design Report for the Tina Chorvas Park Restoration Project, June 2016, Prepared by Brinnier and Larios, P.C.

NY Rising Community Reconstruction Plan Ulster Communities, March 2014,
https://stormrecovery.ny.gov/sites/default/files/crp/community/documents/ulstercounty_nyrcr_plan.pdf ,
 accessed on 3/25/2105

New York State Department of Environmental Conservation, Permit (ID 3-5148-00207/00005) Stream Disturbance – Under Article 15 Title 5, Permit (ID 3-5148-00207/00006) Water Quality Certification – Under Section 401 – Clean Water Act, November 11, 2014

New York State Department of Environmental Conservation, Permit (ID 3-5148-00430/00001) Excavation & Fill in Navigable Waters – Under Article 15 Title 5, Permit (ID 3-5148-00430/00002) Water Quality Certification – Under Section 401 – Clean Water Act, January 9, 2015

Village of Saugerties Parks Restoration CDBG-DR Pre-Application Report, November 24, 2014. Authorized by William Murphy.

National Wild and Scenic Rivers System. <http://www.rivers.gov/maps/conus.php>

New York State Cultural Resource Information System, <https://cris.parks.ny.gov/Login.aspx?ReturnUrl=%2f>.

New York State Historic Preservation Office (SHPO) and the Division for Historic Preservation (DHP) within the Office of Parks, Recreation and Historic Preservation (OPRHP), New York State Cultural Resource Information System (CRIS), <https://cris.parks.ny.gov/>.

New York State Department of Environmental Conservation, Environmental Justice Areas, <http://www.dec.ny.gov/public/899.html>

New York State Department of Environmental Conservation, Environmental Resource Mapper, <http://www.dec.ny.gov/imsmaps/ERM/viewer.htm>

New York State Department of Environmental Conservation, Environmental Facilities Mapper, <http://www.dec.ny.gov/imsmaps/facilities/viewer.htm>

New York State Department of Environmental Conservation, Environmental Site Remediation Database, <http://www.dec.ny.gov/cfm/xtapps/derexternal/index.cfm?pageid=3>

New York State Department of Environmental Conservation, Spill Incidents Database Search, <http://www.dec.ny.gov/cfm/xtapps/derexternal/index.cfm?pageid=2>

New York State Department of State, Coastal Boundary Map, <http://www.dos.ny.gov/opd/atlas/>.

United States Department of Agriculture Natural Resources Conservation Services, Web Soil Survey, <http://websoilsurvey.sc.egov.usda.gov/App/HomePage.htm>.

United States Department of Housing and Urban Development. HUD Fact Sheet #d1 Siting HUD Assisted Projects in Accident Potential Zones
https://www.michigan.gov/documents/mshda/mshda_cd_nsp2_air_accident_315724_7.pdf

United States Environmental Protection Agency, The Green Book Nonattainment Areas for Criteria Pollutants. <http://www.epa.gov/airquality/greenbook/adden.html>

United States Environmental Protection Agency, Sole Source Aquifers, <https://www.epa.gov/dwssa>

United States Federal Emergency Management Agency. FIRM Panels. <https://msc.fema.gov/portal>

United States Fish and Wildlife Service, Coastal Barrier Resources, <http://www.fws.gov/ecological-services/habitat-conservation/cbra/Maps/index.html>

United States Fish and Wildlife Service, National Wetlands Inventory, <http://www.fws.gov/wetlands/>.

United States Fish and Wildlife Service, Wetland-Codes, <https://www.fws.gov/wetlands/data/Wetland-Codes.html>

United States Fish and Wildlife Service, IPaC Information for Planning and Conservation, <http://ecos.fws.gov/ipac/>.

Village of Saugerties, Zoning Map, <http://village.saugerties.ny.us/content/Laws/View/2>

Town of and Village of Saugerties, Comprehensive Land Use Plan, <http://saugerties.ny.us/content/Generic/View/16>

Town of Saugerties, Zoning Districts (§245-6), <http://www.ecode360.com/13646085:>
http://ulstercountyny.gov/planning/local_law_directory

See Figures 1- 11 and Appendices A-K for additional sources.

Agencies and Persons Consulted

Consistency Review Unit, New York State Department of State Division of Coastal Resources

New York State Department of Environmental Conservation; Division of Fish, Wildlife and Marine Resources, Natural Heritage Program

New York State Department of Environmental Conservation; Division of Environmental Permits, Region 3

New York Ecological Services Field Office, U.S. Fish & Wildlife Service

Division for Historic Preservation, New York State Parks, Recreation & Historic Preservation

Tribal consultation: Delaware Nation; Delaware Tribe of Indians; Saint Regis Mohawk; Stockbridge-Munsee Community Band of Mohicans; Mohawk Nation

List of Permits Obtained or Required:

Specific permits required for the project have been determined and are listed below. Copies of permits obtained are provided in **Appendix M**.

Federal Permits, Approvals, and/or Consultations:	Agency	Status
Clean Water Act – Section 404 - Nationwide Permit 3 (Maintenance)	USACE	Pre-Construction Notification not required
New York State and Local Permits, Approvals, and/or Consultations:	Agency	
Water Quality Certification – Section 401 of the Clean Water Act	NYS DEC	Obtained
NYSDEC Article 15, Title 5, Stream Disturbance Permit to physically disturb the bed and banks of the Esopus Creek.	NYS DEC	Obtained
NYSDEC Article 15, Title 5, Excavation & Fill in Navigable Waters Permit to allow excavation and filling below the mean water line.	NYS DEC	Obtained
Village of Saugerties Floodplain Development Permit	Village of Saugerties	Application Filed

Public Outreach [24 CFR 50.23 & 58.43]:

A 15-day public review period for this Environmental Assessment was initiated upon publication of the combined notice of Finding Of No Significant Impact (FONSI) and Notice of Intent to Request Release of Funds (NOI/RROF). During this period, any individual, group or agency could submit written comments on the Project.

Cumulative Impact Analysis [24 CFR 58.32]:

Current and reasonably foreseeable projects identified in the vicinity of Tina Chorvas Park include the Village Beach Park Restoration and repairs to the Saugerties Historic Lighthouse. The Village Beach Park Restoration project is implementing beach restorations at Village Beach, including the repair or upgrade of existing docks and eroded boat ramps along Esopus Creek. Repairs to the historic lighthouse will include repairs to supporting structures adjacent to the lighthouse, including repairing a large gap in

the seawall that protects the harbor channel, as well as bulkhead, pier, and docks repairs. While the seawall is important for preventing siltation of the harbor channel, the bulkhead and pier protect the lighthouse, which is a community asset and historic building. The pier and seawall are also popular as public fishing sites. Repairs to the seawall and supporting structures adjacent to the lighthouse will provide flood mitigation to the lighthouse and harbor channel.

Impacts from the proposed project, when combined with those of the projects occurring in the project vicinity described above, may contribute to minor short-term cumulative impacts to noise, transportation and public safety. However, the majority of impacts from the proposed project will be short-term in duration and occur only during the construction period associated with site preparation and park rehabilitation. As a result, adverse cumulative impacts from the proposed project will be minimal and are not expected to rise to a level of significance in the context of overall development occurring within the vicinity of the project. Because the construction periods associated with each of these rehabilitation and repair projects are staggered and will not occur simultaneously, there will be no contribution to cumulative impacts during construction. Over the long term, beneficial cumulative effects on parks, open space and recreation, and flood protection will occur as the result of the planned enhancements to these community amenities.

Alternatives [24 CFR 58.40(e); 40 CFR 1508.9]:

The approach to the design of the rehabilitated bulkheads included consideration of a modified alternative which proposed construction of “soft bulkheads”, which will utilize more natural methods such as wetland planting, coir logs and stone fill. Incorporation of natural stream design methods such as “root wad deflectors” or toe wood structures, cross-vanes, W-wiers or J-hook vanes, have been used at other sites to establish grade control, reduce streambank erosion, improve fish/wildlife habitat and dissipate excess energy. Upon review it was determined that these natural stream design methods may be applicable for the shoreline on the north and south sides of the coal bin building ruins, but use of them along the coal bin building ruins will significantly encroach into the waterway. This will cause a reduction in the cross sectional area of the Esopus Creek, with a corresponding increase in stream velocity, contributing to bank erosion downstream of the reduced cross sectional area. Hence, use of natural stream methods was not considered for the shoreline adjacent to the coal bin building ruins.

The goals for this project are to repair public facilities, stabilize the shoreline and supporting structures, and protect aquatic species and habitat in the Esopus Creek during periods of high velocity flooding. The modified alternative was not selected because it will not best meet these goals. Although the modified alternative includes landscaping elements that are more environmentally sensitive, and while such options could be considered for locations less prone to flooding and storm damage, wetland planting, coir logs and stone fill will not provide the required additional level of protection against flooding during future storm events.

No Action Alternative [24 CFR 58.40(e)]:

Without the proposed project, no improvements will be conducted at the park and the deteriorated bulkheads at Tina Chorvas Park will remain in their current condition. There will be no added resiliency of the shoreline and protection against storms and rising sea levels. The existing bulkheads are in need

of upgrades and replacement. If bulkhead repairs were not completed, there will be a resulting permanent loss of land as well as sedimentation of adjacent waterways due to erosion.

Summary of Findings and Conclusions:

The proposed project will repair damaged public facilities that suffered impacts from storm events and help mitigate future impacts of tidal and coastal flooding to the public recreational facilities located at Tina Chorvas Park.

Project benefits will include disaster risk reduction through shoreline stabilization, which will increase the storm resiliency of this public amenity and reduce the risk of flooding and flood damage from future storms. This project will extend the existing bulkheads in Tina Chorvas Waterfront Park along Esopus Creek, a staging area (future parking) and access road will be constructed, and a chain-link fence will be installed around building ruins. The current shoreline of the creek contains a total of 420 linear feet of former bulkhead that has failed due to lack of maintenance and erosion caused by stormwater. The bulkhead needs reinforcement to improve storm resiliency. This preparation for predicted sea level rise will provide enhanced public access and will allow for redevelopment along the abandoned waterfront industrial site.

As shown above in the Environmental Assessment Checklist, no significant land development, neighborhood, socioeconomic, natural resources, community facility or other direct, indirect or cumulative impacts will result from the proposed project. As shown in the accompanying Statutory Checklists, the proposed project will comply with all relevant regulations listed in 24 CFR subparts 58.5 and 58.6.

Mitigation Measures and Conditions [40 CFR 1505.2(c)]

Summarize below all mitigation measures adopted by the Responsible Entity to reduce, avoid, or eliminate adverse environmental impacts and to avoid non-compliance or non-conformance with the above-listed authorities and factors. These measures/conditions must be incorporated into project contracts, development agreements, and other relevant documents. The staff responsible for implementing and monitoring mitigation measures should be clearly identified in the mitigation plan.

Law, Authority, or Factor	Mitigation Measure
Permit Requirements	All permit conditions listed above or otherwise required for activities under the proposed project must be adhered to.

Standard Conditions for All Projects

Any change to the approved scope of work will require re-evaluation by the Certifying Officer for compliance with NEPA and other laws and Executive Orders.

This review does not address all federal, state and local requirements. Acceptance of federal funding requires recipient to comply with all federal state and local laws. Failure to obtain all appropriate federal, state and local environmental permits and clearances may jeopardize federal funding

Determination:

- ☒ **Finding of No Significant Impact** [24 CFR 58.40(g)(1); 40 CFR 1508.27]
The project will not result in a significant impact on the quality of the human environment.
- ☐ **Finding of Significant Impact** [24 CFR 58.40(g)(2); 40 CFR 1508.27]
The project may significantly affect the quality of the human environment.



May 3, 2017

Preparer Signature

Date

Joshua Schnabel, Environmental Planner, Louis Berger, Inc.

Name/Title/Organization



May 3, 2017

Signature of Certifying Officer

Date

Lori A. Shirley

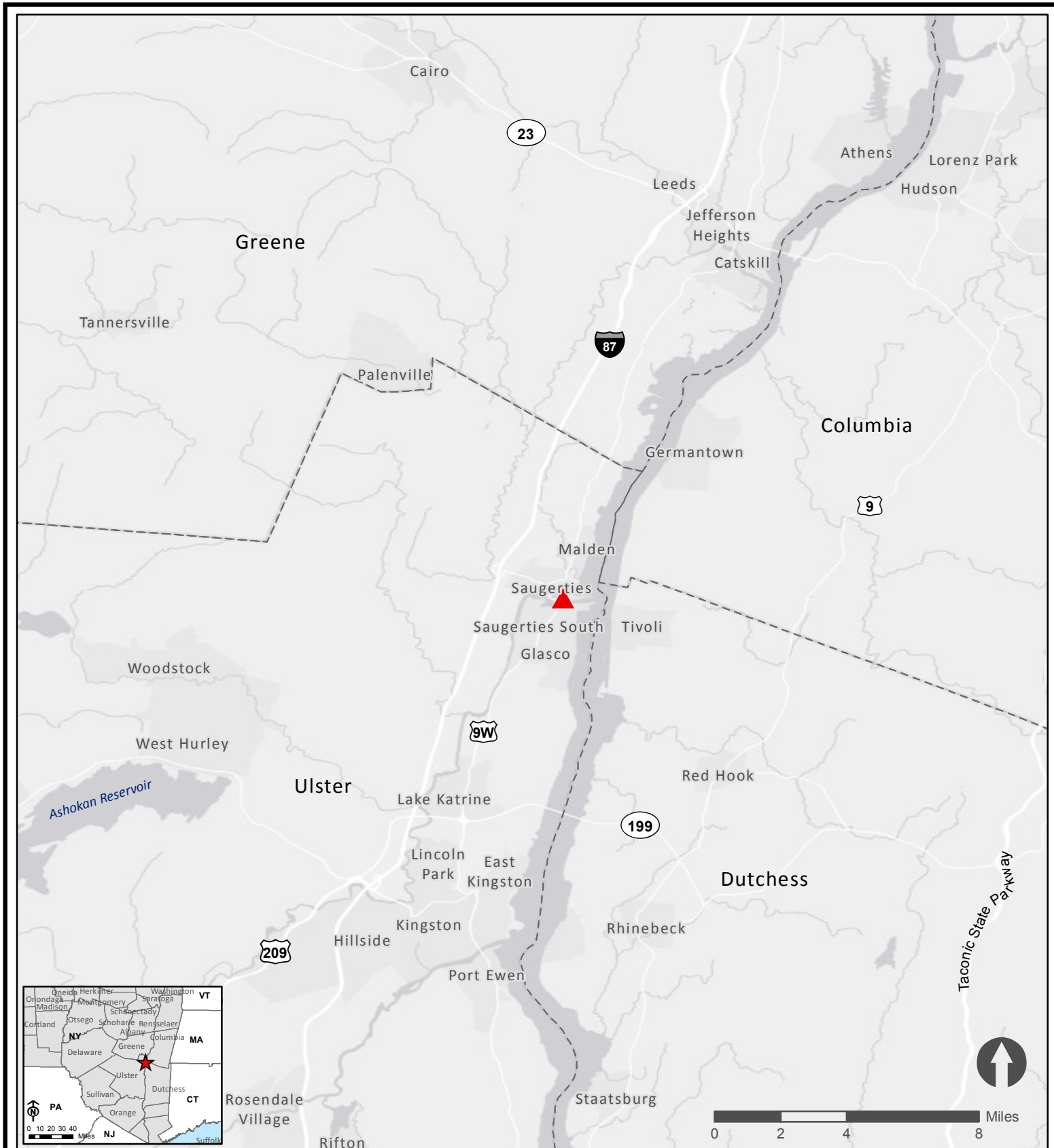
Certifying Officer

Print Name

Title

This original, signed document and related supporting material must be retained on file by the Responsible Entity in an Environmental Review Record (ERR) for the activity/project (ref: 24 CFR Part 58.38) and in accordance with recordkeeping requirements for the HUD program(s).

FIGURES



- ▲ Project Location
- County Boundary

Figure 1
Regional Location

Tina Chorvas Park
Restoration Project

Source: U.S. Fish and Wildlife Service; Ulster County GIS Datasets;
NYS Dept. of State; NYS Department of Environmental Conservation;
U.S. Department of Agriculture; FEMA; ESRI World Imagery; ESRI Street Map



 Project Boundary

Figure 2
Project Area

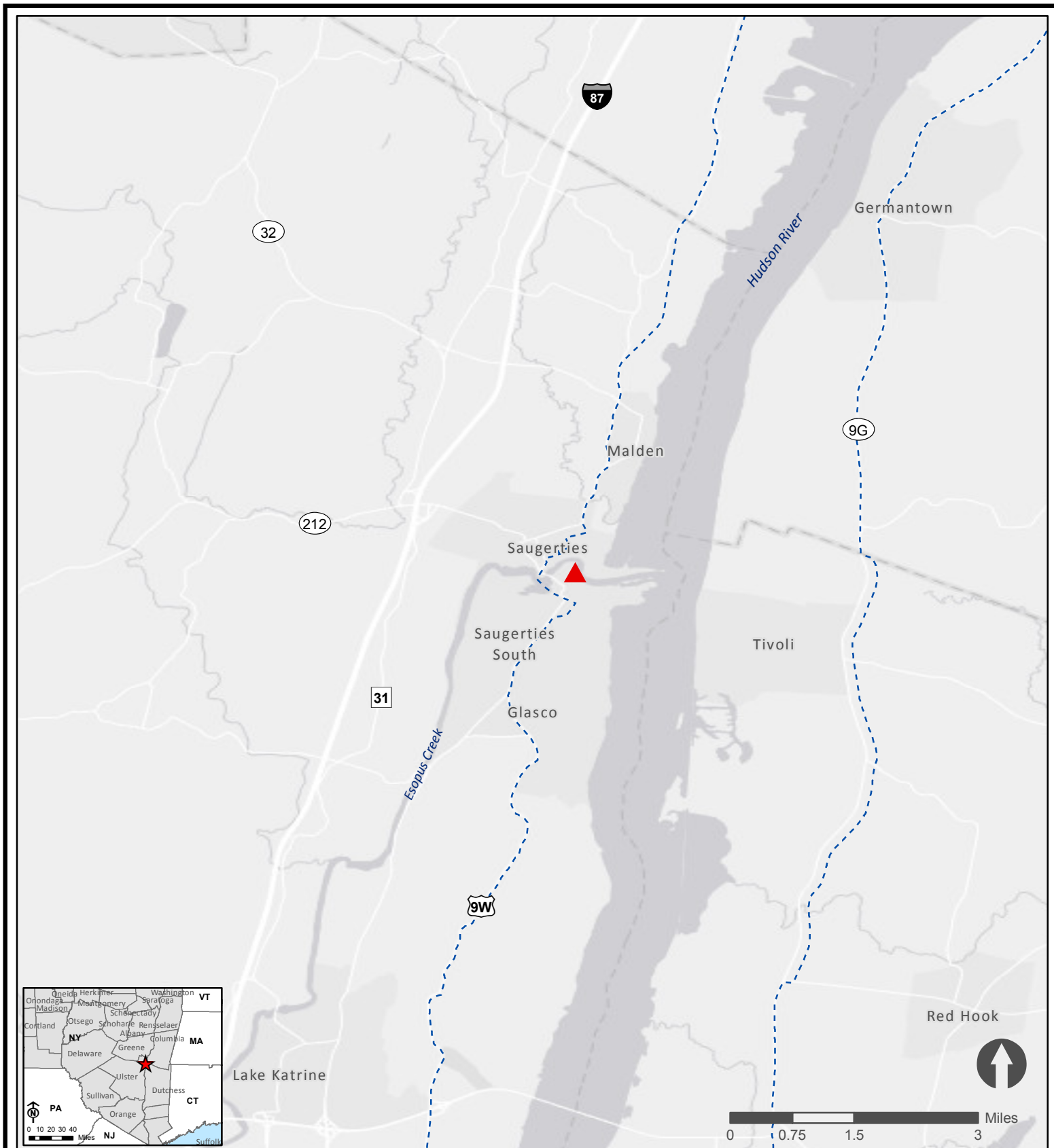
Tina Chorvas Park
Restoration Project



- Project Boundary
- FEMA 100 Yr. Flood Hazard Zone
- FEMA 500 Yr. Flood Hazard Zone

Figure 3
Flood Hazard

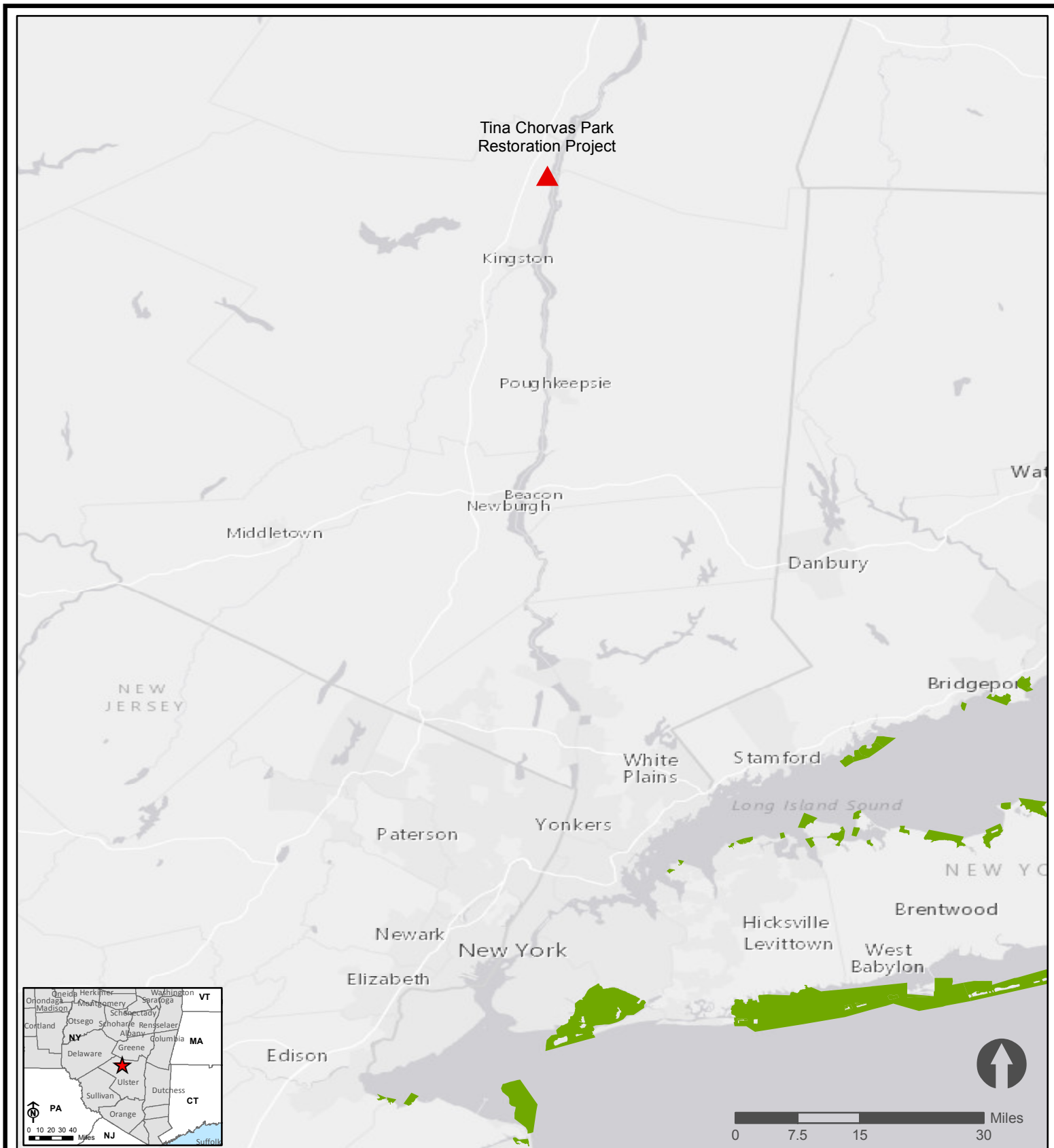
Tina Chorvas Park
Restoration Project



- ▲ Project Location
- Coastal Boundary

Figure 4
Coastal Boundary

Tina Chorvas Park
Restoration Project



- ▲ Project Location
- Coastal Barrier Resource System

Figure 5
Coastal Barrier Resource System

Tina Chorvas Park
 Restoration Project

Source: U.S. Fish and Wildlife Service; Ulster County GIS Datasets;
 NYS Dept. of State; NYS Department of Environmental Conservation;
 U.S. Department of Agriculture; FEMA; ESRI World Imagery; ESRI Street Map



- Project Boundary
- Remediation Site

Figure 6
Remediation Sites

Tina Chorvas Park
Restoration Project

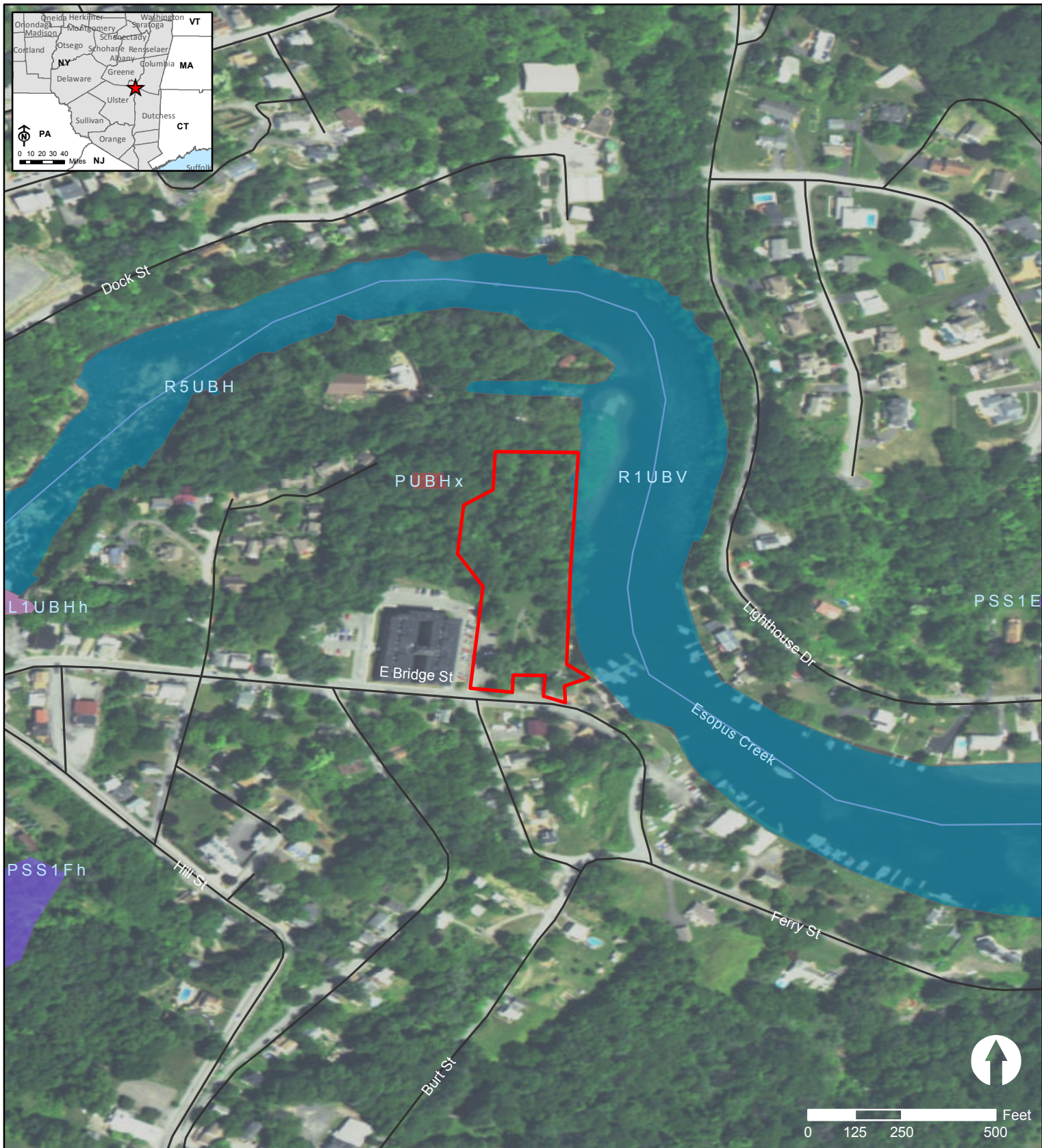


- ▲ Project Location
- Sole Source Aquifer

Figure 7
Sole Source Aquifers

Tina Chorvas Park
Restoration Project

Source: U.S. Fish and Wildlife Service; Ulster County GIS Datasets;
NYS Dept. of State; NYS Department of Environmental Conservation;
U.S. Department of Agriculture; FEMA; ESRI World Imagery; ESRI Street Map



- Project Boundary**
- Wetland Type**
- Freshwater Pond
 - Lake
 - Freshwater Forested/Shrub Wetland
 - Riverine

Figure 8
Wetlands

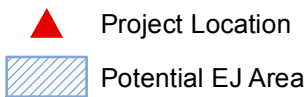
Tina Chorvas Park
Restoration Project



- Project Boundary
- Scenic Areas

Figure 9
Scenic Areas

Tina Chorvas Park
Restoration Project



Tina Chorvas Park
Restoration Project



Louis Berger

APPENDIX A - ENVIRONMENTAL SITE REMEDIATION DATABASE SEARCH DETAILS



Department of
Environmental
Conservation

Environmental Site Remediation Database Search Details

Site Record

Administrative Information

Site Name: Saugerties MGP
Site Code: 356018
Program: State Superfund Program
Classification: C
EPA ID Number:

Location

DEC Region: 3
Address: 16 Ferry Street
City: Saugerties Zip: 12477
County: Ulster
Latitude: 42.068824797
Longitude: -73.942619147
Site Type: DUMP STRUCTURE
Estimated Size: 0.8 Acres

Site Owner(s) and Operator(s)

Current Owner Name:
Current Owner(s) Address: PO Box 381
Hunter, NY, 12442
Owner(s) during disposal: SAUGERTIES GAS AND LIGHT COMPANY

Hazardous Waste Disposal Period

From: 1860 **To:** 1927

Site Description

LOCATION: The Saugerties former Manufactured Gas Plant (MGP) site is located at 16 Ferry Street in Saugerties, Ulster County. It is approximately 0.8 acres in size, and is bordered on the east, west, and south by residential properties, and to the north by Ferry Street. The Esopus Creek is about 180' to the northeast of the site. The site lies about 4000' to the west from the

Esopus' confluence with the Hudson River. **SITE FEATURES:** The site is currently a residential property consisting of a private home and a large detached garage. Some foundations of former MGP structures remain at the site; the foundation of the former coal shed was utilized as a garden, and the former purifier is currently used to compost yard refuse. A small unnamed tributary runs along the west-southwestern border of the property, and a drainage ditch runs along Ferry Street at the north of the site. **CURRENT ZONING/USES:** The site is currently residential. The surrounding parcels are also zoned residential. The homes in this area are served by public water and sewer. **HISTORICAL USES:** A manufactured gas plant operated at this site from at least 1892 through 1928. The maximum footprint of the operation, based on a 1927 Sanborn Map, included two cylindrical iron gasholders, a cylindrical coke house, retorts, a purifier, an oxidizer, and a coal shed. The MGP converted from the coal gasification process to a water gas process sometime between the years 1923 and 1928. There was also a trestle from the facility to the Esopus Creek, which was likely used to import coal and export coal tar. Iron-colored staining and small fragments of coke and coal have been found around the site, particularly in the drainage ditch near the location of the former trestle. A small amount of coal tar-like product was observed in the location of the former coke house (currently the detached garage) from 10'-16' bgs. A State Superfund Site characterization began in the Spring of 2008 and continued in two project phases until 2011. The Site Characterization Report was approved in May 2011. **SITE GEOLOGY AND HYDROGEOLOGY:** Regionally, the site lies within the valley and ridge province, an area of low rolling relief generally comprised of unconsolidated glacial deposits overlying alternating layers of folded sandstone, shale, and carbonate rock of ordovician to devonian age. The site is underlain by stratified clay and silt and along the contact with a deposit of stratified sand and gravel to the east. Permanent wells were not installed at the site, therefore static water levels and gradients were not investigated. Groundwater is likely influenced by tidal fluctuations, and is presumed to flow north-northeast toward the Esopus and Hudson.

Contaminants of Concern (Including Materials Disposed)

Type of Waste	Quantity of Waste
---------------	-------------------

coal tar	UNKNOWN
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Site Environmental Assessment

NATURE AND EXTENT OF CONTAMINATION: Contaminants of concern at the site are those typically found at MGP sites: coal tar, polycyclic aromatic hydrocarbons (PAHs), BTEX, cyanide, and metals. Surface soils: PAHs detected, few exceedences above residential SCOs, the highest being indeno(1,2,3-cd)pyrene at 37 mg/kg, chrysene at 48 mg/kg, and benzo(a)

pyrene at 56 mg/kg from a sample taken near the drainage ditch/former trestle along Ferry Street. The same surface soil sample showed arsenic slightly exceeded SCO at 23 mg/kg. Subsurface soils: Staining and odors were observed in some soil borings. Coal tar-like product was observed in soil boring (SB-11) near the former coke house, from 11' - 16' bgs. VOCs detected above SCO were benzene, toluene, and xylene (BTX), and located near the aforementioned drainage ditch, 1-2' bgs. SVOCs detected in the soil in concentrations exceeding the SCO include naphthalene (130 mg/kg at SB-20), and PAHs (~500 mg/kg at SB-20). The highest concentrations were found at SB-13 near a former gas holder, and SB-20, downgradient of holders. Metals exceeding SCO include arsenic (64 mg/kg at SB-20), barium (366 mg/kg at SB-10), cadmium (19 mg/kg at SB-19), manganese (6370 mg/kg at SB-19), and mercury (0.95 mg/kg at SB-01). Groundwater: Groundwater grab samples were taken from temporary well points. A small low-level contaminant plume was detected on-site for VOCs (BTX) and SVOCs (PAHs), and metals, contained entirely on the site. SIGNIFICANT THREAT: This site does not pose a significant threat to human health and/or the environment.

Site Health Assessment

Access to the site is unrestricted. However, contact with contaminated soil or groundwater is unlikely unless people dig below the ground surface. People are not drinking the contaminated groundwater because the area is served by a public water supply that is not affected by this contamination.

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Department of
Environmental
Conservation

Environmental Site Remediation Database Search Details

Site Record

Administrative Information

Site Name: CH - Saugerties MGP
Site Code: V00694
Program: Voluntary Cleanup Program
Classification: N *
EPA ID Number:

Location

DEC Region: 3
Address: 16 Ferry Street
City: Saugerties Zip: 12477
County: Ulster
Latitude: 42.06880297
Longitude: -73.94264919
Site Type:
Estimated Size: 0 Acres

Site Owner(s) and Operator(s)

Current Owner Name: MR. & MRS SCHAEFFER
Current Owner(s) Address: 16 FERRY STREET
SAUGERTIES,NY , 12477

Site Description

Site was investigated under the Superfund Program. See Site No. 356018.

Contaminants of Concern (Including Materials Disposed)

Type of Waste	Quantity of Waste
UNKNOWN	

*** Class N Sites:** "DEC offers this information with the caution that the amount of information provided for Class N sites is highly variable, not necessarily based on any DEC investigation, sometimes of unknown origin, and sometimes is many years old. Due to the preliminary nature of this information, significant conclusions or decisions should not be based solely upon this summary."

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APPENDIX B - USDA SOIL SURVEY REPORT

Farmland Classification—Ulster County, New York



Farmland Classification

Farmland Classification— Summary by Map Unit — Ulster County, New York (NY111)				
Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
BOD	Bath-Nassau-Rock outcrop complex, hilly	Not prime farmland	3.1	84.0%
NBF	Nassau-Bath-Rock outcrop complex, very steep	Not prime farmland	0.6	16.0%
Totals for Area of Interest			3.7	100.0%

Description

Farmland classification identifies map units as prime farmland, farmland of statewide importance, farmland of local importance, or unique farmland. It identifies the location and extent of the soils that are best suited to food, feed, fiber, forage, and oilseed crops. NRCS policy and procedures on prime and unique farmlands are published in the "Federal Register," Vol. 43, No. 21, January 31, 1978.

Rating Options

Aggregation Method: No Aggregation Necessary

Tie-break Rule: Lower

APPENDIX C - FLOODPLAIN MANAGEMENT 5-STEP PROCESS

Floodplain 5-Step Process
In accordance with Executive Order 11988: Floodplain Management
New York Governor's Office of Storm Recovery
Tina Chorvas Park Restoration, Village of Saugerties, Ulster County, NY
Lori A. Shirley, Certifying Environmental Officer
March 9, 2017

The New York State Governor's Office of Storm Recovery ("GOSR") received a funding application for the proposed "Tina Chorvas Park Restoration" project located in the Village of Saugerties, Ulster County, New York. The proposed project would repair a damaged public park that suffered impacts from storm events and help mitigate future impacts through shoreline stabilization involving installation of replacement bulkheads.

Pursuant to 24 CFR §55.12(a)(4), steps 2, 3, and 7 of the 8-step process for floodplain management do not apply to projects involving the improvement of existing nonresidential buildings and structures, in communities that are in the Regular Program of the National Flood Insurance Program (NFIP) and are in good standing, provided that the action does not meet the thresholds for "substantial improvement" under §55.2(b)(10) and that the footprint of the structure and paved areas is not significantly increased. The Village of Saugerties is in the NFIP (CID 361504) and in good standing and the proposed project does not constitute a substantial improvement. Therefore, the abbreviated 5-step process for floodplain management is followed herein.

Step One: Determine whether the proposed action is located in a 100-year floodplain (or a 500-year floodplain for a Critical Action).

The project would stabilize the shoreline and supporting structures, which would involve actions to be taken within the 100-year Floodplain (Zone AE), as indicated by Flood Insurance Rate Map Panel 36111C0305E dated September 25, 2009 (See *Figure 1*). The overall construction activity should take from 4 to 6 months to complete, with the proposed improvements to project site being constructed anytime during the normal construction period from May to December.

Step Two: Notify the public for early review of the proposal and involve the affected and interested public in the decision making process.

Not Applicable.

Step Three: Identify and evaluate practicable alternatives.

Not Applicable.

Step Four: Identify Potential Direct and Indirect Impacts of Associated with Floodplain Development.

During the construction phase, approximately 245 linear feet of new bulkhead will be installed to stabilize the Esopus Creek shoreline along the east side of the project site. The bulkhead will be constructed by driving H-piles into the river every 6 feet on-center. Concrete panels will be placed between the H-piles and the void behind will be filled and leveled to the existing ground surface. Approximately 245 linear feet of pervious surface (shoreline grass and other vegetation) would be

temporarily disturbed during bulkhead installation. Following construction activities, the natural surface at the construction area would be restored to its original condition, resulting in no long term changes to the floodplain. All work associated with the proposed project would occur within the existing footprint of previous disturbance.

The clearing of trees and brush required for the construction of a new access road within the park would not occur within the floodplain boundaries. The new access road would be impervious and would not contribute to increased volumes of surface water runoff during storm events. As such, floodplain function and values would not be affected by this component of the project.

The proposed project seeks to reduce the risk of damage from future floods through improvements which would stabilize the existing shoreline. Given that the proposed project components located within the floodplain would provide enhanced protection from erosion and project construction activities would not impact floodplain values, there are no direct or indirect impacts anticipated as a result of the proposed project activities.

The proposed project action would have a beneficial outcome for the residents of the Village of Saugerties. Implementation of the proposed project would provide disaster risk reduction through shoreline stabilization, which would increase the storm resiliency of this public amenity and reduce the risk of flooding and flood damage from future storms.

Step Five: Where practicable, design or modify the proposed action to minimize the potential adverse impacts to lives, property, and natural values within the floodplain and to restore, and preserve the values of the floodplain.

Based on the scope of the project, the proposed project would not result in significant adverse impacts to flood levels, flood risk, or the flow of flood waters on the project site or surrounding areas. As proposed, all of the proposed project activities would be performed within the footprint of previous disturbance.

Step Six: Reevaluate the proposed action.

No practicable alternatives were identified. GOSR has reevaluated the proposed action and determined that the Tina Chorvas Park Restoration Project is still practicable in light of its potential exposure to flood hazards in the floodplain. There is no practicable alternative to the proposed action. This project will restore existing parkland and stabilize the shoreline at the edge of Esopus Creek along the park boundaries in order to alleviate further erosion and reduce the introduction of sediment that may reach the waterway bordering the park. Thus, the Project would not aggravate current hazards to the floodplain, nor will the Project disrupt floodplain values. The installation of replacement H-pile with precast concrete panel bulkheads reduce the risk of damage from flooding. Creation of a pervious access road would not occur within the floodplain and would not contribute to surface area runoff affecting floodplain function and values.

A “No Action” alternative was considered and rejected because the No Action alternative would not address the project purpose and need of repairing public facilities, stabilizing the shoreline and supporting structures, and protecting aquatic species and habitat in the Esopus Creek during periods of high velocity flooding. Therefore there is no practicable alternative to locating the proposed action in the floodplain.

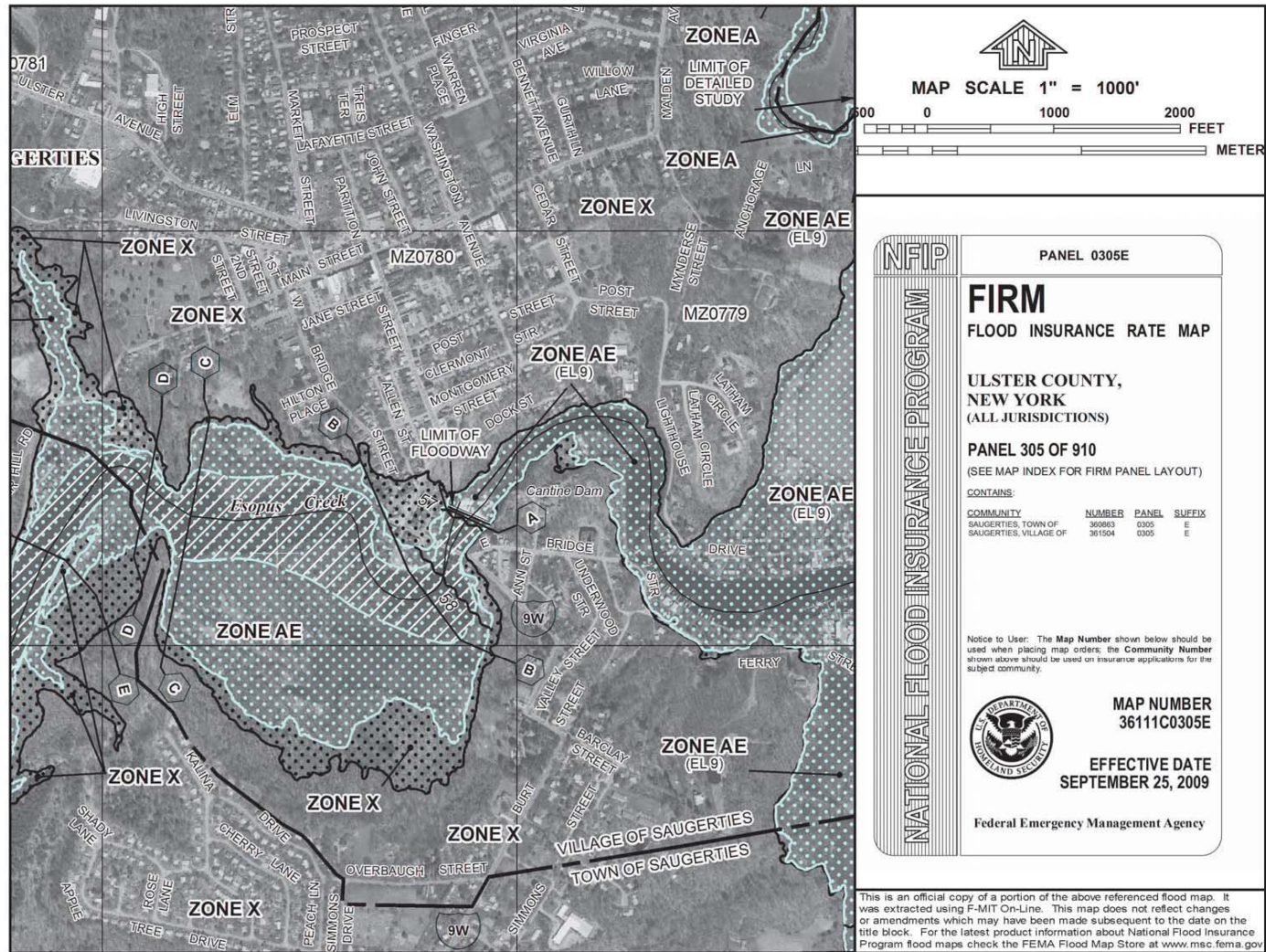
Step Seven: Issue Findings and a Public Explanation.

Not Applicable.

Step Eight: Implement the Action

GOSR has determined that the proposed project will have no direct or indirect adverse impacts to the Floodplain and has evaluated and eliminated project alternatives in favor of proceeding with the proposed project.

Figure 1



APPENDIX D – AIR QUALITY SCREENING ASSESSMENT



Environmental and Planning Consultants

Evaluation of de minimis Levels for General Conformity of Construction Projects with New York State Implementation Plans

The conformity requirements of the CAA and regulations promulgated thereunder (conformity requirements) limit the ability of federal agencies to assist, fund, permit, and approve projects in non-attainment areas that do not conform to the applicable SIP. When subject to this regulation, the lead agency is responsible for demonstrating conformity for its proposed action. Conformity determinations for federal actions other than those related to transportation plans, programs, and projects that are developed, funded, or approved under title 23 U.S.C. or the Federal Transit Act (49 U.S.C. 1601 et seq.) must be made according to the requirements of 40 CFR 93, Subpart B (federal general conformity regulations).

The general conformity regulations apply to those federal actions in non-attainment or maintenance areas where the action's direct and indirect emissions have the potential to emit one or more of the six criteria pollutants at rates equal to or exceeding the prescribed rates.

General conformity de minimis threshold levels for the non-attainment and maintenance areas in New York State are presented in **Table 1**.

Table 1
General Conformity Threshold Levels

Non-Attainment Area and Pollutants	Threshold (tons/year)
ozone, other non-attainment areas inside an ozone transport region:	
volatile organic compounds (VOC)	50
nitrogen oxides (NO _x)	100
carbon monoxide (CO), maintenance areas:	
direct emissions	100
inhalable particulate matter (PM ₁₀), nonattainment areas:	
direct emissions	100
fine particulate matter (PM _{2.5}), maintenance areas:	
direct emissions	100
SO ₂	100
Source: 40 CFR § 93.153(b)	
Notes: NO _x and VOCs also limited at 100 tpy in PM _{2.5} maintenance areas, but ozone requirements are stricter.	

The general conformity requirements do not apply to federal actions that:

- Do not satisfy either one of the above conditions (where the action's direct and indirect emissions have the potential to emit one or more of the six criteria pollutants at rates

Evaluation of De Minimis Levels for General Conformity of Construction Projects with New York State Implementation Plans

equal to or exceeding the threshold levels above within a non-attainment or maintenance area);

- Occur in an attainment area;
- Are related to transportation plans, programs, and projects developed, funded, or approved under Title 23 U.S.C. or the Federal Transit Act (49 U.S.C. 1601); or
- Qualify for exemptions established at 40 CFR Part 93.153.

The regulation assumes that a proposed federal action whose criteria pollutant emissions have already been included in the local SIP's attainment or maintenance demonstrations conforms to the SIP.

Most construction work would not require a general conformity evaluation, since construction activity in general is included in the SIP estimates, based on past activity levels and assumptions regarding growth in future years. However, there may be projects which are not considered to be included in the SIP if they were beyond the scope of what was anticipated during SIP preparation. If a project is not included in the SIP or there is uncertainty regarding its inclusion, a preliminary evaluation of emissions may be sufficient to demonstrate that the project's emissions would be de minimis under the above general conformity regulations. If that is the case, a detailed conformity analysis and determination would not be required. The following analysis provides a simplified approach to preliminary evaluation, based on construction expenditure.

As a conservative estimate, the analysis below assumes that the emissions intensity per expenditure (tons per dollar) for the project would be similar to the average intensity of the construction sector in the county. This would not be applicable for projects with higher intensity (emissions per dollar) such as large infrastructure projects or intense development projects including substantial excavation and foundations work. Given this and other limitations of this analysis, it is recommended that this approach not be seen as definitive if the results are not clearly de minimis. In such cases, a more refined approach may be needed.

Construction expenditure data is available from the U.S. Census Bureau's 2007 Survey of Business Owners.¹ Since the expenditure data represent firms by their location and not necessarily the location where construction takes place, applying this data at the county level may skew the results in some cases. As a broader estimate, we have categorized the expenditure as 'upstate' and 'downstate', reflecting the higher cost of construction in the downstate area. Downstate counties include Bronx, Kings, Nassau, New York, Orange, Queens, Richmond, Rockland, Suffolk, and Westchester. Total construction expenditure in 2007 was approximately 23.1 billion dollars in the upstate area, and 71.8 billion in the downstate area.

Construction emissions by county for the year 2007 were obtained from the New York State Department of Environmental Conservation (NYSDEC).² The fraction each de minimis emissions level represents of total regional emissions was calculated for each pollutant and area (upstate and downstate). The fraction of construction expenditure in each area equivalent to

¹ U.S. Census Bureau. *2007 Survey of Business Owners*, Statistics for All U.S. Firms by Industry, Gender, Ethnicity, and Race for the U.S., States, Metro Areas, Counties, and Places: 2007; SB0700CSA01.

² NYSDEC. 2007 SIP data. (provided by DEC, 2014)

**Evaluation of De Minimis Levels for General Conformity of
Construction Projects with New York State Implementation Plans**

those emission fractions were then calculated, representing de minimis project construction expenditures which would be equivalent to de minimis emissions.

For example, the downstate VOC emissions were 2,401.6 tons per year (tpy), and the relevant de minimis VOC emissions are 50 tpy; therefore—

de minimis as fraction of total emissions: $50 \text{ tpy} \div 2,401.6 \text{ tpy} = 2.08\%$

de minimis fraction of total expenditure: $2.08\% \times \$71.8 \text{ bn} = \1.5 bn

The total SIP emissions by pollutant and region and the resulting average project expenditure equivalent to de minimis levels are presented in **Table 2**.

Table 2
Regional SIP Emissions and
de minimis Construction Expenditure

Pollutant	Region	2007 SIP Emissions (tpy)	De Minimis (tpy)	Average Construction De Minimis Expenditure (million \$)
VOC	Downstate	2,401.6	50	1,496
	Upstate	1,464.3	50	789
NO _x	Downstate	16,332.1	100	440
	Upstate	9,745.2	100	237
CO	Downstate	17,522.1	100	410
	Upstate	11,746.2	100	197
PM ₁₀	Downstate	1,489.6	100	4,823
PM _{2.5}	Downstate	1,442.3	100	4,981
SO ₂	Downstate	1,251.9	100	5,738
Notes: Only relevant pollutants by area are presented; see Table 3 for details.				

Based on the above analysis, projects with projected construction expenditure substantially lower than the average construction de minimis expenditure would clearly not exceed de minimis emissions levels for general conformity purposes. **Table 3** identifies the minimum de minimis expenditure threshold in each county, based on the lowest level for all nonattainment or attainment maintenance areas within which the county is located. For example, New York County is in 4 nonattainment/maintenance areas; of all the pollutants relevant to those areas, the CO de minimis emissions have the lowest corresponding construction expenditure of 410 million dollars. Standard construction projects in Manhattan with construction expenditure substantially lower than 410 million dollars in New York County would not exceed the de minimis level for any of the relevant pollutants and would not require any further analysis or conformity determination. For projects with components in more than one county, use the lowest threshold for all counties (if that exceeds de minimis levels, this can be refined by reviewing all appropriate pollutants based on the nonattainment/maintenance areas identified in **Table 3**, the appropriate pollutant for the area type from **Table 1**, and the de minimis expenditure for each pollutant from **Table 2**).

**Evaluation of De Minimis Levels for General Conformity of
Construction Projects with New York State Implementation Plans**

Table 3
De Minimis Construction Expenditure Threshold by County

County	Nonattainment / Maintenance Area				Critical Pollutant	De Minimis Expenditure Threshold (million \$)
	Ozone	CO	PM _{2.5}	PM ₁₀		
Upstate:						
Albany	√				NO _x	237
Erie	√				NO _x	237
Genesee	√				NO _x	237
Greene	√				NO _x	237
Livingston	√				NO _x	237
Monroe	√				NO _x	237
Montgomery	√				NO _x	237
Niagara	√				NO _x	237
Onondaga		√			CO	197
Ontario	√				NO _x	237
Orleans	√				NO _x	237
Rensselaer	√				NO _x	237
Saratoga	√				NO _x	237
Schenectady	√				NO _x	237
Schoharie	√				NO _x	237
Wayne	√				NO _x	237
Downstate:						
Bronx	√	√	√		CO	410
Dutchess	√				NO _x	440
Kings	√	√	√		CO	410
Nassau	√	√	√		CO	410
New York	√	√	√	√	CO	410
Orange	√		√		NO _x	440
Putnam	√				NO _x	440
Queens	√	√	√		CO	410
Richmond	√	√	√		CO	410
Rockland	√		√		NO _x	440
Suffolk	√		√		NO _x	440
Westchester	√	√	√		CO	410

*

GENERAL CONFORMITY WORKSHEET

Air Emissions Information

PROJECT NAME _____

LOCATION (COUNTY, STATE) _____

FOR CALENDAR YEAR _____

Estimated Construction Start Date: _____ End Date: _____

A. ON-ROAD VEHICLES

ACTIVITY	VEHICLE TYPE	# OPERATING	ON / OFF SITE	GVWR PER VEHICLE	TOTAL MILES PER VEHICLE	TOTAL MILES ALL VEHICLES
Example: Demolition	Truck	2	ON	33,000	36	72

B. OFF-ROAD VEHICLES

ACTIVITY	EQUIPMENT TYPE	# OPERATING	HORSE-POWER	GAS/ DIESEL	TOTAL HRS PER VEHICLE	TOTAL HRS ALL VEHICLES
Example: Site Clearing	Backhoe	3	90	Diesel	80	240

Notes:

1. If construction occurs over more than one calendar year, provide a separate table for each calendar year.
2. For ACTIVITY, include a short description of the type of activity
 - On-Road examples: workers commuting to/from job site, materials deliveries, material movement to site, etc.
 - Off-Road examples: site clearing, demolition, excavation, construction, material placement, etc.
3. For EQUIPMENT
 - On-Road examples: auto, pickup truck (gas or diesel), heavy trucks (gas or diesel), etc.
 - Off-road examples: crane, backhoe, dozer, mixer, chain saw, forklift, etc.
4. Specify whether the on-road vehicles listed are being used for transportation to/from site, or are used exclusively on the site, as this will affect the emission estimates.
5. Specify the Gross Vehicle Weight Ratings for any on-road heavy-duty diesel vehicles, as these are necessary to determine the correct emissions factors.
6. For worker commutation, the number of vehicles and miles traveled can be estimated by using any available data to estimate commuting distance, carpool rates, etc., (e.g., Census Journey-to-Work data).

APPENDIX E – SOIL INVESTIGATION REPORT



January 20, 2017

Ms. Alicia Shultz
Community Developer- Environmental Services
38-40 State St., 4N, Hampton Plaza
Albany, NY 12207

Re: Subsurface Investigation
Tina Chorvas Park, Saugerties, New York

Ms. Shultz:

LiRo Engineers, Inc. (LiRo) was retained by the Governor's Office of Storm Recovery (GOSR) to conduct a soil investigation at the Tina Chorvas Park in the Village of Saugerties, Ulster County, New York (Site). The Tina Chorvas Park is a 1.10-acre parcel of land located at 61 East Bridge Street used for public recreational purposes that is owned and maintained by the Village of Saugerties.

It is our understanding that Tina Chorvas Park is expected to undergo flood resiliency improvements as part of the Tina Chorvas Park Restoration Project that will likely disturb the onsite soil. Based on the Site's historical use as a paper factory and the presence of the remnants of coal bins, soil sampling was requested in the areas to be disturbed during the upcoming improvements to determine the soil composition.

Field Work

The field work was conducted by our sub-consultant firm Foit-Albert Associates (Foit-Albert) on November 21, 2016. A total of four soil borings (SB-1, SB-2, SB-3, SB-4) were advanced in the proposed areas of disturbance as defined by the plans for the proposed improvements. The soil borings were advanced either by hand (due to Site constraints) or with a Geoprobe® mobile drilling unit.

Two soil samples were collected from each soil boring; one surface soil sample (0-1' below grade [bg]), and one soil sample from the one foot interval above the groundwater table (4-5' bg). Only one soil sample was collected from SB-4 (from the shallow interval) due to shallow refusal (2' bg). The soil sample locations are presented on Figure 1.

The soil was visually inspected for petroleum-related contamination. No evidence of a petroleum release (e.g., dark staining, petroleum odor) was identified. The soil was also screened for organic vapors with a photoionization detector (PID). Organic vapors were not detected in any of the soil samples collected during this investigation.



Laboratory Analysis and Results

The soil samples were submitted to ALS Environmental of Middletown, Pennsylvania for the analysis of volatile organic compounds (VOCs) via United States Environmental Protection Agency (USEPA) Method 8260; semi-volatile organic compounds (SVOCs) via USEPA Method 8270; metals via USEPA Method 6010; polychlorinated biphenyls (PCBs) via USEPA Method 8082; pesticides via USEPA Method 8081; and dioxins via USEPA Method 8290A.

The analytical results are compared to the New York State Department of Environmental Conservation (NYSDEC) Part 375 Unrestricted Use soil cleanup objectives (UUSCOs), Restricted Residential Use SCOs (RRUSCOs) and Commercial Use SCOs (CUSCOs). The samples analyzed for dioxins are compared to The agency for Toxic Substances and Disease Registry (ATSDR) Policy Guideline for Dioxins and Dioxin-Like Compounds in Residential Soil. The laboratory report and the chain of custody from the sampling event are included as Attachment 1.

VOCs

The analytical results of the VOC analysis are presented on Table 1.

No VOCs were detected above their respective NYSDEC Part 375 UUSCOs.

SVOCs

The analytical results of the SVOC analysis are presented on Table 2.

A total of seven SVOCs were detected in the soil collected from the Site (all in SB-3): benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(k)fluoranthene, chrysene, dibenzo(a,h)anthracene, and indeno(1,2,3-cd)pyrene. Benzo(a)anthracene (range- 1.5– 4.5 µg/kg), benzo(b)fluoranthene (range- 2.2 - 5.5 µg/kg), benzo(k)fluoranthene (range- 0.84 - 2.5 µg/kg), chrysene (range- 1.7– 4.8 µg/kg), and indeno(1,2,3-cd)pyrene (range- 1.0– 2.7 µg/kg) were detected at concentrations above their respective NYSDEC RRUSCOs. Benzo(a) pyrene (range- 1.3- 3.5 µg/kg) and dibenzo(a,h)anthracene (0.77 µg/kg) were identified at concentrations above their respective NYSDEC CUSCOs.

Metals

The analytical results of the metals analysis are presented on Table 3.

A total of five metals were detected in the soil collected from the Site: arsenic, copper, lead, mercury, and zinc. Arsenic (range- 34.9- 53.6 mg/kg) was detected at concentrations exceeding NYSDEC CUSCOs in SB-1 (0-1' and 4-5'). Copper (range- 58.9 – 81.8 mg/kg) was identified at concentrations above its respective NYSDEC UUSCO in SB-2 (0-1'), SB-3 (0-1' and 3.5-4'), and SB-4. Lead (range- 119- 1,090 mg/kg) was identified above its respective NYSDEC UUSCO in SB-2 (0-2') and SB-4, above its NYSDEC RRUSCO in SB-3 (3.5-4), and above its CUSCO in SB-3 (0-1'). Mercury (range 1.1- 3.6 mg/kg) was identified above its NYSDEC RRUSCO in SB-



2 (0-1'), SB-3 (0-1'), and SB-4, and above its respective NYSDEC CUSCO in SB-1 (0-1') and SB-3 (3.5-4'). Zinc (range- 192- 859 mg/kg) was identified above its respective NYSDEC CUSCO in SB-2 (0-1'), SB-3 (0-1', and 3.5-4'), and SB-4.

Pesticides

The analytical results of the pesticides analysis are presented on Table 4.

4,4'-DDT was detected at a concentration above its respective NYSDEC UUSCO.

PCBs

The analytical results of the PCB analysis are presented on Table 5.

No PCBs were detected above their respective NYSDEC UUSCOs.

Dioxins/Furans

The analytical results of the dioxins/furans analysis are presented on Table 6.

Dioxin/furan compounds were detected in all of the soil samples collected as part of this investigation. ATSDR has published guidelines for evaluating dioxins using total toxic equivalency (TEQ) with a TEQ screening level of 0.05 µg/kg. There were no exceedances of the TEQ screening level in any of the soil samples collected as part of this investigation.

Discussion and Conclusion

As part of this investigation, a total of seven soil samples were collected from borings in the areas to be disturbed during the Tina Chorvas Park Restoration Project. The analytical results identified SVOCs (specifically polyaromatic hydrocarbons [PAHs]), and metals in the subsurface soil at concentrations above the NYSDEC Part 375 SCOs. One pesticide (4,4,-DDT) was also detected above its respective NYSDEC Part 375 SCO. The presence of PAHs and metals is likely attributable to the presence of historical fill of undocumented origin. The presence of 4,4-DDT is likely attributable to historical use for insect and vermin control.

Based on the analytical results, LiRo does not recommend further investigation be conducted at this Site; however, additional soil analysis should be conducted to characterize the soil prior to disposal. The excavated material should be disposed of in accordance with the applicable local, State, and Federal regulations.



Should you have any questions, or require further information, please feel free to contact me at 516-595-2905.

Sincerely,

A handwritten signature in blue ink, appearing to read 'Maria Drakos', with a stylized flourish at the end.

LiRo Engineers, Inc.

Maria Drakos
Project Scientist

Attachments



Figure



Tables

Table 1- Summary of VOCs in Soil, Tina Chorvas Park, Saugerties, New York

ANALYTE	NYSDEC Part 375 Unrestricted Use SCOs (mg/kg)	NYSDEC Part 375 Residential Use SCOs (mg/kg)	NYSDEC Part 375 Commercial Use SCOs (mg/kg)	SB-1 (0- 1') (mg/kg)	SB-1 (4- 5') (mg/kg)	SB-2 (0- 1') (mg/kg)	SB-3 (0- 1') (mg/kg)	SB-3 (3.5-4') (mg/kg)	SB-4 (mg/kg)
Acetone	0.05	100	500	ND	ND	ND	ND	ND	ND
Acetonitrile	N/A	N/A	N/A	ND	ND	ND	ND	ND	ND
Acrolein	N/A	N/A	N/A	ND	ND	ND	ND	ND	ND
Acrylonitrile	N/A	N/A	N/A	ND	ND	ND	ND	ND	ND
Benzene	0.06	4.8	44	ND	ND	ND	ND	ND	ND
Benzyl Chloride	N/A	N/A	N/A	ND	ND	ND	ND	ND	ND
Bromobenzene	N/A	N/A	N/A	ND	ND	ND	ND	ND	ND
Bromochloromethane	N/A	N/A	N/A	ND	ND	ND	ND	ND	ND
Bromodichloromethane	N/A	N/A	N/A	ND	ND	ND	ND	ND	ND
Bromoform	N/A	N/A	N/A	ND	ND	ND	ND	ND	ND
Bromomethane	N/A	N/A	N/A	ND	ND	ND	ND	ND	ND
2- Butanone	0.12	100	500	ND	ND	ND	ND	ND	ND
tert - Butyl Alcohol	N/A	N/A	N/A	ND	ND	ND	ND	ND	ND
n - Butylbenzene	12	100	500	ND	ND	ND	ND	ND	ND
tert - Butylbenzene	5.9	100	500	ND	ND	ND	ND	ND	ND
sec - Butylbenzene	11	100	500	ND	ND	ND	ND	ND	ND
Carbon Disulfide	N/A	N/A	N/A	ND	ND	ND	ND	ND	ND
Carbon Tetrachloride	0.76	2.4	22	ND	ND	ND	ND	ND	ND
Chlorobenzene	1.1	100	500	ND	ND	ND	ND	ND	ND
Chlorodibromomethane	N/A	N/A	N/A	ND	ND	ND	ND	ND	ND
Chloroethane	N/A	N/A	N/A	ND	ND	ND	ND	ND	ND
Chloroform	0.37	49	350	ND	ND	ND	ND	ND	ND
Chloromethane	N/A	N/A	N/A	ND	ND	ND	ND	ND	ND
Chloroprene	N/A	N/A	N/A	ND	ND	ND	ND	ND	ND
3 - Chloro - 1 - propene	N/A	N/A	N/A	ND	ND	ND	ND	ND	ND
o - Chlorotoluene	N/A	N/A	N/A	ND	ND	ND	ND	ND	ND
p - Chlorotoluene	N/A	N/A	N/A	ND	ND	ND	ND	ND	ND
Cyclohexane	N/A	N/A	N/A	ND	ND	ND	ND	ND	ND
1,2-Dibromo-3-chloropropane	N/A	N/A	N/A	ND	ND	ND	ND	ND	ND
1,2-Dibromoethane	N/A	N/A	N/A	ND	ND	ND	ND	ND	ND

Table 1- Summary of VOCs in Soil, Tina Chorvas Park, Saugerties, New York

ANALYTE	NYSDEC Part 375 Unrestricted Use SCOs (mg/kg)	NYSDEC Part 375 Residential Use SCOs (mg/kg)	NYSDEC Part 375 Commercial Use SCOs (mg/kg)	SB-1 (0- 1') (mg/kg)	SB-1 (4- 5') (mg/kg)	SB-2 (0- 1') (mg/kg)	SB-3 (0- 1') (mg/kg)	SB-3 (3.5-4') (mg/kg)	SB-4 (mg/kg)
Dibromomethane	N/A	N/A	N/A	ND	ND	ND	ND	ND	ND
1,2-Dichlorobenzene	1.1	100	500	ND	ND	ND	ND	ND	ND
1,3-Dichlorobenzene	2.4	49	280	ND	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	1.8	13	130	ND	ND	ND	ND	ND	ND
Dichlorodifluoromethane	N/A	N/A	N/A	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane	0.27	26	240	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	0.02	3.1	30	ND	ND	ND	ND	ND	ND
1,1-Dichloroethene	0.33	100	500	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethene	0.25	100	500	ND	ND	ND	ND	ND	ND
trans-1,2-Dichloroethene	0.19	100	500	ND	ND	ND	ND	ND	ND
1,3-Dichloropropane	N/A	N/A	N/A	ND	ND	ND	ND	ND	ND
2,2-Dichloropropane	N/A	N/A	N/A	ND	ND	ND	ND	ND	ND
1,2-Dichloropropane	N/A	N/A	N/A	ND	ND	ND	ND	ND	ND
1,1-Dichloropropene	N/A	N/A	N/A	ND	ND	ND	ND	ND	ND
cis-1,3-Dichloropropene	N/A	N/A	N/A	ND	ND	ND	ND	ND	ND
trans-1,3-Dichloropropene	N/A	N/A	N/A	ND	ND	ND	ND	ND	ND
1,4-Dioxane	0.1	13	130	ND	ND	ND	ND	ND	ND
Ethyl Methacrylate	N/A	N/A	N/A	ND	ND	ND	ND	ND	ND
Ethyl Acetate	N/A	N/A	N/A	ND	ND	ND	ND	ND	ND
Ethylbenzene	1	41	390	ND	ND	ND	ND	ND	ND
Freon 113	N/A	N/A	N/A	ND	ND	ND	ND	ND	ND
2-Hexanone	N/A	N/A	N/A	ND	ND	ND	ND	ND	ND
Isobutyl alcohol	N/A	N/A	N/A	ND	ND	ND	ND	ND	ND
Isopropylbenzene	N/A	N/A	N/A	ND	ND	ND	ND	ND	ND
p-Isopropyltoluene	N/A	N/A	N/A	ND	ND	ND	ND	ND	ND
Methacrylonitrile	N/A	N/A	N/A	ND	ND	ND	ND	ND	ND
Methyl methacrylate	N/A	N/A	N/A	ND	ND	ND	ND	ND	ND
Methyl acetate	N/A	N/A	N/A	ND	ND	ND	ND	ND	ND
Methyl cyclohexane	N/A	N/A	N/A	ND	ND	ND	ND	ND	ND
Methyl t-Butyl Ether	0.93	62	500	ND	ND	ND	ND	ND	ND

Table 1- Summary of VOCs in Soil, Tina Chorvas Park, Saugerties, New York

ANALYTE	NYSDEC Part 375 Unrestricted Use SCOs (mg/kg)	NYSDEC Part 375 Residential Use SCOs (mg/kg)	NYSDEC Part 375 Commercial Use SCOs (mg/kg)	SB-1 (0- 1') (mg/kg)	SB-1 (4- 5') (mg/kg)	SB-2 (0- 1') (mg/kg)	SB-3 (0- 1') (mg/kg)	SB-3 (3.5-4') (mg/kg)	SB-4 (mg/kg)
4-Methyl-2-Pentanone(MIBK)	N/A	N/A	N/A	ND	ND	ND	ND	ND	ND
Methylene Chloride	0.05	100	500	ND	0.0023	ND	ND	ND	ND
Naphthalene	12	100	500	ND	ND	0.0021	ND	ND	ND
Propionitrile	N/A	N/A	N/A	ND	ND	ND	ND	ND	ND
n-Propylbenzene	3.9	100	500	ND	ND	ND	ND	ND	ND
Styrene	N/A	N/A	N/A	ND	ND	ND	ND	ND	ND
1,1,1,2-Tetrachloroethane	N/A	N/A	N/A	ND	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	N/A	N/A	N/A	ND	ND	ND	ND	ND	ND
Tetrachloroethene	1.3	19	150	ND	ND	ND	ND	ND	ND
Toluene	0.7	100	500	ND	ND	ND	ND	ND	ND
Total Xylenes	0.26	100	500	ND	ND	ND	ND	ND	ND
1,2,4-Trichlorobenzene	N/A	N/A	N/A	ND	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	0.68	100	500	ND	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	N/A	N/A	N/A	ND	ND	ND	ND	ND	ND
Trichloroethene	0.47	21	200	ND	ND	ND	ND	ND	ND
Trichlorofluoromethane	N/A	N/A	N/A	ND	ND	ND	ND	ND	ND
1,2,3-Trichloropropane	N/A	N/A	N/A	ND	ND	ND	ND	ND	ND
1,2,4-Trimethylbenzene	3.6	52	190	ND	ND	ND	ND	ND	ND
1,3,5-Trimethylbenzene	8.4	52	190	ND	ND	ND	ND	ND	ND
Vinyl Acetate	N/A	N/A	N/A	ND	ND	ND	ND	ND	ND
Vinyl Chloride	0.02	0.9	13	ND	ND	ND	ND	ND	ND
o-Xylene	N/A	N/A	N/A	ND	ND	ND	ND	ND	ND
mp-Xylene	N/A	N/A	N/A	ND	ND	ND	ND	ND	ND

Notes

	Analyte exceeds NYSDEC Unrestricted Use SCOs
	Analyte exceeds NYSDEC Restricted Residential Use SCOs
	Analyte exceeds NYSDEC Commercial Use SCOs

Table 2- Summary of SVOCs in Soil, Tina Chorvas Park, Saugerties, New York

ANALYTE	NYSDEC Part 375 Unrestricted Use SCOs (mg/kg)	NYSDEC Part 375 Restricted Residential Use SCOs (mg/kg)	NYSDEC Part 375 Commercial Use SCOs (mg/kg)	SB-1 (0-1') (mg/kg)	SB-1 (4-5') (mg/kg)	SB-2 (0-1') (mg/kg)	SB-3 (0-1') (mg/kg)	SB-3 (3.5-4') (mg/kg)	SB-4 (mg/kg)
Acenaphthene	20	100	500	ND	ND	ND	ND	ND	ND
Acenaphthylene	100	100	500	0.065	ND	ND	0.69	0.51	0.12
Acetophenone	N/A	N/A	N/A	ND	ND	ND	ND	ND	ND
Aniline	N/A	N/A	N/A	ND	ND	ND	ND	ND	ND
Anthracene	100	100	500	ND	ND	ND	0.76	0.40	0.22
Atrazine	N/A	N/A	N/A	ND	ND	ND	ND	ND	ND
Benzaldehyde	N/A	N/A	N/A	ND	ND	ND	ND	0.85	ND
Benzidine	N/A	N/A	N/A	ND	ND	ND	ND	ND	ND
Benzo(a)anthracene	1	1	5.6	0.069	ND	0.13	4.5	1.5	0.73
Benzo(a)pyrene	1	1	1	0.071	ND	0.11	3.5	1.3	0.65
Benzo(b)fluoranthene	1	1	5.6	0.098	ND	0.17	5.5	2.2	0.95
Benzo(g,h,i)perylene	100	100	500	ND	ND	0.083	2.6	1.0	0.47
Benzoic acid	N/A	N/A	N/A	ND	ND	ND	ND	ND	ND
Benzo(k)fluoranthene	0.8	1	56	ND	ND	ND	2.5	0.84	0.41
Benzyl Alcohol	N/A	N/A	N/A	ND	ND	ND	ND	ND	ND
Biphenyl	N/A	N/A	N/A	ND	ND	ND	ND	ND	ND
4-Bromophenyl-phenylether	N/A	N/A	N/A	ND	ND	ND	ND	ND	ND
Butylbenzylphthalate	N/A	N/A	N/A	ND	ND	ND	ND	ND	ND
Caprolactam	N/A	N/A	N/A	ND	ND	ND	ND	ND	ND
Carbazole	N/A	N/A	N/A	ND	ND	ND	ND	0.23	0.14
4-Chloro-3-methylphenol	N/A	N/A	N/A	ND	ND	ND	ND	ND	ND
4-Chloroaniline	N/A	N/A	N/A	ND	ND	ND	ND	ND	ND
bis(2-Chloroethoxy)methane	N/A	N/A	N/A	ND	ND	ND	ND	ND	ND
bis(2-Chloroethyl)ether	N/A	N/A	N/A	ND	ND	ND	ND	ND	ND
bis(2-Chloroisopropyl)ether	N/A	N/A	N/A	ND	ND	ND	ND	ND	ND
2-Chloronaphthalene	N/A	N/A	N/A	ND	ND	ND	ND	ND	ND
2-Chlorophenol	N/A	N/A	N/A	ND	ND	ND	ND	ND	ND
4-Chlorophenyl-phenylether	N/A	N/A	N/A	ND	ND	ND	ND	ND	ND
Chrysene	1	1	56	0.088	ND	0.24	4.8	1.7	0.88

Table 2- Summary of SVOCs in Soil, Tina Chorvas Park, Saugerties, New York

ANALYTE	NYSDEC Part 375 Unrestricted Use SCOs (mg/kg)	NYSDEC Part 375 Restricted Residential Use SCOs (mg/kg)	NYSDEC Part 375 Commercial Use SCOs (mg/kg)	SB-1 (0- 1') (mg/kg)	SB-1 (4- 5') (mg/kg)	SB-2 (0- 1') (mg/kg)	SB-3 (0- 1') (mg/kg)	SB-3 (3.5-4') (mg/kg)	SB-4 (mg/kg)
mp-Cresol	N/A	N/A	N/A	ND	ND	ND	ND	ND	ND
o-Cresol	0.33	100	500	ND	ND	ND	ND	ND	ND
Di-n-Butylphthalate	N/A	N/A	N/A	ND	ND	ND	ND	ND	ND
Di-n-Octylphthalate	N/A	N/A	N/A	ND	ND	ND	ND	ND	ND
Dibenzo(a,h)anthracene	0.33	0.33	0.56	ND	ND	ND	0.77	0.30	0.12
Dibenzofuran	7	14	350	ND	ND	ND	ND	ND	ND
1,2-Dichlorobenzene	1.1	100	500	ND	ND	ND	ND	ND	ND
1,3-Dichlorobenzene	2.4	17	280	ND	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	1.8	9.8	130	ND	ND	ND	ND	ND	ND
3,3-Dichlorobenzidine	N/A	N/A	N/A	ND	ND	ND	ND	ND	ND
2,4-Dichlorophenol	N/A	N/A	N/A	ND	ND	ND	ND	ND	ND
2,6-Dichlorophenol	N/A	N/A	N/A	ND	ND	ND	ND	ND	ND
Diethylphthalate	N/A	N/A	N/A	ND	ND	ND	ND	ND	ND
Dimethoate	N/A	N/A	N/A	ND	ND	ND	ND	ND	ND
2,4-Dimethylphenol	N/A	N/A	N/A	ND	ND	ND	ND	ND	ND
Dimethylphthalate	N/A	N/A	N/A	ND	ND	ND	ND	ND	ND
1,2-Dinitrobenzene	N/A	N/A	N/A	ND	ND	ND	ND	ND	ND
1,4-Dinitrobenzene	N/A	N/A	N/A	ND	ND	ND	ND	ND	ND
2,4-Dinitrophenol	N/A	N/A	N/A	ND	ND	ND	ND	ND	ND
2,4-Dinitrotoluene	N/A	N/A	N/A	ND	ND	ND	ND	ND	ND
2,6-Dinitrotoluene	N/A	N/A	N/A	ND	ND	ND	ND	ND	ND
Diphenylamine	N/A	N/A	N/A	ND	ND	ND	ND	ND	ND
1,2-Diphenylhydrazine	N/A	N/A	N/A	ND	ND	ND	ND	ND	ND
bis(2-Ethylhexyl)phthalate	N/A	N/A	N/A	ND	ND	ND	ND	0.18	ND
Fluoranthene	100	100	500	0.12	ND	0.26	5.8	1.7	1.6
Fluorene	30	100	500	ND	ND	ND	ND	ND	ND
Hexachlorobenzene	0.33	0.33	6	ND	ND	ND	ND	ND	ND
Hexachlorobutadiene	N/A	N/A	N/A	ND	ND	ND	ND	ND	ND
Hexachlorocyclopentadiene	N/A	N/A	N/A	ND	ND	ND	ND	ND	ND

Table 2- Summary of SVOCs in Soil, Tina Chorvas Park, Saugerties, New York

ANALYTE	NYSDEC Part 375 Unrestricted Use SCOs (mg/kg)	NYSDEC Part 375 Restricted Residential Use SCOs (mg/kg)	NYSDEC Part 375 Commercial Use SCOs (mg/kg)	SB-1 (0- 1') (mg/kg)	SB-1 (4- 5') (mg/kg)	SB-2 (0- 1') (mg/kg)	SB-3 (0- 1') (mg/kg)	SB-3 (3.5-4') (mg/kg)	SB-4 (mg/kg)
Hexachloroethane	N/A	N/A	N/A	ND	ND	ND	ND	ND	ND
Indeno(1,2,3-cd)pyrene	0.5	0.5	5.6	ND	ND	0.080	2.7	1.0	0.49
Isophorone	N/A	N/A	N/A	ND	ND	ND	ND	ND	ND
2-Methyl-4,6-dinitrophenol	N/A	N/A	N/A	ND	ND	ND	ND	ND	ND
2-Methylnaphthalene	N/A	N/A	N/A	ND	ND	0.17	ND	ND	ND
2-Naphthylamine	N/A	N/A	N/A	ND	ND	ND	ND	ND	ND
Naphthalene	12	100	500	ND	ND	0.10	ND	0.15	0.11
2-Nitroaniline	N/A	N/A	N/A	ND	ND	ND	ND	ND	ND
3-Nitroaniline	N/A	N/A	N/A	ND	ND	ND	ND	ND	ND
4-Nitroaniline	N/A	N/A	N/A	ND	ND	ND	ND	ND	ND
Nitrobenzene	N/A	N/A	N/A	ND	ND	ND	ND	ND	ND
2-Nitrophenol	N/A	N/A	N/A	ND	ND	ND	ND	ND	ND
4-Nitrophenol	N/A	N/A	N/A	ND	ND	ND	ND	ND	ND
N-Nitrosodi-n-butylamine	N/A	N/A	N/A	ND	ND	ND	ND	ND	ND
N-Nitrosodiethylamine	N/A	N/A	N/A	ND	ND	ND	ND	ND	ND
N-Nitrosodimethylamine	N/A	N/A	N/A	ND	ND	ND	ND	ND	ND
N-Nitroso-di-n-propylamine	N/A	N/A	N/A	ND	ND	ND	ND	ND	ND
N-Nitrosodiphenylamine	N/A	N/A	N/A	ND	ND	ND	ND	ND	ND
N-Nitrosopyrrolidine	N/A	N/A	N/A	ND	ND	ND	ND	ND	ND
Pentachlorobenzene	N/A	N/A	N/A	ND	ND	ND	ND	ND	ND
Pentachlorophenol	0.8	6.7	6.7	ND	ND	ND	ND	ND	ND
Phenanthrene	100	100	500	0.080	ND	0.36	2.2	0.51	1.0
Phenol	0.33	100	500	ND	ND	ND	ND	ND	ND
Pyrene	100	100	500	0.11	ND	0.26	5.8	1.8	1.5
Pyridine	N/A	N/A	N/A	ND	ND	ND	ND	ND	ND
Resorcinol	N/A	N/A	N/A	ND	ND	ND	ND	ND	ND
1,2,4,5-Tetrachlorobenzene	N/A	N/A	N/A	ND	ND	ND	ND	ND	ND
2,3,4,6-Tetrachlorophenol	N/A	N/A	N/A	ND	ND	ND	ND	ND	ND
1,2,4-Trichlorobenzene	N/A	N/A	N/A	ND	ND	ND	ND	ND	ND

Table 2- Summary of SVOCs in Soil, Tina Chorvas Park, Saugerties, New York

ANALYTE	NYSDEC Part 375 Unrestricted Use SCOs (mg/kg)	NYSDEC Part 375 Restricted Residential Use SCOs (mg/kg)	NYSDEC Part 375 Commercial Use SCOs (mg/kg)	SB-1 (0- 1') (mg/kg)	SB-1 (4- 5') (mg/kg)	SB-2 (0- 1') (mg/kg)	SB-3 (0- 1') (mg/kg)	SB-3 (3.5-4') (mg/kg)	SB-4 (mg/kg)
2,4,5-Trichlorophenol	N/A	N/A	N/A	ND	ND	ND	ND	ND	ND
2,4,6-Trichlorophenol	N/A	N/A	N/A	ND	ND	ND	ND	ND	ND

Notes

	Analyte exceeds NYSDEC Unrestricted Use SCOs
	Analyte exceeds NYSDEC Restricted Residential Use SCOs
	Analyte exceeds NYSDEC Commercial Use SCOs

Table 3- Summary of Metals in Soil, Tina Chorvas Park, Saugerties, New York

ANALYTE	NYSDEC Part 375 Unrestricted Use SCOs (mg/kg)	NYSDEC Part 375 Restricted Residential Use SCOs (mg/kg)	NYSDEC Part 375 Commercial Use SCOs (mg/kg)	SB-1 (0- 1') (mg/kg)	SB-1 (4- 5') (mg/kg)	SB-2 (0- 1') (mg/kg)	SB-3 (0- 1') (mg/kg)	SB-3 (3.5-4') (mg/kg)	SB-4 (mg/kg)
Aluminum, Total	N/A	N/A	N/A	4360	6230	6280	4080	3460	5500
Antimony, Total	N/A	N/A	N/A	ND	ND	3.0	7.6	70.0	ND
Arsenic, Total	13	16	16	34.9	53.6	9.8	4.6	6.6	10
Barium, Total	350	400	400	29.8	39.4	96.7	147	170	88.7
Beryllium, Total	7.2	72	590	ND	ND	ND	ND	ND	ND
Cadmium, Total	2.5	4.3	9.3	ND	ND	ND	0.90	1.1	ND
Calcium, Total	N/A	N/A	N/A	7580	9610	26700	16000	15600	2930
Chromium, Total	N/A	290	N/A	8.1	12.0	10.0	13.6	13.3	12.3
Cobalt, Total	N/A	N/A	N/A	2.9	4.3	6.6	3.6	3.5	5.9
Copper, Total	50	270	270	15.7	18.8	69.7	66.8	81.8	58.9
Iron, Total	N/A	N/A	N/A	25800	34800	16300	12900	22200	18100
Lead, Total	63	400	1000	29.3	34.6	119	1090	986	222
Magnesium, Total	N/A	N/A	N/A	1820	2910	2870	2080	1470	2040
Manganese, Total	1600	2000	10000	85.2	120	271	226	279	389
Mercury, Total	0.18	0.81	2.8	3.0	0.11	1.2	1.6	3.6	1.1
Nickel, Total	30	310	310	9.6	13.1	17.3	12.6	12.7	19.8
Potassium, Total	N/A	N/A	N/A	560	717	620	246	296	528
Selenium, Total	3.9	180	1500	ND	ND	ND	ND	ND	ND
Silver, Total	2	180	1500	ND	ND	ND	1.2	0.99	ND
Sodium, Total	N/A	N/A	N/A	90.4	130	66.4	106	140	67.0
Thallium, Total	N/A	N/A	N/A	ND	ND	ND	ND	ND	ND
Vanadium, Total	N/A	N/A	N/A	14.2	19.6	17.2	18.0	15.2	25.1
Zinc, Total	109	10000	10000	22.7	30.1	192	859	762	241

Notes

	Analyte exceeds NYSDEC Unrestricted Use SCOs
	Analyte exceeds NYSDEC Restricted Residential Use SCOs
	Analyte exceeds NYSDEC Commercial Use SCOs

Table 4- Summary of Pesticides in Soil, Tina Chorvas Park, Saugerties, New York

ANALYTE	NYSDEC Part 375 Unrestricted Use SCOs (mg/kg)	NYSDEC Part 375 Restricted Residential Use SCOs (mg/kg)	NYSDEC Part 375 Commercial Use SCOs (mg/kg)	SB-1 (0- 1') (mg/kg)	SB-1 (4- 5') (mg/kg)	SB-2 (0- 1') (mg/kg)	SB-3 (0- 1') (mg/kg)	SB-3 (3.5-4') (mg/kg)	SB-4 (mg/kg)
Aldrin	0.005	0.10	0.68	ND	ND	ND	ND	ND	ND
alpha-BHC	0.02	0.48	3.40	ND	ND	ND	ND	ND	ND
beta-BHC	0.036	0.36	3.00	ND	ND	ND	ND	ND	ND
delta-BHC	0.04	100	500	ND	ND	ND	ND	ND	ND
gamma-BHC	0.1	N/A	N/A	ND	ND	ND	ND	ND	ND
alpha-Chlordane	0.094	4.2	24.0	ND	ND	ND	ND	ND	ND
gamma-Chlordane	N/A	N/A	N/A	ND	ND	ND	ND	ND	ND
4,4'-DDD	0.0033	13.0	92.0	ND	ND	ND	ND	ND	ND
4,4'-DDE	0.0033	9	62	ND	ND	ND	ND	ND	ND
4,4'-DDT	0.0033	7.9	47	ND	ND	ND	0.041	ND	ND
Dieldrin	0.005	0.20	1.4	ND	ND	ND	ND	ND	ND
Endosulfan I	2.4	24	200	ND	ND	ND	ND	ND	ND
Endosulfan II	2.4	24	200	ND	ND	ND	ND	ND	ND
Endosulfan Sulfate	2.4	24	200	ND	ND	ND	ND	ND	ND
Endrin	0.014	11	89	ND	ND	ND	ND	ND	ND
Endrin Aldehyde	N/A	N/A	N/A	ND	ND	ND	ND	ND	ND
Endrin Ketone	N/A	N/A	N/A	ND	ND	ND	ND	ND	ND
Heptachlor	0.042	2.10	15.00	ND	ND	ND	ND	ND	ND
Heptachlor Epoxide	N/A	N/A	N/A	ND	ND	ND	ND	ND	ND
Methoxychlor	N/A	N/A	N/A	ND	ND	ND	ND	ND	ND
Mirex	N/A	N/A	N/A	ND	ND	ND	ND	ND	ND
Toxaphene	N/A	N/A	N/A	ND	ND	ND	ND	ND	ND

Notes

	Analyte exceeds NYSDEC Unrestricted Use SCOs
	Analyte exceeds NYSDEC Restricted Residential Use SCOs
	Analyte exceeds NYSDEC Commercial Use SCOs

Table 5- Summary of PCBs in Soil, Tina Chorvas Park, Saugerties, New York

ANALYTE	NYSDEC Part 375 Unrestricted Use SCOs (mg/kg)	NYSDEC Part 375 Restricted Residential Use SCOs (mg/kg)	NYSDEC Part 375 Commercial Use SCOs (mg/kg)	SB-1 (0- 1') (mg/kg)	SB-1 (4- 5') (mg/kg)	SB-2 (0- 1') (mg/kg)	SB-3 (0- 1') (mg/kg)	SB-3 (3.5-4') (mg/kg)	SB-4 (mg/kg)
Aroclor-1016	1.0	1.0	1.0	ND	ND	ND	ND	ND	ND
Aroclor-1221	1.0	1.0	1.0	ND	ND	ND	ND	ND	ND
Aroclor-1232	1.0	1.0	1.0	ND	ND	ND	ND	ND	ND
Aroclor-1242	1.0	1.0	1.0	ND	ND	ND	ND	ND	ND
Aroclor-1248	1.0	1.0	1.0	ND	ND	ND	ND	ND	ND
Aroclor-1254	1.0	1.0	1.0	ND	ND	ND	0.060	ND	ND
Aroclor-1260	1.0	1.0	1.0	ND	ND	ND	0.042	ND	ND
Total PCBs	1.0	1.0	1.0	ND	ND	ND	0.10	0.076	ND

Notes

	Analyte exceeds NYSDEC Unrestricted Use SCOs
	Analyte exceeds NYSDEC Restricted Residential Use SCOs
	Analyte exceeds NYSDEC Commercial Use SCOs

Table 6- Summary of Dioxins/Furans in Soil, Tina Chorvas Park, Saugerties, New York

ANALYTE	ATSDR Screening Level (ng/kg)	SB-1 (0-1') (ng/kg)	Q	SB-1 (4-5') (ng/kg)	Q	SB-2 (0-1') (ng/kg)	Q	SB-2 (4-5') (ng/kg)	Q	SB-3 (0-1') (ng/kg)	Q	SB-3 (3.5-4') (ng/kg)	Q	SB-4 (ng/kg)	Q
2,3,7,8-TCDD		ND	U	ND	U	ND	U	ND	U	0.394	JK	0.494	JK	0.115	JK
1,2,3,7,8-PeCDD		ND	U	0.0899	BJ	0.233	BJK	ND	U	1.72	J	1.65	JK	0.654	BJK
1,2,3,6,7,8-HxCDD		0.163	BJ	0.149	BJ	0.73	BJ	0.35	BJ	19.5		25.6		1.72	J
1,2,3,4,7,8-HxCDD		ND	U	0.094	BJK	0.317	BJ	0.177	BJ	2.39	J	6.02		0.846	BJ
1,2,3,7,8,9-HxCDD		0.164	BJ	0.146	BJ	0.478	BJ	0.209	BJK	7.83		11		1.58	J
1,2,3,4,6,7,8-HpCDD		3.32	B	2.49	BJ	16.1		12.9		671		1230		31.2	
OCDD		36.7		41.7		291		114		7720	E	8750	E	224	
2,3,7,8-TCDF		ND	U	0.866		0.496	J	ND	U	8.7		8.26		10.5	
1,2,3,7,8-PeCDF		0.159	JK	0.31	J	0.323	JK	ND	U	1.64	J	1.59	J	1.99	J
2,3,4,7,8-PeCDF		0.141	JK	0.358	J	0.493	J	ND	U	3.24		3	J	2.62	J
1,2,3,6,7,8-HxCDF		0.112	BJK	0.144	BJ	0.438	BJ	0.162	BJ	1.77	J	1.67	JP	1.45	JP
1,2,3,7,8,9-HxCDF		ND	U	0.0759	BJK	0.172	BJ	ND	U	0.681	BJK	0.729	BJ	0.594	BJ
1,2,3,4,7,8-HxCDF		0.174	BJK	0.312	BJ	0.776	J	0.255	BJ	3.31		3.11		2.58	J
2,3,4,6,7,8-HxCDF		0.174	BJ	0.171	BJ	0.38	BJK	0.183	BJK	2.95	J	2.78	J	1.43	J
1,2,3,4,6,7,8-HpCDF		0.873	BJ	0.694	BJ	4.49		1.55	BJ	79.8		80.7		8.60	
1,2,3,4,7,8,9-HPCDF		ND	U	0.123	BJ	0.309	BJK	ND	U	3.46		4.16		1.04	BJ
OCDF		1.54	BJK	0.977	BJK	6.93		4.16	BJ	219		214		20	
TEQ	50.0	0.179		0.448		1.07		0.314		17.8		24.9		4.17	

Notes

ng/kg- nanograms per kilogram

TEQ- Total Toxic Equivalency



Attachment 1- Laboratory Report

December 13, 2016

Ms. Karen Carling
Foit-Albert Associates
435 New Karner Road
Albany, NY 12205

Certificate of Analysis

Project Name:	2016-SAUGERTIES NY SITE - SOILS	Workorder:	2191010
Purchase Order:		Workorder ID:	2016-SAUGERTIES NY SITE - SOIL

Dear Ms. Carling:

Enclosed are the analytical results for samples received by the laboratory on Tuesday, November 22, 2016.

The ALS Environmental laboratory in Middletown, Pennsylvania is a National Environmental Laboratory Accreditation Program (NELAP) accredited laboratory and as such, certifies that all applicable test results meet the requirements of NELAP.

If you have any questions regarding this certificate of analysis, please contact Mr. Brad W Kintzer (Project Coordinator) at (717) 944-5541.

Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state requirements. The test results meet requirements of the current NELAP standards or state requirements, where applicable. For a specific list of accredited analytes, refer to the certifications section of the ALS website at www.alsglobal.com/en/Our-Services/Life-Sciences/Environmental/Downloads.

This laboratory report may not be reproduced, except in full, without the written approval of ALS Environmental.

ALS Spring City: 10 Riverside Drive, Spring City, PA 19475 610-948-4903

This page is included as part of the Analytical Report and must be retained as a permanent record thereof.


Mr. Brad W Kintzer
Project Coordinator

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SAMPLE SUMMARY

Workorder: 2191010 2016-SAUGERTIES NY SITE - SOIL

Lab ID	Sample ID	Matrix	Date Collected	Date Received	Collected By
2191010001	SB-1 (0'-1')	Solid	11/21/2016 12:45	11/22/2016 09:11	Collected by Client
2191010002	SB-1 (4'-5')	Solid	11/21/2016 12:30	11/22/2016 09:11	Collected by Client
2191010003	SB-2 (0'-1')	Solid	11/21/2016 13:00	11/22/2016 09:11	Collected by Client
2191010004	SB-2 (4.5'-5')	Solid	11/21/2016 13:15	11/22/2016 09:11	Collected by Client
2191010005	SB-3 (0'-1')	Solid	11/21/2016 11:25	11/22/2016 09:11	Collected by Client
2191010006	SB-3 (3.5'-4')	Solid	11/21/2016 11:30	11/22/2016 09:11	Collected by Client
2191010007	SB-4	Solid	11/21/2016 11:45	11/22/2016 09:11	Collected by Client

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SAMPLE SUMMARY

Workorder: 2191010 2016-SAUGERTIES NY SITE - SOIL

Notes

- Samples collected by ALS personnel are done so in accordance with the procedures set forth in the ALS Field Sampling Plan (20 - Field Services Sampling Plan).
- All Waste Water analyses comply with methodology requirements of 40 CFR Part 136.
- All Drinking Water analyses comply with methodology requirements of 40 CFR Part 141.
- Unless otherwise noted, all quantitative results for soils are reported on a dry weight basis.
- The Chain of Custody document is included as part of this report.
- All Library Search analytes should be regarded as tentative identifications based on the presumptive evidence of the mass spectra. Concentrations reported are estimated values.
- Parameters identified as "analyze immediately" require analysis within 15 minutes of collection. Any "analyze immediately" parameters not listed under the header "Field Parameters" are performed in the laboratory and are therefore analyzed out of hold time.
- Method references listed on this report beginning with the prefix "S" followed by a method number (such as S2310B-97) refer to methods from "Standard Methods for the Examination of Water and Wastewater".
- For microbiological analyses, the "Prepared" value is the date/time into the incubator and the "Analyzed" value is the date/time out the incubator.

Standard Acronyms/Flags

J	Indicates an estimated value between the Method Detection Limit (MDL) and the Practical Quantitation Limit (PQL) for the analyte
U	Indicates that the analyte was Not Detected (ND)
N	Indicates presumptive evidence of the presence of a compound
MDL	Method Detection Limit
PQL	Practical Quantitation Limit
RDL	Reporting Detection Limit
ND	Not Detected - indicates that the analyte was Not Detected at the RDL
Cntr	Analysis was performed using this container
RegLmt	Regulatory Limit
LCS	Laboratory Control Sample
MS	Matrix Spike
MSD	Matrix Spike Duplicate
DUP	Sample Duplicate
%Rec	Percent Recovery
RPD	Relative Percent Difference
LOD	DoD Limit of Detection
LOQ	DoD Limit of Quantitation
DL	DoD Detection Limit
I	Indicates reported value is greater than or equal to the Method Detection Limit (MDL) but less than the Report Detection Limit (RDL)
(S)	Surrogate Compound
NC	Not Calculated
*	Result outside of QC limits

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PROJECT SUMMARY

Workorder: 2191010 2016-SAUGERTIES NY SITE - SOIL

Workorder Comments

The Dioxins were moved to WO #2195263 on 12/13/16. BWK

Sample Comments

Lab ID: 2191010001**Sample ID:** SB-1 (0'-1')**Sample Type:** SAMPLE

This sample was analyzed at a dilution in the 8081 Pesticide analysis due to sample matrix interference. Reporting limits were adjusted accordingly.

Lab ID: 2191010002**Sample ID:** SB-1 (4'-5')**Sample Type:** SAMPLE

This sample was analyzed at a dilution in the 8081 Pesticide analysis due to sample matrix interference. Reporting limits were adjusted accordingly.

Lab ID: 2191010003**Sample ID:** SB-2 (0'-1')**Sample Type:** SAMPLE

One or more of the method 8260 internal standards were recovered outside of the control limits. The sample was re-analyzed with similar results, indicating a significant matrix interference.

This sample was analyzed at a dilution in the 8081 Pesticide analysis due to sample matrix interference. Reporting limits were adjusted accordingly.

Lab ID: 2191010005**Sample ID:** SB-3 (0'-1')**Sample Type:** SAMPLE

This sample was analyzed at a dilution in the 8081 Pesticide analysis due to sample matrix interference. Reporting limits were adjusted accordingly.

Lab ID: 2191010006**Sample ID:** SB-3 (3.5'-4')**Sample Type:** SAMPLE

This sample was analyzed at a dilution in the 8081 Pesticide analysis due to sample matrix interference. Reporting limits were adjusted accordingly.

Lab ID: 2191010007**Sample ID:** SB-4**Sample Type:** SAMPLE

This sample was analyzed at a dilution in the 8081 Pesticide analysis due to sample matrix interference. Reporting limits were adjusted accordingly.

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ANALYTICAL RESULTS

Workorder: 2191010 2016-SAUGERTIES NY SITE - SOIL

Lab ID: **2191010001**

Date Collected: 11/21/2016 12:45

Matrix: Solid

Sample ID: **SB-1 (0'-1')**

Date Received: 11/22/2016 09:11

Parameters	Results	Flag	Units	RDL	Method	Prepared	By	Analyzed	By	Cntr
VOLATILE ORGANICS										
Acetone	ND		ug/kg	9.5	SW846 8260C	11/21/16 12:45	TMP	11/23/16 18:23	TMP	A
Acetonitrile	ND		ug/kg	9.5	SW846 8260C	11/21/16 12:45	TMP	11/23/16 18:23	TMP	A
Acrolein	ND		ug/kg	47.4	SW846 8260C	11/21/16 12:45	TMP	11/23/16 18:23	TMP	A
Acrylonitrile	ND		ug/kg	9.5	SW846 8260C	11/21/16 12:45	TMP	11/23/16 18:23	TMP	A
Benzene	ND		ug/kg	1.9	SW846 8260C	11/21/16 12:45	TMP	11/23/16 18:23	TMP	A
Benzyl Chloride	ND		ug/kg	1.9	SW846 8260C	11/21/16 12:45	TMP	11/23/16 18:23	TMP	A
Bromobenzene	ND		ug/kg	1.9	SW846 8260C	11/21/16 12:45	TMP	11/23/16 18:23	TMP	A
Bromochloromethane	ND		ug/kg	1.9	SW846 8260C	11/21/16 12:45	TMP	11/23/16 18:23	TMP	A
Bromodichloromethane	ND		ug/kg	1.9	SW846 8260C	11/21/16 12:45	TMP	11/23/16 18:23	TMP	A
Bromoform	ND		ug/kg	1.9	SW846 8260C	11/21/16 12:45	TMP	11/23/16 18:23	TMP	A
Bromomethane	ND		ug/kg	1.9	SW846 8260C	11/21/16 12:45	TMP	11/23/16 18:23	TMP	A
2-Butanone	ND		ug/kg	9.5	SW846 8260C	11/21/16 12:45	TMP	11/23/16 18:23	TMP	A
tert-Butyl Alcohol	ND		ug/kg	9.5	SW846 8260C	11/21/16 12:45	TMP	11/23/16 18:23	TMP	A
n-Butylbenzene	ND		ug/kg	1.9	SW846 8260C	11/21/16 12:45	TMP	11/23/16 18:23	TMP	A
tert-Butylbenzene	ND		ug/kg	1.9	SW846 8260C	11/21/16 12:45	TMP	11/23/16 18:23	TMP	A
sec-Butylbenzene	ND		ug/kg	1.9	SW846 8260C	11/21/16 12:45	TMP	11/23/16 18:23	TMP	A
Carbon Disulfide	ND		ug/kg	1.9	SW846 8260C	11/21/16 12:45	TMP	11/23/16 18:23	TMP	A
Carbon Tetrachloride	ND		ug/kg	1.9	SW846 8260C	11/21/16 12:45	TMP	11/23/16 18:23	TMP	A
Chlorobenzene	ND		ug/kg	1.9	SW846 8260C	11/21/16 12:45	TMP	11/23/16 18:23	TMP	A
Chlorodibromomethane	ND		ug/kg	1.9	SW846 8260C	11/21/16 12:45	TMP	11/23/16 18:23	TMP	A
Chloroethane	ND		ug/kg	4.7	SW846 8260C	11/21/16 12:45	TMP	11/23/16 18:23	TMP	A
Chloroform	ND		ug/kg	1.9	SW846 8260C	11/21/16 12:45	TMP	11/23/16 18:23	TMP	A
Chloromethane	ND		ug/kg	1.9	SW846 8260C	11/21/16 12:45	TMP	11/23/16 18:23	TMP	A
Chloroprene	ND		ug/kg	1.9	SW846 8260C	11/21/16 12:45	TMP	11/23/16 18:23	TMP	A
3-Chloro-1-propene	ND		ug/kg	1.9	SW846 8260C	11/21/16 12:45	TMP	11/23/16 18:23	TMP	A
o-Chlorotoluene	ND		ug/kg	1.9	SW846 8260C	11/21/16 12:45	TMP	11/23/16 18:23	TMP	A
p-Chlorotoluene	ND		ug/kg	1.9	SW846 8260C	11/21/16 12:45	TMP	11/23/16 18:23	TMP	A
Cyclohexane	ND		ug/kg	1.9	SW846 8260C	11/21/16 12:45	TMP	11/23/16 18:23	TMP	A
1,2-Dibromo-3-chloropropane	ND		ug/kg	4.7	SW846 8260C	11/21/16 12:45	TMP	11/23/16 18:23	TMP	A
1,2-Dibromoethane	ND		ug/kg	1.9	SW846 8260C	11/21/16 12:45	TMP	11/23/16 18:23	TMP	A
Dibromomethane	ND		ug/kg	1.9	SW846 8260C	11/21/16 12:45	TMP	11/23/16 18:23	TMP	A
1,2-Dichlorobenzene	ND		ug/kg	1.9	SW846 8260C	11/21/16 12:45	TMP	11/23/16 18:23	TMP	A
1,3-Dichlorobenzene	ND		ug/kg	1.9	SW846 8260C	11/21/16 12:45	TMP	11/23/16 18:23	TMP	A
1,4-Dichlorobenzene	ND		ug/kg	1.9	SW846 8260C	11/21/16 12:45	TMP	11/23/16 18:23	TMP	A
Dichlorodifluoromethane	ND		ug/kg	1.9	SW846 8260C	11/21/16 12:45	TMP	11/23/16 18:23	TMP	A
1,1-Dichloroethane	ND		ug/kg	1.9	SW846 8260C	11/21/16 12:45	TMP	11/23/16 18:23	TMP	A

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ANALYTICAL RESULTS

Workorder: 2191010 2016-SAUGERTIES NY SITE - SOIL

Lab ID: **2191010001**

Date Collected: 11/21/2016 12:45

Matrix: Solid

Sample ID: **SB-1 (0'-1')**

Date Received: 11/22/2016 09:11

Parameters	Results	Flag	Units	RDL	Method	Prepared	By	Analyzed	By	Cntr
1,2-Dichloroethane	ND		ug/kg	1.9	SW846 8260C	11/21/16 12:45	TMP	11/23/16 18:23	TMP	A
1,1-Dichloroethene	ND		ug/kg	1.9	SW846 8260C	11/21/16 12:45	TMP	11/23/16 18:23	TMP	A
cis-1,2-Dichloroethene	ND		ug/kg	1.9	SW846 8260C	11/21/16 12:45	TMP	11/23/16 18:23	TMP	A
trans-1,2-Dichloroethene	ND		ug/kg	1.9	SW846 8260C	11/21/16 12:45	TMP	11/23/16 18:23	TMP	A
1,3-Dichloropropane	ND		ug/kg	1.9	SW846 8260C	11/21/16 12:45	TMP	11/23/16 18:23	TMP	A
2,2-Dichloropropane	ND		ug/kg	1.9	SW846 8260C	11/21/16 12:45	TMP	11/23/16 18:23	TMP	A
1,2-Dichloropropane	ND		ug/kg	1.9	SW846 8260C	11/21/16 12:45	TMP	11/23/16 18:23	TMP	A
1,1-Dichloropropene	ND		ug/kg	1.9	SW846 8260C	11/21/16 12:45	TMP	11/23/16 18:23	TMP	A
cis-1,3-Dichloropropene	ND		ug/kg	1.9	SW846 8260C	11/21/16 12:45	TMP	11/23/16 18:23	TMP	A
trans-1,3-Dichloropropene	ND		ug/kg	1.9	SW846 8260C	11/21/16 12:45	TMP	11/23/16 18:23	TMP	A
1,4-Dioxane	ND		ug/kg	71.2	SW846 8260C	11/21/16 12:45	TMP	11/23/16 18:23	TMP	A
Ethyl Methacrylate	ND		ug/kg	1.9	SW846 8260C	11/21/16 12:45	TMP	11/23/16 18:23	TMP	A
Ethyl Acetate	ND		ug/kg	1.9	SW846 8260C	11/21/16 12:45	TMP	11/23/16 18:23	TMP	A
Ethylbenzene	ND		ug/kg	1.9	SW846 8260C	11/21/16 12:45	TMP	11/23/16 18:23	TMP	A
Freon 113	ND		ug/kg	1.9	SW846 8260C	11/21/16 12:45	TMP	11/23/16 18:23	TMP	A
2-Hexanone	ND		ug/kg	9.5	SW846 8260C	11/21/16 12:45	TMP	11/23/16 18:23	TMP	A
Isobutyl alcohol	ND		ug/kg	47.4	SW846 8260C	11/21/16 12:45	TMP	11/23/16 18:23	TMP	A
Isopropylbenzene	ND		ug/kg	1.9	SW846 8260C	11/21/16 12:45	TMP	11/23/16 18:23	TMP	A
p-Isopropyltoluene	ND		ug/kg	1.9	SW846 8260C	11/21/16 12:45	TMP	11/23/16 18:23	TMP	A
Methacrylonitrile	ND		ug/kg	1.9	SW846 8260C	11/21/16 12:45	TMP	11/23/16 18:23	TMP	A
Methyl methacrylate	ND		ug/kg	4.7	SW846 8260C	11/21/16 12:45	TMP	11/23/16 18:23	TMP	A
Methyl acetate	ND		ug/kg	1.9	SW846 8260C	11/21/16 12:45	TMP	11/23/16 18:23	TMP	A
Methyl cyclohexane	ND		ug/kg	1.9	SW846 8260C	11/21/16 12:45	TMP	11/23/16 18:23	TMP	A
Methyl t-Butyl Ether	ND		ug/kg	1.9	SW846 8260C	11/21/16 12:45	TMP	11/23/16 18:23	TMP	A
4-Methyl-2-Pentanone(MIBK)	ND		ug/kg	9.5	SW846 8260C	11/21/16 12:45	TMP	11/23/16 18:23	TMP	A
Methylene Chloride	ND		ug/kg	1.9	SW846 8260C	11/21/16 12:45	TMP	11/23/16 18:23	TMP	A
Naphthalene	ND		ug/kg	1.9	SW846 8260C	11/21/16 12:45	TMP	11/23/16 18:23	TMP	A
Propionitrile	ND		ug/kg	9.5	SW846 8260C	11/21/16 12:45	TMP	11/23/16 18:23	TMP	A
n-Propylbenzene	ND		ug/kg	1.9	SW846 8260C	11/21/16 12:45	TMP	11/23/16 18:23	TMP	A
Styrene	ND		ug/kg	1.9	SW846 8260C	11/21/16 12:45	TMP	11/23/16 18:23	TMP	A
1,1,1,2-Tetrachloroethane	ND		ug/kg	1.9	SW846 8260C	11/21/16 12:45	TMP	11/23/16 18:23	TMP	A
1,1,2,2-Tetrachloroethane	ND		ug/kg	1.9	SW846 8260C	11/21/16 12:45	TMP	11/23/16 18:23	TMP	A
Tetrachloroethene	ND		ug/kg	1.9	SW846 8260C	11/21/16 12:45	TMP	11/23/16 18:23	TMP	A
Toluene	ND		ug/kg	1.9	SW846 8260C	11/21/16 12:45	TMP	11/23/16 18:23	TMP	A
Total Xylenes	ND		ug/kg	5.7	SW846 8260C	11/21/16 12:45	TMP	11/23/16 18:23	TMP	A
1,2,4-Trichlorobenzene	ND		ug/kg	4.7	SW846 8260C	11/21/16 12:45	TMP	11/23/16 18:23	TMP	A
1,1,1-Trichloroethane	ND		ug/kg	1.9	SW846 8260C	11/21/16 12:45	TMP	11/23/16 18:23	TMP	A
1,1,2-Trichloroethane	ND		ug/kg	1.9	SW846 8260C	11/21/16 12:45	TMP	11/23/16 18:23	TMP	A

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ANALYTICAL RESULTS

Workorder: 2191010 2016-SAUGERTIES NY SITE - SOIL

Lab ID: **2191010001**
Sample ID: **SB-1 (0'-1')**

Date Collected: 11/21/2016 12:45 Matrix: Solid
Date Received: 11/22/2016 09:11

Parameters	Results	Flag	Units	RDL	Method	Prepared	By	Analyzed	By	Cntr
Trichloroethene	ND		ug/kg	1.9	SW846 8260C	11/21/16 12:45	TMP	11/23/16 18:23	TMP	A
Trichlorofluoromethane	ND		ug/kg	1.9	SW846 8260C	11/21/16 12:45	TMP	11/23/16 18:23	TMP	A
1,2,3-Trichloropropane	ND		ug/kg	1.9	SW846 8260C	11/21/16 12:45	TMP	11/23/16 18:23	TMP	A
1,2,4-Trimethylbenzene	ND		ug/kg	1.9	SW846 8260C	11/21/16 12:45	TMP	11/23/16 18:23	TMP	A
1,3,5-Trimethylbenzene	ND		ug/kg	1.9	SW846 8260C	11/21/16 12:45	TMP	11/23/16 18:23	TMP	A
Vinyl Acetate	ND		ug/kg	1.9	SW846 8260C	11/21/16 12:45	TMP	11/23/16 18:23	TMP	A
Vinyl Chloride	ND		ug/kg	1.9	SW846 8260C	11/21/16 12:45	TMP	11/23/16 18:23	TMP	A
o-Xylene	ND		ug/kg	1.9	SW846 8260C	11/21/16 12:45	TMP	11/23/16 18:23	TMP	A
mp-Xylene	ND		ug/kg	3.8	SW846 8260C	11/21/16 12:45	TMP	11/23/16 18:23	TMP	A
<i>Surrogate Recoveries</i>	<i>Results</i>	<i>Flag</i>	<i>Units</i>	<i>Limits</i>	<i>Method</i>	<i>Prepared</i>	<i>By</i>	<i>Analyzed</i>	<i>By</i>	<i>Cntr</i>
1,2-Dichloroethane-d4 (S)	88.9		%	56 - 124	SW846 8260C	11/21/16 12:45	TMP	11/23/16 18:23	TMP	A
4-Bromofluorobenzene (S)	102		%	51 - 128	SW846 8260C	11/21/16 12:45	TMP	11/23/16 18:23	TMP	A
Dibromofluoromethane (S)	93.2		%	62 - 123	SW846 8260C	11/21/16 12:45	TMP	11/23/16 18:23	TMP	A
Toluene-d8 (S)	99.7		%	59 - 131	SW846 8260C	11/21/16 12:45	TMP	11/23/16 18:23	TMP	A
SEMIVOLATILES										
Acenaphthene	ND		ug/kg	58.6	SW846 8270D	11/22/16 23:35	CMA	11/23/16 18:31	CGS	E
Acenaphthylene	64.8		ug/kg	58.6	SW846 8270D	11/22/16 23:35	CMA	11/23/16 18:31	CGS	E
Acetophenone	ND		ug/kg	117	SW846 8270D	11/22/16 23:35	CMA	11/23/16 18:31	CGS	E
Aniline	ND		ug/kg	234	SW846 8270D	11/22/16 23:35	CMA	11/23/16 18:31	CGS	E
Anthracene	ND		ug/kg	58.6	SW846 8270D	11/22/16 23:35	CMA	11/23/16 18:31	CGS	E
Atrazine	ND		ug/kg	117	SW846 8270D	11/22/16 23:35	CMA	11/23/16 18:31	CGS	E
Benzaldehyde	ND		ug/kg	234	SW846 8270D	11/22/16 23:35	CMA	11/23/16 18:31	CGS	E
Benzidine	ND		ug/kg	234	SW846 8270D	11/22/16 23:35	CMA	11/23/16 18:31	CGS	E
Benzo(a)anthracene	68.7		ug/kg	58.6	SW846 8270D	11/22/16 23:35	CMA	11/23/16 18:31	CGS	E
Benzo(a)pyrene	70.6		ug/kg	58.6	SW846 8270D	11/22/16 23:35	CMA	11/23/16 18:31	CGS	E
Benzo(b)fluoranthene	98.1		ug/kg	58.6	SW846 8270D	11/22/16 23:35	CMA	11/23/16 18:31	CGS	E
Benzo(g,h,i)perylene	ND		ug/kg	58.6	SW846 8270D	11/22/16 23:35	CMA	11/23/16 18:31	CGS	E
Benzoic acid	ND		ug/kg	633	SW846 8270D	11/22/16 23:35	CMA	11/23/16 18:31	CGS	E
Benzo(k)fluoranthene	ND		ug/kg	58.6	SW846 8270D	11/22/16 23:35	CMA	11/23/16 18:31	CGS	E
Benzyl Alcohol	ND		ug/kg	117	SW846 8270D	11/22/16 23:35	CMA	11/23/16 18:31	CGS	E
Biphenyl	ND		ug/kg	117	SW846 8270D	11/22/16 23:35	CMA	11/23/16 18:31	CGS	E
4-Bromophenyl-phenylether	ND		ug/kg	117	SW846 8270D	11/22/16 23:35	CMA	11/23/16 18:31	CGS	E
Butylbenzylphthalate	ND		ug/kg	117	SW846 8270D	11/22/16 23:35	CMA	11/23/16 18:31	CGS	E
Caprolactam	ND		ug/kg	234	SW846 8270D	11/22/16 23:35	CMA	11/23/16 18:31	CGS	E
Carbazole	ND		ug/kg	117	SW846 8270D	11/22/16 23:35	CMA	11/23/16 18:31	CGS	E
4-Chloro-3-methylphenol	ND		ug/kg	234	SW846 8270D	11/22/16 23:35	CMA	11/23/16 18:31	CGS	E
4-Chloroaniline	ND		ug/kg	234	SW846 8270D	11/22/16 23:35	CMA	11/23/16 18:31	CGS	E

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ANALYTICAL RESULTS

Workorder: 2191010 2016-SAUGERTIES NY SITE - SOIL

Lab ID: **2191010001**

Date Collected: 11/21/2016 12:45

Matrix: Solid

Sample ID: **SB-1 (0'-1')**

Date Received: 11/22/2016 09:11

Parameters	Results	Flag	Units	RDL	Method	Prepared	By	Analyzed	By	Cntr
bis(2-Chloroethoxy)methane	ND		ug/kg	117	SW846 8270D	11/22/16 23:35	CMA	11/23/16 18:31	CGS	E
bis(2-Chloroethyl)ether	ND		ug/kg	117	SW846 8270D	11/22/16 23:35	CMA	11/23/16 18:31	CGS	E
bis(2-Chloroisopropyl)ether	ND		ug/kg	117	SW846 8270D	11/22/16 23:35	CMA	11/23/16 18:31	CGS	E
2-Chloronaphthalene	ND		ug/kg	117	SW846 8270D	11/22/16 23:35	CMA	11/23/16 18:31	CGS	E
2-Chlorophenol	ND		ug/kg	234	SW846 8270D	11/22/16 23:35	CMA	11/23/16 18:31	CGS	E
4-Chlorophenyl-phenylether	ND		ug/kg	117	SW846 8270D	11/22/16 23:35	CMA	11/23/16 18:31	CGS	E
Chrysene	87.5		ug/kg	58.6	SW846 8270D	11/22/16 23:35	CMA	11/23/16 18:31	CGS	E
mp-Cresol	ND		ug/kg	234	SW846 8270D	11/22/16 23:35	CMA	11/23/16 18:31	CGS	E
o-Cresol	ND		ug/kg	234	SW846 8270D	11/22/16 23:35	CMA	11/23/16 18:31	CGS	E
Di-n-Butylphthalate	ND		ug/kg	117	SW846 8270D	11/22/16 23:35	CMA	11/23/16 18:31	CGS	E
Di-n-Octylphthalate	ND		ug/kg	117	SW846 8270D	11/22/16 23:35	CMA	11/23/16 18:31	CGS	E
Dibenzo(a,h)anthracene	ND		ug/kg	58.6	SW846 8270D	11/22/16 23:35	CMA	11/23/16 18:31	CGS	E
Dibenzofuran	ND		ug/kg	117	SW846 8270D	11/22/16 23:35	CMA	11/23/16 18:31	CGS	E
1,2-Dichlorobenzene	ND		ug/kg	117	SW846 8270D	11/22/16 23:35	CMA	11/23/16 18:31	CGS	E
1,3-Dichlorobenzene	ND		ug/kg	117	SW846 8270D	11/22/16 23:35	CMA	11/23/16 18:31	CGS	E
1,4-Dichlorobenzene	ND		ug/kg	117	SW846 8270D	11/22/16 23:35	CMA	11/23/16 18:31	CGS	E
3,3-Dichlorobenzidine	ND		ug/kg	234	SW846 8270D	11/22/16 23:35	CMA	11/23/16 18:31	CGS	E
2,4-Dichlorophenol	ND		ug/kg	234	SW846 8270D	11/22/16 23:35	CMA	11/23/16 18:31	CGS	E
2,6-Dichlorophenol	ND		ug/kg	234	SW846 8270D	11/22/16 23:35	CMA	11/23/16 18:31	CGS	E
Diethylphthalate	ND		ug/kg	117	SW846 8270D	11/22/16 23:35	CMA	11/23/16 18:31	CGS	E
Dimethoate	ND		ug/kg	234	SW846 8270D	11/22/16 23:35	CMA	11/23/16 18:31	CGS	E
2,4-Dimethylphenol	ND		ug/kg	234	SW846 8270D	11/22/16 23:35	CMA	11/23/16 18:31	CGS	E
Dimethylphthalate	ND		ug/kg	117	SW846 8270D	11/22/16 23:35	CMA	11/23/16 18:31	CGS	E
1,2-Dinitrobenzene	ND		ug/kg	117	SW846 8270D	11/22/16 23:35	CMA	11/23/16 18:31	CGS	E
1,4-Dinitrobenzene	ND		ug/kg	117	SW846 8270D	11/22/16 23:35	CMA	11/23/16 18:31	CGS	E
2,4-Dinitrophenol	ND		ug/kg	234	SW846 8270D	11/22/16 23:35	CMA	11/23/16 18:31	CGS	E
2,4-Dinitrotoluene	ND		ug/kg	117	SW846 8270D	11/22/16 23:35	CMA	11/23/16 18:31	CGS	E
2,6-Dinitrotoluene	ND		ug/kg	117	SW846 8270D	11/22/16 23:35	CMA	11/23/16 18:31	CGS	E
Diphenylamine	ND		ug/kg	117	SW846 8270D	11/22/16 23:35	CMA	11/23/16 18:31	CGS	E
1,2-Diphenylhydrazine	ND		ug/kg	117	SW846 8270D	11/22/16 23:35	CMA	11/23/16 18:31	CGS	E
bis(2-Ethylhexyl)phthalate	ND		ug/kg	117	SW846 8270D	11/22/16 23:35	CMA	11/23/16 18:31	CGS	E
Fluoranthene	123		ug/kg	58.6	SW846 8270D	11/22/16 23:35	CMA	11/23/16 18:31	CGS	E
Fluorene	ND		ug/kg	58.6	SW846 8270D	11/22/16 23:35	CMA	11/23/16 18:31	CGS	E
Hexachlorobenzene	ND		ug/kg	117	SW846 8270D	11/22/16 23:35	CMA	11/23/16 18:31	CGS	E
Hexachlorobutadiene	ND		ug/kg	117	SW846 8270D	11/22/16 23:35	CMA	11/23/16 18:31	CGS	E
Hexachlorocyclopentadiene	ND		ug/kg	234	SW846 8270D	11/22/16 23:35	CMA	11/23/16 18:31	CGS	E
Hexachloroethane	ND		ug/kg	117	SW846 8270D	11/22/16 23:35	CMA	11/23/16 18:31	CGS	E
Indeno(1,2,3-cd)pyrene	ND		ug/kg	58.6	SW846 8270D	11/22/16 23:35	CMA	11/23/16 18:31	CGS	E

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ANALYTICAL RESULTS

Workorder: 2191010 2016-SAUGERTIES NY SITE - SOIL

Lab ID: **2191010001**

Date Collected: 11/21/2016 12:45

Matrix: Solid

Sample ID: **SB-1 (0'-1')**

Date Received: 11/22/2016 09:11

Parameters	Results	Flag	Units	RDL	Method	Prepared	By	Analyzed	By	Cntr
Isophorone	ND		ug/kg	117	SW846 8270D	11/22/16 23:35	CMA	11/23/16 18:31	CGS	E
2-Methyl-4,6-dinitrophenol	ND		ug/kg	234	SW846 8270D	11/22/16 23:35	CMA	11/23/16 18:31	CGS	E
2-Methylnaphthalene	ND		ug/kg	117	SW846 8270D	11/22/16 23:35	CMA	11/23/16 18:31	CGS	E
2-Naphthylamine	ND		ug/kg	234	SW846 8270D	11/22/16 23:35	CMA	11/23/16 18:31	CGS	E
Naphthalene	ND		ug/kg	58.6	SW846 8270D	11/22/16 23:35	CMA	11/23/16 18:31	CGS	E
2-Nitroaniline	ND		ug/kg	234	SW846 8270D	11/22/16 23:35	CMA	11/23/16 18:31	CGS	E
3-Nitroaniline	ND		ug/kg	234	SW846 8270D	11/22/16 23:35	CMA	11/23/16 18:31	CGS	E
4-Nitroaniline	ND		ug/kg	234	SW846 8270D	11/22/16 23:35	CMA	11/23/16 18:31	CGS	E
Nitrobenzene	ND		ug/kg	117	SW846 8270D	11/22/16 23:35	CMA	11/23/16 18:31	CGS	E
2-Nitrophenol	ND		ug/kg	234	SW846 8270D	11/22/16 23:35	CMA	11/23/16 18:31	CGS	E
4-Nitrophenol	ND		ug/kg	234	SW846 8270D	11/22/16 23:35	CMA	11/23/16 18:31	CGS	E
N-Nitrosodi-n-butylamine	ND		ug/kg	117	SW846 8270D	11/22/16 23:35	CMA	11/23/16 18:31	CGS	E
N-Nitrosodiethylamine	ND		ug/kg	117	SW846 8270D	11/22/16 23:35	CMA	11/23/16 18:31	CGS	E
N-Nitrosodimethylamine	ND		ug/kg	117	SW846 8270D	11/22/16 23:35	CMA	11/23/16 18:31	CGS	E
N-Nitroso-di-n-propylamine	ND		ug/kg	117	SW846 8270D	11/22/16 23:35	CMA	11/23/16 18:31	CGS	E
N-Nitrosodiphenylamine	ND		ug/kg	117	SW846 8270D	11/22/16 23:35	CMA	11/23/16 18:31	CGS	E
N-Nitrosopyrrolidine	ND		ug/kg	117	SW846 8270D	11/22/16 23:35	CMA	11/23/16 18:31	CGS	E
Pentachlorobenzene	ND		ug/kg	117	SW846 8270D	11/22/16 23:35	CMA	11/23/16 18:31	CGS	E
Pentachlorophenol	ND		ug/kg	234	SW846 8270D	11/22/16 23:35	CMA	11/23/16 18:31	CGS	E
Phenanthrene	80.0		ug/kg	58.6	SW846 8270D	11/22/16 23:35	CMA	11/23/16 18:31	CGS	E
Phenol	ND		ug/kg	234	SW846 8270D	11/22/16 23:35	CMA	11/23/16 18:31	CGS	E
Pyrene	111		ug/kg	58.6	SW846 8270D	11/22/16 23:35	CMA	11/23/16 18:31	CGS	E
Pyridine	ND		ug/kg	234	SW846 8270D	11/22/16 23:35	CMA	11/23/16 18:31	CGS	E
Resorcinol	ND		ug/kg	117	SW846 8270D	11/22/16 23:35	CMA	11/23/16 18:31	CGS	E
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	117	SW846 8270D	11/22/16 23:35	CMA	11/23/16 18:31	CGS	E
2,3,4,6-Tetrachlorophenol	ND		ug/kg	234	SW846 8270D	11/22/16 23:35	CMA	11/23/16 18:31	CGS	E
1,2,4-Trichlorobenzene	ND		ug/kg	117	SW846 8270D	11/22/16 23:35	CMA	11/23/16 18:31	CGS	E
2,4,5-Trichlorophenol	ND		ug/kg	234	SW846 8270D	11/22/16 23:35	CMA	11/23/16 18:31	CGS	E
2,4,6-Trichlorophenol	ND		ug/kg	234	SW846 8270D	11/22/16 23:35	CMA	11/23/16 18:31	CGS	E
Surrogate Recoveries	Results	Flag	Units	Limits	Method	Prepared	By	Analyzed	By	Cntr
2,4,6-Tribromophenol (S)	81.3		%	19 - 132	SW846 8270D	11/22/16 23:35	CMA	11/23/16 18:31	CGS	E
2-Fluorobiphenyl (S)	61.7		%	40 - 110	SW846 8270D	11/22/16 23:35	CMA	11/23/16 18:31	CGS	E
2-Fluorophenol (S)	54.9		%	26 - 116	SW846 8270D	11/22/16 23:35	CMA	11/23/16 18:31	CGS	E
Nitrobenzene-d5 (S)	62.9		%	38 - 112	SW846 8270D	11/22/16 23:35	CMA	11/23/16 18:31	CGS	E
Phenol-d5 (S)	61.5		%	35 - 111	SW846 8270D	11/22/16 23:35	CMA	11/23/16 18:31	CGS	E
Terphenyl-d14 (S)	77.6		%	45 - 126	SW846 8270D	11/22/16 23:35	CMA	11/23/16 18:31	CGS	E

PCBs

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ANALYTICAL RESULTS

Workorder: 2191010 2016-SAUGERTIES NY SITE - SOIL

Lab ID: **2191010001**

Date Collected: 11/21/2016 12:45

Matrix: Solid

Sample ID: **SB-1 (0'-1')**

Date Received: 11/22/2016 09:11

Parameters	Results	Flag	Units	RDL	Method	Prepared	By	Analyzed	By	Cntr
Total Polychlorinated Biphenyl	ND		mg/kg	0.039	SW846 8082A	11/23/16 17:00	JSR	11/28/16 23:37	KJH	E
Aroclor-1016	ND		mg/kg	0.039	SW846 8082A	11/23/16 17:00	JSR	11/28/16 23:37	KJH	E
Aroclor-1221	ND		mg/kg	0.039	SW846 8082A	11/23/16 17:00	JSR	11/28/16 23:37	KJH	E
Aroclor-1232	ND		mg/kg	0.039	SW846 8082A	11/23/16 17:00	JSR	11/28/16 23:37	KJH	E
Aroclor-1242	ND		mg/kg	0.039	SW846 8082A	11/23/16 17:00	JSR	11/28/16 23:37	KJH	E
Aroclor-1248	ND		mg/kg	0.039	SW846 8082A	11/23/16 17:00	JSR	11/28/16 23:37	KJH	E
Aroclor-1254	ND		mg/kg	0.039	SW846 8082A	11/23/16 17:00	JSR	11/28/16 23:37	KJH	E
Aroclor-1260	ND		mg/kg	0.039	SW846 8082A	11/23/16 17:00	JSR	11/28/16 23:37	KJH	E
<i>Surrogate Recoveries</i>	<i>Results</i>	<i>Flag</i>	<i>Units</i>	<i>Limits</i>	<i>Method</i>	<i>Prepared</i>	<i>By</i>	<i>Analyzed</i>	<i>By</i>	<i>Cntr</i>
Decachlorobiphenyls (S)	65.9		%	49 - 115	SW846 8082A	11/23/16 17:00	JSR	11/28/16 23:37	KJH	E
Tetrachloro-m-xylene (S)	68.4		%	27 - 137	SW846 8082A	11/23/16 17:00	JSR	11/28/16 23:37	KJH	E
PESTICIDES										
Aldrin	ND		ug/kg	10	SW846 8081B	11/23/16 17:00	JSR	11/29/16 12:13	RWS	E
alpha-BHC	ND		ug/kg	10	SW846 8081B	11/23/16 17:00	JSR	11/29/16 12:13	RWS	E
beta-BHC	ND		ug/kg	10	SW846 8081B	11/23/16 17:00	JSR	11/29/16 12:13	RWS	E
delta-BHC	ND		ug/kg	10	SW846 8081B	11/23/16 17:00	JSR	11/29/16 12:13	RWS	E
gamma-BHC	ND		ug/kg	10	SW846 8081B	11/23/16 17:00	JSR	11/29/16 12:13	RWS	E
alpha-Chlordane	ND		ug/kg	10	SW846 8081B	11/23/16 17:00	JSR	11/29/16 12:13	RWS	E
gamma-Chlordane	ND		ug/kg	10	SW846 8081B	11/23/16 17:00	JSR	11/29/16 12:13	RWS	E
4,4'-DDD	ND		ug/kg	19.3	SW846 8081B	11/23/16 17:00	JSR	11/29/16 12:13	RWS	E
4,4'-DDE	ND		ug/kg	19.3	SW846 8081B	11/23/16 17:00	JSR	11/29/16 12:13	RWS	E
4,4'-DDT	ND		ug/kg	19.3	SW846 8081B	11/23/16 17:00	JSR	11/29/16 12:13	RWS	E
Dieldrin	ND		ug/kg	19.3	SW846 8081B	11/23/16 17:00	JSR	11/29/16 12:13	RWS	E
Endosulfan I	ND		ug/kg	10	SW846 8081B	11/23/16 17:00	JSR	11/29/16 12:13	RWS	E
Endosulfan II	ND		ug/kg	19.3	SW846 8081B	11/23/16 17:00	JSR	11/29/16 12:13	RWS	E
Endosulfan Sulfate	ND		ug/kg	19.3	SW846 8081B	11/23/16 17:00	JSR	11/29/16 12:13	RWS	E
Endrin	ND		ug/kg	19.3	SW846 8081B	11/23/16 17:00	JSR	11/29/16 12:13	RWS	E
Endrin Aldehyde	ND		ug/kg	19.3	SW846 8081B	11/23/16 17:00	JSR	11/29/16 12:13	RWS	E
Endrin Ketone	ND		ug/kg	19.3	SW846 8081B	11/23/16 17:00	JSR	11/29/16 12:13	RWS	E
Heptachlor	ND		ug/kg	10	SW846 8081B	11/23/16 17:00	JSR	11/29/16 12:13	RWS	E
Heptachlor Epoxide	ND		ug/kg	10	SW846 8081B	11/23/16 17:00	JSR	11/29/16 12:13	RWS	E
Methoxychlor	ND		ug/kg	19.3	SW846 8081B	11/23/16 17:00	JSR	11/29/16 12:13	RWS	E
Mirex	ND		ug/kg	19.3	SW846 8081B	11/23/16 17:00	JSR	11/29/16 12:13	RWS	E
Toxaphene	ND		ug/kg	205	SW846 8081B	11/23/16 17:00	JSR	11/29/16 12:13	RWS	E
<i>Surrogate Recoveries</i>	<i>Results</i>	<i>Flag</i>	<i>Units</i>	<i>Limits</i>	<i>Method</i>	<i>Prepared</i>	<i>By</i>	<i>Analyzed</i>	<i>By</i>	<i>Cntr</i>
Decachlorobiphenyls (S)	78.8		%	30 - 135	SW846 8081B	11/23/16 17:00	JSR	11/29/16 12:13	RWS	E

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ANALYTICAL RESULTS

Workorder: 2191010 2016-SAUGERTIES NY SITE - SOIL

Lab ID: **2191010001**

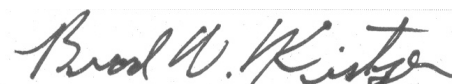
Date Collected: 11/21/2016 12:45

Matrix: Solid

Sample ID: **SB-1 (0'-1')**

Date Received: 11/22/2016 09:11

Parameters	Results	Flag	Units	RDL	Method	Prepared	By	Analyzed	By	Cntr
Tetrachloro-m-xylene (S)	65.8		%	30 - 111	SW846 8081B	11/23/16 17:00	JSR	11/29/16 12:13	RWS	E
WET CHEMISTRY										
Moisture	17.4		%	0.1	S2540G-11			12/1/16 11:26	ML	
Total Solids	82.6		%	0.1	S2540G-11			12/1/16 11:26	ML	
METALS										
Aluminum, Total	4360		mg/kg	12.1	SW846 6010C	11/30/16 09:36	TRR	12/1/16 11:39	TSS	E1
Antimony, Total	ND		mg/kg	2.4	SW846 6010C	11/30/16 09:36	TRR	12/1/16 11:39	TSS	E1
Arsenic, Total	34.9		mg/kg	2.4	SW846 6010C	11/30/16 09:36	TRR	12/1/16 11:39	TSS	E1
Barium, Total	29.8		mg/kg	1.2	SW846 6010C	11/30/16 09:36	TRR	12/1/16 11:39	TSS	E1
Beryllium, Total	ND		mg/kg	1.2	SW846 6010C	11/30/16 09:36	TRR	12/1/16 11:39	TSS	E1
Cadmium, Total	ND		mg/kg	0.61	SW846 6010C	11/30/16 09:36	TRR	12/1/16 11:39	TSS	E1
Calcium, Total	7580		mg/kg	12.1	SW846 6010C	11/30/16 09:36	TRR	12/1/16 11:39	TSS	E1
Chromium, Total	8.1		mg/kg	1.2	SW846 6010C	11/30/16 09:36	TRR	12/1/16 11:39	TSS	E1
Cobalt, Total	2.9		mg/kg	1.2	SW846 6010C	11/30/16 09:36	TRR	12/1/16 11:39	TSS	E1
Copper, Total	15.7		mg/kg	2.4	SW846 6010C	11/30/16 09:36	TRR	12/1/16 11:39	TSS	E1
Iron, Total	25800		mg/kg	12.1	SW846 6010C	11/30/16 09:36	TRR	12/1/16 11:39	TSS	E1
Lead, Total	29.3		mg/kg	2.4	SW846 6010C	11/30/16 09:36	TRR	12/1/16 11:39	TSS	E1
Magnesium, Total	1820		mg/kg	12.1	SW846 6010C	11/30/16 09:36	TRR	12/1/16 11:39	TSS	E1
Manganese, Total	85.2		mg/kg	1.2	SW846 6010C	11/30/16 09:36	TRR	12/1/16 11:39	TSS	E1
Mercury, Total	3.0		mg/kg	0.27	SW846 7471B	12/1/16 07:55	MNP	12/1/16 15:20	MNP	E2
Nickel, Total	9.6		mg/kg	2.4	SW846 6010C	11/30/16 09:36	TRR	12/1/16 11:39	TSS	E1
Potassium, Total	560		mg/kg	60.5	SW846 6010C	11/30/16 09:36	TRR	12/1/16 11:39	TSS	E1
Selenium, Total	ND		mg/kg	6.1	SW846 6010C	11/30/16 09:36	TRR	12/1/16 11:39	TSS	E1
Silver, Total	ND		mg/kg	0.61	SW846 6010C	11/30/16 09:36	TRR	12/1/16 11:39	TSS	E1
Sodium, Total	90.4		mg/kg	60.5	SW846 6010C	11/30/16 09:36	TRR	12/1/16 11:39	TSS	E1
Thallium, Total	ND		mg/kg	3.6	SW846 6010C	11/30/16 09:36	TRR	12/1/16 11:39	TSS	E1
Vanadium, Total	14.2		mg/kg	1.2	SW846 6010C	11/30/16 09:36	TRR	12/1/16 11:39	TSS	E1
Zinc, Total	22.7		mg/kg	2.4	SW846 6010C	11/30/16 09:36	TRR	12/1/16 11:39	TSS	E1



Mr. Brad W Kintzer

Project Coordinator

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ANALYTICAL RESULTS

Workorder: 2191010 2016-SAUGERTIES NY SITE - SOIL

Lab ID: **2191010002**

Date Collected: 11/21/2016 12:30

Matrix: Solid

Sample ID: **SB-1 (4'-5')**

Date Received: 11/22/2016 09:11

Parameters	Results	Flag	Units	RDL	Method	Prepared	By	Analyzed	By	Cntr
VOLATILE ORGANICS										
Acetone	ND		ug/kg	7.4	SW846 8260C	11/21/16 12:30	TMP	11/23/16 18:46	TMP	A
Acetonitrile	ND		ug/kg	7.4	SW846 8260C	11/21/16 12:30	TMP	11/23/16 18:46	TMP	A
Acrolein	ND		ug/kg	36.8	SW846 8260C	11/21/16 12:30	TMP	11/23/16 18:46	TMP	A
Acrylonitrile	ND		ug/kg	7.4	SW846 8260C	11/21/16 12:30	TMP	11/23/16 18:46	TMP	A
Benzene	ND		ug/kg	1.5	SW846 8260C	11/21/16 12:30	TMP	11/23/16 18:46	TMP	A
Benzyl Chloride	ND		ug/kg	1.5	SW846 8260C	11/21/16 12:30	TMP	11/23/16 18:46	TMP	A
Bromobenzene	ND		ug/kg	1.5	SW846 8260C	11/21/16 12:30	TMP	11/23/16 18:46	TMP	A
Bromochloromethane	ND		ug/kg	1.5	SW846 8260C	11/21/16 12:30	TMP	11/23/16 18:46	TMP	A
Bromodichloromethane	ND		ug/kg	1.5	SW846 8260C	11/21/16 12:30	TMP	11/23/16 18:46	TMP	A
Bromoform	ND		ug/kg	1.5	SW846 8260C	11/21/16 12:30	TMP	11/23/16 18:46	TMP	A
Bromomethane	ND		ug/kg	1.5	SW846 8260C	11/21/16 12:30	TMP	11/23/16 18:46	TMP	A
2-Butanone	ND		ug/kg	7.4	SW846 8260C	11/21/16 12:30	TMP	11/23/16 18:46	TMP	A
tert-Butyl Alcohol	ND		ug/kg	7.4	SW846 8260C	11/21/16 12:30	TMP	11/23/16 18:46	TMP	A
n-Butylbenzene	ND		ug/kg	1.5	SW846 8260C	11/21/16 12:30	TMP	11/23/16 18:46	TMP	A
tert-Butylbenzene	ND		ug/kg	1.5	SW846 8260C	11/21/16 12:30	TMP	11/23/16 18:46	TMP	A
sec-Butylbenzene	ND		ug/kg	1.5	SW846 8260C	11/21/16 12:30	TMP	11/23/16 18:46	TMP	A
Carbon Disulfide	ND		ug/kg	1.5	SW846 8260C	11/21/16 12:30	TMP	11/23/16 18:46	TMP	A
Carbon Tetrachloride	ND		ug/kg	1.5	SW846 8260C	11/21/16 12:30	TMP	11/23/16 18:46	TMP	A
Chlorobenzene	ND		ug/kg	1.5	SW846 8260C	11/21/16 12:30	TMP	11/23/16 18:46	TMP	A
Chlorodibromomethane	ND		ug/kg	1.5	SW846 8260C	11/21/16 12:30	TMP	11/23/16 18:46	TMP	A
Chloroethane	ND		ug/kg	3.7	SW846 8260C	11/21/16 12:30	TMP	11/23/16 18:46	TMP	A
Chloroform	ND		ug/kg	1.5	SW846 8260C	11/21/16 12:30	TMP	11/23/16 18:46	TMP	A
Chloromethane	ND		ug/kg	1.5	SW846 8260C	11/21/16 12:30	TMP	11/23/16 18:46	TMP	A
Chloroprene	ND		ug/kg	1.5	SW846 8260C	11/21/16 12:30	TMP	11/23/16 18:46	TMP	A
3-Chloro-1-propene	ND		ug/kg	1.5	SW846 8260C	11/21/16 12:30	TMP	11/23/16 18:46	TMP	A
o-Chlorotoluene	ND		ug/kg	1.5	SW846 8260C	11/21/16 12:30	TMP	11/23/16 18:46	TMP	A
p-Chlorotoluene	ND		ug/kg	1.5	SW846 8260C	11/21/16 12:30	TMP	11/23/16 18:46	TMP	A
Cyclohexane	ND		ug/kg	1.5	SW846 8260C	11/21/16 12:30	TMP	11/23/16 18:46	TMP	A
1,2-Dibromo-3-chloropropane	ND		ug/kg	3.7	SW846 8260C	11/21/16 12:30	TMP	11/23/16 18:46	TMP	A
1,2-Dibromoethane	ND		ug/kg	1.5	SW846 8260C	11/21/16 12:30	TMP	11/23/16 18:46	TMP	A
Dibromomethane	ND		ug/kg	1.5	SW846 8260C	11/21/16 12:30	TMP	11/23/16 18:46	TMP	A
1,2-Dichlorobenzene	ND		ug/kg	1.5	SW846 8260C	11/21/16 12:30	TMP	11/23/16 18:46	TMP	A
1,3-Dichlorobenzene	ND		ug/kg	1.5	SW846 8260C	11/21/16 12:30	TMP	11/23/16 18:46	TMP	A
1,4-Dichlorobenzene	ND		ug/kg	1.5	SW846 8260C	11/21/16 12:30	TMP	11/23/16 18:46	TMP	A
Dichlorodifluoromethane	ND		ug/kg	1.5	SW846 8260C	11/21/16 12:30	TMP	11/23/16 18:46	TMP	A
1,1-Dichloroethane	ND		ug/kg	1.5	SW846 8260C	11/21/16 12:30	TMP	11/23/16 18:46	TMP	A

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ANALYTICAL RESULTS

Workorder: 2191010 2016-SAUGERTIES NY SITE - SOIL

Lab ID: **2191010002**

Date Collected: 11/21/2016 12:30

Matrix: Solid

Sample ID: **SB-1 (4'-5')**

Date Received: 11/22/2016 09:11

Parameters	Results	Flag	Units	RDL	Method	Prepared	By	Analyzed	By	Cntr
1,2-Dichloroethane	ND		ug/kg	1.5	SW846 8260C	11/21/16 12:30	TMP	11/23/16 18:46	TMP	A
1,1-Dichloroethene	ND		ug/kg	1.5	SW846 8260C	11/21/16 12:30	TMP	11/23/16 18:46	TMP	A
cis-1,2-Dichloroethene	ND		ug/kg	1.5	SW846 8260C	11/21/16 12:30	TMP	11/23/16 18:46	TMP	A
trans-1,2-Dichloroethene	ND		ug/kg	1.5	SW846 8260C	11/21/16 12:30	TMP	11/23/16 18:46	TMP	A
1,3-Dichloropropane	ND		ug/kg	1.5	SW846 8260C	11/21/16 12:30	TMP	11/23/16 18:46	TMP	A
2,2-Dichloropropane	ND		ug/kg	1.5	SW846 8260C	11/21/16 12:30	TMP	11/23/16 18:46	TMP	A
1,2-Dichloropropane	ND		ug/kg	1.5	SW846 8260C	11/21/16 12:30	TMP	11/23/16 18:46	TMP	A
1,1-Dichloropropene	ND		ug/kg	1.5	SW846 8260C	11/21/16 12:30	TMP	11/23/16 18:46	TMP	A
cis-1,3-Dichloropropene	ND		ug/kg	1.5	SW846 8260C	11/21/16 12:30	TMP	11/23/16 18:46	TMP	A
trans-1,3-Dichloropropene	ND		ug/kg	1.5	SW846 8260C	11/21/16 12:30	TMP	11/23/16 18:46	TMP	A
1,4-Dioxane	ND		ug/kg	55.2	SW846 8260C	11/21/16 12:30	TMP	11/23/16 18:46	TMP	A
Ethyl Methacrylate	ND		ug/kg	1.5	SW846 8260C	11/21/16 12:30	TMP	11/23/16 18:46	TMP	A
Ethyl Acetate	ND		ug/kg	1.5	SW846 8260C	11/21/16 12:30	TMP	11/23/16 18:46	TMP	A
Ethylbenzene	ND		ug/kg	1.5	SW846 8260C	11/21/16 12:30	TMP	11/23/16 18:46	TMP	A
Freon 113	ND		ug/kg	1.5	SW846 8260C	11/21/16 12:30	TMP	11/23/16 18:46	TMP	A
2-Hexanone	ND		ug/kg	7.4	SW846 8260C	11/21/16 12:30	TMP	11/23/16 18:46	TMP	A
Isobutyl alcohol	ND		ug/kg	36.8	SW846 8260C	11/21/16 12:30	TMP	11/23/16 18:46	TMP	A
Isopropylbenzene	ND		ug/kg	1.5	SW846 8260C	11/21/16 12:30	TMP	11/23/16 18:46	TMP	A
p-Isopropyltoluene	ND		ug/kg	1.5	SW846 8260C	11/21/16 12:30	TMP	11/23/16 18:46	TMP	A
Methacrylonitrile	ND		ug/kg	1.5	SW846 8260C	11/21/16 12:30	TMP	11/23/16 18:46	TMP	A
Methyl methacrylate	ND		ug/kg	3.7	SW846 8260C	11/21/16 12:30	TMP	11/23/16 18:46	TMP	A
Methyl acetate	ND		ug/kg	1.5	SW846 8260C	11/21/16 12:30	TMP	11/23/16 18:46	TMP	A
Methyl cyclohexane	ND		ug/kg	1.5	SW846 8260C	11/21/16 12:30	TMP	11/23/16 18:46	TMP	A
Methyl t-Butyl Ether	ND		ug/kg	1.5	SW846 8260C	11/21/16 12:30	TMP	11/23/16 18:46	TMP	A
4-Methyl-2-Pentanone(MIBK)	ND		ug/kg	7.4	SW846 8260C	11/21/16 12:30	TMP	11/23/16 18:46	TMP	A
Methylene Chloride	2.3		ug/kg	1.5	SW846 8260C	11/21/16 12:30	TMP	11/23/16 18:46	TMP	A
Naphthalene	ND		ug/kg	1.5	SW846 8260C	11/21/16 12:30	TMP	11/23/16 18:46	TMP	A
Propionitrile	ND		ug/kg	7.4	SW846 8260C	11/21/16 12:30	TMP	11/23/16 18:46	TMP	A
n-Propylbenzene	ND		ug/kg	1.5	SW846 8260C	11/21/16 12:30	TMP	11/23/16 18:46	TMP	A
Styrene	ND		ug/kg	1.5	SW846 8260C	11/21/16 12:30	TMP	11/23/16 18:46	TMP	A
1,1,1,2-Tetrachloroethane	ND		ug/kg	1.5	SW846 8260C	11/21/16 12:30	TMP	11/23/16 18:46	TMP	A
1,1,2,2-Tetrachloroethane	ND		ug/kg	1.5	SW846 8260C	11/21/16 12:30	TMP	11/23/16 18:46	TMP	A
Tetrachloroethene	ND		ug/kg	1.5	SW846 8260C	11/21/16 12:30	TMP	11/23/16 18:46	TMP	A
Toluene	ND		ug/kg	1.5	SW846 8260C	11/21/16 12:30	TMP	11/23/16 18:46	TMP	A
Total Xylenes	ND		ug/kg	4.4	SW846 8260C	11/21/16 12:30	TMP	11/23/16 18:46	TMP	A
1,2,4-Trichlorobenzene	ND		ug/kg	3.7	SW846 8260C	11/21/16 12:30	TMP	11/23/16 18:46	TMP	A
1,1,1-Trichloroethane	ND		ug/kg	1.5	SW846 8260C	11/21/16 12:30	TMP	11/23/16 18:46	TMP	A
1,1,2-Trichloroethane	ND		ug/kg	1.5	SW846 8260C	11/21/16 12:30	TMP	11/23/16 18:46	TMP	A

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ANALYTICAL RESULTS

Workorder: 2191010 2016-SAUGERTIES NY SITE - SOIL

Lab ID: **2191010002**

Date Collected: 11/21/2016 12:30

Matrix: Solid

Sample ID: **SB-1 (4'-5')**

Date Received: 11/22/2016 09:11

Parameters	Results	Flag	Units	RDL	Method	Prepared	By	Analyzed	By	Cntr
Trichloroethene	ND		ug/kg	1.5	SW846 8260C	11/21/16 12:30	TMP	11/23/16 18:46	TMP	A
Trichlorofluoromethane	ND		ug/kg	1.5	SW846 8260C	11/21/16 12:30	TMP	11/23/16 18:46	TMP	A
1,2,3-Trichloropropane	ND		ug/kg	1.5	SW846 8260C	11/21/16 12:30	TMP	11/23/16 18:46	TMP	A
1,2,4-Trimethylbenzene	ND		ug/kg	1.5	SW846 8260C	11/21/16 12:30	TMP	11/23/16 18:46	TMP	A
1,3,5-Trimethylbenzene	ND		ug/kg	1.5	SW846 8260C	11/21/16 12:30	TMP	11/23/16 18:46	TMP	A
Vinyl Acetate	ND		ug/kg	1.5	SW846 8260C	11/21/16 12:30	TMP	11/23/16 18:46	TMP	A
Vinyl Chloride	ND		ug/kg	1.5	SW846 8260C	11/21/16 12:30	TMP	11/23/16 18:46	TMP	A
o-Xylene	ND		ug/kg	1.5	SW846 8260C	11/21/16 12:30	TMP	11/23/16 18:46	TMP	A
mp-Xylene	ND		ug/kg	2.9	SW846 8260C	11/21/16 12:30	TMP	11/23/16 18:46	TMP	A
<i>Surrogate Recoveries</i>	<i>Results</i>	<i>Flag</i>	<i>Units</i>	<i>Limits</i>	<i>Method</i>	<i>Prepared</i>	<i>By</i>	<i>Analyzed</i>	<i>By</i>	<i>Cntr</i>
1,2-Dichloroethane-d4 (S)	87.4		%	56 - 124	SW846 8260C	11/21/16 12:30	TMP	11/23/16 18:46	TMP	A
4-Bromofluorobenzene (S)	91.6		%	51 - 128	SW846 8260C	11/21/16 12:30	TMP	11/23/16 18:46	TMP	A
Dibromofluoromethane (S)	93.2		%	62 - 123	SW846 8260C	11/21/16 12:30	TMP	11/23/16 18:46	TMP	A
Toluene-d8 (S)	95.6		%	59 - 131	SW846 8260C	11/21/16 12:30	TMP	11/23/16 18:46	TMP	A
SEMIVOLATILES										
Acenaphthene	ND		ug/kg	58.6	SW846 8270D	11/23/16 11:05	JTH	11/27/16 13:07	CGS	E
Acenaphthylene	ND		ug/kg	58.6	SW846 8270D	11/23/16 11:05	JTH	11/27/16 13:07	CGS	E
Acetophenone	ND		ug/kg	117	SW846 8270D	11/23/16 11:05	JTH	11/27/16 13:07	CGS	E
Aniline	ND		ug/kg	234	SW846 8270D	11/23/16 11:05	JTH	11/27/16 13:07	CGS	E
Anthracene	ND		ug/kg	58.6	SW846 8270D	11/23/16 11:05	JTH	11/27/16 13:07	CGS	E
Atrazine	ND		ug/kg	117	SW846 8270D	11/23/16 11:05	JTH	11/27/16 13:07	CGS	E
Benzaldehyde	ND		ug/kg	234	SW846 8270D	11/23/16 11:05	JTH	11/27/16 13:07	CGS	E
Benzidine	ND		ug/kg	234	SW846 8270D	11/23/16 11:05	JTH	11/27/16 13:07	CGS	E
Benzo(a)anthracene	ND		ug/kg	58.6	SW846 8270D	11/23/16 11:05	JTH	11/27/16 13:07	CGS	E
Benzo(a)pyrene	ND		ug/kg	58.6	SW846 8270D	11/23/16 11:05	JTH	11/27/16 13:07	CGS	E
Benzo(b)fluoranthene	ND		ug/kg	58.6	SW846 8270D	11/23/16 11:05	JTH	11/27/16 13:07	CGS	E
Benzo(g,h,i)perylene	ND		ug/kg	58.6	SW846 8270D	11/23/16 11:05	JTH	11/27/16 13:07	CGS	E
Benzoic acid	ND		ug/kg	633	SW846 8270D	11/23/16 11:05	JTH	11/27/16 13:07	CGS	E
Benzo(k)fluoranthene	ND		ug/kg	58.6	SW846 8270D	11/23/16 11:05	JTH	11/27/16 13:07	CGS	E
Benzyl Alcohol	ND		ug/kg	117	SW846 8270D	11/23/16 11:05	JTH	11/27/16 13:07	CGS	E
Biphenyl	ND		ug/kg	117	SW846 8270D	11/23/16 11:05	JTH	11/27/16 13:07	CGS	E
4-Bromophenyl-phenylether	ND		ug/kg	117	SW846 8270D	11/23/16 11:05	JTH	11/27/16 13:07	CGS	E
Butylbenzylphthalate	ND		ug/kg	117	SW846 8270D	11/23/16 11:05	JTH	11/27/16 13:07	CGS	E
Caprolactam	ND		ug/kg	234	SW846 8270D	11/23/16 11:05	JTH	11/27/16 13:07	CGS	E
Carbazole	ND		ug/kg	117	SW846 8270D	11/23/16 11:05	JTH	11/27/16 13:07	CGS	E
4-Chloro-3-methylphenol	ND		ug/kg	234	SW846 8270D	11/23/16 11:05	JTH	11/27/16 13:07	CGS	E
4-Chloroaniline	ND		ug/kg	234	SW846 8270D	11/23/16 11:05	JTH	11/27/16 13:07	CGS	E

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ANALYTICAL RESULTS

Workorder: 2191010 2016-SAUGERTIES NY SITE - SOIL

Lab ID: **2191010002**

Date Collected: 11/21/2016 12:30

Matrix: Solid

Sample ID: **SB-1 (4'-5')**

Date Received: 11/22/2016 09:11

Parameters	Results	Flag	Units	RDL	Method	Prepared	By	Analyzed	By	Cntr
bis(2-Chloroethoxy)methane	ND		ug/kg	117	SW846 8270D	11/23/16 11:05	JTH	11/27/16 13:07	CGS	E
bis(2-Chloroethyl)ether	ND		ug/kg	117	SW846 8270D	11/23/16 11:05	JTH	11/27/16 13:07	CGS	E
bis(2-Chloroisopropyl)ether	ND		ug/kg	117	SW846 8270D	11/23/16 11:05	JTH	11/27/16 13:07	CGS	E
2-Chloronaphthalene	ND		ug/kg	117	SW846 8270D	11/23/16 11:05	JTH	11/27/16 13:07	CGS	E
2-Chlorophenol	ND		ug/kg	234	SW846 8270D	11/23/16 11:05	JTH	11/27/16 13:07	CGS	E
4-Chlorophenyl-phenylether	ND		ug/kg	117	SW846 8270D	11/23/16 11:05	JTH	11/27/16 13:07	CGS	E
Chrysene	ND		ug/kg	58.6	SW846 8270D	11/23/16 11:05	JTH	11/27/16 13:07	CGS	E
mp-Cresol	ND		ug/kg	234	SW846 8270D	11/23/16 11:05	JTH	11/27/16 13:07	CGS	E
o-Cresol	ND		ug/kg	234	SW846 8270D	11/23/16 11:05	JTH	11/27/16 13:07	CGS	E
Di-n-Butylphthalate	ND		ug/kg	117	SW846 8270D	11/23/16 11:05	JTH	11/27/16 13:07	CGS	E
Di-n-Octylphthalate	ND		ug/kg	117	SW846 8270D	11/23/16 11:05	JTH	11/27/16 13:07	CGS	E
Dibenzo(a,h)anthracene	ND		ug/kg	58.6	SW846 8270D	11/23/16 11:05	JTH	11/27/16 13:07	CGS	E
Dibenzofuran	ND		ug/kg	117	SW846 8270D	11/23/16 11:05	JTH	11/27/16 13:07	CGS	E
1,2-Dichlorobenzene	ND		ug/kg	117	SW846 8270D	11/23/16 11:05	JTH	11/27/16 13:07	CGS	E
1,3-Dichlorobenzene	ND		ug/kg	117	SW846 8270D	11/23/16 11:05	JTH	11/27/16 13:07	CGS	E
1,4-Dichlorobenzene	ND		ug/kg	117	SW846 8270D	11/23/16 11:05	JTH	11/27/16 13:07	CGS	E
3,3-Dichlorobenzidine	ND		ug/kg	234	SW846 8270D	11/23/16 11:05	JTH	11/27/16 13:07	CGS	E
2,4-Dichlorophenol	ND		ug/kg	234	SW846 8270D	11/23/16 11:05	JTH	11/27/16 13:07	CGS	E
2,6-Dichlorophenol	ND		ug/kg	234	SW846 8270D	11/23/16 11:05	JTH	11/27/16 13:07	CGS	E
Diethylphthalate	ND		ug/kg	117	SW846 8270D	11/23/16 11:05	JTH	11/27/16 13:07	CGS	E
Dimethoate	ND		ug/kg	234	SW846 8270D	11/23/16 11:05	JTH	11/27/16 13:07	CGS	E
2,4-Dimethylphenol	ND		ug/kg	234	SW846 8270D	11/23/16 11:05	JTH	11/27/16 13:07	CGS	E
Dimethylphthalate	ND		ug/kg	117	SW846 8270D	11/23/16 11:05	JTH	11/27/16 13:07	CGS	E
1,2-Dinitrobenzene	ND		ug/kg	117	SW846 8270D	11/23/16 11:05	JTH	11/27/16 13:07	CGS	E
1,4-Dinitrobenzene	ND		ug/kg	117	SW846 8270D	11/23/16 11:05	JTH	11/27/16 13:07	CGS	E
2,4-Dinitrophenol	ND		ug/kg	234	SW846 8270D	11/23/16 11:05	JTH	11/27/16 13:07	CGS	E
2,4-Dinitrotoluene	ND		ug/kg	117	SW846 8270D	11/23/16 11:05	JTH	11/27/16 13:07	CGS	E
2,6-Dinitrotoluene	ND		ug/kg	117	SW846 8270D	11/23/16 11:05	JTH	11/27/16 13:07	CGS	E
Diphenylamine	ND		ug/kg	117	SW846 8270D	11/23/16 11:05	JTH	11/27/16 13:07	CGS	E
1,2-Diphenylhydrazine	ND		ug/kg	117	SW846 8270D	11/23/16 11:05	JTH	11/27/16 13:07	CGS	E
bis(2-Ethylhexyl)phthalate	ND		ug/kg	117	SW846 8270D	11/23/16 11:05	JTH	11/27/16 13:07	CGS	E
Fluoranthene	ND		ug/kg	58.6	SW846 8270D	11/23/16 11:05	JTH	11/27/16 13:07	CGS	E
Fluorene	ND		ug/kg	58.6	SW846 8270D	11/23/16 11:05	JTH	11/27/16 13:07	CGS	E
Hexachlorobenzene	ND		ug/kg	117	SW846 8270D	11/23/16 11:05	JTH	11/27/16 13:07	CGS	E
Hexachlorobutadiene	ND		ug/kg	117	SW846 8270D	11/23/16 11:05	JTH	11/27/16 13:07	CGS	E
Hexachlorocyclopentadiene	ND		ug/kg	234	SW846 8270D	11/23/16 11:05	JTH	11/27/16 13:07	CGS	E
Hexachloroethane	ND		ug/kg	117	SW846 8270D	11/23/16 11:05	JTH	11/27/16 13:07	CGS	E
Indeno(1,2,3-cd)pyrene	ND		ug/kg	58.6	SW846 8270D	11/23/16 11:05	JTH	11/27/16 13:07	CGS	E

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ANALYTICAL RESULTS

Workorder: 2191010 2016-SAUGERTIES NY SITE - SOIL

Lab ID: **2191010002**

Date Collected: 11/21/2016 12:30

Matrix: Solid

Sample ID: **SB-1 (4'-5')**

Date Received: 11/22/2016 09:11

Parameters	Results	Flag	Units	RDL	Method	Prepared	By	Analyzed	By	Cntr
Isophorone	ND		ug/kg	117	SW846 8270D	11/23/16 11:05	JTH	11/27/16 13:07	CGS	E
2-Methyl-4,6-dinitrophenol	ND		ug/kg	234	SW846 8270D	11/23/16 11:05	JTH	11/27/16 13:07	CGS	E
2-Methylnaphthalene	ND		ug/kg	117	SW846 8270D	11/23/16 11:05	JTH	11/27/16 13:07	CGS	E
2-Naphthylamine	ND		ug/kg	234	SW846 8270D	11/23/16 11:05	JTH	11/27/16 13:07	CGS	E
Naphthalene	ND		ug/kg	58.6	SW846 8270D	11/23/16 11:05	JTH	11/27/16 13:07	CGS	E
2-Nitroaniline	ND		ug/kg	234	SW846 8270D	11/23/16 11:05	JTH	11/27/16 13:07	CGS	E
3-Nitroaniline	ND		ug/kg	234	SW846 8270D	11/23/16 11:05	JTH	11/27/16 13:07	CGS	E
4-Nitroaniline	ND		ug/kg	234	SW846 8270D	11/23/16 11:05	JTH	11/27/16 13:07	CGS	E
Nitrobenzene	ND		ug/kg	117	SW846 8270D	11/23/16 11:05	JTH	11/27/16 13:07	CGS	E
2-Nitrophenol	ND		ug/kg	234	SW846 8270D	11/23/16 11:05	JTH	11/27/16 13:07	CGS	E
4-Nitrophenol	ND	1	ug/kg	234	SW846 8270D	11/23/16 11:05	JTH	11/27/16 13:07	CGS	E
N-Nitrosodi-n-butylamine	ND		ug/kg	117	SW846 8270D	11/23/16 11:05	JTH	11/27/16 13:07	CGS	E
N-Nitrosodiethylamine	ND		ug/kg	117	SW846 8270D	11/23/16 11:05	JTH	11/27/16 13:07	CGS	E
N-Nitrosodimethylamine	ND		ug/kg	117	SW846 8270D	11/23/16 11:05	JTH	11/27/16 13:07	CGS	E
N-Nitroso-di-n-propylamine	ND		ug/kg	117	SW846 8270D	11/23/16 11:05	JTH	11/27/16 13:07	CGS	E
N-Nitrosodiphenylamine	ND		ug/kg	117	SW846 8270D	11/23/16 11:05	JTH	11/27/16 13:07	CGS	E
N-Nitrosopyrrolidine	ND		ug/kg	117	SW846 8270D	11/23/16 11:05	JTH	11/27/16 13:07	CGS	E
Pentachlorobenzene	ND		ug/kg	117	SW846 8270D	11/23/16 11:05	JTH	11/27/16 13:07	CGS	E
Pentachlorophenol	ND		ug/kg	234	SW846 8270D	11/23/16 11:05	JTH	11/27/16 13:07	CGS	E
Phenanthrene	ND		ug/kg	58.6	SW846 8270D	11/23/16 11:05	JTH	11/27/16 13:07	CGS	E
Phenol	ND		ug/kg	234	SW846 8270D	11/23/16 11:05	JTH	11/27/16 13:07	CGS	E
Pyrene	ND		ug/kg	58.6	SW846 8270D	11/23/16 11:05	JTH	11/27/16 13:07	CGS	E
Pyridine	ND		ug/kg	234	SW846 8270D	11/23/16 11:05	JTH	11/27/16 13:07	CGS	E
Resorcinol	ND		ug/kg	117	SW846 8270D	11/23/16 11:05	JTH	11/27/16 13:07	CGS	E
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	117	SW846 8270D	11/23/16 11:05	JTH	11/27/16 13:07	CGS	E
2,3,4,6-Tetrachlorophenol	ND		ug/kg	234	SW846 8270D	11/23/16 11:05	JTH	11/27/16 13:07	CGS	E
1,2,4-Trichlorobenzene	ND		ug/kg	117	SW846 8270D	11/23/16 11:05	JTH	11/27/16 13:07	CGS	E
2,4,5-Trichlorophenol	ND		ug/kg	234	SW846 8270D	11/23/16 11:05	JTH	11/27/16 13:07	CGS	E
2,4,6-Trichlorophenol	ND		ug/kg	234	SW846 8270D	11/23/16 11:05	JTH	11/27/16 13:07	CGS	E
Surrogate Recoveries	Results	Flag	Units	Limits	Method	Prepared	By	Analyzed	By	Cntr
2,4,6-Tribromophenol (S)	68.1		%	19 - 132	SW846 8270D	11/23/16 11:05	JTH	11/27/16 13:07	CGS	E
2-Fluorobiphenyl (S)	70.7		%	40 - 110	SW846 8270D	11/23/16 11:05	JTH	11/27/16 13:07	CGS	E
2-Fluorophenol (S)	55.6		%	26 - 116	SW846 8270D	11/23/16 11:05	JTH	11/27/16 13:07	CGS	E
Nitrobenzene-d5 (S)	68.7		%	38 - 112	SW846 8270D	11/23/16 11:05	JTH	11/27/16 13:07	CGS	E
Phenol-d5 (S)	61.8		%	35 - 111	SW846 8270D	11/23/16 11:05	JTH	11/27/16 13:07	CGS	E
Terphenyl-d14 (S)	75.2		%	45 - 126	SW846 8270D	11/23/16 11:05	JTH	11/27/16 13:07	CGS	E

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ANALYTICAL RESULTS

Workorder: 2191010 2016-SAUGERTIES NY SITE - SOIL

Lab ID: **2191010002**

Date Collected: 11/21/2016 12:30

Matrix: Solid

Sample ID: **SB-1 (4'-5')**

Date Received: 11/22/2016 09:11

Parameters	Results	Flag	Units	RDL	Method	Prepared	By	Analyzed	By	Cntr
Total Polychlorinated Biphenyl	ND		mg/kg	0.039	SW846 8082A	11/23/16 17:00	JSR	11/28/16 23:49	KJH	E
Aroclor-1016	ND		mg/kg	0.039	SW846 8082A	11/23/16 17:00	JSR	11/28/16 23:49	KJH	E
Aroclor-1221	ND		mg/kg	0.039	SW846 8082A	11/23/16 17:00	JSR	11/28/16 23:49	KJH	E
Aroclor-1232	ND		mg/kg	0.039	SW846 8082A	11/23/16 17:00	JSR	11/28/16 23:49	KJH	E
Aroclor-1242	ND		mg/kg	0.039	SW846 8082A	11/23/16 17:00	JSR	11/28/16 23:49	KJH	E
Aroclor-1248	ND		mg/kg	0.039	SW846 8082A	11/23/16 17:00	JSR	11/28/16 23:49	KJH	E
Aroclor-1254	ND		mg/kg	0.039	SW846 8082A	11/23/16 17:00	JSR	11/28/16 23:49	KJH	E
Aroclor-1260	ND		mg/kg	0.039	SW846 8082A	11/23/16 17:00	JSR	11/28/16 23:49	KJH	E
<i>Surrogate Recoveries</i>	<i>Results</i>	<i>Flag</i>	<i>Units</i>	<i>Limits</i>	<i>Method</i>	<i>Prepared</i>	<i>By</i>	<i>Analyzed</i>	<i>By</i>	<i>Cntr</i>
Decachlorobiphenyls (S)	92.8		%	49 - 115	SW846 8082A	11/23/16 17:00	JSR	11/28/16 23:49	KJH	E
Tetrachloro-m-xylene (S)	90.2		%	27 - 137	SW846 8082A	11/23/16 17:00	JSR	11/28/16 23:49	KJH	E
PESTICIDES										
Aldrin	ND		ug/kg	10.1	SW846 8081B	11/23/16 17:00	JSR	11/29/16 12:29	RWS	E
alpha-BHC	ND		ug/kg	10.1	SW846 8081B	11/23/16 17:00	JSR	11/29/16 12:29	RWS	E
beta-BHC	ND		ug/kg	10.1	SW846 8081B	11/23/16 17:00	JSR	11/29/16 12:29	RWS	E
delta-BHC	ND		ug/kg	10.1	SW846 8081B	11/23/16 17:00	JSR	11/29/16 12:29	RWS	E
gamma-BHC	ND		ug/kg	10.1	SW846 8081B	11/23/16 17:00	JSR	11/29/16 12:29	RWS	E
alpha-Chlordane	ND		ug/kg	10.1	SW846 8081B	11/23/16 17:00	JSR	11/29/16 12:29	RWS	E
gamma-Chlordane	ND		ug/kg	10.1	SW846 8081B	11/23/16 17:00	JSR	11/29/16 12:29	RWS	E
4,4'-DDD	ND		ug/kg	19.6	SW846 8081B	11/23/16 17:00	JSR	11/29/16 12:29	RWS	E
4,4'-DDE	ND		ug/kg	19.6	SW846 8081B	11/23/16 17:00	JSR	11/29/16 12:29	RWS	E
4,4'-DDT	ND		ug/kg	19.6	SW846 8081B	11/23/16 17:00	JSR	11/29/16 12:29	RWS	E
Dieldrin	ND		ug/kg	19.6	SW846 8081B	11/23/16 17:00	JSR	11/29/16 12:29	RWS	E
Endosulfan I	ND		ug/kg	10.1	SW846 8081B	11/23/16 17:00	JSR	11/29/16 12:29	RWS	E
Endosulfan II	ND		ug/kg	19.6	SW846 8081B	11/23/16 17:00	JSR	11/29/16 12:29	RWS	E
Endosulfan Sulfate	ND		ug/kg	19.6	SW846 8081B	11/23/16 17:00	JSR	11/29/16 12:29	RWS	E
Endrin	ND		ug/kg	19.6	SW846 8081B	11/23/16 17:00	JSR	11/29/16 12:29	RWS	E
Endrin Aldehyde	ND		ug/kg	19.6	SW846 8081B	11/23/16 17:00	JSR	11/29/16 12:29	RWS	E
Endrin Ketone	ND		ug/kg	19.6	SW846 8081B	11/23/16 17:00	JSR	11/29/16 12:29	RWS	E
Heptachlor	ND		ug/kg	10.1	SW846 8081B	11/23/16 17:00	JSR	11/29/16 12:29	RWS	E
Heptachlor Epoxide	ND		ug/kg	10.1	SW846 8081B	11/23/16 17:00	JSR	11/29/16 12:29	RWS	E
Methoxychlor	ND		ug/kg	19.6	SW846 8081B	11/23/16 17:00	JSR	11/29/16 12:29	RWS	E
Mirex	ND		ug/kg	19.6	SW846 8081B	11/23/16 17:00	JSR	11/29/16 12:29	RWS	E
Toxaphene	ND		ug/kg	208	SW846 8081B	11/23/16 17:00	JSR	11/29/16 12:29	RWS	E
<i>Surrogate Recoveries</i>	<i>Results</i>	<i>Flag</i>	<i>Units</i>	<i>Limits</i>	<i>Method</i>	<i>Prepared</i>	<i>By</i>	<i>Analyzed</i>	<i>By</i>	<i>Cntr</i>
Decachlorobiphenyls (S)	72.6		%	30 - 135	SW846 8081B	11/23/16 17:00	JSR	11/29/16 12:29	RWS	E

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ANALYTICAL RESULTS

Workorder: 2191010 2016-SAUGERTIES NY SITE - SOIL

Lab ID: **2191010002**

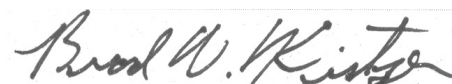
Date Collected: 11/21/2016 12:30

Matrix: Solid

Sample ID: **SB-1 (4'-5')**

Date Received: 11/22/2016 09:11

Parameters	Results	Flag	Units	RDL	Method	Prepared	By	Analyzed	By	Cntr
Tetrachloro-m-xylene (S)	71.2		%	30 - 111	SW846 8081B	11/23/16 17:00	JSR	11/29/16 12:29	RWS	E
WET CHEMISTRY										
Moisture	15.8		%	0.1	S2540G-11			12/1/16 11:26	ML	
Total Solids	84.2		%	0.1	S2540G-11			12/1/16 11:26	ML	
METALS										
Aluminum, Total	6230		mg/kg	11.9	SW846 6010C	11/30/16 09:36	TRR	12/1/16 11:43	TSS	E1
Antimony, Total	ND		mg/kg	2.4	SW846 6010C	11/30/16 09:36	TRR	12/1/16 11:43	TSS	E1
Arsenic, Total	53.6		mg/kg	2.4	SW846 6010C	11/30/16 09:36	TRR	12/1/16 11:43	TSS	E1
Barium, Total	39.4		mg/kg	1.2	SW846 6010C	11/30/16 09:36	TRR	12/1/16 11:43	TSS	E1
Beryllium, Total	ND		mg/kg	1.2	SW846 6010C	11/30/16 09:36	TRR	12/1/16 11:43	TSS	E1
Cadmium, Total	ND		mg/kg	0.59	SW846 6010C	11/30/16 09:36	TRR	12/1/16 11:43	TSS	E1
Calcium, Total	9610		mg/kg	11.9	SW846 6010C	11/30/16 09:36	TRR	12/1/16 11:43	TSS	E1
Chromium, Total	12.0		mg/kg	1.2	SW846 6010C	11/30/16 09:36	TRR	12/1/16 11:43	TSS	E1
Cobalt, Total	4.3		mg/kg	1.2	SW846 6010C	11/30/16 09:36	TRR	12/1/16 11:43	TSS	E1
Copper, Total	18.8		mg/kg	2.4	SW846 6010C	11/30/16 09:36	TRR	12/1/16 11:43	TSS	E1
Iron, Total	34800		mg/kg	11.9	SW846 6010C	11/30/16 09:36	TRR	12/1/16 11:43	TSS	E1
Lead, Total	34.6		mg/kg	2.4	SW846 6010C	11/30/16 09:36	TRR	12/1/16 11:43	TSS	E1
Magnesium, Total	2910		mg/kg	11.9	SW846 6010C	11/30/16 09:36	TRR	12/1/16 11:43	TSS	E1
Manganese, Total	120		mg/kg	1.2	SW846 6010C	11/30/16 09:36	TRR	12/1/16 11:43	TSS	E1
Mercury, Total	0.11		mg/kg	0.054	SW846 7471B	12/1/16 07:55	MNP	12/1/16 14:33	MNP	E2
Nickel, Total	13.1		mg/kg	2.4	SW846 6010C	11/30/16 09:36	TRR	12/1/16 11:43	TSS	E1
Potassium, Total	717		mg/kg	59.4	SW846 6010C	11/30/16 09:36	TRR	12/1/16 11:43	TSS	E1
Selenium, Total	ND		mg/kg	5.9	SW846 6010C	11/30/16 09:36	TRR	12/1/16 11:43	TSS	E1
Silver, Total	ND		mg/kg	0.59	SW846 6010C	11/30/16 09:36	TRR	12/1/16 11:43	TSS	E1
Sodium, Total	130		mg/kg	59.4	SW846 6010C	11/30/16 09:36	TRR	12/1/16 11:43	TSS	E1
Thallium, Total	ND		mg/kg	3.6	SW846 6010C	11/30/16 09:36	TRR	12/1/16 11:43	TSS	E1
Vanadium, Total	19.6		mg/kg	1.2	SW846 6010C	11/30/16 09:36	TRR	12/1/16 11:43	TSS	E1
Zinc, Total	30.1		mg/kg	2.4	SW846 6010C	11/30/16 09:36	TRR	12/1/16 11:43	TSS	E1



Mr. Brad W Kintzer

Project Coordinator

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Vancouver Waterloo · Winnipeg · Yellowknife United States: Cincinnati · Everett · Fort Collins · Holland · Houston · Middletown · Salt Lake City · Spring City · York Mexico: Monterrey

ANALYTICAL RESULTS

Workorder: 2191010 2016-SAUGERTIES NY SITE - SOIL

Lab ID: **2191010003**

Date Collected: 11/21/2016 13:00

Matrix: Solid

Sample ID: **SB-2 (0'-1')**

Date Received: 11/22/2016 09:11

Parameters	Results	Flag	Units	RDL	Method	Prepared	By	Analyzed	By	Cntr
VOLATILE ORGANICS										
Acetone	ND		ug/kg	9.8	SW846 8260C	11/21/16 13:00	TMP	11/23/16 19:09	TMP	A
Acetonitrile	ND		ug/kg	9.8	SW846 8260C	11/21/16 13:00	TMP	11/23/16 19:09	TMP	A
Acrolein	ND		ug/kg	48.9	SW846 8260C	11/21/16 13:00	TMP	11/23/16 19:09	TMP	A
Acrylonitrile	ND		ug/kg	9.8	SW846 8260C	11/21/16 13:00	TMP	11/23/16 19:09	TMP	A
Benzene	ND		ug/kg	2.0	SW846 8260C	11/21/16 13:00	TMP	11/23/16 19:09	TMP	A
Benzyl Chloride	ND		ug/kg	2.0	SW846 8260C	11/21/16 13:00	TMP	11/23/16 19:09	TMP	A
Bromobenzene	ND		ug/kg	2.0	SW846 8260C	11/21/16 13:00	TMP	11/23/16 19:09	TMP	A
Bromochloromethane	ND		ug/kg	2.0	SW846 8260C	11/21/16 13:00	TMP	11/23/16 19:09	TMP	A
Bromodichloromethane	ND		ug/kg	2.0	SW846 8260C	11/21/16 13:00	TMP	11/23/16 19:09	TMP	A
Bromoform	ND		ug/kg	2.0	SW846 8260C	11/21/16 13:00	TMP	11/23/16 19:09	TMP	A
Bromomethane	ND		ug/kg	2.0	SW846 8260C	11/21/16 13:00	TMP	11/23/16 19:09	TMP	A
2-Butanone	ND		ug/kg	9.8	SW846 8260C	11/21/16 13:00	TMP	11/23/16 19:09	TMP	A
tert-Butyl Alcohol	ND		ug/kg	9.8	SW846 8260C	11/21/16 13:00	TMP	11/23/16 19:09	TMP	A
n-Butylbenzene	ND		ug/kg	2.0	SW846 8260C	11/21/16 13:00	TMP	11/23/16 19:09	TMP	A
tert-Butylbenzene	ND		ug/kg	2.0	SW846 8260C	11/21/16 13:00	TMP	11/23/16 19:09	TMP	A
sec-Butylbenzene	ND		ug/kg	2.0	SW846 8260C	11/21/16 13:00	TMP	11/23/16 19:09	TMP	A
Carbon Disulfide	ND		ug/kg	2.0	SW846 8260C	11/21/16 13:00	TMP	11/23/16 19:09	TMP	A
Carbon Tetrachloride	ND		ug/kg	2.0	SW846 8260C	11/21/16 13:00	TMP	11/23/16 19:09	TMP	A
Chlorobenzene	ND		ug/kg	2.0	SW846 8260C	11/21/16 13:00	TMP	11/23/16 19:09	TMP	A
Chlorodibromomethane	ND		ug/kg	2.0	SW846 8260C	11/21/16 13:00	TMP	11/23/16 19:09	TMP	A
Chloroethane	ND		ug/kg	4.9	SW846 8260C	11/21/16 13:00	TMP	11/23/16 19:09	TMP	A
Chloroform	ND		ug/kg	2.0	SW846 8260C	11/21/16 13:00	TMP	11/23/16 19:09	TMP	A
Chloromethane	ND		ug/kg	2.0	SW846 8260C	11/21/16 13:00	TMP	11/23/16 19:09	TMP	A
Chloroprene	ND		ug/kg	2.0	SW846 8260C	11/21/16 13:00	TMP	11/23/16 19:09	TMP	A
3-Chloro-1-propene	ND		ug/kg	2.0	SW846 8260C	11/21/16 13:00	TMP	11/23/16 19:09	TMP	A
o-Chlorotoluene	ND		ug/kg	2.0	SW846 8260C	11/21/16 13:00	TMP	11/23/16 19:09	TMP	A
p-Chlorotoluene	ND		ug/kg	2.0	SW846 8260C	11/21/16 13:00	TMP	11/23/16 19:09	TMP	A
Cyclohexane	ND		ug/kg	2.0	SW846 8260C	11/21/16 13:00	TMP	11/23/16 19:09	TMP	A
1,2-Dibromo-3-chloropropane	ND		ug/kg	4.9	SW846 8260C	11/21/16 13:00	TMP	11/23/16 19:09	TMP	A
1,2-Dibromoethane	ND		ug/kg	2.0	SW846 8260C	11/21/16 13:00	TMP	11/23/16 19:09	TMP	A
Dibromomethane	ND		ug/kg	2.0	SW846 8260C	11/21/16 13:00	TMP	11/23/16 19:09	TMP	A
1,2-Dichlorobenzene	ND		ug/kg	2.0	SW846 8260C	11/21/16 13:00	TMP	11/23/16 19:09	TMP	A
1,3-Dichlorobenzene	ND		ug/kg	2.0	SW846 8260C	11/21/16 13:00	TMP	11/23/16 19:09	TMP	A
1,4-Dichlorobenzene	ND		ug/kg	2.0	SW846 8260C	11/21/16 13:00	TMP	11/23/16 19:09	TMP	A
Dichlorodifluoromethane	ND		ug/kg	2.0	SW846 8260C	11/21/16 13:00	TMP	11/23/16 19:09	TMP	A
1,1-Dichloroethane	ND		ug/kg	2.0	SW846 8260C	11/21/16 13:00	TMP	11/23/16 19:09	TMP	A

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ANALYTICAL RESULTS

Workorder: 2191010 2016-SAUGERTIES NY SITE - SOIL

Lab ID: **2191010003**

Date Collected: 11/21/2016 13:00

Matrix: Solid

Sample ID: **SB-2 (0'-1')**

Date Received: 11/22/2016 09:11

Parameters	Results	Flag	Units	RDL	Method	Prepared	By	Analyzed	By	Cntr
1,2-Dichloroethane	ND		ug/kg	2.0	SW846 8260C	11/21/16 13:00	TMP	11/23/16 19:09	TMP	A
1,1-Dichloroethene	ND		ug/kg	2.0	SW846 8260C	11/21/16 13:00	TMP	11/23/16 19:09	TMP	A
cis-1,2-Dichloroethene	ND		ug/kg	2.0	SW846 8260C	11/21/16 13:00	TMP	11/23/16 19:09	TMP	A
trans-1,2-Dichloroethene	ND		ug/kg	2.0	SW846 8260C	11/21/16 13:00	TMP	11/23/16 19:09	TMP	A
1,3-Dichloropropane	ND		ug/kg	2.0	SW846 8260C	11/21/16 13:00	TMP	11/23/16 19:09	TMP	A
2,2-Dichloropropane	ND		ug/kg	2.0	SW846 8260C	11/21/16 13:00	TMP	11/23/16 19:09	TMP	A
1,2-Dichloropropane	ND		ug/kg	2.0	SW846 8260C	11/21/16 13:00	TMP	11/23/16 19:09	TMP	A
1,1-Dichloropropene	ND		ug/kg	2.0	SW846 8260C	11/21/16 13:00	TMP	11/23/16 19:09	TMP	A
cis-1,3-Dichloropropene	ND		ug/kg	2.0	SW846 8260C	11/21/16 13:00	TMP	11/23/16 19:09	TMP	A
trans-1,3-Dichloropropene	ND		ug/kg	2.0	SW846 8260C	11/21/16 13:00	TMP	11/23/16 19:09	TMP	A
1,4-Dioxane	ND		ug/kg	73.3	SW846 8260C	11/21/16 13:00	TMP	11/23/16 19:09	TMP	A
Ethyl Methacrylate	ND		ug/kg	2.0	SW846 8260C	11/21/16 13:00	TMP	11/23/16 19:09	TMP	A
Ethyl Acetate	ND		ug/kg	2.0	SW846 8260C	11/21/16 13:00	TMP	11/23/16 19:09	TMP	A
Ethylbenzene	ND		ug/kg	2.0	SW846 8260C	11/21/16 13:00	TMP	11/23/16 19:09	TMP	A
Freon 113	ND		ug/kg	2.0	SW846 8260C	11/21/16 13:00	TMP	11/23/16 19:09	TMP	A
2-Hexanone	ND		ug/kg	9.8	SW846 8260C	11/21/16 13:00	TMP	11/23/16 19:09	TMP	A
Isobutyl alcohol	ND		ug/kg	48.9	SW846 8260C	11/21/16 13:00	TMP	11/23/16 19:09	TMP	A
Isopropylbenzene	ND		ug/kg	2.0	SW846 8260C	11/21/16 13:00	TMP	11/23/16 19:09	TMP	A
p-Isopropyltoluene	ND		ug/kg	2.0	SW846 8260C	11/21/16 13:00	TMP	11/23/16 19:09	TMP	A
Methacrylonitrile	ND		ug/kg	2.0	SW846 8260C	11/21/16 13:00	TMP	11/23/16 19:09	TMP	A
Methyl methacrylate	ND		ug/kg	4.9	SW846 8260C	11/21/16 13:00	TMP	11/23/16 19:09	TMP	A
Methyl acetate	ND		ug/kg	2.0	SW846 8260C	11/21/16 13:00	TMP	11/23/16 19:09	TMP	A
Methyl cyclohexane	ND		ug/kg	2.0	SW846 8260C	11/21/16 13:00	TMP	11/23/16 19:09	TMP	A
Methyl t-Butyl Ether	ND		ug/kg	2.0	SW846 8260C	11/21/16 13:00	TMP	11/23/16 19:09	TMP	A
4-Methyl-2-Pentanone(MIBK)	ND		ug/kg	9.8	SW846 8260C	11/21/16 13:00	TMP	11/23/16 19:09	TMP	A
Methylene Chloride	ND		ug/kg	2.0	SW846 8260C	11/21/16 13:00	TMP	11/23/16 19:09	TMP	A
Naphthalene	2.1		ug/kg	2.0	SW846 8260C	11/21/16 13:00	TMP	11/23/16 19:09	TMP	A
Propionitrile	ND		ug/kg	9.8	SW846 8260C	11/21/16 13:00	TMP	11/23/16 19:09	TMP	A
n-Propylbenzene	ND		ug/kg	2.0	SW846 8260C	11/21/16 13:00	TMP	11/23/16 19:09	TMP	A
Styrene	ND		ug/kg	2.0	SW846 8260C	11/21/16 13:00	TMP	11/23/16 19:09	TMP	A
1,1,1,2-Tetrachloroethane	ND		ug/kg	2.0	SW846 8260C	11/21/16 13:00	TMP	11/23/16 19:09	TMP	A
1,1,2,2-Tetrachloroethane	ND		ug/kg	2.0	SW846 8260C	11/21/16 13:00	TMP	11/23/16 19:09	TMP	A
Tetrachloroethene	ND		ug/kg	2.0	SW846 8260C	11/21/16 13:00	TMP	11/23/16 19:09	TMP	A
Toluene	ND		ug/kg	2.0	SW846 8260C	11/21/16 13:00	TMP	11/23/16 19:09	TMP	A
Total Xylenes	ND		ug/kg	5.9	SW846 8260C	11/21/16 13:00	TMP	11/23/16 19:09	TMP	A
1,2,4-Trichlorobenzene	ND		ug/kg	4.9	SW846 8260C	11/21/16 13:00	TMP	11/23/16 19:09	TMP	A
1,1,1-Trichloroethane	ND		ug/kg	2.0	SW846 8260C	11/21/16 13:00	TMP	11/23/16 19:09	TMP	A
1,1,2-Trichloroethane	ND		ug/kg	2.0	SW846 8260C	11/21/16 13:00	TMP	11/23/16 19:09	TMP	A

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ANALYTICAL RESULTS

Workorder: 2191010 2016-SAUGERTIES NY SITE - SOIL

Lab ID: **2191010003**

Date Collected: 11/21/2016 13:00

Matrix: Solid

Sample ID: **SB-2 (0'-1')**

Date Received: 11/22/2016 09:11

Parameters	Results	Flag	Units	RDL	Method	Prepared	By	Analyzed	By	Cntr
Trichloroethene	ND		ug/kg	2.0	SW846 8260C	11/21/16 13:00	TMP	11/23/16 19:09	TMP	A
Trichlorofluoromethane	ND		ug/kg	2.0	SW846 8260C	11/21/16 13:00	TMP	11/23/16 19:09	TMP	A
1,2,3-Trichloropropane	ND		ug/kg	2.0	SW846 8260C	11/21/16 13:00	TMP	11/23/16 19:09	TMP	A
1,2,4-Trimethylbenzene	ND		ug/kg	2.0	SW846 8260C	11/21/16 13:00	TMP	11/23/16 19:09	TMP	A
1,3,5-Trimethylbenzene	ND		ug/kg	2.0	SW846 8260C	11/21/16 13:00	TMP	11/23/16 19:09	TMP	A
Vinyl Acetate	ND		ug/kg	2.0	SW846 8260C	11/21/16 13:00	TMP	11/23/16 19:09	TMP	A
Vinyl Chloride	ND		ug/kg	2.0	SW846 8260C	11/21/16 13:00	TMP	11/23/16 19:09	TMP	A
o-Xylene	ND		ug/kg	2.0	SW846 8260C	11/21/16 13:00	TMP	11/23/16 19:09	TMP	A
mp-Xylene	ND		ug/kg	3.9	SW846 8260C	11/21/16 13:00	TMP	11/23/16 19:09	TMP	A
<i>Surrogate Recoveries</i>	<i>Results</i>	<i>Flag</i>	<i>Units</i>	<i>Limits</i>	<i>Method</i>	<i>Prepared</i>	<i>By</i>	<i>Analyzed</i>	<i>By</i>	<i>Cntr</i>
1,2-Dichloroethane-d4 (S)	79.3		%	56 - 124	SW846 8260C	11/21/16 13:00	TMP	11/23/16 19:09	TMP	A
4-Bromofluorobenzene (S)	146	1	%	51 - 128	SW846 8260C	11/21/16 13:00	TMP	11/23/16 19:09	TMP	A
Dibromofluoromethane (S)	94.4		%	62 - 123	SW846 8260C	11/21/16 13:00	TMP	11/23/16 19:09	TMP	A
Toluene-d8 (S)	128		%	59 - 131	SW846 8260C	11/21/16 13:00	TMP	11/23/16 19:09	TMP	A
SEMIVOLATILES										
Acenaphthene	ND		ug/kg	63.6	SW846 8270D	11/23/16 11:05	JTH	11/27/16 13:32	CGS	E
Acenaphthylene	ND		ug/kg	63.6	SW846 8270D	11/23/16 11:05	JTH	11/27/16 13:32	CGS	E
Acetophenone	ND		ug/kg	127	SW846 8270D	11/23/16 11:05	JTH	11/27/16 13:32	CGS	E
Aniline	ND		ug/kg	254	SW846 8270D	11/23/16 11:05	JTH	11/27/16 13:32	CGS	E
Anthracene	ND		ug/kg	63.6	SW846 8270D	11/23/16 11:05	JTH	11/27/16 13:32	CGS	E
Atrazine	ND		ug/kg	127	SW846 8270D	11/23/16 11:05	JTH	11/27/16 13:32	CGS	E
Benzaldehyde	ND		ug/kg	254	SW846 8270D	11/23/16 11:05	JTH	11/27/16 13:32	CGS	E
Benzidine	ND		ug/kg	254	SW846 8270D	11/23/16 11:05	JTH	11/27/16 13:32	CGS	E
Benzo(a)anthracene	128		ug/kg	63.6	SW846 8270D	11/23/16 11:05	JTH	11/27/16 13:32	CGS	E
Benzo(a)pyrene	105		ug/kg	63.6	SW846 8270D	11/23/16 11:05	JTH	11/27/16 13:32	CGS	E
Benzo(b)fluoranthene	168		ug/kg	63.6	SW846 8270D	11/23/16 11:05	JTH	11/27/16 13:32	CGS	E
Benzo(g,h,i)perylene	83.0		ug/kg	63.6	SW846 8270D	11/23/16 11:05	JTH	11/27/16 13:32	CGS	E
Benzoic acid	ND		ug/kg	687	SW846 8270D	11/23/16 11:05	JTH	11/27/16 13:32	CGS	E
Benzo(k)fluoranthene	ND		ug/kg	63.6	SW846 8270D	11/23/16 11:05	JTH	11/27/16 13:32	CGS	E
Benzyl Alcohol	ND		ug/kg	127	SW846 8270D	11/23/16 11:05	JTH	11/27/16 13:32	CGS	E
Biphenyl	ND		ug/kg	127	SW846 8270D	11/23/16 11:05	JTH	11/27/16 13:32	CGS	E
4-Bromophenyl-phenylether	ND		ug/kg	127	SW846 8270D	11/23/16 11:05	JTH	11/27/16 13:32	CGS	E
Butylbenzylphthalate	ND		ug/kg	127	SW846 8270D	11/23/16 11:05	JTH	11/27/16 13:32	CGS	E
Caprolactam	ND		ug/kg	254	SW846 8270D	11/23/16 11:05	JTH	11/27/16 13:32	CGS	E
Carbazole	ND		ug/kg	127	SW846 8270D	11/23/16 11:05	JTH	11/27/16 13:32	CGS	E
4-Chloro-3-methylphenol	ND		ug/kg	254	SW846 8270D	11/23/16 11:05	JTH	11/27/16 13:32	CGS	E
4-Chloroaniline	ND		ug/kg	254	SW846 8270D	11/23/16 11:05	JTH	11/27/16 13:32	CGS	E

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ANALYTICAL RESULTS

Workorder: 2191010 2016-SAUGERTIES NY SITE - SOIL

Lab ID: **2191010003**

Date Collected: 11/21/2016 13:00

Matrix: Solid

Sample ID: **SB-2 (0'-1')**

Date Received: 11/22/2016 09:11

Parameters	Results	Flag	Units	RDL	Method	Prepared	By	Analyzed	By	Cntr
bis(2-Chloroethoxy)methane	ND		ug/kg	127	SW846 8270D	11/23/16 11:05	JTH	11/27/16 13:32	CGS	E
bis(2-Chloroethyl)ether	ND		ug/kg	127	SW846 8270D	11/23/16 11:05	JTH	11/27/16 13:32	CGS	E
bis(2-Chloroisopropyl)ether	ND		ug/kg	127	SW846 8270D	11/23/16 11:05	JTH	11/27/16 13:32	CGS	E
2-Chloronaphthalene	ND		ug/kg	127	SW846 8270D	11/23/16 11:05	JTH	11/27/16 13:32	CGS	E
2-Chlorophenol	ND		ug/kg	254	SW846 8270D	11/23/16 11:05	JTH	11/27/16 13:32	CGS	E
4-Chlorophenyl-phenylether	ND		ug/kg	127	SW846 8270D	11/23/16 11:05	JTH	11/27/16 13:32	CGS	E
Chrysene	239		ug/kg	63.6	SW846 8270D	11/23/16 11:05	JTH	11/27/16 13:32	CGS	E
mp-Cresol	ND		ug/kg	254	SW846 8270D	11/23/16 11:05	JTH	11/27/16 13:32	CGS	E
o-Cresol	ND		ug/kg	254	SW846 8270D	11/23/16 11:05	JTH	11/27/16 13:32	CGS	E
Di-n-Butylphthalate	ND		ug/kg	127	SW846 8270D	11/23/16 11:05	JTH	11/27/16 13:32	CGS	E
Di-n-Octylphthalate	ND		ug/kg	127	SW846 8270D	11/23/16 11:05	JTH	11/27/16 13:32	CGS	E
Dibenzo(a,h)anthracene	ND		ug/kg	63.6	SW846 8270D	11/23/16 11:05	JTH	11/27/16 13:32	CGS	E
Dibenzofuran	ND		ug/kg	127	SW846 8270D	11/23/16 11:05	JTH	11/27/16 13:32	CGS	E
1,2-Dichlorobenzene	ND		ug/kg	127	SW846 8270D	11/23/16 11:05	JTH	11/27/16 13:32	CGS	E
1,3-Dichlorobenzene	ND		ug/kg	127	SW846 8270D	11/23/16 11:05	JTH	11/27/16 13:32	CGS	E
1,4-Dichlorobenzene	ND		ug/kg	127	SW846 8270D	11/23/16 11:05	JTH	11/27/16 13:32	CGS	E
3,3-Dichlorobenzidine	ND		ug/kg	254	SW846 8270D	11/23/16 11:05	JTH	11/27/16 13:32	CGS	E
2,4-Dichlorophenol	ND		ug/kg	254	SW846 8270D	11/23/16 11:05	JTH	11/27/16 13:32	CGS	E
2,6-Dichlorophenol	ND		ug/kg	254	SW846 8270D	11/23/16 11:05	JTH	11/27/16 13:32	CGS	E
Diethylphthalate	ND		ug/kg	127	SW846 8270D	11/23/16 11:05	JTH	11/27/16 13:32	CGS	E
Dimethoate	ND		ug/kg	254	SW846 8270D	11/23/16 11:05	JTH	11/27/16 13:32	CGS	E
2,4-Dimethylphenol	ND		ug/kg	254	SW846 8270D	11/23/16 11:05	JTH	11/27/16 13:32	CGS	E
Dimethylphthalate	ND		ug/kg	127	SW846 8270D	11/23/16 11:05	JTH	11/27/16 13:32	CGS	E
1,2-Dinitrobenzene	ND		ug/kg	127	SW846 8270D	11/23/16 11:05	JTH	11/27/16 13:32	CGS	E
1,4-Dinitrobenzene	ND		ug/kg	127	SW846 8270D	11/23/16 11:05	JTH	11/27/16 13:32	CGS	E
2,4-Dinitrophenol	ND		ug/kg	254	SW846 8270D	11/23/16 11:05	JTH	11/27/16 13:32	CGS	E
2,4-Dinitrotoluene	ND		ug/kg	127	SW846 8270D	11/23/16 11:05	JTH	11/27/16 13:32	CGS	E
2,6-Dinitrotoluene	ND		ug/kg	127	SW846 8270D	11/23/16 11:05	JTH	11/27/16 13:32	CGS	E
Diphenylamine	ND		ug/kg	127	SW846 8270D	11/23/16 11:05	JTH	11/27/16 13:32	CGS	E
1,2-Diphenylhydrazine	ND		ug/kg	127	SW846 8270D	11/23/16 11:05	JTH	11/27/16 13:32	CGS	E
bis(2-Ethylhexyl)phthalate	ND		ug/kg	127	SW846 8270D	11/23/16 11:05	JTH	11/27/16 13:32	CGS	E
Fluoranthene	262		ug/kg	63.6	SW846 8270D	11/23/16 11:05	JTH	11/27/16 13:32	CGS	E
Fluorene	ND		ug/kg	63.6	SW846 8270D	11/23/16 11:05	JTH	11/27/16 13:32	CGS	E
Hexachlorobenzene	ND		ug/kg	127	SW846 8270D	11/23/16 11:05	JTH	11/27/16 13:32	CGS	E
Hexachlorobutadiene	ND		ug/kg	127	SW846 8270D	11/23/16 11:05	JTH	11/27/16 13:32	CGS	E
Hexachlorocyclopentadiene	ND		ug/kg	254	SW846 8270D	11/23/16 11:05	JTH	11/27/16 13:32	CGS	E
Hexachloroethane	ND		ug/kg	127	SW846 8270D	11/23/16 11:05	JTH	11/27/16 13:32	CGS	E
Indeno(1,2,3-cd)pyrene	79.8		ug/kg	63.6	SW846 8270D	11/23/16 11:05	JTH	11/27/16 13:32	CGS	E

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ANALYTICAL RESULTS

Workorder: 2191010 2016-SAUGERTIES NY SITE - SOIL

Lab ID: **2191010003**

Date Collected: 11/21/2016 13:00

Matrix: Solid

Sample ID: **SB-2 (0'-1')**

Date Received: 11/22/2016 09:11

Parameters	Results	Flag	Units	RDL	Method	Prepared	By	Analyzed	By	Cntr
Isophorone	ND		ug/kg	127	SW846 8270D	11/23/16 11:05	JTH	11/27/16 13:32	CGS	E
2-Methyl-4,6-dinitrophenol	ND		ug/kg	254	SW846 8270D	11/23/16 11:05	JTH	11/27/16 13:32	CGS	E
2-Methylnaphthalene	165		ug/kg	127	SW846 8270D	11/23/16 11:05	JTH	11/27/16 13:32	CGS	E
2-Naphthylamine	ND		ug/kg	254	SW846 8270D	11/23/16 11:05	JTH	11/27/16 13:32	CGS	E
Naphthalene	101		ug/kg	63.6	SW846 8270D	11/23/16 11:05	JTH	11/27/16 13:32	CGS	E
2-Nitroaniline	ND		ug/kg	254	SW846 8270D	11/23/16 11:05	JTH	11/27/16 13:32	CGS	E
3-Nitroaniline	ND		ug/kg	254	SW846 8270D	11/23/16 11:05	JTH	11/27/16 13:32	CGS	E
4-Nitroaniline	ND		ug/kg	254	SW846 8270D	11/23/16 11:05	JTH	11/27/16 13:32	CGS	E
Nitrobenzene	ND		ug/kg	127	SW846 8270D	11/23/16 11:05	JTH	11/27/16 13:32	CGS	E
2-Nitrophenol	ND		ug/kg	254	SW846 8270D	11/23/16 11:05	JTH	11/27/16 13:32	CGS	E
4-Nitrophenol	ND	6	ug/kg	254	SW846 8270D	11/23/16 11:05	JTH	11/27/16 13:32	CGS	E
N-Nitrosodi-n-butylamine	ND		ug/kg	127	SW846 8270D	11/23/16 11:05	JTH	11/27/16 13:32	CGS	E
N-Nitrosodiethylamine	ND		ug/kg	127	SW846 8270D	11/23/16 11:05	JTH	11/27/16 13:32	CGS	E
N-Nitrosodimethylamine	ND		ug/kg	127	SW846 8270D	11/23/16 11:05	JTH	11/27/16 13:32	CGS	E
N-Nitroso-di-n-propylamine	ND		ug/kg	127	SW846 8270D	11/23/16 11:05	JTH	11/27/16 13:32	CGS	E
N-Nitrosodiphenylamine	ND		ug/kg	127	SW846 8270D	11/23/16 11:05	JTH	11/27/16 13:32	CGS	E
N-Nitrosopyrrolidine	ND		ug/kg	127	SW846 8270D	11/23/16 11:05	JTH	11/27/16 13:32	CGS	E
Pentachlorobenzene	ND		ug/kg	127	SW846 8270D	11/23/16 11:05	JTH	11/27/16 13:32	CGS	E
Pentachlorophenol	ND		ug/kg	254	SW846 8270D	11/23/16 11:05	JTH	11/27/16 13:32	CGS	E
Phenanthrene	362		ug/kg	63.6	SW846 8270D	11/23/16 11:05	JTH	11/27/16 13:32	CGS	E
Phenol	ND		ug/kg	254	SW846 8270D	11/23/16 11:05	JTH	11/27/16 13:32	CGS	E
Pyrene	260		ug/kg	63.6	SW846 8270D	11/23/16 11:05	JTH	11/27/16 13:32	CGS	E
Pyridine	ND		ug/kg	254	SW846 8270D	11/23/16 11:05	JTH	11/27/16 13:32	CGS	E
Resorcinol	ND		ug/kg	127	SW846 8270D	11/23/16 11:05	JTH	11/27/16 13:32	CGS	E
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	127	SW846 8270D	11/23/16 11:05	JTH	11/27/16 13:32	CGS	E
2,3,4,6-Tetrachlorophenol	ND		ug/kg	254	SW846 8270D	11/23/16 11:05	JTH	11/27/16 13:32	CGS	E
1,2,4-Trichlorobenzene	ND		ug/kg	127	SW846 8270D	11/23/16 11:05	JTH	11/27/16 13:32	CGS	E
2,4,5-Trichlorophenol	ND		ug/kg	254	SW846 8270D	11/23/16 11:05	JTH	11/27/16 13:32	CGS	E
2,4,6-Trichlorophenol	ND		ug/kg	254	SW846 8270D	11/23/16 11:05	JTH	11/27/16 13:32	CGS	E
<i>Surrogate Recoveries</i>	<i>Results</i>	<i>Flag</i>	<i>Units</i>	<i>Limits</i>	<i>Method</i>	<i>Prepared</i>	<i>By</i>	<i>Analyzed</i>	<i>By</i>	<i>Cntr</i>
2,4,6-Tribromophenol (S)	8.1	5	%	19 - 132	SW846 8270D	11/23/16 11:05	JTH	11/27/16 13:32	CGS	E
2-Fluorobiphenyl (S)	62.2		%	40 - 110	SW846 8270D	11/23/16 11:05	JTH	11/27/16 13:32	CGS	E
2-Fluorophenol (S)	39.1		%	26 - 116	SW846 8270D	11/23/16 11:05	JTH	11/27/16 13:32	CGS	E
Nitrobenzene-d5 (S)	72.7		%	38 - 112	SW846 8270D	11/23/16 11:05	JTH	11/27/16 13:32	CGS	E
Phenol-d5 (S)	63.3		%	35 - 111	SW846 8270D	11/23/16 11:05	JTH	11/27/16 13:32	CGS	E
Terphenyl-d14 (S)	64.3		%	45 - 126	SW846 8270D	11/23/16 11:05	JTH	11/27/16 13:32	CGS	E

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ANALYTICAL RESULTS

Workorder: 2191010 2016-SAUGERTIES NY SITE - SOIL

Lab ID: **2191010003**

Date Collected: 11/21/2016 13:00

Matrix: Solid

Sample ID: **SB-2 (0'-1')**

Date Received: 11/22/2016 09:11

Parameters	Results	Flag	Units	RDL	Method	Prepared	By	Analyzed	By	Cntr
Total Polychlorinated Biphenyl	ND		mg/kg	0.042	SW846 8082A	11/23/16 17:00	JSR	11/29/16 00:01	KJH	E
Aroclor-1016	ND		mg/kg	0.042	SW846 8082A	11/23/16 17:00	JSR	11/29/16 00:01	KJH	E
Aroclor-1221	ND		mg/kg	0.042	SW846 8082A	11/23/16 17:00	JSR	11/29/16 00:01	KJH	E
Aroclor-1232	ND		mg/kg	0.042	SW846 8082A	11/23/16 17:00	JSR	11/29/16 00:01	KJH	E
Aroclor-1242	ND		mg/kg	0.042	SW846 8082A	11/23/16 17:00	JSR	11/29/16 00:01	KJH	E
Aroclor-1248	ND		mg/kg	0.042	SW846 8082A	11/23/16 17:00	JSR	11/29/16 00:01	KJH	E
Aroclor-1254	ND		mg/kg	0.042	SW846 8082A	11/23/16 17:00	JSR	11/29/16 00:01	KJH	E
Aroclor-1260	ND		mg/kg	0.042	SW846 8082A	11/23/16 17:00	JSR	11/29/16 00:01	KJH	E
<i>Surrogate Recoveries</i>	<i>Results</i>	<i>Flag</i>	<i>Units</i>	<i>Limits</i>	<i>Method</i>	<i>Prepared</i>	<i>By</i>	<i>Analyzed</i>	<i>By</i>	<i>Cntr</i>
Decachlorobiphenyls (S)	66.9		%	49 - 115	SW846 8082A	11/23/16 17:00	JSR	11/29/16 00:01	KJH	E
Tetrachloro-m-xylene (S)	61		%	27 - 137	SW846 8082A	11/23/16 17:00	JSR	11/29/16 00:01	KJH	E
PESTICIDES										
Aldrin	ND		ug/kg	10.9	SW846 8081B	11/23/16 17:00	JSR	11/29/16 12:45	RWS	E
alpha-BHC	ND		ug/kg	10.9	SW846 8081B	11/23/16 17:00	JSR	11/29/16 12:45	RWS	E
beta-BHC	ND		ug/kg	10.9	SW846 8081B	11/23/16 17:00	JSR	11/29/16 12:45	RWS	E
delta-BHC	ND		ug/kg	10.9	SW846 8081B	11/23/16 17:00	JSR	11/29/16 12:45	RWS	E
gamma-BHC	ND		ug/kg	10.9	SW846 8081B	11/23/16 17:00	JSR	11/29/16 12:45	RWS	E
alpha-Chlordane	ND		ug/kg	10.9	SW846 8081B	11/23/16 17:00	JSR	11/29/16 12:45	RWS	E
gamma-Chlordane	ND		ug/kg	10.9	SW846 8081B	11/23/16 17:00	JSR	11/29/16 12:45	RWS	E
4,4'-DDD	ND		ug/kg	21.1	SW846 8081B	11/23/16 17:00	JSR	11/29/16 12:45	RWS	E
4,4'-DDE	ND		ug/kg	21.1	SW846 8081B	11/23/16 17:00	JSR	11/29/16 12:45	RWS	E
4,4'-DDT	ND		ug/kg	21.1	SW846 8081B	11/23/16 17:00	JSR	11/29/16 12:45	RWS	E
Dieldrin	ND		ug/kg	21.1	SW846 8081B	11/23/16 17:00	JSR	11/29/16 12:45	RWS	E
Endosulfan I	ND		ug/kg	10.9	SW846 8081B	11/23/16 17:00	JSR	11/29/16 12:45	RWS	E
Endosulfan II	ND		ug/kg	21.1	SW846 8081B	11/23/16 17:00	JSR	11/29/16 12:45	RWS	E
Endosulfan Sulfate	ND		ug/kg	21.1	SW846 8081B	11/23/16 17:00	JSR	11/29/16 12:45	RWS	E
Endrin	ND		ug/kg	21.1	SW846 8081B	11/23/16 17:00	JSR	11/29/16 12:45	RWS	E
Endrin Aldehyde	ND		ug/kg	21.1	SW846 8081B	11/23/16 17:00	JSR	11/29/16 12:45	RWS	E
Endrin Ketone	ND		ug/kg	21.1	SW846 8081B	11/23/16 17:00	JSR	11/29/16 12:45	RWS	E
Heptachlor	ND		ug/kg	10.9	SW846 8081B	11/23/16 17:00	JSR	11/29/16 12:45	RWS	E
Heptachlor Epoxide	ND		ug/kg	10.9	SW846 8081B	11/23/16 17:00	JSR	11/29/16 12:45	RWS	E
Methoxychlor	ND		ug/kg	21.1	SW846 8081B	11/23/16 17:00	JSR	11/29/16 12:45	RWS	E
Mirex	ND		ug/kg	21.1	SW846 8081B	11/23/16 17:00	JSR	11/29/16 12:45	RWS	E
Toxaphene	ND		ug/kg	224	SW846 8081B	11/23/16 17:00	JSR	11/29/16 12:45	RWS	E
<i>Surrogate Recoveries</i>	<i>Results</i>	<i>Flag</i>	<i>Units</i>	<i>Limits</i>	<i>Method</i>	<i>Prepared</i>	<i>By</i>	<i>Analyzed</i>	<i>By</i>	<i>Cntr</i>
Decachlorobiphenyls (S)	65.8		%	30 - 135	SW846 8081B	11/23/16 17:00	JSR	11/29/16 12:45	RWS	E

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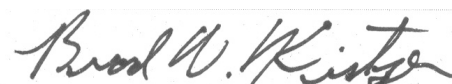
ANALYTICAL RESULTS

Workorder: 2191010 2016-SAUGERTIES NY SITE - SOIL

Lab ID: **2191010003**
Sample ID: **SB-2 (0'-1')**

Date Collected: 11/21/2016 13:00 Matrix: Solid
Date Received: 11/22/2016 09:11

Parameters	Results	Flag	Units	RDL	Method	Prepared	By	Analyzed	By	Cntr
Tetrachloro-m-xylene (S)	53.7		%	30 - 111	SW846 8081B	11/23/16 17:00	JSR	11/29/16 12:45	RWS	E
WET CHEMISTRY										
Moisture	24.4		%	0.1	S2540G-11			12/1/16 11:26	ML	
Total Solids	75.6		%	0.1	S2540G-11			12/1/16 11:26	ML	
METALS										
Aluminum, Total	6280		mg/kg	13.2	SW846 6010C	11/30/16 09:36	TRR	12/1/16 11:52	TSS	E1
Antimony, Total	3.0		mg/kg	2.6	SW846 6010C	11/30/16 09:36	TRR	12/1/16 11:52	TSS	E1
Arsenic, Total	9.8		mg/kg	2.6	SW846 6010C	11/30/16 09:36	TRR	12/1/16 11:52	TSS	E1
Barium, Total	96.7		mg/kg	1.3	SW846 6010C	11/30/16 09:36	TRR	12/1/16 11:52	TSS	E1
Beryllium, Total	ND		mg/kg	1.3	SW846 6010C	11/30/16 09:36	TRR	12/1/16 11:52	TSS	E1
Cadmium, Total	ND		mg/kg	0.66	SW846 6010C	11/30/16 09:36	TRR	12/1/16 11:52	TSS	E1
Calcium, Total	26700		mg/kg	13.2	SW846 6010C	11/30/16 09:36	TRR	12/1/16 11:52	TSS	E1
Chromium, Total	10.0		mg/kg	1.3	SW846 6010C	11/30/16 09:36	TRR	12/1/16 11:52	TSS	E1
Cobalt, Total	6.6		mg/kg	1.3	SW846 6010C	11/30/16 09:36	TRR	12/1/16 11:52	TSS	E1
Copper, Total	69.7		mg/kg	2.6	SW846 6010C	11/30/16 09:36	TRR	12/1/16 11:52	TSS	E1
Iron, Total	16300		mg/kg	13.2	SW846 6010C	11/30/16 09:36	TRR	12/1/16 11:52	TSS	E1
Lead, Total	119		mg/kg	2.6	SW846 6010C	11/30/16 09:36	TRR	12/1/16 11:52	TSS	E1
Magnesium, Total	2870		mg/kg	13.2	SW846 6010C	11/30/16 09:36	TRR	12/1/16 11:52	TSS	E1
Manganese, Total	271		mg/kg	1.3	SW846 6010C	11/30/16 09:36	TRR	12/1/16 11:52	TSS	E1
Mercury, Total	1.2		mg/kg	0.060	SW846 7471B	12/1/16 12:19	MNP	12/1/16 15:04	MNP	E2
Nickel, Total	17.3		mg/kg	2.6	SW846 6010C	11/30/16 09:36	TRR	12/1/16 11:52	TSS	E1
Potassium, Total	620		mg/kg	66.2	SW846 6010C	11/30/16 09:36	TRR	12/1/16 11:52	TSS	E1
Selenium, Total	ND		mg/kg	6.6	SW846 6010C	11/30/16 09:36	TRR	12/1/16 11:52	TSS	E1
Silver, Total	ND		mg/kg	0.66	SW846 6010C	11/30/16 09:36	TRR	12/1/16 11:52	TSS	E1
Sodium, Total	66.4		mg/kg	66.2	SW846 6010C	11/30/16 09:36	TRR	12/1/16 11:52	TSS	E1
Thallium, Total	ND		mg/kg	4.0	SW846 6010C	11/30/16 09:36	TRR	12/1/16 11:52	TSS	E1
Vanadium, Total	17.2		mg/kg	1.3	SW846 6010C	11/30/16 09:36	TRR	12/1/16 11:52	TSS	E1
Zinc, Total	192		mg/kg	2.6	SW846 6010C	11/30/16 09:36	TRR	12/1/16 11:52	TSS	E1



Mr. Brad W Kintzer
Project Coordinator

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**ANALYTICAL RESULTS**

Workorder: 2191010 2016-SAUGERTIES NY SITE - SOIL

Lab ID: **2191010004**
Sample ID: **SB-2 (4.5'-5')**Date Collected: 11/21/2016 13:15 Matrix: Solid
Date Received: 11/22/2016 09:11

Parameters	Results	Flag	Units	RDL	Method	Prepared	By	Analyzed	By	Cntr
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ADMINISTRATIVE

Sample Cancelled

Sample
Cancelled

12/13/16 14:31 BWK A

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ANALYTICAL RESULTS

Workorder: 2191010 2016-SAUGERTIES NY SITE - SOIL

Lab ID: **2191010005**

Date Collected: 11/21/2016 11:25

Matrix: Solid

Sample ID: **SB-3 (0'-1')**

Date Received: 11/22/2016 09:11

Parameters	Results	Flag	Units	RDL	Method	Prepared	By	Analyzed	By	Cntr
VOLATILE ORGANICS										
Acetone	ND		ug/kg	15.1	SW846 8260C	11/21/16 11:25	TMP	11/23/16 19:33	TMP	A
Acetonitrile	ND		ug/kg	15.1	SW846 8260C	11/21/16 11:25	TMP	11/23/16 19:33	TMP	A
Acrolein	ND		ug/kg	75.5	SW846 8260C	11/21/16 11:25	TMP	11/23/16 19:33	TMP	A
Acrylonitrile	ND		ug/kg	15.1	SW846 8260C	11/21/16 11:25	TMP	11/23/16 19:33	TMP	A
Benzene	ND		ug/kg	3.0	SW846 8260C	11/21/16 11:25	TMP	11/23/16 19:33	TMP	A
Benzyl Chloride	ND		ug/kg	3.0	SW846 8260C	11/21/16 11:25	TMP	11/23/16 19:33	TMP	A
Bromobenzene	ND		ug/kg	3.0	SW846 8260C	11/21/16 11:25	TMP	11/23/16 19:33	TMP	A
Bromochloromethane	ND		ug/kg	3.0	SW846 8260C	11/21/16 11:25	TMP	11/23/16 19:33	TMP	A
Bromodichloromethane	ND		ug/kg	3.0	SW846 8260C	11/21/16 11:25	TMP	11/23/16 19:33	TMP	A
Bromoform	ND		ug/kg	3.0	SW846 8260C	11/21/16 11:25	TMP	11/23/16 19:33	TMP	A
Bromomethane	ND		ug/kg	3.0	SW846 8260C	11/21/16 11:25	TMP	11/23/16 19:33	TMP	A
2-Butanone	ND		ug/kg	15.1	SW846 8260C	11/21/16 11:25	TMP	11/23/16 19:33	TMP	A
tert-Butyl Alcohol	ND		ug/kg	15.1	SW846 8260C	11/21/16 11:25	TMP	11/23/16 19:33	TMP	A
n-Butylbenzene	ND		ug/kg	3.0	SW846 8260C	11/21/16 11:25	TMP	11/23/16 19:33	TMP	A
tert-Butylbenzene	ND		ug/kg	3.0	SW846 8260C	11/21/16 11:25	TMP	11/23/16 19:33	TMP	A
sec-Butylbenzene	ND		ug/kg	3.0	SW846 8260C	11/21/16 11:25	TMP	11/23/16 19:33	TMP	A
Carbon Disulfide	ND		ug/kg	3.0	SW846 8260C	11/21/16 11:25	TMP	11/23/16 19:33	TMP	A
Carbon Tetrachloride	ND		ug/kg	3.0	SW846 8260C	11/21/16 11:25	TMP	11/23/16 19:33	TMP	A
Chlorobenzene	ND		ug/kg	3.0	SW846 8260C	11/21/16 11:25	TMP	11/23/16 19:33	TMP	A
Chlorodibromomethane	ND		ug/kg	3.0	SW846 8260C	11/21/16 11:25	TMP	11/23/16 19:33	TMP	A
Chloroethane	ND		ug/kg	7.5	SW846 8260C	11/21/16 11:25	TMP	11/23/16 19:33	TMP	A
Chloroform	ND		ug/kg	3.0	SW846 8260C	11/21/16 11:25	TMP	11/23/16 19:33	TMP	A
Chloromethane	ND		ug/kg	3.0	SW846 8260C	11/21/16 11:25	TMP	11/23/16 19:33	TMP	A
Chloroprene	ND		ug/kg	3.0	SW846 8260C	11/21/16 11:25	TMP	11/23/16 19:33	TMP	A
3-Chloro-1-propene	ND		ug/kg	3.0	SW846 8260C	11/21/16 11:25	TMP	11/23/16 19:33	TMP	A
o-Chlorotoluene	ND		ug/kg	3.0	SW846 8260C	11/21/16 11:25	TMP	11/23/16 19:33	TMP	A
p-Chlorotoluene	ND		ug/kg	3.0	SW846 8260C	11/21/16 11:25	TMP	11/23/16 19:33	TMP	A
Cyclohexane	ND		ug/kg	3.0	SW846 8260C	11/21/16 11:25	TMP	11/23/16 19:33	TMP	A
1,2-Dibromo-3-chloropropane	ND		ug/kg	7.5	SW846 8260C	11/21/16 11:25	TMP	11/23/16 19:33	TMP	A
1,2-Dibromoethane	ND		ug/kg	3.0	SW846 8260C	11/21/16 11:25	TMP	11/23/16 19:33	TMP	A
Dibromomethane	ND		ug/kg	3.0	SW846 8260C	11/21/16 11:25	TMP	11/23/16 19:33	TMP	A
1,2-Dichlorobenzene	ND		ug/kg	3.0	SW846 8260C	11/21/16 11:25	TMP	11/23/16 19:33	TMP	A
1,3-Dichlorobenzene	ND		ug/kg	3.0	SW846 8260C	11/21/16 11:25	TMP	11/23/16 19:33	TMP	A
1,4-Dichlorobenzene	ND		ug/kg	3.0	SW846 8260C	11/21/16 11:25	TMP	11/23/16 19:33	TMP	A
Dichlorodifluoromethane	ND		ug/kg	3.0	SW846 8260C	11/21/16 11:25	TMP	11/23/16 19:33	TMP	A
1,1-Dichloroethane	ND		ug/kg	3.0	SW846 8260C	11/21/16 11:25	TMP	11/23/16 19:33	TMP	A

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ANALYTICAL RESULTS

Workorder: 2191010 2016-SAUGERTIES NY SITE - SOIL

Lab ID: **2191010005**

Date Collected: 11/21/2016 11:25

Matrix: Solid

Sample ID: **SB-3 (0'-1')**

Date Received: 11/22/2016 09:11

Parameters	Results	Flag	Units	RDL	Method	Prepared	By	Analyzed	By	Cntr
1,2-Dichloroethane	ND		ug/kg	3.0	SW846 8260C	11/21/16 11:25	TMP	11/23/16 19:33	TMP	A
1,1-Dichloroethene	ND		ug/kg	3.0	SW846 8260C	11/21/16 11:25	TMP	11/23/16 19:33	TMP	A
cis-1,2-Dichloroethene	ND		ug/kg	3.0	SW846 8260C	11/21/16 11:25	TMP	11/23/16 19:33	TMP	A
trans-1,2-Dichloroethene	ND		ug/kg	3.0	SW846 8260C	11/21/16 11:25	TMP	11/23/16 19:33	TMP	A
1,3-Dichloropropane	ND		ug/kg	3.0	SW846 8260C	11/21/16 11:25	TMP	11/23/16 19:33	TMP	A
2,2-Dichloropropane	ND		ug/kg	3.0	SW846 8260C	11/21/16 11:25	TMP	11/23/16 19:33	TMP	A
1,2-Dichloropropane	ND		ug/kg	3.0	SW846 8260C	11/21/16 11:25	TMP	11/23/16 19:33	TMP	A
1,1-Dichloropropene	ND		ug/kg	3.0	SW846 8260C	11/21/16 11:25	TMP	11/23/16 19:33	TMP	A
cis-1,3-Dichloropropene	ND		ug/kg	3.0	SW846 8260C	11/21/16 11:25	TMP	11/23/16 19:33	TMP	A
trans-1,3-Dichloropropene	ND		ug/kg	3.0	SW846 8260C	11/21/16 11:25	TMP	11/23/16 19:33	TMP	A
1,4-Dioxane	ND		ug/kg	113	SW846 8260C	11/21/16 11:25	TMP	11/23/16 19:33	TMP	A
Ethyl Methacrylate	ND		ug/kg	3.0	SW846 8260C	11/21/16 11:25	TMP	11/23/16 19:33	TMP	A
Ethyl Acetate	ND		ug/kg	3.0	SW846 8260C	11/21/16 11:25	TMP	11/23/16 19:33	TMP	A
Ethylbenzene	ND		ug/kg	3.0	SW846 8260C	11/21/16 11:25	TMP	11/23/16 19:33	TMP	A
Freon 113	ND		ug/kg	3.0	SW846 8260C	11/21/16 11:25	TMP	11/23/16 19:33	TMP	A
2-Hexanone	ND		ug/kg	15.1	SW846 8260C	11/21/16 11:25	TMP	11/23/16 19:33	TMP	A
Isobutyl alcohol	ND		ug/kg	75.5	SW846 8260C	11/21/16 11:25	TMP	11/23/16 19:33	TMP	A
Isopropylbenzene	ND		ug/kg	3.0	SW846 8260C	11/21/16 11:25	TMP	11/23/16 19:33	TMP	A
p-Isopropyltoluene	ND		ug/kg	3.0	SW846 8260C	11/21/16 11:25	TMP	11/23/16 19:33	TMP	A
Methacrylonitrile	ND		ug/kg	3.0	SW846 8260C	11/21/16 11:25	TMP	11/23/16 19:33	TMP	A
Methyl methacrylate	ND		ug/kg	7.5	SW846 8260C	11/21/16 11:25	TMP	11/23/16 19:33	TMP	A
Methyl acetate	ND		ug/kg	3.0	SW846 8260C	11/21/16 11:25	TMP	11/23/16 19:33	TMP	A
Methyl cyclohexane	ND		ug/kg	3.0	SW846 8260C	11/21/16 11:25	TMP	11/23/16 19:33	TMP	A
Methyl t-Butyl Ether	ND		ug/kg	3.0	SW846 8260C	11/21/16 11:25	TMP	11/23/16 19:33	TMP	A
4-Methyl-2-Pentanone(MIBK)	ND		ug/kg	15.1	SW846 8260C	11/21/16 11:25	TMP	11/23/16 19:33	TMP	A
Methylene Chloride	ND		ug/kg	3.0	SW846 8260C	11/21/16 11:25	TMP	11/23/16 19:33	TMP	A
Naphthalene	ND		ug/kg	3.0	SW846 8260C	11/21/16 11:25	TMP	11/23/16 19:33	TMP	A
Propionitrile	ND		ug/kg	15.1	SW846 8260C	11/21/16 11:25	TMP	11/23/16 19:33	TMP	A
n-Propylbenzene	ND		ug/kg	3.0	SW846 8260C	11/21/16 11:25	TMP	11/23/16 19:33	TMP	A
Styrene	ND		ug/kg	3.0	SW846 8260C	11/21/16 11:25	TMP	11/23/16 19:33	TMP	A
1,1,1,2-Tetrachloroethane	ND		ug/kg	3.0	SW846 8260C	11/21/16 11:25	TMP	11/23/16 19:33	TMP	A
1,1,2,2-Tetrachloroethane	ND		ug/kg	3.0	SW846 8260C	11/21/16 11:25	TMP	11/23/16 19:33	TMP	A
Tetrachloroethene	ND		ug/kg	3.0	SW846 8260C	11/21/16 11:25	TMP	11/23/16 19:33	TMP	A
Toluene	ND		ug/kg	3.0	SW846 8260C	11/21/16 11:25	TMP	11/23/16 19:33	TMP	A
Total Xylenes	ND		ug/kg	9.1	SW846 8260C	11/21/16 11:25	TMP	11/23/16 19:33	TMP	A
1,2,4-Trichlorobenzene	ND		ug/kg	7.5	SW846 8260C	11/21/16 11:25	TMP	11/23/16 19:33	TMP	A
1,1,1-Trichloroethane	ND		ug/kg	3.0	SW846 8260C	11/21/16 11:25	TMP	11/23/16 19:33	TMP	A
1,1,2-Trichloroethane	ND		ug/kg	3.0	SW846 8260C	11/21/16 11:25	TMP	11/23/16 19:33	TMP	A

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ANALYTICAL RESULTS

Workorder: 2191010 2016-SAUGERTIES NY SITE - SOIL

Lab ID: **2191010005**

Date Collected: 11/21/2016 11:25

Matrix: Solid

Sample ID: **SB-3 (0'-1')**

Date Received: 11/22/2016 09:11

Parameters	Results	Flag	Units	RDL	Method	Prepared	By	Analyzed	By	Cntr
Trichloroethene	ND		ug/kg	3.0	SW846 8260C	11/21/16 11:25	TMP	11/23/16 19:33	TMP	A
Trichlorofluoromethane	ND		ug/kg	3.0	SW846 8260C	11/21/16 11:25	TMP	11/23/16 19:33	TMP	A
1,2,3-Trichloropropane	ND		ug/kg	3.0	SW846 8260C	11/21/16 11:25	TMP	11/23/16 19:33	TMP	A
1,2,4-Trimethylbenzene	ND		ug/kg	3.0	SW846 8260C	11/21/16 11:25	TMP	11/23/16 19:33	TMP	A
1,3,5-Trimethylbenzene	ND		ug/kg	3.0	SW846 8260C	11/21/16 11:25	TMP	11/23/16 19:33	TMP	A
Vinyl Acetate	ND		ug/kg	3.0	SW846 8260C	11/21/16 11:25	TMP	11/23/16 19:33	TMP	A
Vinyl Chloride	ND		ug/kg	3.0	SW846 8260C	11/21/16 11:25	TMP	11/23/16 19:33	TMP	A
o-Xylene	ND		ug/kg	3.0	SW846 8260C	11/21/16 11:25	TMP	11/23/16 19:33	TMP	A
mp-Xylene	ND		ug/kg	6.0	SW846 8260C	11/21/16 11:25	TMP	11/23/16 19:33	TMP	A
<i>Surrogate Recoveries</i>	<i>Results</i>	<i>Flag</i>	<i>Units</i>	<i>Limits</i>	<i>Method</i>	<i>Prepared</i>	<i>By</i>	<i>Analyzed</i>	<i>By</i>	<i>Cntr</i>
1,2-Dichloroethane-d4 (S)	85.8		%	56 - 124	SW846 8260C	11/21/16 11:25	TMP	11/23/16 19:33	TMP	A
4-Bromofluorobenzene (S)	101		%	51 - 128	SW846 8260C	11/21/16 11:25	TMP	11/23/16 19:33	TMP	A
Dibromofluoromethane (S)	92.5		%	62 - 123	SW846 8260C	11/21/16 11:25	TMP	11/23/16 19:33	TMP	A
Toluene-d8 (S)	100		%	59 - 131	SW846 8260C	11/21/16 11:25	TMP	11/23/16 19:33	TMP	A
SEMIVOLATILES										
Acenaphthene	ND		ug/kg	304	SW846 8270D	11/23/16 11:05	JTH	11/27/16 21:38	CGS	E
Acenaphthylene	685		ug/kg	304	SW846 8270D	11/23/16 11:05	JTH	11/27/16 21:38	CGS	E
Acetophenone	ND		ug/kg	609	SW846 8270D	11/23/16 11:05	JTH	11/27/16 21:38	CGS	E
Aniline	ND		ug/kg	1220	SW846 8270D	11/23/16 11:05	JTH	11/27/16 21:38	CGS	E
Anthracene	762		ug/kg	304	SW846 8270D	11/23/16 11:05	JTH	11/27/16 21:38	CGS	E
Atrazine	ND		ug/kg	609	SW846 8270D	11/23/16 11:05	JTH	11/27/16 21:38	CGS	E
Benzaldehyde	ND		ug/kg	1220	SW846 8270D	11/23/16 11:05	JTH	11/27/16 21:38	CGS	E
Benzidine	ND		ug/kg	1220	SW846 8270D	11/23/16 11:05	JTH	11/27/16 21:38	CGS	E
Benzo(a)anthracene	4480		ug/kg	304	SW846 8270D	11/23/16 11:05	JTH	11/27/16 21:38	CGS	E
Benzo(a)pyrene	3520		ug/kg	304	SW846 8270D	11/23/16 11:05	JTH	11/27/16 21:38	CGS	E
Benzo(b)fluoranthene	5480		ug/kg	304	SW846 8270D	11/23/16 11:05	JTH	11/27/16 21:38	CGS	E
Benzo(g,h,i)perylene	2560		ug/kg	304	SW846 8270D	11/23/16 11:05	JTH	11/27/16 21:38	CGS	E
Benzoic acid	ND		ug/kg	3290	SW846 8270D	11/23/16 11:05	JTH	11/27/16 21:38	CGS	E
Benzo(k)fluoranthene	2490		ug/kg	304	SW846 8270D	11/23/16 11:05	JTH	11/27/16 21:38	CGS	E
Benzyl Alcohol	ND		ug/kg	609	SW846 8270D	11/23/16 11:05	JTH	11/27/16 21:38	CGS	E
Biphenyl	ND		ug/kg	609	SW846 8270D	11/23/16 11:05	JTH	11/27/16 21:38	CGS	E
4-Bromophenyl-phenylether	ND		ug/kg	609	SW846 8270D	11/23/16 11:05	JTH	11/27/16 21:38	CGS	E
Butylbenzylphthalate	ND		ug/kg	609	SW846 8270D	11/23/16 11:05	JTH	11/27/16 21:38	CGS	E
Caprolactam	ND		ug/kg	1220	SW846 8270D	11/23/16 11:05	JTH	11/27/16 21:38	CGS	E
Carbazole	ND		ug/kg	609	SW846 8270D	11/23/16 11:05	JTH	11/27/16 21:38	CGS	E
4-Chloro-3-methylphenol	ND		ug/kg	1220	SW846 8270D	11/23/16 11:05	JTH	11/27/16 21:38	CGS	E
4-Chloroaniline	ND		ug/kg	1220	SW846 8270D	11/23/16 11:05	JTH	11/27/16 21:38	CGS	E

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ANALYTICAL RESULTS

Workorder: 2191010 2016-SAUGERTIES NY SITE - SOIL

Lab ID: **2191010005**

Date Collected: 11/21/2016 11:25

Matrix: Solid

Sample ID: **SB-3 (0'-1')**

Date Received: 11/22/2016 09:11

Parameters	Results	Flag	Units	RDL	Method	Prepared	By	Analyzed	By	Cntr
bis(2-Chloroethoxy)methane	ND		ug/kg	609	SW846 8270D	11/23/16 11:05	JTH	11/27/16 21:38	CGS	E
bis(2-Chloroethyl)ether	ND		ug/kg	609	SW846 8270D	11/23/16 11:05	JTH	11/27/16 21:38	CGS	E
bis(2-Chloroisopropyl)ether	ND		ug/kg	609	SW846 8270D	11/23/16 11:05	JTH	11/27/16 21:38	CGS	E
2-Chloronaphthalene	ND		ug/kg	609	SW846 8270D	11/23/16 11:05	JTH	11/27/16 21:38	CGS	E
2-Chlorophenol	ND		ug/kg	1220	SW846 8270D	11/23/16 11:05	JTH	11/27/16 21:38	CGS	E
4-Chlorophenyl-phenylether	ND		ug/kg	609	SW846 8270D	11/23/16 11:05	JTH	11/27/16 21:38	CGS	E
Chrysene	4790		ug/kg	304	SW846 8270D	11/23/16 11:05	JTH	11/27/16 21:38	CGS	E
mp-Cresol	ND		ug/kg	1220	SW846 8270D	11/23/16 11:05	JTH	11/27/16 21:38	CGS	E
o-Cresol	ND		ug/kg	1220	SW846 8270D	11/23/16 11:05	JTH	11/27/16 21:38	CGS	E
Di-n-Butylphthalate	ND		ug/kg	609	SW846 8270D	11/23/16 11:05	JTH	11/27/16 21:38	CGS	E
Di-n-Octylphthalate	ND		ug/kg	609	SW846 8270D	11/23/16 11:05	JTH	11/27/16 21:38	CGS	E
Dibenzo(a,h)anthracene	769		ug/kg	304	SW846 8270D	11/23/16 11:05	JTH	11/27/16 21:38	CGS	E
Dibenzofuran	ND		ug/kg	609	SW846 8270D	11/23/16 11:05	JTH	11/27/16 21:38	CGS	E
1,2-Dichlorobenzene	ND		ug/kg	609	SW846 8270D	11/23/16 11:05	JTH	11/27/16 21:38	CGS	E
1,3-Dichlorobenzene	ND		ug/kg	609	SW846 8270D	11/23/16 11:05	JTH	11/27/16 21:38	CGS	E
1,4-Dichlorobenzene	ND		ug/kg	609	SW846 8270D	11/23/16 11:05	JTH	11/27/16 21:38	CGS	E
3,3-Dichlorobenzidine	ND		ug/kg	1220	SW846 8270D	11/23/16 11:05	JTH	11/27/16 21:38	CGS	E
2,4-Dichlorophenol	ND		ug/kg	1220	SW846 8270D	11/23/16 11:05	JTH	11/27/16 21:38	CGS	E
2,6-Dichlorophenol	ND		ug/kg	1220	SW846 8270D	11/23/16 11:05	JTH	11/27/16 21:38	CGS	E
Diethylphthalate	ND		ug/kg	609	SW846 8270D	11/23/16 11:05	JTH	11/27/16 21:38	CGS	E
Dimethoate	ND		ug/kg	1220	SW846 8270D	11/23/16 11:05	JTH	11/27/16 21:38	CGS	E
2,4-Dimethylphenol	ND		ug/kg	1220	SW846 8270D	11/23/16 11:05	JTH	11/27/16 21:38	CGS	E
Dimethylphthalate	ND		ug/kg	609	SW846 8270D	11/23/16 11:05	JTH	11/27/16 21:38	CGS	E
1,2-Dinitrobenzene	ND		ug/kg	609	SW846 8270D	11/23/16 11:05	JTH	11/27/16 21:38	CGS	E
1,4-Dinitrobenzene	ND		ug/kg	609	SW846 8270D	11/23/16 11:05	JTH	11/27/16 21:38	CGS	E
2,4-Dinitrophenol	ND		ug/kg	1220	SW846 8270D	11/23/16 11:05	JTH	11/27/16 21:38	CGS	E
2,4-Dinitrotoluene	ND		ug/kg	609	SW846 8270D	11/23/16 11:05	JTH	11/27/16 21:38	CGS	E
2,6-Dinitrotoluene	ND		ug/kg	609	SW846 8270D	11/23/16 11:05	JTH	11/27/16 21:38	CGS	E
Diphenylamine	ND		ug/kg	609	SW846 8270D	11/23/16 11:05	JTH	11/27/16 21:38	CGS	E
1,2-Diphenylhydrazine	ND		ug/kg	609	SW846 8270D	11/23/16 11:05	JTH	11/27/16 21:38	CGS	E
bis(2-Ethylhexyl)phthalate	ND		ug/kg	609	SW846 8270D	11/23/16 11:05	JTH	11/27/16 21:38	CGS	E
Fluoranthene	5780		ug/kg	304	SW846 8270D	11/23/16 11:05	JTH	11/27/16 21:38	CGS	E
Fluorene	ND		ug/kg	304	SW846 8270D	11/23/16 11:05	JTH	11/27/16 21:38	CGS	E
Hexachlorobenzene	ND		ug/kg	609	SW846 8270D	11/23/16 11:05	JTH	11/27/16 21:38	CGS	E
Hexachlorobutadiene	ND		ug/kg	609	SW846 8270D	11/23/16 11:05	JTH	11/27/16 21:38	CGS	E
Hexachlorocyclopentadiene	ND		ug/kg	1220	SW846 8270D	11/23/16 11:05	JTH	11/27/16 21:38	CGS	E
Hexachloroethane	ND		ug/kg	609	SW846 8270D	11/23/16 11:05	JTH	11/27/16 21:38	CGS	E
Indeno(1,2,3-cd)pyrene	2660		ug/kg	304	SW846 8270D	11/23/16 11:05	JTH	11/27/16 21:38	CGS	E

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ANALYTICAL RESULTS

Workorder: 2191010 2016-SAUGERTIES NY SITE - SOIL

Lab ID: **2191010005**

Date Collected: 11/21/2016 11:25

Matrix: Solid

Sample ID: **SB-3 (0'-1')**

Date Received: 11/22/2016 09:11

Parameters	Results	Flag	Units	RDL	Method	Prepared	By	Analyzed	By	Cntr
Isophorone	ND		ug/kg	609	SW846 8270D	11/23/16 11:05	JTH	11/27/16 21:38	CGS	E
2-Methyl-4,6-dinitrophenol	ND		ug/kg	1220	SW846 8270D	11/23/16 11:05	JTH	11/27/16 21:38	CGS	E
2-Methylnaphthalene	ND		ug/kg	609	SW846 8270D	11/23/16 11:05	JTH	11/27/16 21:38	CGS	E
2-Naphthylamine	ND		ug/kg	1220	SW846 8270D	11/23/16 11:05	JTH	11/27/16 21:38	CGS	E
Naphthalene	ND		ug/kg	304	SW846 8270D	11/23/16 11:05	JTH	11/27/16 21:38	CGS	E
2-Nitroaniline	ND		ug/kg	1220	SW846 8270D	11/23/16 11:05	JTH	11/27/16 21:38	CGS	E
3-Nitroaniline	ND		ug/kg	1220	SW846 8270D	11/23/16 11:05	JTH	11/27/16 21:38	CGS	E
4-Nitroaniline	ND		ug/kg	1220	SW846 8270D	11/23/16 11:05	JTH	11/27/16 21:38	CGS	E
Nitrobenzene	ND		ug/kg	609	SW846 8270D	11/23/16 11:05	JTH	11/27/16 21:38	CGS	E
2-Nitrophenol	ND		ug/kg	1220	SW846 8270D	11/23/16 11:05	JTH	11/27/16 21:38	CGS	E
4-Nitrophenol	ND	5	ug/kg	1220	SW846 8270D	11/23/16 11:05	JTH	11/27/16 21:38	CGS	E
N-Nitrosodi-n-butylamine	ND		ug/kg	609	SW846 8270D	11/23/16 11:05	JTH	11/27/16 21:38	CGS	E
N-Nitrosodiethylamine	ND		ug/kg	609	SW846 8270D	11/23/16 11:05	JTH	11/27/16 21:38	CGS	E
N-Nitrosodimethylamine	ND		ug/kg	609	SW846 8270D	11/23/16 11:05	JTH	11/27/16 21:38	CGS	E
N-Nitroso-di-n-propylamine	ND		ug/kg	609	SW846 8270D	11/23/16 11:05	JTH	11/27/16 21:38	CGS	E
N-Nitrosodiphenylamine	ND		ug/kg	609	SW846 8270D	11/23/16 11:05	JTH	11/27/16 21:38	CGS	E
N-Nitrosopyrrolidine	ND		ug/kg	609	SW846 8270D	11/23/16 11:05	JTH	11/27/16 21:38	CGS	E
Pentachlorobenzene	ND		ug/kg	609	SW846 8270D	11/23/16 11:05	JTH	11/27/16 21:38	CGS	E
Pentachlorophenol	ND		ug/kg	1220	SW846 8270D	11/23/16 11:05	JTH	11/27/16 21:38	CGS	E
Phenanthrene	2160		ug/kg	304	SW846 8270D	11/23/16 11:05	JTH	11/27/16 21:38	CGS	E
Phenol	ND		ug/kg	1220	SW846 8270D	11/23/16 11:05	JTH	11/27/16 21:38	CGS	E
Pyrene	5840		ug/kg	304	SW846 8270D	11/23/16 11:05	JTH	11/27/16 21:38	CGS	E
Pyridine	ND		ug/kg	1220	SW846 8270D	11/23/16 11:05	JTH	11/27/16 21:38	CGS	E
Resorcinol	ND		ug/kg	609	SW846 8270D	11/23/16 11:05	JTH	11/27/16 21:38	CGS	E
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	609	SW846 8270D	11/23/16 11:05	JTH	11/27/16 21:38	CGS	E
2,3,4,6-Tetrachlorophenol	ND		ug/kg	1220	SW846 8270D	11/23/16 11:05	JTH	11/27/16 21:38	CGS	E
1,2,4-Trichlorobenzene	ND		ug/kg	609	SW846 8270D	11/23/16 11:05	JTH	11/27/16 21:38	CGS	E
2,4,5-Trichlorophenol	ND		ug/kg	1220	SW846 8270D	11/23/16 11:05	JTH	11/27/16 21:38	CGS	E
2,4,6-Trichlorophenol	ND		ug/kg	1220	SW846 8270D	11/23/16 11:05	JTH	11/27/16 21:38	CGS	E
Surrogate Recoveries	Results	Flag	Units	Limits	Method	Prepared	By	Analyzed	By	Cntr
2,4,6-Tribromophenol (S)	44.9		%	19 - 132	SW846 8270D	11/23/16 11:05	JTH	11/27/16 21:38	CGS	E
2-Fluorobiphenyl (S)	43.4		%	40 - 110	SW846 8270D	11/23/16 11:05	JTH	11/27/16 21:38	CGS	E
2-Fluorophenol (S)	24.5	1	%	26 - 116	SW846 8270D	11/23/16 11:05	JTH	11/27/16 21:38	CGS	E
Nitrobenzene-d5 (S)	34.8	3	%	38 - 112	SW846 8270D	11/23/16 11:05	JTH	11/27/16 21:38	CGS	E
Phenol-d5 (S)	31.6	2	%	35 - 111	SW846 8270D	11/23/16 11:05	JTH	11/27/16 21:38	CGS	E
Terphenyl-d14 (S)	44	4	%	45 - 126	SW846 8270D	11/23/16 11:05	JTH	11/27/16 21:38	CGS	E

PCBs

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ANALYTICAL RESULTS

Workorder: 2191010 2016-SAUGERTIES NY SITE - SOIL

Lab ID: **2191010005**
Sample ID: **SB-3 (0'-1')**

Date Collected: 11/21/2016 11:25 Matrix: Solid
Date Received: 11/22/2016 09:11

Parameters	Results	Flag	Units	RDL	Method	Prepared	By	Analyzed	By	Cntr
Total Polychlorinated Biphenyl	0.10		mg/kg	0.040	SW846 8082A	11/23/16 17:00	JSR	11/29/16 00:12	KJH	E
Aroclor-1016	ND		mg/kg	0.040	SW846 8082A	11/23/16 17:00	JSR	11/29/16 00:12	KJH	E
Aroclor-1221	ND		mg/kg	0.040	SW846 8082A	11/23/16 17:00	JSR	11/29/16 00:12	KJH	E
Aroclor-1232	ND		mg/kg	0.040	SW846 8082A	11/23/16 17:00	JSR	11/29/16 00:12	KJH	E
Aroclor-1242	ND		mg/kg	0.040	SW846 8082A	11/23/16 17:00	JSR	11/29/16 00:12	KJH	E
Aroclor-1248	ND		mg/kg	0.040	SW846 8082A	11/23/16 17:00	JSR	11/29/16 00:12	KJH	E
Aroclor-1254	0.060		mg/kg	0.040	SW846 8082A	11/23/16 17:00	JSR	11/29/16 00:12	KJH	E
Aroclor-1260	0.042		mg/kg	0.040	SW846 8082A	11/23/16 17:00	JSR	11/29/16 00:12	KJH	E
<i>Surrogate Recoveries</i>	<i>Results</i>	<i>Flag</i>	<i>Units</i>	<i>Limits</i>	<i>Method</i>	<i>Prepared</i>	<i>By</i>	<i>Analyzed</i>	<i>By</i>	<i>Cntr</i>
Decachlorobiphenyls (S)	67.4		%	49 - 115	SW846 8082A	11/23/16 17:00	JSR	11/29/16 00:12	KJH	E
Tetrachloro-m-xylene (S)	69.1		%	27 - 137	SW846 8082A	11/23/16 17:00	JSR	11/29/16 00:12	KJH	E
PESTICIDES										
Aldrin	ND		ug/kg	10.3	SW846 8081B	11/23/16 17:00	JSR	11/28/16 19:15	RWS	E
alpha-BHC	ND		ug/kg	10.3	SW846 8081B	11/23/16 17:00	JSR	11/28/16 19:15	RWS	E
beta-BHC	ND		ug/kg	10.3	SW846 8081B	11/23/16 17:00	JSR	11/28/16 19:15	RWS	E
delta-BHC	ND		ug/kg	10.3	SW846 8081B	11/23/16 17:00	JSR	11/28/16 19:15	RWS	E
gamma-BHC	ND		ug/kg	10.3	SW846 8081B	11/23/16 17:00	JSR	11/28/16 19:15	RWS	E
alpha-Chlordane	ND		ug/kg	10.3	SW846 8081B	11/23/16 17:00	JSR	11/28/16 19:15	RWS	E
gamma-Chlordane	ND		ug/kg	10.3	SW846 8081B	11/23/16 17:00	JSR	11/28/16 19:15	RWS	E
4,4'-DDD	ND		ug/kg	20.1	SW846 8081B	11/23/16 17:00	JSR	11/28/16 19:15	RWS	E
4,4'-DDE	ND		ug/kg	20.1	SW846 8081B	11/23/16 17:00	JSR	11/28/16 19:15	RWS	E
4,4'-DDT	41.4		ug/kg	20.1	SW846 8081B	11/23/16 17:00	JSR	11/28/16 19:15	RWS	E
Dieldrin	ND		ug/kg	20.1	SW846 8081B	11/23/16 17:00	JSR	11/28/16 19:15	RWS	E
Endosulfan I	ND		ug/kg	10.3	SW846 8081B	11/23/16 17:00	JSR	11/28/16 19:15	RWS	E
Endosulfan II	ND		ug/kg	20.1	SW846 8081B	11/23/16 17:00	JSR	11/28/16 19:15	RWS	E
Endosulfan Sulfate	ND		ug/kg	20.1	SW846 8081B	11/23/16 17:00	JSR	11/28/16 19:15	RWS	E
Endrin	ND		ug/kg	20.1	SW846 8081B	11/23/16 17:00	JSR	11/28/16 19:15	RWS	E
Endrin Aldehyde	ND		ug/kg	20.1	SW846 8081B	11/23/16 17:00	JSR	11/28/16 19:15	RWS	E
Endrin Ketone	ND		ug/kg	20.1	SW846 8081B	11/23/16 17:00	JSR	11/28/16 19:15	RWS	E
Heptachlor	ND		ug/kg	10.3	SW846 8081B	11/23/16 17:00	JSR	11/28/16 19:15	RWS	E
Heptachlor Epoxide	ND		ug/kg	10.3	SW846 8081B	11/23/16 17:00	JSR	11/28/16 19:15	RWS	E
Methoxychlor	ND		ug/kg	20.1	SW846 8081B	11/23/16 17:00	JSR	11/28/16 19:15	RWS	E
Mirex	ND		ug/kg	20.1	SW846 8081B	11/23/16 17:00	JSR	11/28/16 19:15	RWS	E
Toxaphene	ND		ug/kg	213	SW846 8081B	11/23/16 17:00	JSR	11/28/16 19:15	RWS	E
<i>Surrogate Recoveries</i>	<i>Results</i>	<i>Flag</i>	<i>Units</i>	<i>Limits</i>	<i>Method</i>	<i>Prepared</i>	<i>By</i>	<i>Analyzed</i>	<i>By</i>	<i>Cntr</i>
Decachlorobiphenyls (S)	129		%	30 - 135	SW846 8081B	11/23/16 17:00	JSR	11/28/16 19:15	RWS	E

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ANALYTICAL RESULTS

Workorder: 2191010 2016-SAUGERTIES NY SITE - SOIL

Lab ID: **2191010005**

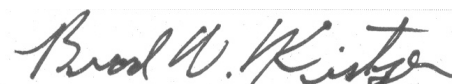
Date Collected: 11/21/2016 11:25

Matrix: Solid

Sample ID: **SB-3 (0'-1')**

Date Received: 11/22/2016 09:11

Parameters	Results	Flag	Units	RDL	Method	Prepared	By	Analyzed	By	Cntr
Tetrachloro-m-xylene (S)	70.1		%	30 - 111	SW846 8081B	11/23/16 17:00	JSR	11/28/16 19:15	RWS	E
WET CHEMISTRY										
Moisture	20.0		%	0.1	S2540G-11			12/1/16 11:26	ML	
Total Solids	80.0		%	0.1	S2540G-11			12/1/16 11:26	ML	
METALS										
Aluminum, Total	4080		mg/kg	12.5	SW846 6010C	11/30/16 09:36	TRR	12/1/16 11:56	TSS	E1
Antimony, Total	7.6		mg/kg	2.5	SW846 6010C	11/30/16 09:36	TRR	12/1/16 11:56	TSS	E1
Arsenic, Total	4.6		mg/kg	2.5	SW846 6010C	11/30/16 09:36	TRR	12/1/16 11:56	TSS	E1
Barium, Total	147		mg/kg	1.3	SW846 6010C	11/30/16 09:36	TRR	12/1/16 11:56	TSS	E1
Beryllium, Total	ND		mg/kg	1.3	SW846 6010C	11/30/16 09:36	TRR	12/1/16 11:56	TSS	E1
Cadmium, Total	0.90		mg/kg	0.63	SW846 6010C	11/30/16 09:36	TRR	12/1/16 11:56	TSS	E1
Calcium, Total	16000		mg/kg	12.5	SW846 6010C	11/30/16 09:36	TRR	12/1/16 11:56	TSS	E1
Chromium, Total	13.6		mg/kg	1.3	SW846 6010C	11/30/16 09:36	TRR	12/1/16 11:56	TSS	E1
Cobalt, Total	3.6		mg/kg	1.3	SW846 6010C	11/30/16 09:36	TRR	12/1/16 11:56	TSS	E1
Copper, Total	66.8		mg/kg	2.5	SW846 6010C	11/30/16 09:36	TRR	12/1/16 11:56	TSS	E1
Iron, Total	12900		mg/kg	12.5	SW846 6010C	11/30/16 09:36	TRR	12/1/16 11:56	TSS	E1
Lead, Total	1090		mg/kg	2.5	SW846 6010C	11/30/16 09:36	TRR	12/1/16 11:56	TSS	E1
Magnesium, Total	2080		mg/kg	12.5	SW846 6010C	11/30/16 09:36	TRR	12/1/16 11:56	TSS	E1
Manganese, Total	226		mg/kg	1.3	SW846 6010C	11/30/16 09:36	TRR	12/1/16 11:56	TSS	E1
Mercury, Total	1.6		mg/kg	0.061	SW846 7471B	12/1/16 12:19	MNP	12/1/16 15:05	MNP	E2
Nickel, Total	12.6		mg/kg	2.5	SW846 6010C	11/30/16 09:36	TRR	12/1/16 11:56	TSS	E1
Potassium, Total	246		mg/kg	62.5	SW846 6010C	11/30/16 09:36	TRR	12/1/16 11:56	TSS	E1
Selenium, Total	ND		mg/kg	6.3	SW846 6010C	11/30/16 09:36	TRR	12/1/16 11:56	TSS	E1
Silver, Total	1.2		mg/kg	0.63	SW846 6010C	11/30/16 09:36	TRR	12/1/16 11:56	TSS	E1
Sodium, Total	106		mg/kg	62.5	SW846 6010C	11/30/16 09:36	TRR	12/1/16 11:56	TSS	E1
Thallium, Total	ND		mg/kg	3.8	SW846 6010C	11/30/16 09:36	TRR	12/1/16 11:56	TSS	E1
Vanadium, Total	18.0		mg/kg	1.3	SW846 6010C	11/30/16 09:36	TRR	12/1/16 11:56	TSS	E1
Zinc, Total	859		mg/kg	2.5	SW846 6010C	11/30/16 09:36	TRR	12/1/16 11:56	TSS	E1



Mr. Brad W Kintzer

Project Coordinator

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Vancouver Waterloo · Winnipeg · Yellowknife United States: Cincinnati · Everett · Fort Collins · Holland · Houston · Middletown · Salt Lake City · Spring City · York Mexico: Monterrey

ANALYTICAL RESULTS

Workorder: 2191010 2016-SAUGERTIES NY SITE - SOIL

Lab ID: **2191010006**
Sample ID: **SB-3 (3.5'-4')**

Date Collected: 11/21/2016 11:30 Matrix: Solid
Date Received: 11/22/2016 09:11

Parameters	Results	Flag	Units	RDL	Method	Prepared	By	Analyzed	By	Cntr
VOLATILE ORGANICS										
Acetone	ND		ug/kg	11.7	SW846 8260C	11/21/16 11:30	TMP	11/23/16 19:56	TMP	A
Acetonitrile	ND		ug/kg	11.7	SW846 8260C	11/21/16 11:30	TMP	11/23/16 19:56	TMP	A
Acrolein	ND		ug/kg	58.4	SW846 8260C	11/21/16 11:30	TMP	11/23/16 19:56	TMP	A
Acrylonitrile	ND		ug/kg	11.7	SW846 8260C	11/21/16 11:30	TMP	11/23/16 19:56	TMP	A
Benzene	ND		ug/kg	2.3	SW846 8260C	11/21/16 11:30	TMP	11/23/16 19:56	TMP	A
Benzyl Chloride	ND		ug/kg	2.3	SW846 8260C	11/21/16 11:30	TMP	11/23/16 19:56	TMP	A
Bromobenzene	ND		ug/kg	2.3	SW846 8260C	11/21/16 11:30	TMP	11/23/16 19:56	TMP	A
Bromochloromethane	ND		ug/kg	2.3	SW846 8260C	11/21/16 11:30	TMP	11/23/16 19:56	TMP	A
Bromodichloromethane	ND		ug/kg	2.3	SW846 8260C	11/21/16 11:30	TMP	11/23/16 19:56	TMP	A
Bromoform	ND		ug/kg	2.3	SW846 8260C	11/21/16 11:30	TMP	11/23/16 19:56	TMP	A
Bromomethane	ND		ug/kg	2.3	SW846 8260C	11/21/16 11:30	TMP	11/23/16 19:56	TMP	A
2-Butanone	ND		ug/kg	11.7	SW846 8260C	11/21/16 11:30	TMP	11/23/16 19:56	TMP	A
tert-Butyl Alcohol	ND		ug/kg	11.7	SW846 8260C	11/21/16 11:30	TMP	11/23/16 19:56	TMP	A
n-Butylbenzene	ND		ug/kg	2.3	SW846 8260C	11/21/16 11:30	TMP	11/23/16 19:56	TMP	A
tert-Butylbenzene	ND		ug/kg	2.3	SW846 8260C	11/21/16 11:30	TMP	11/23/16 19:56	TMP	A
sec-Butylbenzene	ND		ug/kg	2.3	SW846 8260C	11/21/16 11:30	TMP	11/23/16 19:56	TMP	A
Carbon Disulfide	ND		ug/kg	2.3	SW846 8260C	11/21/16 11:30	TMP	11/23/16 19:56	TMP	A
Carbon Tetrachloride	ND		ug/kg	2.3	SW846 8260C	11/21/16 11:30	TMP	11/23/16 19:56	TMP	A
Chlorobenzene	ND		ug/kg	2.3	SW846 8260C	11/21/16 11:30	TMP	11/23/16 19:56	TMP	A
Chlorodibromomethane	ND		ug/kg	2.3	SW846 8260C	11/21/16 11:30	TMP	11/23/16 19:56	TMP	A
Chloroethane	ND		ug/kg	5.8	SW846 8260C	11/21/16 11:30	TMP	11/23/16 19:56	TMP	A
Chloroform	ND		ug/kg	2.3	SW846 8260C	11/21/16 11:30	TMP	11/23/16 19:56	TMP	A
Chloromethane	ND		ug/kg	2.3	SW846 8260C	11/21/16 11:30	TMP	11/23/16 19:56	TMP	A
Chloroprene	ND		ug/kg	2.3	SW846 8260C	11/21/16 11:30	TMP	11/23/16 19:56	TMP	A
3-Chloro-1-propene	ND		ug/kg	2.3	SW846 8260C	11/21/16 11:30	TMP	11/23/16 19:56	TMP	A
o-Chlorotoluene	ND		ug/kg	2.3	SW846 8260C	11/21/16 11:30	TMP	11/23/16 19:56	TMP	A
p-Chlorotoluene	ND		ug/kg	2.3	SW846 8260C	11/21/16 11:30	TMP	11/23/16 19:56	TMP	A
Cyclohexane	ND		ug/kg	2.3	SW846 8260C	11/21/16 11:30	TMP	11/23/16 19:56	TMP	A
1,2-Dibromo-3-chloropropane	ND		ug/kg	5.8	SW846 8260C	11/21/16 11:30	TMP	11/23/16 19:56	TMP	A
1,2-Dibromoethane	ND		ug/kg	2.3	SW846 8260C	11/21/16 11:30	TMP	11/23/16 19:56	TMP	A
Dibromomethane	ND		ug/kg	2.3	SW846 8260C	11/21/16 11:30	TMP	11/23/16 19:56	TMP	A
1,2-Dichlorobenzene	ND		ug/kg	2.3	SW846 8260C	11/21/16 11:30	TMP	11/23/16 19:56	TMP	A
1,3-Dichlorobenzene	ND		ug/kg	2.3	SW846 8260C	11/21/16 11:30	TMP	11/23/16 19:56	TMP	A
1,4-Dichlorobenzene	ND		ug/kg	2.3	SW846 8260C	11/21/16 11:30	TMP	11/23/16 19:56	TMP	A
Dichlorodifluoromethane	ND		ug/kg	2.3	SW846 8260C	11/21/16 11:30	TMP	11/23/16 19:56	TMP	A
1,1-Dichloroethane	ND		ug/kg	2.3	SW846 8260C	11/21/16 11:30	TMP	11/23/16 19:56	TMP	A

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ANALYTICAL RESULTS

Workorder: 2191010 2016-SAUGERTIES NY SITE - SOIL

Lab ID: **2191010006**
Sample ID: **SB-3 (3.5'-4')**

Date Collected: 11/21/2016 11:30 Matrix: Solid
Date Received: 11/22/2016 09:11

Parameters	Results	Flag	Units	RDL	Method	Prepared	By	Analyzed	By	Cntr
1,2-Dichloroethane	ND		ug/kg	2.3	SW846 8260C	11/21/16 11:30	TMP	11/23/16 19:56	TMP	A
1,1-Dichloroethene	ND		ug/kg	2.3	SW846 8260C	11/21/16 11:30	TMP	11/23/16 19:56	TMP	A
cis-1,2-Dichloroethene	ND		ug/kg	2.3	SW846 8260C	11/21/16 11:30	TMP	11/23/16 19:56	TMP	A
trans-1,2-Dichloroethene	ND		ug/kg	2.3	SW846 8260C	11/21/16 11:30	TMP	11/23/16 19:56	TMP	A
1,3-Dichloropropane	ND		ug/kg	2.3	SW846 8260C	11/21/16 11:30	TMP	11/23/16 19:56	TMP	A
2,2-Dichloropropane	ND		ug/kg	2.3	SW846 8260C	11/21/16 11:30	TMP	11/23/16 19:56	TMP	A
1,2-Dichloropropane	ND		ug/kg	2.3	SW846 8260C	11/21/16 11:30	TMP	11/23/16 19:56	TMP	A
1,1-Dichloropropene	ND		ug/kg	2.3	SW846 8260C	11/21/16 11:30	TMP	11/23/16 19:56	TMP	A
cis-1,3-Dichloropropene	ND		ug/kg	2.3	SW846 8260C	11/21/16 11:30	TMP	11/23/16 19:56	TMP	A
trans-1,3-Dichloropropene	ND		ug/kg	2.3	SW846 8260C	11/21/16 11:30	TMP	11/23/16 19:56	TMP	A
1,4-Dioxane	ND		ug/kg	87.6	SW846 8260C	11/21/16 11:30	TMP	11/23/16 19:56	TMP	A
Ethyl Methacrylate	ND		ug/kg	2.3	SW846 8260C	11/21/16 11:30	TMP	11/23/16 19:56	TMP	A
Ethyl Acetate	ND		ug/kg	2.3	SW846 8260C	11/21/16 11:30	TMP	11/23/16 19:56	TMP	A
Ethylbenzene	ND		ug/kg	2.3	SW846 8260C	11/21/16 11:30	TMP	11/23/16 19:56	TMP	A
Freon 113	ND		ug/kg	2.3	SW846 8260C	11/21/16 11:30	TMP	11/23/16 19:56	TMP	A
2-Hexanone	ND		ug/kg	11.7	SW846 8260C	11/21/16 11:30	TMP	11/23/16 19:56	TMP	A
Isobutyl alcohol	ND		ug/kg	58.4	SW846 8260C	11/21/16 11:30	TMP	11/23/16 19:56	TMP	A
Isopropylbenzene	ND		ug/kg	2.3	SW846 8260C	11/21/16 11:30	TMP	11/23/16 19:56	TMP	A
p-Isopropyltoluene	ND		ug/kg	2.3	SW846 8260C	11/21/16 11:30	TMP	11/23/16 19:56	TMP	A
Methacrylonitrile	ND		ug/kg	2.3	SW846 8260C	11/21/16 11:30	TMP	11/23/16 19:56	TMP	A
Methyl methacrylate	ND		ug/kg	5.8	SW846 8260C	11/21/16 11:30	TMP	11/23/16 19:56	TMP	A
Methyl acetate	ND		ug/kg	2.3	SW846 8260C	11/21/16 11:30	TMP	11/23/16 19:56	TMP	A
Methyl cyclohexane	ND		ug/kg	2.3	SW846 8260C	11/21/16 11:30	TMP	11/23/16 19:56	TMP	A
Methyl t-Butyl Ether	ND		ug/kg	2.3	SW846 8260C	11/21/16 11:30	TMP	11/23/16 19:56	TMP	A
4-Methyl-2-Pentanone(MIBK)	ND		ug/kg	11.7	SW846 8260C	11/21/16 11:30	TMP	11/23/16 19:56	TMP	A
Methylene Chloride	ND		ug/kg	2.3	SW846 8260C	11/21/16 11:30	TMP	11/23/16 19:56	TMP	A
Naphthalene	ND		ug/kg	2.3	SW846 8260C	11/21/16 11:30	TMP	11/23/16 19:56	TMP	A
Propionitrile	ND		ug/kg	11.7	SW846 8260C	11/21/16 11:30	TMP	11/23/16 19:56	TMP	A
n-Propylbenzene	ND		ug/kg	2.3	SW846 8260C	11/21/16 11:30	TMP	11/23/16 19:56	TMP	A
Styrene	ND		ug/kg	2.3	SW846 8260C	11/21/16 11:30	TMP	11/23/16 19:56	TMP	A
1,1,1,2-Tetrachloroethane	ND		ug/kg	2.3	SW846 8260C	11/21/16 11:30	TMP	11/23/16 19:56	TMP	A
1,1,2,2-Tetrachloroethane	ND		ug/kg	2.3	SW846 8260C	11/21/16 11:30	TMP	11/23/16 19:56	TMP	A
Tetrachloroethene	ND		ug/kg	2.3	SW846 8260C	11/21/16 11:30	TMP	11/23/16 19:56	TMP	A
Toluene	ND		ug/kg	2.3	SW846 8260C	11/21/16 11:30	TMP	11/23/16 19:56	TMP	A
Total Xylenes	ND		ug/kg	7.0	SW846 8260C	11/21/16 11:30	TMP	11/23/16 19:56	TMP	A
1,2,4-Trichlorobenzene	ND		ug/kg	5.8	SW846 8260C	11/21/16 11:30	TMP	11/23/16 19:56	TMP	A
1,1,1-Trichloroethane	ND		ug/kg	2.3	SW846 8260C	11/21/16 11:30	TMP	11/23/16 19:56	TMP	A
1,1,2-Trichloroethane	ND		ug/kg	2.3	SW846 8260C	11/21/16 11:30	TMP	11/23/16 19:56	TMP	A

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ANALYTICAL RESULTS

Workorder: 2191010 2016-SAUGERTIES NY SITE - SOIL

Lab ID: **2191010006**
Sample ID: **SB-3 (3.5'-4')**

Date Collected: 11/21/2016 11:30 Matrix: Solid
Date Received: 11/22/2016 09:11

Parameters	Results	Flag	Units	RDL	Method	Prepared	By	Analyzed	By	Cntr
Trichloroethene	ND		ug/kg	2.3	SW846 8260C	11/21/16 11:30	TMP	11/23/16 19:56	TMP	A
Trichlorofluoromethane	ND		ug/kg	2.3	SW846 8260C	11/21/16 11:30	TMP	11/23/16 19:56	TMP	A
1,2,3-Trichloropropane	ND		ug/kg	2.3	SW846 8260C	11/21/16 11:30	TMP	11/23/16 19:56	TMP	A
1,2,4-Trimethylbenzene	ND		ug/kg	2.3	SW846 8260C	11/21/16 11:30	TMP	11/23/16 19:56	TMP	A
1,3,5-Trimethylbenzene	ND		ug/kg	2.3	SW846 8260C	11/21/16 11:30	TMP	11/23/16 19:56	TMP	A
Vinyl Acetate	ND		ug/kg	2.3	SW846 8260C	11/21/16 11:30	TMP	11/23/16 19:56	TMP	A
Vinyl Chloride	ND		ug/kg	2.3	SW846 8260C	11/21/16 11:30	TMP	11/23/16 19:56	TMP	A
o-Xylene	ND		ug/kg	2.3	SW846 8260C	11/21/16 11:30	TMP	11/23/16 19:56	TMP	A
mp-Xylene	ND		ug/kg	4.7	SW846 8260C	11/21/16 11:30	TMP	11/23/16 19:56	TMP	A
<i>Surrogate Recoveries</i>	<i>Results</i>	<i>Flag</i>	<i>Units</i>	<i>Limits</i>	<i>Method</i>	<i>Prepared</i>	<i>By</i>	<i>Analyzed</i>	<i>By</i>	<i>Cntr</i>
1,2-Dichloroethane-d4 (S)	90.9		%	56 - 124	SW846 8260C	11/21/16 11:30	TMP	11/23/16 19:56	TMP	A
4-Bromofluorobenzene (S)	113		%	51 - 128	SW846 8260C	11/21/16 11:30	TMP	11/23/16 19:56	TMP	A
Dibromofluoromethane (S)	94.6		%	62 - 123	SW846 8260C	11/21/16 11:30	TMP	11/23/16 19:56	TMP	A
Toluene-d8 (S)	105		%	59 - 131	SW846 8260C	11/21/16 11:30	TMP	11/23/16 19:56	TMP	A
SEMIVOLATILES										
Acenaphthene	ND		ug/kg	62.4	SW846 8270D	11/23/16 11:05	JTH	11/27/16 13:58	CGS	E
Acenaphthylene	507		ug/kg	62.4	SW846 8270D	11/23/16 11:05	JTH	11/27/16 13:58	CGS	E
Acetophenone	ND		ug/kg	125	SW846 8270D	11/23/16 11:05	JTH	11/27/16 13:58	CGS	E
Aniline	ND		ug/kg	250	SW846 8270D	11/23/16 11:05	JTH	11/27/16 13:58	CGS	E
Anthracene	401		ug/kg	62.4	SW846 8270D	11/23/16 11:05	JTH	11/27/16 13:58	CGS	E
Atrazine	ND		ug/kg	125	SW846 8270D	11/23/16 11:05	JTH	11/27/16 13:58	CGS	E
Benzaldehyde	852		ug/kg	250	SW846 8270D	11/23/16 11:05	JTH	11/27/16 13:58	CGS	E
Benzidine	ND		ug/kg	250	SW846 8270D	11/23/16 11:05	JTH	11/27/16 13:58	CGS	E
Benzo(a)anthracene	1450		ug/kg	62.4	SW846 8270D	11/23/16 11:05	JTH	11/27/16 13:58	CGS	E
Benzo(a)pyrene	1320		ug/kg	62.4	SW846 8270D	11/23/16 11:05	JTH	11/27/16 13:58	CGS	E
Benzo(b)fluoranthene	2150		ug/kg	62.4	SW846 8270D	11/23/16 11:05	JTH	11/27/16 13:58	CGS	E
Benzo(g,h,i)perylene	1030		ug/kg	62.4	SW846 8270D	11/23/16 11:05	JTH	11/27/16 13:58	CGS	E
Benzoic acid	ND		ug/kg	674	SW846 8270D	11/23/16 11:05	JTH	11/27/16 13:58	CGS	E
Benzo(k)fluoranthene	835		ug/kg	62.4	SW846 8270D	11/23/16 11:05	JTH	11/27/16 13:58	CGS	E
Benzyl Alcohol	ND		ug/kg	125	SW846 8270D	11/23/16 11:05	JTH	11/27/16 13:58	CGS	E
Biphenyl	ND		ug/kg	125	SW846 8270D	11/23/16 11:05	JTH	11/27/16 13:58	CGS	E
4-Bromophenyl-phenylether	ND		ug/kg	125	SW846 8270D	11/23/16 11:05	JTH	11/27/16 13:58	CGS	E
Butylbenzylphthalate	ND		ug/kg	125	SW846 8270D	11/23/16 11:05	JTH	11/27/16 13:58	CGS	E
Caprolactam	ND		ug/kg	250	SW846 8270D	11/23/16 11:05	JTH	11/27/16 13:58	CGS	E
Carbazole	228		ug/kg	125	SW846 8270D	11/23/16 11:05	JTH	11/27/16 13:58	CGS	E
4-Chloro-3-methylphenol	ND		ug/kg	250	SW846 8270D	11/23/16 11:05	JTH	11/27/16 13:58	CGS	E
4-Chloroaniline	ND		ug/kg	250	SW846 8270D	11/23/16 11:05	JTH	11/27/16 13:58	CGS	E

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ANALYTICAL RESULTS

Workorder: 2191010 2016-SAUGERTIES NY SITE - SOIL

Lab ID: **2191010006**
Sample ID: **SB-3 (3.5'-4')**

Date Collected: 11/21/2016 11:30 Matrix: Solid
Date Received: 11/22/2016 09:11

Parameters	Results	Flag	Units	RDL	Method	Prepared	By	Analyzed	By	Cntr
bis(2-Chloroethoxy)methane	ND		ug/kg	125	SW846 8270D	11/23/16 11:05	JTH	11/27/16 13:58	CGS	E
bis(2-Chloroethyl)ether	ND		ug/kg	125	SW846 8270D	11/23/16 11:05	JTH	11/27/16 13:58	CGS	E
bis(2-Chloroisopropyl)ether	ND		ug/kg	125	SW846 8270D	11/23/16 11:05	JTH	11/27/16 13:58	CGS	E
2-Chloronaphthalene	ND		ug/kg	125	SW846 8270D	11/23/16 11:05	JTH	11/27/16 13:58	CGS	E
2-Chlorophenol	ND		ug/kg	250	SW846 8270D	11/23/16 11:05	JTH	11/27/16 13:58	CGS	E
4-Chlorophenyl-phenylether	ND		ug/kg	125	SW846 8270D	11/23/16 11:05	JTH	11/27/16 13:58	CGS	E
Chrysene	1680		ug/kg	62.4	SW846 8270D	11/23/16 11:05	JTH	11/27/16 13:58	CGS	E
mp-Cresol	ND		ug/kg	250	SW846 8270D	11/23/16 11:05	JTH	11/27/16 13:58	CGS	E
o-Cresol	ND		ug/kg	250	SW846 8270D	11/23/16 11:05	JTH	11/27/16 13:58	CGS	E
Di-n-Butylphthalate	ND		ug/kg	125	SW846 8270D	11/23/16 11:05	JTH	11/27/16 13:58	CGS	E
Di-n-Octylphthalate	ND		ug/kg	125	SW846 8270D	11/23/16 11:05	JTH	11/27/16 13:58	CGS	E
Dibenzo(a,h)anthracene	296		ug/kg	62.4	SW846 8270D	11/23/16 11:05	JTH	11/27/16 13:58	CGS	E
Dibenzofuran	ND		ug/kg	125	SW846 8270D	11/23/16 11:05	JTH	11/27/16 13:58	CGS	E
1,2-Dichlorobenzene	ND		ug/kg	125	SW846 8270D	11/23/16 11:05	JTH	11/27/16 13:58	CGS	E
1,3-Dichlorobenzene	ND		ug/kg	125	SW846 8270D	11/23/16 11:05	JTH	11/27/16 13:58	CGS	E
1,4-Dichlorobenzene	ND		ug/kg	125	SW846 8270D	11/23/16 11:05	JTH	11/27/16 13:58	CGS	E
3,3-Dichlorobenzidine	ND		ug/kg	250	SW846 8270D	11/23/16 11:05	JTH	11/27/16 13:58	CGS	E
2,4-Dichlorophenol	ND		ug/kg	250	SW846 8270D	11/23/16 11:05	JTH	11/27/16 13:58	CGS	E
2,6-Dichlorophenol	ND		ug/kg	250	SW846 8270D	11/23/16 11:05	JTH	11/27/16 13:58	CGS	E
Diethylphthalate	ND		ug/kg	125	SW846 8270D	11/23/16 11:05	JTH	11/27/16 13:58	CGS	E
Dimethoate	ND		ug/kg	250	SW846 8270D	11/23/16 11:05	JTH	11/27/16 13:58	CGS	E
2,4-Dimethylphenol	ND		ug/kg	250	SW846 8270D	11/23/16 11:05	JTH	11/27/16 13:58	CGS	E
Dimethylphthalate	ND		ug/kg	125	SW846 8270D	11/23/16 11:05	JTH	11/27/16 13:58	CGS	E
1,2-Dinitrobenzene	ND		ug/kg	125	SW846 8270D	11/23/16 11:05	JTH	11/27/16 13:58	CGS	E
1,4-Dinitrobenzene	ND		ug/kg	125	SW846 8270D	11/23/16 11:05	JTH	11/27/16 13:58	CGS	E
2,4-Dinitrophenol	ND		ug/kg	250	SW846 8270D	11/23/16 11:05	JTH	11/27/16 13:58	CGS	E
2,4-Dinitrotoluene	ND		ug/kg	125	SW846 8270D	11/23/16 11:05	JTH	11/27/16 13:58	CGS	E
2,6-Dinitrotoluene	ND		ug/kg	125	SW846 8270D	11/23/16 11:05	JTH	11/27/16 13:58	CGS	E
Diphenylamine	ND		ug/kg	125	SW846 8270D	11/23/16 11:05	JTH	11/27/16 13:58	CGS	E
1,2-Diphenylhydrazine	ND		ug/kg	125	SW846 8270D	11/23/16 11:05	JTH	11/27/16 13:58	CGS	E
bis(2-Ethylhexyl)phthalate	181		ug/kg	125	SW846 8270D	11/23/16 11:05	JTH	11/27/16 13:58	CGS	E
Fluoranthene	1720		ug/kg	62.4	SW846 8270D	11/23/16 11:05	JTH	11/27/16 13:58	CGS	E
Fluorene	ND		ug/kg	62.4	SW846 8270D	11/23/16 11:05	JTH	11/27/16 13:58	CGS	E
Hexachlorobenzene	ND		ug/kg	125	SW846 8270D	11/23/16 11:05	JTH	11/27/16 13:58	CGS	E
Hexachlorobutadiene	ND		ug/kg	125	SW846 8270D	11/23/16 11:05	JTH	11/27/16 13:58	CGS	E
Hexachlorocyclopentadiene	ND		ug/kg	250	SW846 8270D	11/23/16 11:05	JTH	11/27/16 13:58	CGS	E
Hexachloroethane	ND		ug/kg	125	SW846 8270D	11/23/16 11:05	JTH	11/27/16 13:58	CGS	E
Indeno(1,2,3-cd)pyrene	1010		ug/kg	62.4	SW846 8270D	11/23/16 11:05	JTH	11/27/16 13:58	CGS	E

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ANALYTICAL RESULTS

Workorder: 2191010 2016-SAUGERTIES NY SITE - SOIL

Lab ID: **2191010006**
Sample ID: **SB-3 (3.5'-4')**

Date Collected: 11/21/2016 11:30 Matrix: Solid
Date Received: 11/22/2016 09:11

Parameters	Results	Flag	Units	RDL	Method	Prepared	By	Analyzed	By	Cntr
Isophorone	ND		ug/kg	125	SW846 8270D	11/23/16 11:05	JTH	11/27/16 13:58	CGS	E
2-Methyl-4,6-dinitrophenol	ND		ug/kg	250	SW846 8270D	11/23/16 11:05	JTH	11/27/16 13:58	CGS	E
2-Methylnaphthalene	ND		ug/kg	125	SW846 8270D	11/23/16 11:05	JTH	11/27/16 13:58	CGS	E
2-Naphthylamine	ND		ug/kg	250	SW846 8270D	11/23/16 11:05	JTH	11/27/16 13:58	CGS	E
Naphthalene	146		ug/kg	62.4	SW846 8270D	11/23/16 11:05	JTH	11/27/16 13:58	CGS	E
2-Nitroaniline	ND		ug/kg	250	SW846 8270D	11/23/16 11:05	JTH	11/27/16 13:58	CGS	E
3-Nitroaniline	ND		ug/kg	250	SW846 8270D	11/23/16 11:05	JTH	11/27/16 13:58	CGS	E
4-Nitroaniline	ND		ug/kg	250	SW846 8270D	11/23/16 11:05	JTH	11/27/16 13:58	CGS	E
Nitrobenzene	ND		ug/kg	125	SW846 8270D	11/23/16 11:05	JTH	11/27/16 13:58	CGS	E
2-Nitrophenol	ND		ug/kg	250	SW846 8270D	11/23/16 11:05	JTH	11/27/16 13:58	CGS	E
4-Nitrophenol	ND	2	ug/kg	250	SW846 8270D	11/23/16 11:05	JTH	11/27/16 13:58	CGS	E
N-Nitrosodi-n-butylamine	ND		ug/kg	125	SW846 8270D	11/23/16 11:05	JTH	11/27/16 13:58	CGS	E
N-Nitrosodiethylamine	ND		ug/kg	125	SW846 8270D	11/23/16 11:05	JTH	11/27/16 13:58	CGS	E
N-Nitrosodimethylamine	ND		ug/kg	125	SW846 8270D	11/23/16 11:05	JTH	11/27/16 13:58	CGS	E
N-Nitroso-di-n-propylamine	ND		ug/kg	125	SW846 8270D	11/23/16 11:05	JTH	11/27/16 13:58	CGS	E
N-Nitrosodiphenylamine	ND		ug/kg	125	SW846 8270D	11/23/16 11:05	JTH	11/27/16 13:58	CGS	E
N-Nitrosopyrrolidine	ND		ug/kg	125	SW846 8270D	11/23/16 11:05	JTH	11/27/16 13:58	CGS	E
Pentachlorobenzene	ND		ug/kg	125	SW846 8270D	11/23/16 11:05	JTH	11/27/16 13:58	CGS	E
Pentachlorophenol	ND		ug/kg	250	SW846 8270D	11/23/16 11:05	JTH	11/27/16 13:58	CGS	E
Phenanthrene	508		ug/kg	62.4	SW846 8270D	11/23/16 11:05	JTH	11/27/16 13:58	CGS	E
Phenol	ND		ug/kg	250	SW846 8270D	11/23/16 11:05	JTH	11/27/16 13:58	CGS	E
Pyrene	1820		ug/kg	62.4	SW846 8270D	11/23/16 11:05	JTH	11/27/16 13:58	CGS	E
Pyridine	ND		ug/kg	250	SW846 8270D	11/23/16 11:05	JTH	11/27/16 13:58	CGS	E
Resorcinol	ND		ug/kg	125	SW846 8270D	11/23/16 11:05	JTH	11/27/16 13:58	CGS	E
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	125	SW846 8270D	11/23/16 11:05	JTH	11/27/16 13:58	CGS	E
2,3,4,6-Tetrachlorophenol	ND		ug/kg	250	SW846 8270D	11/23/16 11:05	JTH	11/27/16 13:58	CGS	E
1,2,4-Trichlorobenzene	ND		ug/kg	125	SW846 8270D	11/23/16 11:05	JTH	11/27/16 13:58	CGS	E
2,4,5-Trichlorophenol	ND		ug/kg	250	SW846 8270D	11/23/16 11:05	JTH	11/27/16 13:58	CGS	E
2,4,6-Trichlorophenol	ND		ug/kg	250	SW846 8270D	11/23/16 11:05	JTH	11/27/16 13:58	CGS	E
Surrogate Recoveries	Results	Flag	Units	Limits	Method	Prepared	By	Analyzed	By	Cntr
2,4,6-Tribromophenol (S)	68.3		%	19 - 132	SW846 8270D	11/23/16 11:05	JTH	11/27/16 13:58	CGS	E
2-Fluorobiphenyl (S)	64		%	40 - 110	SW846 8270D	11/23/16 11:05	JTH	11/27/16 13:58	CGS	E
2-Fluorophenol (S)	54.7		%	26 - 116	SW846 8270D	11/23/16 11:05	JTH	11/27/16 13:58	CGS	E
Nitrobenzene-d5 (S)	60.5		%	38 - 112	SW846 8270D	11/23/16 11:05	JTH	11/27/16 13:58	CGS	E
Phenol-d5 (S)	52.4		%	35 - 111	SW846 8270D	11/23/16 11:05	JTH	11/27/16 13:58	CGS	E
Terphenyl-d14 (S)	59.4		%	45 - 126	SW846 8270D	11/23/16 11:05	JTH	11/27/16 13:58	CGS	E

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ALS Environmental Laboratory Locations Across North America

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Vancouver Waterloo · Winnipeg · Yellowknife **United States:** Cincinnati · Everett · Fort Collins · Holland · Houston · Middletown · Salt Lake City · Spring City · York **Mexico:** Monterrey

ANALYTICAL RESULTS

Workorder: 2191010 2016-SAUGERTIES NY SITE - SOIL

Lab ID: **2191010006**
Sample ID: **SB-3 (3.5'-4')**

Date Collected: 11/21/2016 11:30 Matrix: Solid
Date Received: 11/22/2016 09:11

Parameters	Results	Flag	Units	RDL	Method	Prepared	By	Analyzed	By	Cntr
Total Polychlorinated Biphenyl	0.076		mg/kg	0.040	SW846 8082A	11/23/16 17:00	JSR	11/29/16 00:24	KJH	E
Aroclor-1016	ND		mg/kg	0.040	SW846 8082A	11/23/16 17:00	JSR	11/29/16 00:24	KJH	E
Aroclor-1221	ND		mg/kg	0.040	SW846 8082A	11/23/16 17:00	JSR	11/29/16 00:24	KJH	E
Aroclor-1232	ND		mg/kg	0.040	SW846 8082A	11/23/16 17:00	JSR	11/29/16 00:24	KJH	E
Aroclor-1242	ND		mg/kg	0.040	SW846 8082A	11/23/16 17:00	JSR	11/29/16 00:24	KJH	E
Aroclor-1248	ND		mg/kg	0.040	SW846 8082A	11/23/16 17:00	JSR	11/29/16 00:24	KJH	E
Aroclor-1254	ND		mg/kg	0.040	SW846 8082A	11/23/16 17:00	JSR	11/29/16 00:24	KJH	E
Aroclor-1260	ND		mg/kg	0.040	SW846 8082A	11/23/16 17:00	JSR	11/29/16 00:24	KJH	E
<i>Surrogate Recoveries</i>	<i>Results</i>	<i>Flag</i>	<i>Units</i>	<i>Limits</i>	<i>Method</i>	<i>Prepared</i>	<i>By</i>	<i>Analyzed</i>	<i>By</i>	<i>Cntr</i>
Decachlorobiphenyls (S)	69.7		%	49 - 115	SW846 8082A	11/23/16 17:00	JSR	11/29/16 00:24	KJH	E
Tetrachloro-m-xylene (S)	75.2		%	27 - 137	SW846 8082A	11/23/16 17:00	JSR	11/29/16 00:24	KJH	E
PESTICIDES										
Aldrin	ND		ug/kg	10.4	SW846 8081B	11/23/16 17:00	JSR	11/28/16 19:31	RWS	E
alpha-BHC	ND		ug/kg	10.4	SW846 8081B	11/23/16 17:00	JSR	11/28/16 19:31	RWS	E
beta-BHC	ND		ug/kg	10.4	SW846 8081B	11/23/16 17:00	JSR	11/28/16 19:31	RWS	E
delta-BHC	ND		ug/kg	10.4	SW846 8081B	11/23/16 17:00	JSR	11/28/16 19:31	RWS	E
gamma-BHC	ND		ug/kg	10.4	SW846 8081B	11/23/16 17:00	JSR	11/28/16 19:31	RWS	E
alpha-Chlordane	ND		ug/kg	10.4	SW846 8081B	11/23/16 17:00	JSR	11/28/16 19:31	RWS	E
gamma-Chlordane	ND		ug/kg	10.4	SW846 8081B	11/23/16 17:00	JSR	11/28/16 19:31	RWS	E
4,4'-DDD	ND		ug/kg	20.2	SW846 8081B	11/23/16 17:00	JSR	11/28/16 19:31	RWS	E
4,4'-DDE	ND		ug/kg	20.2	SW846 8081B	11/23/16 17:00	JSR	11/28/16 19:31	RWS	E
4,4'-DDT	ND	1	ug/kg	20.2	SW846 8081B	11/23/16 17:00	JSR	11/28/16 19:31	RWS	E
Dieldrin	ND		ug/kg	20.2	SW846 8081B	11/23/16 17:00	JSR	11/28/16 19:31	RWS	E
Endosulfan I	ND		ug/kg	10.4	SW846 8081B	11/23/16 17:00	JSR	11/28/16 19:31	RWS	E
Endosulfan II	ND		ug/kg	20.2	SW846 8081B	11/23/16 17:00	JSR	11/28/16 19:31	RWS	E
Endosulfan Sulfate	ND		ug/kg	20.2	SW846 8081B	11/23/16 17:00	JSR	11/28/16 19:31	RWS	E
Endrin	ND		ug/kg	20.2	SW846 8081B	11/23/16 17:00	JSR	11/28/16 19:31	RWS	E
Endrin Aldehyde	ND		ug/kg	20.2	SW846 8081B	11/23/16 17:00	JSR	11/28/16 19:31	RWS	E
Endrin Ketone	ND		ug/kg	20.2	SW846 8081B	11/23/16 17:00	JSR	11/28/16 19:31	RWS	E
Heptachlor	ND		ug/kg	10.4	SW846 8081B	11/23/16 17:00	JSR	11/28/16 19:31	RWS	E
Heptachlor Epoxide	ND		ug/kg	10.4	SW846 8081B	11/23/16 17:00	JSR	11/28/16 19:31	RWS	E
Methoxychlor	ND		ug/kg	20.2	SW846 8081B	11/23/16 17:00	JSR	11/28/16 19:31	RWS	E
Mirex	ND		ug/kg	20.2	SW846 8081B	11/23/16 17:00	JSR	11/28/16 19:31	RWS	E
Toxaphene	ND		ug/kg	214	SW846 8081B	11/23/16 17:00	JSR	11/28/16 19:31	RWS	E
<i>Surrogate Recoveries</i>	<i>Results</i>	<i>Flag</i>	<i>Units</i>	<i>Limits</i>	<i>Method</i>	<i>Prepared</i>	<i>By</i>	<i>Analyzed</i>	<i>By</i>	<i>Cntr</i>
Decachlorobiphenyls (S)	86.5		%	30 - 135	SW846 8081B	11/23/16 17:00	JSR	11/28/16 19:31	RWS	E

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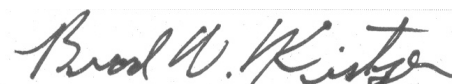
ANALYTICAL RESULTS

Workorder: 2191010 2016-SAUGERTIES NY SITE - SOIL

Lab ID: **2191010006**
Sample ID: **SB-3 (3.5'-4')**

Date Collected: 11/21/2016 11:30 Matrix: Solid
Date Received: 11/22/2016 09:11

Parameters	Results	Flag	Units	RDL	Method	Prepared	By	Analyzed	By	Cntr
Tetrachloro-m-xylene (S)	64		%	30 - 111	SW846 8081B	11/23/16 17:00	JSR	11/28/16 19:31	RWS	E
WET CHEMISTRY										
Moisture	19.9		%	0.1	S2540G-11			12/1/16 11:26	ML	
Total Solids	80.1		%	0.1	S2540G-11			12/1/16 11:26	ML	
METALS										
Aluminum, Total	3460		mg/kg	12.5	SW846 6010C	11/30/16 09:36	TRR	12/1/16 11:59	TSS	E1
Antimony, Total	70.0		mg/kg	2.5	SW846 6010C	11/30/16 09:36	TRR	12/1/16 11:59	TSS	E1
Arsenic, Total	6.6		mg/kg	2.5	SW846 6010C	11/30/16 09:36	TRR	12/1/16 11:59	TSS	E1
Barium, Total	170		mg/kg	1.2	SW846 6010C	11/30/16 09:36	TRR	12/1/16 11:59	TSS	E1
Beryllium, Total	ND		mg/kg	1.2	SW846 6010C	11/30/16 09:36	TRR	12/1/16 11:59	TSS	E1
Cadmium, Total	1.1		mg/kg	0.62	SW846 6010C	11/30/16 09:36	TRR	12/1/16 11:59	TSS	E1
Calcium, Total	15600		mg/kg	12.5	SW846 6010C	11/30/16 09:36	TRR	12/1/16 11:59	TSS	E1
Chromium, Total	13.3		mg/kg	1.2	SW846 6010C	11/30/16 09:36	TRR	12/1/16 11:59	TSS	E1
Cobalt, Total	3.5		mg/kg	1.2	SW846 6010C	11/30/16 09:36	TRR	12/1/16 11:59	TSS	E1
Copper, Total	81.8		mg/kg	2.5	SW846 6010C	11/30/16 09:36	TRR	12/1/16 11:59	TSS	E1
Iron, Total	22200		mg/kg	12.5	SW846 6010C	11/30/16 09:36	TRR	12/1/16 11:59	TSS	E1
Lead, Total	986		mg/kg	2.5	SW846 6010C	11/30/16 09:36	TRR	12/1/16 11:59	TSS	E1
Magnesium, Total	1470		mg/kg	12.5	SW846 6010C	11/30/16 09:36	TRR	12/1/16 11:59	TSS	E1
Manganese, Total	279		mg/kg	1.2	SW846 6010C	11/30/16 09:36	TRR	12/1/16 11:59	TSS	E1
Mercury, Total	3.6		mg/kg	0.28	SW846 7471B	12/1/16 12:19	MNP	12/1/16 15:18	MNP	E2
Nickel, Total	12.7		mg/kg	2.5	SW846 6010C	11/30/16 09:36	TRR	12/1/16 11:59	TSS	E1
Potassium, Total	296		mg/kg	62.4	SW846 6010C	11/30/16 09:36	TRR	12/1/16 11:59	TSS	E1
Selenium, Total	ND		mg/kg	6.2	SW846 6010C	11/30/16 09:36	TRR	12/1/16 11:59	TSS	E1
Silver, Total	0.99		mg/kg	0.62	SW846 6010C	11/30/16 09:36	TRR	12/1/16 11:59	TSS	E1
Sodium, Total	140		mg/kg	62.4	SW846 6010C	11/30/16 09:36	TRR	12/1/16 11:59	TSS	E1
Thallium, Total	ND		mg/kg	3.7	SW846 6010C	11/30/16 09:36	TRR	12/1/16 11:59	TSS	E1
Vanadium, Total	15.2		mg/kg	1.2	SW846 6010C	11/30/16 09:36	TRR	12/1/16 11:59	TSS	E1
Zinc, Total	762		mg/kg	2.5	SW846 6010C	11/30/16 09:36	TRR	12/1/16 11:59	TSS	E1



Mr. Brad W Kintzer
Project Coordinator

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ANALYTICAL RESULTS

Workorder: 2191010 2016-SAUGERTIES NY SITE - SOIL

Lab ID: **2191010007**

Date Collected: 11/21/2016 11:45

Matrix: Solid

Sample ID: **SB-4**

Date Received: 11/22/2016 09:11

Parameters	Results	Flag	Units	RDL	Method	Prepared	By	Analyzed	By	Cntr
VOLATILE ORGANICS										
Acetone	ND		ug/kg	9.2	SW846 8260C	11/21/16 11:45	TMP	11/23/16 20:19	TMP	A
Acetonitrile	ND		ug/kg	9.2	SW846 8260C	11/21/16 11:45	TMP	11/23/16 20:19	TMP	A
Acrolein	ND		ug/kg	45.9	SW846 8260C	11/21/16 11:45	TMP	11/23/16 20:19	TMP	A
Acrylonitrile	ND		ug/kg	9.2	SW846 8260C	11/21/16 11:45	TMP	11/23/16 20:19	TMP	A
Benzene	ND		ug/kg	1.8	SW846 8260C	11/21/16 11:45	TMP	11/23/16 20:19	TMP	A
Benzyl Chloride	ND		ug/kg	1.8	SW846 8260C	11/21/16 11:45	TMP	11/23/16 20:19	TMP	A
Bromobenzene	ND		ug/kg	1.8	SW846 8260C	11/21/16 11:45	TMP	11/23/16 20:19	TMP	A
Bromochloromethane	ND		ug/kg	1.8	SW846 8260C	11/21/16 11:45	TMP	11/23/16 20:19	TMP	A
Bromodichloromethane	ND		ug/kg	1.8	SW846 8260C	11/21/16 11:45	TMP	11/23/16 20:19	TMP	A
Bromoform	ND		ug/kg	1.8	SW846 8260C	11/21/16 11:45	TMP	11/23/16 20:19	TMP	A
Bromomethane	ND		ug/kg	1.8	SW846 8260C	11/21/16 11:45	TMP	11/23/16 20:19	TMP	A
2-Butanone	ND		ug/kg	9.2	SW846 8260C	11/21/16 11:45	TMP	11/23/16 20:19	TMP	A
tert-Butyl Alcohol	ND		ug/kg	9.2	SW846 8260C	11/21/16 11:45	TMP	11/23/16 20:19	TMP	A
n-Butylbenzene	ND		ug/kg	1.8	SW846 8260C	11/21/16 11:45	TMP	11/23/16 20:19	TMP	A
tert-Butylbenzene	ND		ug/kg	1.8	SW846 8260C	11/21/16 11:45	TMP	11/23/16 20:19	TMP	A
sec-Butylbenzene	ND		ug/kg	1.8	SW846 8260C	11/21/16 11:45	TMP	11/23/16 20:19	TMP	A
Carbon Disulfide	ND		ug/kg	1.8	SW846 8260C	11/21/16 11:45	TMP	11/23/16 20:19	TMP	A
Carbon Tetrachloride	ND		ug/kg	1.8	SW846 8260C	11/21/16 11:45	TMP	11/23/16 20:19	TMP	A
Chlorobenzene	ND		ug/kg	1.8	SW846 8260C	11/21/16 11:45	TMP	11/23/16 20:19	TMP	A
Chlorodibromomethane	ND		ug/kg	1.8	SW846 8260C	11/21/16 11:45	TMP	11/23/16 20:19	TMP	A
Chloroethane	ND		ug/kg	4.6	SW846 8260C	11/21/16 11:45	TMP	11/23/16 20:19	TMP	A
Chloroform	ND		ug/kg	1.8	SW846 8260C	11/21/16 11:45	TMP	11/23/16 20:19	TMP	A
Chloromethane	ND		ug/kg	1.8	SW846 8260C	11/21/16 11:45	TMP	11/23/16 20:19	TMP	A
Chloroprene	ND		ug/kg	1.8	SW846 8260C	11/21/16 11:45	TMP	11/23/16 20:19	TMP	A
3-Chloro-1-propene	ND		ug/kg	1.8	SW846 8260C	11/21/16 11:45	TMP	11/23/16 20:19	TMP	A
o-Chlorotoluene	ND		ug/kg	1.8	SW846 8260C	11/21/16 11:45	TMP	11/23/16 20:19	TMP	A
p-Chlorotoluene	ND		ug/kg	1.8	SW846 8260C	11/21/16 11:45	TMP	11/23/16 20:19	TMP	A
Cyclohexane	ND		ug/kg	1.8	SW846 8260C	11/21/16 11:45	TMP	11/23/16 20:19	TMP	A
1,2-Dibromo-3-chloropropane	ND		ug/kg	4.6	SW846 8260C	11/21/16 11:45	TMP	11/23/16 20:19	TMP	A
1,2-Dibromoethane	ND		ug/kg	1.8	SW846 8260C	11/21/16 11:45	TMP	11/23/16 20:19	TMP	A
Dibromomethane	ND		ug/kg	1.8	SW846 8260C	11/21/16 11:45	TMP	11/23/16 20:19	TMP	A
1,2-Dichlorobenzene	ND		ug/kg	1.8	SW846 8260C	11/21/16 11:45	TMP	11/23/16 20:19	TMP	A
1,3-Dichlorobenzene	ND		ug/kg	1.8	SW846 8260C	11/21/16 11:45	TMP	11/23/16 20:19	TMP	A
1,4-Dichlorobenzene	ND		ug/kg	1.8	SW846 8260C	11/21/16 11:45	TMP	11/23/16 20:19	TMP	A
Dichlorodifluoromethane	ND		ug/kg	1.8	SW846 8260C	11/21/16 11:45	TMP	11/23/16 20:19	TMP	A
1,1-Dichloroethane	ND		ug/kg	1.8	SW846 8260C	11/21/16 11:45	TMP	11/23/16 20:19	TMP	A

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ANALYTICAL RESULTS

Workorder: 2191010 2016-SAUGERTIES NY SITE - SOIL

Lab ID: **2191010007**

Date Collected: 11/21/2016 11:45

Matrix: Solid

Sample ID: **SB-4**

Date Received: 11/22/2016 09:11

Parameters	Results	Flag	Units	RDL	Method	Prepared	By	Analyzed	By	Cntr
1,2-Dichloroethane	ND		ug/kg	1.8	SW846 8260C	11/21/16 11:45	TMP	11/23/16 20:19	TMP	A
1,1-Dichloroethene	ND		ug/kg	1.8	SW846 8260C	11/21/16 11:45	TMP	11/23/16 20:19	TMP	A
cis-1,2-Dichloroethene	ND		ug/kg	1.8	SW846 8260C	11/21/16 11:45	TMP	11/23/16 20:19	TMP	A
trans-1,2-Dichloroethene	ND		ug/kg	1.8	SW846 8260C	11/21/16 11:45	TMP	11/23/16 20:19	TMP	A
1,3-Dichloropropane	ND		ug/kg	1.8	SW846 8260C	11/21/16 11:45	TMP	11/23/16 20:19	TMP	A
2,2-Dichloropropane	ND		ug/kg	1.8	SW846 8260C	11/21/16 11:45	TMP	11/23/16 20:19	TMP	A
1,2-Dichloropropane	ND		ug/kg	1.8	SW846 8260C	11/21/16 11:45	TMP	11/23/16 20:19	TMP	A
1,1-Dichloropropene	ND		ug/kg	1.8	SW846 8260C	11/21/16 11:45	TMP	11/23/16 20:19	TMP	A
cis-1,3-Dichloropropene	ND		ug/kg	1.8	SW846 8260C	11/21/16 11:45	TMP	11/23/16 20:19	TMP	A
trans-1,3-Dichloropropene	ND		ug/kg	1.8	SW846 8260C	11/21/16 11:45	TMP	11/23/16 20:19	TMP	A
1,4-Dioxane	ND		ug/kg	68.8	SW846 8260C	11/21/16 11:45	TMP	11/23/16 20:19	TMP	A
Ethyl Methacrylate	ND		ug/kg	1.8	SW846 8260C	11/21/16 11:45	TMP	11/23/16 20:19	TMP	A
Ethyl Acetate	ND		ug/kg	1.8	SW846 8260C	11/21/16 11:45	TMP	11/23/16 20:19	TMP	A
Ethylbenzene	ND		ug/kg	1.8	SW846 8260C	11/21/16 11:45	TMP	11/23/16 20:19	TMP	A
Freon 113	ND		ug/kg	1.8	SW846 8260C	11/21/16 11:45	TMP	11/23/16 20:19	TMP	A
2-Hexanone	ND		ug/kg	9.2	SW846 8260C	11/21/16 11:45	TMP	11/23/16 20:19	TMP	A
Isobutyl alcohol	ND		ug/kg	45.9	SW846 8260C	11/21/16 11:45	TMP	11/23/16 20:19	TMP	A
Isopropylbenzene	ND		ug/kg	1.8	SW846 8260C	11/21/16 11:45	TMP	11/23/16 20:19	TMP	A
p-Isopropyltoluene	ND		ug/kg	1.8	SW846 8260C	11/21/16 11:45	TMP	11/23/16 20:19	TMP	A
Methacrylonitrile	ND		ug/kg	1.8	SW846 8260C	11/21/16 11:45	TMP	11/23/16 20:19	TMP	A
Methyl methacrylate	ND		ug/kg	4.6	SW846 8260C	11/21/16 11:45	TMP	11/23/16 20:19	TMP	A
Methyl acetate	ND		ug/kg	1.8	SW846 8260C	11/21/16 11:45	TMP	11/23/16 20:19	TMP	A
Methyl cyclohexane	ND		ug/kg	1.8	SW846 8260C	11/21/16 11:45	TMP	11/23/16 20:19	TMP	A
Methyl t-Butyl Ether	ND		ug/kg	1.8	SW846 8260C	11/21/16 11:45	TMP	11/23/16 20:19	TMP	A
4-Methyl-2-Pentanone(MIBK)	ND		ug/kg	9.2	SW846 8260C	11/21/16 11:45	TMP	11/23/16 20:19	TMP	A
Methylene Chloride	ND		ug/kg	1.8	SW846 8260C	11/21/16 11:45	TMP	11/23/16 20:19	TMP	A
Naphthalene	ND		ug/kg	1.8	SW846 8260C	11/21/16 11:45	TMP	11/23/16 20:19	TMP	A
Propionitrile	ND		ug/kg	9.2	SW846 8260C	11/21/16 11:45	TMP	11/23/16 20:19	TMP	A
n-Propylbenzene	ND		ug/kg	1.8	SW846 8260C	11/21/16 11:45	TMP	11/23/16 20:19	TMP	A
Styrene	ND		ug/kg	1.8	SW846 8260C	11/21/16 11:45	TMP	11/23/16 20:19	TMP	A
1,1,1,2-Tetrachloroethane	ND		ug/kg	1.8	SW846 8260C	11/21/16 11:45	TMP	11/23/16 20:19	TMP	A
1,1,2,2-Tetrachloroethane	ND		ug/kg	1.8	SW846 8260C	11/21/16 11:45	TMP	11/23/16 20:19	TMP	A
Tetrachloroethene	ND		ug/kg	1.8	SW846 8260C	11/21/16 11:45	TMP	11/23/16 20:19	TMP	A
Toluene	ND		ug/kg	1.8	SW846 8260C	11/21/16 11:45	TMP	11/23/16 20:19	TMP	A
Total Xylenes	ND		ug/kg	5.5	SW846 8260C	11/21/16 11:45	TMP	11/23/16 20:19	TMP	A
1,2,4-Trichlorobenzene	ND		ug/kg	4.6	SW846 8260C	11/21/16 11:45	TMP	11/23/16 20:19	TMP	A
1,1,1-Trichloroethane	ND		ug/kg	1.8	SW846 8260C	11/21/16 11:45	TMP	11/23/16 20:19	TMP	A
1,1,2-Trichloroethane	ND		ug/kg	1.8	SW846 8260C	11/21/16 11:45	TMP	11/23/16 20:19	TMP	A

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ANALYTICAL RESULTS

Workorder: 2191010 2016-SAUGERTIES NY SITE - SOIL

Lab ID: **2191010007**

Date Collected: 11/21/2016 11:45

Matrix: Solid

Sample ID: **SB-4**

Date Received: 11/22/2016 09:11

Parameters	Results	Flag	Units	RDL	Method	Prepared	By	Analyzed	By	Cntr
Trichloroethene	ND		ug/kg	1.8	SW846 8260C	11/21/16 11:45	TMP	11/23/16 20:19	TMP	A
Trichlorofluoromethane	ND		ug/kg	1.8	SW846 8260C	11/21/16 11:45	TMP	11/23/16 20:19	TMP	A
1,2,3-Trichloropropane	ND		ug/kg	1.8	SW846 8260C	11/21/16 11:45	TMP	11/23/16 20:19	TMP	A
1,2,4-Trimethylbenzene	ND		ug/kg	1.8	SW846 8260C	11/21/16 11:45	TMP	11/23/16 20:19	TMP	A
1,3,5-Trimethylbenzene	ND		ug/kg	1.8	SW846 8260C	11/21/16 11:45	TMP	11/23/16 20:19	TMP	A
Vinyl Acetate	ND		ug/kg	1.8	SW846 8260C	11/21/16 11:45	TMP	11/23/16 20:19	TMP	A
Vinyl Chloride	ND		ug/kg	1.8	SW846 8260C	11/21/16 11:45	TMP	11/23/16 20:19	TMP	A
o-Xylene	ND		ug/kg	1.8	SW846 8260C	11/21/16 11:45	TMP	11/23/16 20:19	TMP	A
mp-Xylene	ND		ug/kg	3.7	SW846 8260C	11/21/16 11:45	TMP	11/23/16 20:19	TMP	A
<i>Surrogate Recoveries</i>	<i>Results</i>	<i>Flag</i>	<i>Units</i>	<i>Limits</i>	<i>Method</i>	<i>Prepared</i>	<i>By</i>	<i>Analyzed</i>	<i>By</i>	<i>Cntr</i>
1,2-Dichloroethane-d4 (S)	89.6		%	56 - 124	SW846 8260C	11/21/16 11:45	TMP	11/23/16 20:19	TMP	A
4-Bromofluorobenzene (S)	96.7		%	51 - 128	SW846 8260C	11/21/16 11:45	TMP	11/23/16 20:19	TMP	A
Dibromofluoromethane (S)	94.4		%	62 - 123	SW846 8260C	11/21/16 11:45	TMP	11/23/16 20:19	TMP	A
Toluene-d8 (S)	98.9		%	59 - 131	SW846 8260C	11/21/16 11:45	TMP	11/23/16 20:19	TMP	A
SEMIVOLATILES										
Acenaphthene	ND		ug/kg	61.5	SW846 8270D	11/23/16 11:05	JTH	11/27/16 14:49	CGS	E
Acenaphthylene	117		ug/kg	61.5	SW846 8270D	11/23/16 11:05	JTH	11/27/16 14:49	CGS	E
Acetophenone	ND		ug/kg	123	SW846 8270D	11/23/16 11:05	JTH	11/27/16 14:49	CGS	E
Aniline	ND		ug/kg	246	SW846 8270D	11/23/16 11:05	JTH	11/27/16 14:49	CGS	E
Anthracene	223		ug/kg	61.5	SW846 8270D	11/23/16 11:05	JTH	11/27/16 14:49	CGS	E
Atrazine	ND		ug/kg	123	SW846 8270D	11/23/16 11:05	JTH	11/27/16 14:49	CGS	E
Benzaldehyde	ND		ug/kg	246	SW846 8270D	11/23/16 11:05	JTH	11/27/16 14:49	CGS	E
Benzidine	ND		ug/kg	246	SW846 8270D	11/23/16 11:05	JTH	11/27/16 14:49	CGS	E
Benzo(a)anthracene	734		ug/kg	61.5	SW846 8270D	11/23/16 11:05	JTH	11/27/16 14:49	CGS	E
Benzo(a)pyrene	653		ug/kg	61.5	SW846 8270D	11/23/16 11:05	JTH	11/27/16 14:49	CGS	E
Benzo(b)fluoranthene	949		ug/kg	61.5	SW846 8270D	11/23/16 11:05	JTH	11/27/16 14:49	CGS	E
Benzo(g,h,i)perylene	468		ug/kg	61.5	SW846 8270D	11/23/16 11:05	JTH	11/27/16 14:49	CGS	E
Benzoic acid	ND		ug/kg	665	SW846 8270D	11/23/16 11:05	JTH	11/27/16 14:49	CGS	E
Benzo(k)fluoranthene	411		ug/kg	61.5	SW846 8270D	11/23/16 11:05	JTH	11/27/16 14:49	CGS	E
Benzyl Alcohol	ND		ug/kg	123	SW846 8270D	11/23/16 11:05	JTH	11/27/16 14:49	CGS	E
Biphenyl	ND		ug/kg	123	SW846 8270D	11/23/16 11:05	JTH	11/27/16 14:49	CGS	E
4-Bromophenyl-phenylether	ND		ug/kg	123	SW846 8270D	11/23/16 11:05	JTH	11/27/16 14:49	CGS	E
Butylbenzylphthalate	ND		ug/kg	123	SW846 8270D	11/23/16 11:05	JTH	11/27/16 14:49	CGS	E
Caprolactam	ND		ug/kg	246	SW846 8270D	11/23/16 11:05	JTH	11/27/16 14:49	CGS	E
Carbazole	140		ug/kg	123	SW846 8270D	11/23/16 11:05	JTH	11/27/16 14:49	CGS	E
4-Chloro-3-methylphenol	ND		ug/kg	246	SW846 8270D	11/23/16 11:05	JTH	11/27/16 14:49	CGS	E
4-Chloroaniline	ND		ug/kg	246	SW846 8270D	11/23/16 11:05	JTH	11/27/16 14:49	CGS	E

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Vancouver Waterloo · Winnipeg · Yellowknife **United States:** Cincinnati · Everett · Fort Collins · Holland · Houston · Middletown · Salt Lake City · Spring City · York **Mexico:** Monterrey

ANALYTICAL RESULTS

Workorder: 2191010 2016-SAUGERTIES NY SITE - SOIL

Lab ID: **2191010007**

Date Collected: 11/21/2016 11:45

Matrix: Solid

Sample ID: **SB-4**

Date Received: 11/22/2016 09:11

Parameters	Results	Flag	Units	RDL	Method	Prepared	By	Analyzed	By	Cntr
bis(2-Chloroethoxy)methane	ND		ug/kg	123	SW846 8270D	11/23/16 11:05	JTH	11/27/16 14:49	CGS	E
bis(2-Chloroethyl)ether	ND		ug/kg	123	SW846 8270D	11/23/16 11:05	JTH	11/27/16 14:49	CGS	E
bis(2-Chloroisopropyl)ether	ND		ug/kg	123	SW846 8270D	11/23/16 11:05	JTH	11/27/16 14:49	CGS	E
2-Chloronaphthalene	ND		ug/kg	123	SW846 8270D	11/23/16 11:05	JTH	11/27/16 14:49	CGS	E
2-Chlorophenol	ND		ug/kg	246	SW846 8270D	11/23/16 11:05	JTH	11/27/16 14:49	CGS	E
4-Chlorophenyl-phenylether	ND		ug/kg	123	SW846 8270D	11/23/16 11:05	JTH	11/27/16 14:49	CGS	E
Chrysene	882		ug/kg	61.5	SW846 8270D	11/23/16 11:05	JTH	11/27/16 14:49	CGS	E
mp-Cresol	ND		ug/kg	246	SW846 8270D	11/23/16 11:05	JTH	11/27/16 14:49	CGS	E
o-Cresol	ND		ug/kg	246	SW846 8270D	11/23/16 11:05	JTH	11/27/16 14:49	CGS	E
Di-n-Butylphthalate	ND		ug/kg	123	SW846 8270D	11/23/16 11:05	JTH	11/27/16 14:49	CGS	E
Di-n-Octylphthalate	ND		ug/kg	123	SW846 8270D	11/23/16 11:05	JTH	11/27/16 14:49	CGS	E
Dibenzo(a,h)anthracene	116		ug/kg	61.5	SW846 8270D	11/23/16 11:05	JTH	11/27/16 14:49	CGS	E
Dibenzofuran	ND		ug/kg	123	SW846 8270D	11/23/16 11:05	JTH	11/27/16 14:49	CGS	E
1,2-Dichlorobenzene	ND		ug/kg	123	SW846 8270D	11/23/16 11:05	JTH	11/27/16 14:49	CGS	E
1,3-Dichlorobenzene	ND		ug/kg	123	SW846 8270D	11/23/16 11:05	JTH	11/27/16 14:49	CGS	E
1,4-Dichlorobenzene	ND		ug/kg	123	SW846 8270D	11/23/16 11:05	JTH	11/27/16 14:49	CGS	E
3,3-Dichlorobenzidine	ND		ug/kg	246	SW846 8270D	11/23/16 11:05	JTH	11/27/16 14:49	CGS	E
2,4-Dichlorophenol	ND		ug/kg	246	SW846 8270D	11/23/16 11:05	JTH	11/27/16 14:49	CGS	E
2,6-Dichlorophenol	ND		ug/kg	246	SW846 8270D	11/23/16 11:05	JTH	11/27/16 14:49	CGS	E
Diethylphthalate	ND		ug/kg	123	SW846 8270D	11/23/16 11:05	JTH	11/27/16 14:49	CGS	E
Dimethoate	ND		ug/kg	246	SW846 8270D	11/23/16 11:05	JTH	11/27/16 14:49	CGS	E
2,4-Dimethylphenol	ND		ug/kg	246	SW846 8270D	11/23/16 11:05	JTH	11/27/16 14:49	CGS	E
Dimethylphthalate	ND		ug/kg	123	SW846 8270D	11/23/16 11:05	JTH	11/27/16 14:49	CGS	E
1,2-Dinitrobenzene	ND		ug/kg	123	SW846 8270D	11/23/16 11:05	JTH	11/27/16 14:49	CGS	E
1,4-Dinitrobenzene	ND		ug/kg	123	SW846 8270D	11/23/16 11:05	JTH	11/27/16 14:49	CGS	E
2,4-Dinitrophenol	ND		ug/kg	246	SW846 8270D	11/23/16 11:05	JTH	11/27/16 14:49	CGS	E
2,4-Dinitrotoluene	ND		ug/kg	123	SW846 8270D	11/23/16 11:05	JTH	11/27/16 14:49	CGS	E
2,6-Dinitrotoluene	ND		ug/kg	123	SW846 8270D	11/23/16 11:05	JTH	11/27/16 14:49	CGS	E
Diphenylamine	ND		ug/kg	123	SW846 8270D	11/23/16 11:05	JTH	11/27/16 14:49	CGS	E
1,2-Diphenylhydrazine	ND		ug/kg	123	SW846 8270D	11/23/16 11:05	JTH	11/27/16 14:49	CGS	E
bis(2-Ethylhexyl)phthalate	ND		ug/kg	123	SW846 8270D	11/23/16 11:05	JTH	11/27/16 14:49	CGS	E
Fluoranthene	1550		ug/kg	61.5	SW846 8270D	11/23/16 11:05	JTH	11/27/16 14:49	CGS	E
Fluorene	ND		ug/kg	61.5	SW846 8270D	11/23/16 11:05	JTH	11/27/16 14:49	CGS	E
Hexachlorobenzene	ND		ug/kg	123	SW846 8270D	11/23/16 11:05	JTH	11/27/16 14:49	CGS	E
Hexachlorobutadiene	ND		ug/kg	123	SW846 8270D	11/23/16 11:05	JTH	11/27/16 14:49	CGS	E
Hexachlorocyclopentadiene	ND		ug/kg	246	SW846 8270D	11/23/16 11:05	JTH	11/27/16 14:49	CGS	E
Hexachloroethane	ND		ug/kg	123	SW846 8270D	11/23/16 11:05	JTH	11/27/16 14:49	CGS	E
Indeno(1,2,3-cd)pyrene	488		ug/kg	61.5	SW846 8270D	11/23/16 11:05	JTH	11/27/16 14:49	CGS	E

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ANALYTICAL RESULTS

Workorder: 2191010 2016-SAUGERTIES NY SITE - SOIL

Lab ID: **2191010007**

Date Collected: 11/21/2016 11:45

Matrix: Solid

Sample ID: **SB-4**

Date Received: 11/22/2016 09:11

Parameters	Results	Flag	Units	RDL	Method	Prepared	By	Analyzed	By	Cntr
Isophorone	ND		ug/kg	123	SW846 8270D	11/23/16 11:05	JTH	11/27/16 14:49	CGS	E
2-Methyl-4,6-dinitrophenol	ND		ug/kg	246	SW846 8270D	11/23/16 11:05	JTH	11/27/16 14:49	CGS	E
2-Methylnaphthalene	ND		ug/kg	123	SW846 8270D	11/23/16 11:05	JTH	11/27/16 14:49	CGS	E
2-Naphthylamine	ND		ug/kg	246	SW846 8270D	11/23/16 11:05	JTH	11/27/16 14:49	CGS	E
Naphthalene	110		ug/kg	61.5	SW846 8270D	11/23/16 11:05	JTH	11/27/16 14:49	CGS	E
2-Nitroaniline	ND		ug/kg	246	SW846 8270D	11/23/16 11:05	JTH	11/27/16 14:49	CGS	E
3-Nitroaniline	ND		ug/kg	246	SW846 8270D	11/23/16 11:05	JTH	11/27/16 14:49	CGS	E
4-Nitroaniline	ND		ug/kg	246	SW846 8270D	11/23/16 11:05	JTH	11/27/16 14:49	CGS	E
Nitrobenzene	ND		ug/kg	123	SW846 8270D	11/23/16 11:05	JTH	11/27/16 14:49	CGS	E
2-Nitrophenol	ND		ug/kg	246	SW846 8270D	11/23/16 11:05	JTH	11/27/16 14:49	CGS	E
4-Nitrophenol	ND	3	ug/kg	246	SW846 8270D	11/23/16 11:05	JTH	11/27/16 14:49	CGS	E
N-Nitrosodi-n-butylamine	ND		ug/kg	123	SW846 8270D	11/23/16 11:05	JTH	11/27/16 14:49	CGS	E
N-Nitrosodiethylamine	ND		ug/kg	123	SW846 8270D	11/23/16 11:05	JTH	11/27/16 14:49	CGS	E
N-Nitrosodimethylamine	ND		ug/kg	123	SW846 8270D	11/23/16 11:05	JTH	11/27/16 14:49	CGS	E
N-Nitroso-di-n-propylamine	ND		ug/kg	123	SW846 8270D	11/23/16 11:05	JTH	11/27/16 14:49	CGS	E
N-Nitrosodiphenylamine	ND		ug/kg	123	SW846 8270D	11/23/16 11:05	JTH	11/27/16 14:49	CGS	E
N-Nitrosopyrrolidine	ND		ug/kg	123	SW846 8270D	11/23/16 11:05	JTH	11/27/16 14:49	CGS	E
Pentachlorobenzene	ND		ug/kg	123	SW846 8270D	11/23/16 11:05	JTH	11/27/16 14:49	CGS	E
Pentachlorophenol	ND		ug/kg	246	SW846 8270D	11/23/16 11:05	JTH	11/27/16 14:49	CGS	E
Phenanthrene	1030		ug/kg	61.5	SW846 8270D	11/23/16 11:05	JTH	11/27/16 14:49	CGS	E
Phenol	ND		ug/kg	246	SW846 8270D	11/23/16 11:05	JTH	11/27/16 14:49	CGS	E
Pyrene	1490		ug/kg	61.5	SW846 8270D	11/23/16 11:05	JTH	11/27/16 14:49	CGS	E
Pyridine	ND		ug/kg	246	SW846 8270D	11/23/16 11:05	JTH	11/27/16 14:49	CGS	E
Resorcinol	ND		ug/kg	123	SW846 8270D	11/23/16 11:05	JTH	11/27/16 14:49	CGS	E
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	123	SW846 8270D	11/23/16 11:05	JTH	11/27/16 14:49	CGS	E
2,3,4,6-Tetrachlorophenol	ND		ug/kg	246	SW846 8270D	11/23/16 11:05	JTH	11/27/16 14:49	CGS	E
1,2,4-Trichlorobenzene	ND		ug/kg	123	SW846 8270D	11/23/16 11:05	JTH	11/27/16 14:49	CGS	E
2,4,5-Trichlorophenol	ND		ug/kg	246	SW846 8270D	11/23/16 11:05	JTH	11/27/16 14:49	CGS	E
2,4,6-Trichlorophenol	ND		ug/kg	246	SW846 8270D	11/23/16 11:05	JTH	11/27/16 14:49	CGS	E
Surrogate Recoveries	Results	Flag	Units	Limits	Method	Prepared	By	Analyzed	By	Cntr
2,4,6-Tribromophenol (S)	96.1		%	19 - 132	SW846 8270D	11/23/16 11:05	JTH	11/27/16 14:49	CGS	E
2-Fluorobiphenyl (S)	76.2		%	40 - 110	SW846 8270D	11/23/16 11:05	JTH	11/27/16 14:49	CGS	E
2-Fluorophenol (S)	68.2		%	26 - 116	SW846 8270D	11/23/16 11:05	JTH	11/27/16 14:49	CGS	E
Nitrobenzene-d5 (S)	76.9		%	38 - 112	SW846 8270D	11/23/16 11:05	JTH	11/27/16 14:49	CGS	E
Phenol-d5 (S)	67.1		%	35 - 111	SW846 8270D	11/23/16 11:05	JTH	11/27/16 14:49	CGS	E
Terphenyl-d14 (S)	73		%	45 - 126	SW846 8270D	11/23/16 11:05	JTH	11/27/16 14:49	CGS	E

PCBs

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ANALYTICAL RESULTS

Workorder: 2191010 2016-SAUGERTIES NY SITE - SOIL

Lab ID: **2191010007**

Date Collected: 11/21/2016 11:45

Matrix: Solid

Sample ID: **SB-4**

Date Received: 11/22/2016 09:11

Parameters	Results	Flag	Units	RDL	Method	Prepared	By	Analyzed	By	Cntr
Total Polychlorinated Biphenyl	ND		mg/kg	0.042	SW846 8082A	11/23/16 17:00	JSR	11/29/16 00:35	KJH	E
Aroclor-1016	ND		mg/kg	0.042	SW846 8082A	11/23/16 17:00	JSR	11/29/16 00:35	KJH	E
Aroclor-1221	ND		mg/kg	0.042	SW846 8082A	11/23/16 17:00	JSR	11/29/16 00:35	KJH	E
Aroclor-1232	ND		mg/kg	0.042	SW846 8082A	11/23/16 17:00	JSR	11/29/16 00:35	KJH	E
Aroclor-1242	ND		mg/kg	0.042	SW846 8082A	11/23/16 17:00	JSR	11/29/16 00:35	KJH	E
Aroclor-1248	ND		mg/kg	0.042	SW846 8082A	11/23/16 17:00	JSR	11/29/16 00:35	KJH	E
Aroclor-1254	ND		mg/kg	0.042	SW846 8082A	11/23/16 17:00	JSR	11/29/16 00:35	KJH	E
Aroclor-1260	ND		mg/kg	0.042	SW846 8082A	11/23/16 17:00	JSR	11/29/16 00:35	KJH	E
<i>Surrogate Recoveries</i>	<i>Results</i>	<i>Flag</i>	<i>Units</i>	<i>Limits</i>	<i>Method</i>	<i>Prepared</i>	<i>By</i>	<i>Analyzed</i>	<i>By</i>	<i>Cntr</i>
Decachlorobiphenyls (S)	70.7		%	49 - 115	SW846 8082A	11/23/16 17:00	JSR	11/29/16 00:35	KJH	E
Tetrachloro-m-xylene (S)	70.5		%	27 - 137	SW846 8082A	11/23/16 17:00	JSR	11/29/16 00:35	KJH	E
PESTICIDES										
Aldrin	ND		ug/kg	10.8	SW846 8081B	11/23/16 17:00	JSR	11/30/16 13:06	RWS	E
alpha-BHC	ND		ug/kg	10.8	SW846 8081B	11/23/16 17:00	JSR	11/30/16 13:06	RWS	E
beta-BHC	ND		ug/kg	10.8	SW846 8081B	11/23/16 17:00	JSR	11/30/16 13:06	RWS	E
delta-BHC	ND		ug/kg	10.8	SW846 8081B	11/23/16 17:00	JSR	11/30/16 13:06	RWS	E
gamma-BHC	ND		ug/kg	10.8	SW846 8081B	11/23/16 17:00	JSR	11/30/16 13:06	RWS	E
alpha-Chlordane	ND		ug/kg	10.8	SW846 8081B	11/23/16 17:00	JSR	11/30/16 13:06	RWS	E
gamma-Chlordane	ND		ug/kg	10.8	SW846 8081B	11/23/16 17:00	JSR	11/30/16 13:06	RWS	E
4,4'-DDD	ND		ug/kg	21.0	SW846 8081B	11/23/16 17:00	JSR	11/30/16 13:06	RWS	E
4,4'-DDE	ND		ug/kg	21.0	SW846 8081B	11/23/16 17:00	JSR	11/30/16 13:06	RWS	E
4,4'-DDT	ND	1	ug/kg	21.0	SW846 8081B	11/23/16 17:00	JSR	11/30/16 13:06	RWS	E
Dieldrin	ND		ug/kg	21.0	SW846 8081B	11/23/16 17:00	JSR	11/30/16 13:06	RWS	E
Endosulfan I	ND		ug/kg	10.8	SW846 8081B	11/23/16 17:00	JSR	11/30/16 13:06	RWS	E
Endosulfan II	ND		ug/kg	21.0	SW846 8081B	11/23/16 17:00	JSR	11/30/16 13:06	RWS	E
Endosulfan Sulfate	ND		ug/kg	21.0	SW846 8081B	11/23/16 17:00	JSR	11/30/16 13:06	RWS	E
Endrin	ND		ug/kg	21.0	SW846 8081B	11/23/16 17:00	JSR	11/30/16 13:06	RWS	E
Endrin Aldehyde	ND		ug/kg	21.0	SW846 8081B	11/23/16 17:00	JSR	11/30/16 13:06	RWS	E
Endrin Ketone	ND		ug/kg	21.0	SW846 8081B	11/23/16 17:00	JSR	11/30/16 13:06	RWS	E
Heptachlor	ND		ug/kg	10.8	SW846 8081B	11/23/16 17:00	JSR	11/30/16 13:06	RWS	E
Heptachlor Epoxide	ND		ug/kg	10.8	SW846 8081B	11/23/16 17:00	JSR	11/30/16 13:06	RWS	E
Methoxychlor	ND	2	ug/kg	21.0	SW846 8081B	11/23/16 17:00	JSR	11/30/16 13:06	RWS	E
Mirex	ND		ug/kg	21.0	SW846 8081B	11/23/16 17:00	JSR	11/30/16 13:06	RWS	E
Toxaphene	ND		ug/kg	222	SW846 8081B	11/23/16 17:00	JSR	11/30/16 13:06	RWS	E
<i>Surrogate Recoveries</i>	<i>Results</i>	<i>Flag</i>	<i>Units</i>	<i>Limits</i>	<i>Method</i>	<i>Prepared</i>	<i>By</i>	<i>Analyzed</i>	<i>By</i>	<i>Cntr</i>
Decachlorobiphenyls (S)	76.9		%	30 - 135	SW846 8081B	11/23/16 17:00	JSR	11/30/16 13:06	RWS	E

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ANALYTICAL RESULTS

Workorder: 2191010 2016-SAUGERTIES NY SITE - SOIL

Lab ID: **2191010007**

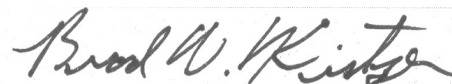
Date Collected: 11/21/2016 11:45

Matrix: Solid

Sample ID: **SB-4**

Date Received: 11/22/2016 09:11

Parameters	Results	Flag	Units	RDL	Method	Prepared	By	Analyzed	By	Cntr
Tetrachloro-m-xylene (S)	64.4		%	30 - 111	SW846 8081B	11/23/16 17:00	JSR	11/30/16 13:06	RWS	E
WET CHEMISTRY										
Moisture	22.4		%	0.1	S2540G-11			12/1/16 11:26	ML	
Total Solids	77.6		%	0.1	S2540G-11			12/1/16 11:26	ML	
METALS										
Aluminum, Total	5500		mg/kg	12.9	SW846 6010C	11/30/16 09:36	TRR	12/1/16 12:02	TSS	E1
Antimony, Total	ND		mg/kg	2.6	SW846 6010C	11/30/16 09:36	TRR	12/1/16 12:02	TSS	E1
Arsenic, Total	10		mg/kg	2.6	SW846 6010C	11/30/16 09:36	TRR	12/1/16 12:02	TSS	E1
Barium, Total	88.7		mg/kg	1.3	SW846 6010C	11/30/16 09:36	TRR	12/1/16 12:02	TSS	E1
Beryllium, Total	ND		mg/kg	1.3	SW846 6010C	11/30/16 09:36	TRR	12/1/16 12:02	TSS	E1
Cadmium, Total	ND		mg/kg	0.64	SW846 6010C	11/30/16 09:36	TRR	12/1/16 12:02	TSS	E1
Calcium, Total	2930		mg/kg	12.9	SW846 6010C	11/30/16 09:36	TRR	12/1/16 12:02	TSS	E1
Chromium, Total	12.3		mg/kg	1.3	SW846 6010C	11/30/16 09:36	TRR	12/1/16 12:02	TSS	E1
Cobalt, Total	5.9		mg/kg	1.3	SW846 6010C	11/30/16 09:36	TRR	12/1/16 12:02	TSS	E1
Copper, Total	58.9		mg/kg	2.6	SW846 6010C	11/30/16 09:36	TRR	12/1/16 12:02	TSS	E1
Iron, Total	18100		mg/kg	12.9	SW846 6010C	11/30/16 09:36	TRR	12/1/16 12:02	TSS	E1
Lead, Total	222		mg/kg	2.6	SW846 6010C	11/30/16 09:36	TRR	12/1/16 12:02	TSS	E1
Magnesium, Total	2040		mg/kg	12.9	SW846 6010C	11/30/16 09:36	TRR	12/1/16 12:02	TSS	E1
Manganese, Total	389		mg/kg	1.3	SW846 6010C	11/30/16 09:36	TRR	12/1/16 12:02	TSS	E1
Mercury, Total	1.1		mg/kg	0.061	SW846 7471B	12/1/16 12:19	MNP	12/1/16 15:09	MNP	E2
Nickel, Total	19.8		mg/kg	2.6	SW846 6010C	11/30/16 09:36	TRR	12/1/16 12:02	TSS	E1
Potassium, Total	528		mg/kg	64.4	SW846 6010C	11/30/16 09:36	TRR	12/1/16 12:02	TSS	E1
Selenium, Total	ND		mg/kg	6.4	SW846 6010C	11/30/16 09:36	TRR	12/1/16 12:02	TSS	E1
Silver, Total	ND		mg/kg	0.64	SW846 6010C	11/30/16 09:36	TRR	12/1/16 12:02	TSS	E1
Sodium, Total	67.0		mg/kg	64.4	SW846 6010C	11/30/16 09:36	TRR	12/1/16 12:02	TSS	E1
Thallium, Total	ND		mg/kg	3.9	SW846 6010C	11/30/16 09:36	TRR	12/1/16 12:02	TSS	E1
Vanadium, Total	25.1		mg/kg	1.3	SW846 6010C	11/30/16 09:36	TRR	12/1/16 12:02	TSS	E1
Zinc, Total	241		mg/kg	2.6	SW846 6010C	11/30/16 09:36	TRR	12/1/16 12:02	TSS	E1



Mr. Brad W Kintzer

Project Coordinator

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PARAMETER QUALIFIERS

Lab ID	#	Sample ID	Analytical Method	Analyte
2191010002	1	SB-1 (4'-5')	SW846 8270D	4-Nitrophenol
The QC sample type LCS for method SW846 8270D was outside the control limits for the analyte 4-Nitrophenol. The % Recovery was reported as 48.9 and the control limits were 49 to 134.				
2191010003	1	SB-2 (0'-1')	SW846 8260C	4-Bromofluorobenzene
The surrogate 4-Bromofluorobenzene for method SW846 8260C was outside of control limits. The % Recovery was reported as 146 and the control limits were 51 to 128. This result was reported at a dilution of 1.				
2191010003	5	SB-2 (0'-1')	SW846 8270D	2,4,6-Tribromophenol
The surrogate 2,4,6-Tribromophenol for method SW846 8270D was outside of control limits. The % Recovery was reported as 8.1 and the control limits were 19 to 132. This result was reported at a dilution of 1.				
2191010003	6	SB-2 (0'-1')	SW846 8270D	4-Nitrophenol
The QC sample type LCS for method SW846 8270D was outside the control limits for the analyte 4-Nitrophenol. The % Recovery was reported as 48.9 and the control limits were 49 to 134.				
2191010005	1	SB-3 (0'-1')	SW846 8270D	2-Fluorophenol
The surrogate 2-Fluorophenol for method SW846 8270D was outside of control limits. The % Recovery was reported as 24.5 and the control limits were 26 to 116. This result was reported at a dilution of 1.				
2191010005	2	SB-3 (0'-1')	SW846 8270D	Phenol-d5
The surrogate Phenol-d5 for method SW846 8270D was outside of control limits. The % Recovery was reported as 31.6 and the control limits were 35 to 111. This result was reported at a dilution of 1.				
2191010005	3	SB-3 (0'-1')	SW846 8270D	Nitrobenzene-d5
The surrogate Nitrobenzene-d5 for method SW846 8270D was outside of control limits. The % Recovery was reported as 34.8 and the control limits were 38 to 112. This result was reported at a dilution of 1.				
2191010005	4	SB-3 (0'-1')	SW846 8270D	Terphenyl-d14
The surrogate Terphenyl-d14 for method SW846 8270D was outside of control limits. The % Recovery was reported as 44 and the control limits were 45 to 126. This result was reported at a dilution of 1.				
2191010005	5	SB-3 (0'-1')	SW846 8270D	4-Nitrophenol
The QC sample type LCS for method SW846 8270D was outside the control limits for the analyte 4-Nitrophenol. The % Recovery was reported as 48.9 and the control limits were 49 to 134.				
2191010006	1	SB-3 (3.5'-4')	SW846 8081B	4,4'-DDT
The detection of this compound was confirmed on an alternate column. Precision between the two results exceeded in house control limits (<40%RPD).				
2191010006	2	SB-3 (3.5'-4')	SW846 8270D	4-Nitrophenol
The QC sample type LCS for method SW846 8270D was outside the control limits for the analyte 4-Nitrophenol. The % Recovery was reported as 48.9 and the control limits were 49 to 134.				
2191010007	1	SB-4	SW846 8081B	4,4'-DDT
Method criteria requires continuing calibration verification (CCV) standards be less than or equal to 20% of the initial calibration for the 8081 analysis. This compound was biased low 34% in the bracketing CCV. Data for this compound may have been impacted.				
2191010007	2	SB-4	SW846 8081B	Methoxychlor
Method criteria requires continuing calibration verification (CCV) standards be less than or equal to 20% of the initial calibration for the 8081 analysis. This compound was biased low 25% in the bracketing CCV. Data for this compound may have been impacted.				
2191010007	3	SB-4	SW846 8270D	4-Nitrophenol
The QC sample type LCS for method SW846 8270D was outside the control limits for the analyte 4-Nitrophenol. The % Recovery was reported as 48.9 and the control limits were 49 to 134.				

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December 20, 2016

Ms. Karen Carling
Foit-Albert Associates
435 New Karner Road
Albany, NY 12205

Certificate of Analysis

Project Name:	2016-SAUGERTIES NY SITE - SOILS	Workorder:	2195263
Purchase Order:		Workorder ID:	2016-SAUGERTIES NY SITE - SOIL

Dear Ms. Carling:

Enclosed are the analytical results for samples received by the laboratory on Tuesday, November 22, 2016.

The ALS Environmental laboratory in Middletown, Pennsylvania is a National Environmental Laboratory Accreditation Program (NELAP) accredited laboratory and as such, certifies that all applicable test results meet the requirements of NELAP.

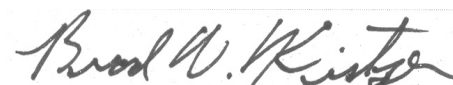
If you have any questions regarding this certificate of analysis, please contact Mr. Brad W Kintzer (Project Coordinator) at (717) 944-5541.

Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state requirements. The test results meet requirements of the current NELAP standards or state requirements, where applicable. For a specific list of accredited analytes, refer to the certifications section of the ALS website at www.alsglobal.com/en/Our-Services/Life-Sciences/Environmental/Downloads.

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ALS Spring City: 10 Riverside Drive, Spring City, PA 19475 610-948-4903

This page is included as part of the Analytical Report and must be retained as a permanent record thereof.


Mr. Brad W Kintzer
Project Coordinator

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SAMPLE SUMMARY

Workorder: 2195263 2016-SAUGERTIES NY SITE - SOIL

Lab ID	Sample ID	Matrix	Date Collected	Date Received	Collected By
2195263001	SB-1 (0'-1')	Solid	11/21/2016 12:45	11/22/2016 09:11	Collected by Client
2195263002	SB-1 (4'-5')	Solid	11/21/2016 12:30	11/22/2016 09:11	Collected by Client
2195263003	SB-2 (0'-1')	Solid	11/21/2016 13:00	11/22/2016 09:11	Collected by Client
2195263004	SB-2 (4.5'-5')	Solid	11/21/2016 13:15	11/22/2016 09:11	Collected by Client
2195263005	SB-3 (0'-1')	Solid	11/21/2016 11:25	11/22/2016 09:11	Collected by Client
2195263006	SB-3 (3.5'-4')	Solid	11/21/2016 11:30	11/22/2016 09:11	Collected by Client
2195263007	SB-4	Solid	11/21/2016 11:45	11/22/2016 09:11	Collected by Client

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SAMPLE SUMMARY

Workorder: 2195263 2016-SAUGERTIES NY SITE - SOIL

Notes

- Samples collected by ALS personnel are done so in accordance with the procedures set forth in the ALS Field Sampling Plan (20 - Field Services Sampling Plan).
- All Waste Water analyses comply with methodology requirements of 40 CFR Part 136.
- All Drinking Water analyses comply with methodology requirements of 40 CFR Part 141.
- Unless otherwise noted, all quantitative results for soils are reported on a dry weight basis.
- The Chain of Custody document is included as part of this report.
- All Library Search analytes should be regarded as tentative identifications based on the presumptive evidence of the mass spectra. Concentrations reported are estimated values.
- Parameters identified as "analyze immediately" require analysis within 15 minutes of collection. Any "analyze immediately" parameters not listed under the header "Field Parameters" are performed in the laboratory and are therefore analyzed out of hold time.
- Method references listed on this report beginning with the prefix "S" followed by a method number (such as S2310B-97) refer to methods from "Standard Methods for the Examination of Water and Wastewater".
- For microbiological analyses, the "Prepared" value is the date/time into the incubator and the "Analyzed" value is the date/time out the incubator.

Standard Acronyms/Flags

J	Indicates an estimated value between the Method Detection Limit (MDL) and the Practical Quantitation Limit (PQL) for the analyte
U	Indicates that the analyte was Not Detected (ND)
N	Indicates presumptive evidence of the presence of a compound
MDL	Method Detection Limit
PQL	Practical Quantitation Limit
RDL	Reporting Detection Limit
ND	Not Detected - indicates that the analyte was Not Detected at the RDL
Cntr	Analysis was performed using this container
RegLmt	Regulatory Limit
LCS	Laboratory Control Sample
MS	Matrix Spike
MSD	Matrix Spike Duplicate
DUP	Sample Duplicate
%Rec	Percent Recovery
RPD	Relative Percent Difference
LOD	DoD Limit of Detection
LOQ	DoD Limit of Quantitation
DL	DoD Detection Limit
I	Indicates reported value is greater than or equal to the Method Detection Limit (MDL) but less than the Report Detection Limit (RDL)
(S)	Surrogate Compound
NC	Not Calculated
*	Result outside of QC limits

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NELAP Certifications: NJ PA010 , NY 11759 , PA 22-293 DoD ELAP: A2LA 0818.01
State Certifications: DE ID 11 , MA PA0102 , MD 128 , VA 460157 , WV 343

PROJECT SUMMARY

Workorder: 2195263 2016-SAUGERTIES NY SITE - SOIL

Workorder Comments

See attached subcontracted dioxin results from ALS Houston. SSL 12/19/16

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ANALYTICAL RESULTS

Workorder: 2195263 2016-SAUGERTIES NY SITE - SOIL

Lab ID: **2195263001** Date Collected: 11/21/2016 12:45 Matrix: Solid
Sample ID: **SB-1 (0'-1')** Date Received: 11/22/2016 09:11

Parameters	Results	Flag	Units	RDL	Method	Prepared	By	Analyzed	By	Cntr
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SUBCONTRACTED ANALYSIS

Subcontracted Analysis See Subcontract 12/12/16 14:16 SUB A
Attached


Mr. Brad W Kintzer
Project Coordinator

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ANALYTICAL RESULTS

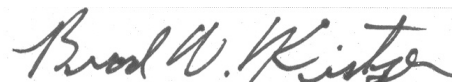
Workorder: 2195263 2016-SAUGERTIES NY SITE - SOIL

Lab ID: **2195263002**
Sample ID: **SB-1 (4'-5')**Date Collected: 11/21/2016 12:30 Matrix: Solid
Date Received: 11/22/2016 09:11

Parameters	Results	Flag	Units	RDL	Method	Prepared	By	Analyzed	By	Cntr
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SUBCONTRACTED ANALYSIS

Subcontracted Analysis	See Attached	Subcontract	12/12/16 15:05 SUB A
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ANALYTICAL RESULTS

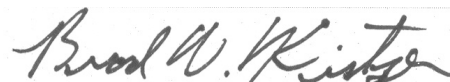
Workorder: 2195263 2016-SAUGERTIES NY SITE - SOIL

Lab ID: **2195263003**
Sample ID: **SB-2 (0'-1')**Date Collected: 11/21/2016 13:00 Matrix: Solid
Date Received: 11/22/2016 09:11

Parameters	Results	Flag	Units	RDL	Method	Prepared	By	Analyzed	By	Cntr
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SUBCONTRACTED ANALYSIS

Subcontracted Analysis	See Attached	Subcontract	12/12/16 15:54 SUB A
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ANALYTICAL RESULTS

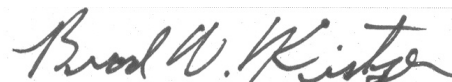
Workorder: 2195263 2016-SAUGERTIES NY SITE - SOIL

Lab ID: **2195263004**
Sample ID: **SB-2 (4.5'-5')**Date Collected: 11/21/2016 13:15 Matrix: Solid
Date Received: 11/22/2016 09:11

Parameters	Results	Flag	Units	RDL	Method	Prepared	By	Analyzed	By	Cntr
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SUBCONTRACTED ANALYSIS

Subcontracted Analysis	See Attached	Subcontract	12/12/16 16:43 SUB A
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ANALYTICAL RESULTS

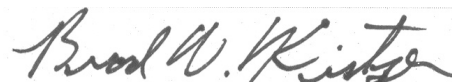
Workorder: 2195263 2016-SAUGERTIES NY SITE - SOIL

Lab ID: **2195263005**
Sample ID: **SB-3 (0'-1')**Date Collected: 11/21/2016 11:25 Matrix: Solid
Date Received: 11/22/2016 09:11

Parameters	Results	Flag	Units	RDL	Method	Prepared	By	Analyzed	By	Cntr
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SUBCONTRACTED ANALYSIS

Subcontracted Analysis	See Attached	Subcontract	12/12/16 17:32 SUB A
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ANALYTICAL RESULTS

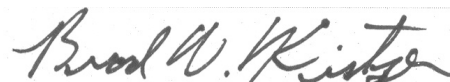
Workorder: 2195263 2016-SAUGERTIES NY SITE - SOIL

Lab ID: **2195263006** Date Collected: 11/21/2016 11:30 Matrix: Solid
Sample ID: **SB-3 (3.5'-4')** Date Received: 11/22/2016 09:11

Parameters	Results	Flag	Units	RDL	Method	Prepared	By	Analyzed	By	Cntr
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SUBCONTRACTED ANALYSIS

Subcontracted Analysis See Attached Subcontract 12/12/16 18:21 SUB A



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**ANALYTICAL RESULTS**

Workorder: 2195263 2016-SAUGERTIES NY SITE - SOIL

Lab ID: **2195263007**

Date Collected: 11/21/2016 11:45

Matrix: Solid

Sample ID: **SB-4**

Date Received: 11/22/2016 09:11

Parameters	Results	Flag	Units	RDL	Method	Prepared	By	Analyzed	By	Cntr
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SUBCONTRACTED ANALYSIS

Subcontracted Analysis

See
Attached

Subcontract

12/12/16 19:10 SUB A

Mr. Brad W Kintzer

Project Coordinator

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**CHAIN OF CUSTODY/
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ALL SHADED AREAS MUST BE COMPLETED BY THE CLIENT /
SAMPLER. INSTRUCTIONS ON THE BACK.

COC #: 1 of 1
ALSI Quote #: 1

Client Name: ALS Environmental		Container Type	AG	Receipt Information (completed by Receiving Lab)	
Address: 34 Dogwood Lane		Container Size	1 L	Cooler Temp: Therm. ID:	
Contact: Brad Kintzer		Preservative	NONE	No. of Coolers: Y N Initial	
Phone#: (717) 944-5541		Custody Seals Present? (if present) Seals intact?			
Project Name#:		Received on Ice?			
Bill To: ALS Environmental		COC Labels Complete/Accurate?			
TAT <input checked="" type="checkbox"/> Normal-Standard TAT is 10-12 business days.		Cont. in Good Cond.?			
Date Required: Rush-Subject to ALSI approval and surcharges.		Correct Containers?			
Email? <input checked="" type="checkbox"/> Y <input checked="" type="checkbox"/> N ALMDT.Subcontract@ALSGlobal.com		Correct Sample Volumes?			
Fax? <input checked="" type="checkbox"/> Y <input checked="" type="checkbox"/> N		Correct Preservation?			
		Headspace/Volatiles?			
		Counern racking #:			
		Sample/COC Comments			
		Subcontract: ALS Houston			
		ALSI Field Services: <input type="checkbox"/> Pickup <input type="checkbox"/> Labor			
		<input type="checkbox"/> Composite Sampling <input type="checkbox"/> Rental Equipment			
		<input type="checkbox"/> Other:			
Project Comments:		Deliverables		Special Processing	State Samples Collected In
		<input type="checkbox"/> Standard <input type="checkbox"/> CLP-like <input type="checkbox"/> USACE <input type="checkbox"/> Navy <input type="checkbox"/>		<input type="checkbox"/> USACE <input type="checkbox"/>	<input type="checkbox"/> NY <input type="checkbox"/> NJ <input type="checkbox"/> PA <input type="checkbox"/> NC <input type="checkbox"/> other
Relinquished By / Company Name		Received By / Company Name		Sample Disposal	
Date		Date		Lab <input type="checkbox"/> Special <input type="checkbox"/>	
Time		Time		Reportable to PADEP? Yes <input type="checkbox"/> No <input type="checkbox"/>	
1		2		PWSID #	
3		4		EDDs: Format Type	
5		6			
7		8			
9		10			



Analytical
Laboratory Services, Inc.

Environmental • Industrial Hygiene • Field Services

34 Dogwood Lane • Middletown, PA 17057 • T: 717-944-5541 • F: 717-944-1430

CHAIN OF CUSTODY/
REQUEST FOR ANALYSIS

ALL SHADED AREAS MUST BE COMPLETED BY THE CLIENT /
SAMPLER. INSTRUCTIONS ON THE BACK.

COC #: 1
of 1
ALSI Quote #: 1

Client Name: ALS Environmental		Container Type: <u>4LZ</u>	Receipt Information (completed by Receiving Lab)								
Address: 34 Dogwood Lane Middletown, PA 17057		Container Size: <u>4L</u>	Cooler Temp: _____ Therm. ID: _____								
Contact: Brad Kintzer		Preservative: <u>NONE</u>	No. of Coolers: _____ Y _____ N _____ Initial								
Phone#: (717) 944-5541		Custody Seals Present? _____									
Project Name#: _____		(If present) Seals Intact? _____									
Bill To: ALS Environmental		Received on Ice? _____									
TAT <input checked="" type="checkbox"/> Normal-Standard TAT is 10-12 business days.		COC Labels Complete/Accurate? _____									
Date Required: _____		Cont. In Good Cond.? _____									
Email? <input checked="" type="checkbox"/> X -Y ALMDT.Subcontract@ALSGlobal.com		Correct Containers? _____									
Fax? <input type="checkbox"/> -Y No: _____		Correct Sample Volumes? _____									
Approved By: _____		Correct Preservation? _____									
Sample Description/Location (as it will appear on the lab report)		Headspace/Volatiles? _____									
Sample Date		Courier / Tracking #: _____									
1 2191010 001	11/21/16	1245	G	S	1	Enter Number of Containers Per Sample or Field Results Below.	Sample/COC Comments				
2 2191010 002	11/21/16	1230	G	S	1		Subcontract: ALS Houston				
3 2191010 003	11/21/16	1300	G	S	1						
4 2191010 004	11/21/16	1315	G	S	1						
5 2191010 005	11/21/16	1125	G	S	1						
6 2191010 006 <u>SS1</u>	11/21/16	1130	G	S	1						
7 2191010 007 <u>11/21/16</u>	11/21/16	1145	G	S	1						
8											
9											
10											
Project Comments:						ALSI Field Services: <input type="checkbox"/> Pickup <input type="checkbox"/> Labor <input type="checkbox"/> Composite Sampling <input type="checkbox"/> Rental Equipment <input type="checkbox"/> Other:					
Relinquished By / Company Name						Special Processing					
Date						Deliverables					
Time						Standard <input type="checkbox"/> CLP-like <input type="checkbox"/> USACE <input type="checkbox"/> Navy <input type="checkbox"/> NJ Reduced <input type="checkbox"/>					
Received By / Company Name						State Samples Collected In					
Date						NY <input type="checkbox"/> NJ <input type="checkbox"/> PA <input type="checkbox"/> NC <input type="checkbox"/> other <input type="checkbox"/>					
Time						Sample Disposal					
Reportable to PADEP? <input type="checkbox"/>						Lab <input type="checkbox"/> Special <input type="checkbox"/>					
Yes <input type="checkbox"/>						PWSID # _____					
PWSID # _____						EDDs: Format Type _____					
10											



December 19, 2016

Service Request No: E1601142

Brad Kintzer
ALS Environmental
34 Dogwood Lane
Middletown, PA 17057

Laboratory Results for: Dioxins Furans Analysis - 2195263

Dear Brad,

Enclosed are the results of the sample(s) submitted to our laboratory November 30, 2016
For your reference, these analyses have been assigned our service request number **E1601142**.

Analyses were performed according to our laboratory's NELAP-approved quality assurance program. The test results meet requirements of the current TNI standards, where applicable, and except as noted in the laboratory case narrative provided. All results are intended to be considered in their entirety, and ALS Environmental is not responsible for use of less than the final complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report. In accordance to the TNI 2009 Standard, a statement on the estimated uncertainty of measurement of any quantitative analysis will be supplied upon request.

Please contact me if you have any questions. My extension is 2284. You may also contact me via email at Nicole.Brown@alsglobal.com.

Respectfully submitted,

ALS Group USA, Corp. dba ALS Environmental

Nicole Brown
Project Manager

ADDRESS 10450 Stancliff Rd., Suite 210, Houston, TX 77099
PHONE +1 713 266 1599 ; FAX +1 713 266 0130
ALS Group USA, Corp.
dba ALS Environmental

E1601142

1 of 68



Certificate of Analysis

ALS Environmental - Houston HRMS
10450 Stancliff Rd, Suite 210, Houston TX 77099
Phone (713)266-1599 Fax (713)266-0130
www.alsglobal.com

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E1601142

2 of 68

ALS Environmental

Client:	ALS Environmental – Middletown, PA	Service Request No.:	E1601142
Project:	Dioxins Furans Analysis - 2195263	Date Received:	11/30/16
Sample Matrix:	Soil		

CASE NARRATIVE

All analyses were performed in adherence to the quality assurance program of ALS Environmental. This report contains analytical results for samples designated for Tier II. When appropriate to the method, method blank results have been reported with each analytical test.

Sample Receipt

Seven soil samples were received for analysis at ALS Environmental in Houston on 11/30/16.

The samples were received at 5.6 °C in good condition and are consistent with the accompanying chain of custody form. The samples were stored in a refrigerator at 4°C upon receipt at the laboratory.

ALS Middletown requested the workorder ID updated to 2195263 in place of what was on the original subcontract chain of custody form (2191010) in order to report the dioxins furans separately.

Data Validation Notes and Discussion

B flags – Method Blanks

The Method Blank EQ1601142-01 contained low levels of various compounds below the Method Reporting Limit (MRL). The associated compounds in the samples are flagged with 'B' flags where the sample result is less than ten times the level detected in the method blank.

MS/MSD

EQ1601142: Laboratory Control Spike/Duplicate Laboratory Control Spike (LCS/DLCS) samples were analyzed and reported in lieu of an MS/MSD for this extraction batch.

2378-TCDF

Samples analyzed on the DB-5MSUI column were analyzed under conditions where sufficient separation between 2,3,7,8-TCDF and its closest eluter was achieved. Confirmation of this result was not required.

Y flags – Labeled Standards

Quantification of the native 2,3,7,8-substituted congeners is based on isotopic dilution, which automatically corrects for variation in extraction efficiency and provides accurate values even with poor recovery. Samples that had recoveries of labeled standards outside the acceptance limits are qualified with 'Y' flags on the Labeled Compound summary pages. In all cases, the signal-to-noise ratios are greater than 10:1 and detection limits were below the Method Reporting Limits.

E flags

When OCDD and/or OCDF exceed the upper method calibration limit (MCL), Method 8290 Section 7.9.3 advises the chemist to "report the measured concentration and indicate that the value exceeds the MCL." We use 'E' flag on the Sample Analytical Report results page results to indicate a compound has exceeded the MCL.

K flags

EMPC - When the ion abundance ratios associated with a particular compound are outside the QC limits, samples are flagged with a 'K' flag. A 'K' flag indicates an estimated maximum possible concentration for the associated compound.

Detection Limits

Detection limits are calculated for each analyte in each sample by measuring the height of the noise level for each quantitation ion for the associated labeled standard. The concentration equivalent to 2.5 times the height of the noise is then calculated using the appropriate response factor and the weight of the sample. The calculated concentration equals the detection limit.

The TEQ Summary results for each sample have been calculated by ALS/Houston to include:

- WHO-2005 TEFs, The 2005 World Health Organization Reevaluation of Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-Like Compounds (M. Van den Berg et al., Toxicological Sciences 93(2):223-241, 2006)
- Non-detected compounds are not included in the 'Total'

The results of analyses are given in the attached laboratory report. All results are intended to be considered in their entirety, and ALS Environmental (ALS) is not responsible for utilization of less than the complete report.

Use of ALS group USA Corp dba ALS Environmental (ALS)'s Name. Client shall not use ALS's name or trademark in any marketing or reporting materials, press releases or in any other manner ("Materials") whatsoever and shall not attribute to ALS any test result, tolerance or specification derived from ALS's data ("Attribution") without ALS's prior written consent, which may be withheld by ALS for any reason in its sole discretion. To request ALS's consent, Client shall provide copies of the proposed Materials or Attribution and describe in writing Client's proposed use of such Materials or Attribution. If ALS has not provided written approval of the Materials or Attribution within ten (10) days of receipt from Client, Client's request to use ALS's name or trademark in any Materials or Attribution shall be deemed denied. ALS may, in its discretion, reasonably charge Client for its time in reviewing Materials or Attribution requests. Client acknowledges and agrees that the unauthorized use of ALS's name or trademark may cause ALS to incur irreparable harm for which the recovery of money damages will be inadequate. Accordingly, Client acknowledges and agrees that a violation shall justify preliminary injunctive relief. For questions contact the laboratory.

Client: ALS Environmental - US
Project: Dioxins Furans Analysis - 2195263

Service Request: E1601142

SAMPLE CROSS-REFERENCE

<u>SAMPLE #</u>	<u>CLIENT SAMPLE ID</u>	<u>DATE</u>	<u>TIME</u>
E1601142-001	2195263 001	11/21/2016	1245
E1601142-002	2195263 002	11/21/2016	1230
E1601142-003	2195263 003	11/21/2016	1300
E1601142-004	2195263 004	11/21/2016	1315
E1601142-005	2195263 005	11/21/2016	1125
E1601142-006	2195263 006	11/21/2016	1130
E1601142-007	2195263 007	11/21/2016	1145

E1601142

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Printed 12/19/2016 4:10:18 PM

Sample Summary

Service Request Summary

Folder #: E1601142
Client Name: ALS Environmental - US
Project Name: Dioxins Furans Analysis - 2195263
Project Number:

Report To: Brad Kintzer
 ALS Environmental
 34 Dogwood Lane
 Middletown, PA 17057
 USA

Phone Number: 717-702-2247
Cell Number:
Fax Number:
E-mail: brad.kintzer@alsglobal.com

Project Chemist: Nicole Brown
Originating Lab: HOUSTON
Logged By: TWOODS
Date Received: 11/30/16
Internal Due Date: 12/16/2016
QAP: LAB QAP
Qualifier Set: HRMS Qualifier Set
Formset: Lab Standard
Merged?: N
Report to MDL?: Y
P.O. Number: 2195263
EDD: BASIC_WQC_CASNo

7 8 oz-Glass Jar WM CLEAR Teflon Liner Unpreserved
 7 4 oz-Glass Jar WM CLEAR Teflon Liner Unpreserved
Location: SMO, EHRMS-WIC-4D
Pressure Gas:

Lab Samp No.	Client Samp No	Matrix	Collected	HOUSTON	
				PCDD PCDF/8290A	Total Solids/ALS SOP
E1601142-001	2195263 001	Soil	11/21/16 1245	II	II
E1601142-002	2195263 002	Soil	11/21/16 1230	II	II
E1601142-003	2195263 003	Soil	11/21/16 1300	II	II
E1601142-004	2195263 004	Soil	11/21/16 1315	II	II
E1601142-005	2195263 005	Soil	11/21/16 1125	II	II
E1601142-006	2195263 006	Soil	11/21/16 1130	II	II
E1601142-007	2195263 007	Soil	11/21/16 1145	II	II

Folder Comments:

ALS Middletown requested their workorder ID be updated to 2195263 instead of what was on the original COC (2191010) in order to report the dioxins furans separately for this workorder. NB 12/13/16

Data Qualifiers

HRMS Qualifier Set

- B Indicates the associated analyte was found in the method blank at >1/10th the reported value.
- E Estimated value. The reported concentration is above the calibration range of the instrument.
- H Sample extracted and/or analyzed out of suggested holding time.
- J Estimated value. The reported concentration is below the MRL.
- K The ion abundance ratio between the primary and secondary ions were outside of theoretical acceptance limits. The concentration of this analyte should be considered as an estimate.
- P Chlorodiphenyl ether interference was present at the retention time of the target analyte. Reported result should be considered an estimate.
- Q Monitored lock-mass indicates matrix-interference. Reported result is estimated.
- S Signal saturated detector. Result reported from dilution.
- U Compound was analyzed for, but was not detected (ND).
- X See Case Narrative.
- Y Isotopically Labeled Standard recovery outside of acceptance limits. In all cases, the signal-to-nois ratios are greater than 10:1, making the recoveries acceptable.
- i The MDL/MRL have been elevated due to a matrix interference.

ALS Laboratory Group

Acronyms

Cal	Calibration
Conc	CONCentration
Dioxin(s)	Polychlorinated dibenzo-p-dioxin(s)
EDL	Estimated Detection Limit
EMPC	Estimated Maximum Possible Concentration
Flags	Data qualifiers
Furan(s)	Polychlorinated dibenzofuran(s)
g	Grams
ICAL	Initial CALibration
ID	IDentifier
Ions	Masses monitored for the analyte during data acquisition
L	Liter (s)
LCS	Laboratory Control Sample
DLCS	Duplicate Laboratory Control Sample
MB	Method Blank
MCL	Method Calibration Limit
MDL	Method Detection Limit
mL	Milliliters
MS	Matrix Spiked sample
DMS	Duplicate Matrix Spiked sample
NO	Number of peaks meeting all identification criteria
PCDD(s)	Polychlorinated dibenzo-p-dioxin(s)
PCDF(s)	Polychlorinated dibenzofuran(s)
ppb	Parts per billion
ppm	Parts per million
ppq	Parts per quadrillion
ppt	Parts per trillion
QA	Quality Assurance
QC	Quality Control
Ratio	Ratio of areas from monitored ions for an analyte
% Rec.	Percent recovery
RPD	Relative Percent Difference
RRF	Relative Response Factor
RT	Retention Time
SDG	Sample Delivery Group
S/N	Signal-to-noise ratio
TEF	Toxicity Equivalence Factor
TEQ	Toxicity Equivalence Quotient

State Certifications, Accreditations, and Licenses

Agency	Number	Expire Date
American Association for Laboratory Accreditation	2897.01	11/30/2017
Arizona Department of Health Services	AZ0793	5/27/2017
Arkansas Department of Environmental Quality	14-038-0	6/16/2017
California Department of Health Services	2452	2/28/2017
Florida Department of Health	E87611	6/30/2017
Hawaii Department of Health	TX02694	4/30/2017
Illinois Environmental Protection Agency	200057	5/9/2017
Louisiana Department of Environmental Quality	03048	6/30/2017
Louisiana Department of Health and Hospitals	LA150026	12/31/2016
Maine Center for Disease Control and Prevention	2014019	6/5/2018
Maryland Department of the Environment	343	6/30/2017
Michigan Department of Environmental Quality	9971	6/5/2018
Minnesota Department of Health	840911	12/31/2016
Nebraska Department of Health and Human Services	NE-OS-25-13	4/30/2017
Nevada Department of Conservation and Natural Resources	TX014112013-2	7/31/2017
New Jersey Department of Environmental Protection	NLC140001	6/30/2017
New Mexico Environment Department	TX02694	4/17/2017
New York Department of Health	11707	4/1/2017
Oklahoma Department of Environmental Quality	2014 124	8/21/2017
Oregon Environmental Laboratory Accreditation Program	TX200002	3/24/2017
Pennsylvania Department of Environmental Protection	68-03441	6/30/2017
Tennessee Department of Environment and Conservation	04016	6/30/2017
Texas Commission on Environmental Quality	TX104704216-14-5	6/30/2017
United States Department of Agriculture	P330-14-00067	2/21/2017
Utah Department of Health Environmental Laboratory Certification	TX02694	7/31/2017
West Virginia Department of Environmental Protection	347	6/30/2017

ALS ENVIRONMENTAL – Houston
Data Processing/Form Production and Peer Review Signatures

SR# Unique ID E1601142

DB-5MSUI

SPB-Octyl

First Level - Data Processing - to be filled by person generating the forms

Date: 12/16/16

Analyst: Lee

Samples: 1 - 7

Second Level - Data Review – to be filled by person doing peer review

Date: 12/16/16

Analyst: OR

Samples: ED1 007



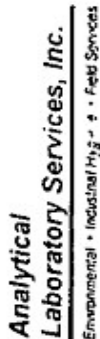
Chain of Custody

ALS Environmental - Houston HRMS
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Phone (713)266-1599 Fax (713)266-0130
www.alsglobal.com

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E1601142

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**CHAIN OF CUSTODY/
REQUEST FOR ANALYSIS**

COC #:	1 of 1
ALSI Quote #:	

3: Dogwood Lane - Middlestown, PA 17057 - : 717.554.1111 Fax: 717.554.1130

Client Name: ALS Environmental		Address: 34 Dogwood Lane Middletown, PA 17057		Contact: Brad Kintzer Phone#: (717) 944-5541		Project Name/ID:		Bill To: ALS Environmental	
<p><input checked="" type="checkbox"/> Normal-Standard TAT is 10-12 business days. <input type="checkbox"/> Rush-Subject to ALS approval and surcharges.</p> <p>Date Required: _____ Approved By: _____</p> <p>Email? <input checked="" type="checkbox"/> Y <input type="checkbox"/> N ALMDI.Subcontract@ALSGlobal.com</p> <p>Fax? <input type="checkbox"/> Y <input type="checkbox"/> N No.:</p>									
Sample Description/Location (as it will appear on the lab report)	Sample Date	Time	Enter Number of Containers Per Sample or Field Results Below.						
1 2191010 001	11/21/16	1245	G	S	1				
2 2191010 002	11/21/16	1230	G	S	1				
3 2191010 003	11/21/16	1300	G	S	1				
4 2191010 004	11/21/16	1315	G	S	1				
5 2191010 005	11/21/16	1125	G	S	1				
6 2191010 006 551	11/21/16	1130	G	S	1				
7 2191010 007 007 11/21/16	11/21/16	1145	G	S	1				
8									
9									
10									
<p>Project Comments:</p> <p>Relinquished By / Company Name: <u>ALS Environmental</u></p> <p>Date: <u>11/21/16</u> Time: <u>1630</u></p> <p>Received By / Company Name: <u>ALS Environmental</u></p> <p>Date: <u>11/30/16</u> Time: <u>18:55</u></p>									
<p>LOGGED BY (signature): _____</p> <p>REVIEWED BY (signature): _____</p>									
<p>State Samples Collected In</p> <p>NY <input type="checkbox"/> NJ <input type="checkbox"/> PA <input type="checkbox"/> NC <input type="checkbox"/> other <input type="checkbox"/></p>			<p>Special Processing</p> <p>USACE <input type="checkbox"/> Navy <input type="checkbox"/></p>			<p>Sample Disposal</p> <p>Lab <input type="checkbox"/> Special <input type="checkbox"/></p>			
<p>Standard <input type="checkbox"/> CLP-like <input type="checkbox"/> USACE <input type="checkbox"/> NJ Reduced <input type="checkbox"/></p>			<p>Reportable to PADEP?</p> <p>Yes <input type="checkbox"/> No <input type="checkbox"/></p>			<p>PWSID # _____</p>			
<p>EDDs: Format Type: _____</p>									

Rev 5/05

ALS



CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM

1565 Jefferson Road, Building 300, Suite 360 • Rochester, NY 14623 | +1 585 288 5380 +1 585 288 8475 (fax) PAGE

ANALYSIS REQUESTED (Include Method Number and Co.)				PRESERVATIVE				NUMBER OF CONTAINERS				CLIENT SAMPLE ID				DATE				TIME				MATRIX							
Project Name: Sauguetres				Project DC: RCB				PRESERVATIVE: RCB				NUMBER OF CONTAINERS: RCB				CLIENT SAMPLE ID: SB-1 (01-1)				DATE: 11/21/16				TIME: 11:25				MATRIX: SOIL			
Project Address: Fort Albert Associates				PRESERVATIVE: RCB				NUMBER OF CONTAINERS: RCB				CLIENT SAMPLE ID: SB-1 (41-5)				DATE: 11/21/16				TIME: 11:30				MATRIX: SOIL							
Project Address: 435 New Kerner Rd				PRESERVATIVE: RCB				NUMBER OF CONTAINERS: RCB				CLIENT SAMPLE ID: SB-2 (01-1)				DATE: 11/21/16				TIME: 11:30				MATRIX: SOIL							
Project Address: Albany NY 12205				PRESERVATIVE: RCB				NUMBER OF CONTAINERS: RCB				CLIENT SAMPLE ID: SB-2 (46-5)				DATE: 11/21/16				TIME: 11:35				MATRIX: SOIL							
Project Address: RCB 452-1037				PRESERVATIVE: RCB				NUMBER OF CONTAINERS: RCB				CLIENT SAMPLE ID: SB-3 (0-1)				DATE: 11/21/16				TIME: 11:25				MATRIX: SOIL							
Project Address: RCB 452-1037				PRESERVATIVE: RCB				NUMBER OF CONTAINERS: RCB				CLIENT SAMPLE ID: SB-3 (35-4)				DATE: 11/21/16				TIME: 11:30				MATRIX: SOIL							
Project Address: RCB 452-1037				PRESERVATIVE: RCB				NUMBER OF CONTAINERS: RCB				CLIENT SAMPLE ID: SB-4				DATE: 11/21/16				TIME: 11:45				MATRIX: SOIL							
Project Address: RCB 452-1037				PRESERVATIVE: RCB				NUMBER OF CONTAINERS: RCB				CLIENT SAMPLE ID: SB-4				DATE: 11/21/16				TIME: 11:45				MATRIX: SOIL							
Project Address: RCB 452-1037				PRESERVATIVE: RCB				NUMBER OF CONTAINERS: RCB				CLIENT SAMPLE ID: SB-4				DATE: 11/21/16				TIME: 11:45				MATRIX: SOIL							
Project Address: RCB 452-1037				PRESERVATIVE: RCB				NUMBER OF CONTAINERS: RCB				CLIENT SAMPLE ID: SB-4				DATE: 11/21/16				TIME: 11:45				MATRIX: SOIL							
Project Address: RCB 452-1037				PRESERVATIVE: RCB				NUMBER OF CONTAINERS: RCB				CLIENT SAMPLE ID: SB-4				DATE: 11/21/16				TIME: 11:45				MATRIX: SOIL							
Project Address: RCB 452-1037				PRESERVATIVE: RCB				NUMBER OF CONTAINERS: RCB				CLIENT SAMPLE ID: SB-4				DATE: 11/21/16				TIME: 11:45				MATRIX: SOIL							
Project Address: RCB 452-1037				PRESERVATIVE: RCB				NUMBER OF CONTAINERS: RCB				CLIENT SAMPLE ID: SB-4				DATE: 11/21/16				TIME: 11:45				MATRIX: SOIL							
Project Address: RCB 452-1037				PRESERVATIVE: RCB				NUMBER OF CONTAINERS: RCB				CLIENT SAMPLE ID: SB-4				DATE: 11/21/16				TIME: 11:45				MATRIX: SOIL							
Project Address: RCB 452-1037				PRESERVATIVE: RCB				NUMBER OF CONTAINERS: RCB				CLIENT SAMPLE ID: SB-4				DATE: 11/21/16				TIME: 11:45				MATRIX: SOIL							
Project Address: RCB 452-1037				PRESERVATIVE: RCB				NUMBER OF CONTAINERS: RCB				CLIENT SAMPLE ID: SB-4				DATE: 11/21/16				TIME: 11:45				MATRIX: SOIL							
Project Address: RCB 452-1037				PRESERVATIVE: RCB				NUMBER OF CONTAINERS: RCB				CLIENT SAMPLE ID: SB-4				DATE: 11/21/16				TIME: 11:45				MATRIX: SOIL							
Project Address: RCB 452-1037				PRESERVATIVE: RCB				NUMBER OF CONTAINERS: RCB				CLIENT SAMPLE ID: SB-4				DATE: 11/21/16				TIME: 11:45				MATRIX: SOIL							
Project Address: RCB 452-1037				PRESERVATIVE: RCB				NUMBER OF CONTAINERS: RCB				CLIENT SAMPLE ID: SB-4				DATE: 11/21/16				TIME: 11:45				MATRIX: SOIL							
Project Address: RCB 452-1037				PRESERVATIVE: RCB				NUMBER OF CONTAINERS: RCB				CLIENT SAMPLE ID: SB-4				DATE: 11/21/16				TIME: 11:45				MATRIX: SOIL							
Project Address: RCB 452-1037				PRESERVATIVE: RCB				NUMBER OF CONTAINERS: RCB				CLIENT SAMPLE ID: SB-4				DATE: 11/21/16				TIME: 11:45				MATRIX: SOIL							
Project Address: RCB 452-1037				PRESERVATIVE: RCB				NUMBER OF CONTAINERS: RCB				CLIENT SAMPLE ID: SB-4				DATE: 11/21/16				TIME: 11:45				MATRIX: SOIL							
Project Address: RCB 452-1037				PRESERVATIVE: RCB				NUMBER OF CONTAINERS: RCB				CLIENT SAMPLE ID: SB-4				DATE: 11/21/16				TIME: 11:45				MATRIX: SOIL							
Project Address: RCB 452-1037				PRESERVATIVE: RCB				NUMBER OF CONTAINERS: RCB				CLIENT SAMPLE ID: SB-4				DATE: 11/21/16				TIME: 11:45				MATRIX: SOIL							
Project Address: RCB 452-1037				PRESERVATIVE: RCB				NUMBER OF CONTAINERS: RC																							

Distribution: White - Loss Copy, Yellow - Return to Originator
E1601142

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Environmental • Industrial Hygiene • Field Services

34 Dogwood Lane • Middletown, PA 17057 • T: 717 944 5541 • Fax: 717 944 1400

CHAIN OF CUSTODY/ REQUEST FOR ANALYSIS

ALL SHADED AREAS MUST BE COMPLETED BY THE CLIENT /
SAMPLER. INSTRUCTIONS ON THE BACK.

COC #: 1
of 1
ALSI Quote #: 1

Receipt Information (completed by Receiving Lab)
Cooler Temp: _____ Therm. ID: _____
No. of Coolers: _____ Y N Initial
Custody Seals Present? _____
(If present) Seals Intact? _____
Received on Ice? _____
COC Labels Complete/Accurate? _____
Cork in Good Cond? _____
Correct Containers? _____
Correct Sample Volumes? _____
Correct Preservation? _____
Headspace Volatiles? _____
Lamination/Sealing: _____

ANALYSIS METHOD REQUESTED
Enter Number of Containers Per Sample or Field Results Below.
Dioxins _____
Matrix _____

Sample Description/Location (as it will appear on the lab report)	Sample Date	Time	G	C	Matrix
1 2191010 001	11/21/16	1245	G	S	1
2 2191010 002	11/21/16	1230	G	S	1
3 2191010 003	11/21/16	1300	G	S	1
4 2191010 004	11/21/16	1315	G	S	1
5 2191010 005	11/21/16	1125	G	S	1
6 2191010 006 506 SSF	11/21/16	1130	G	S	1
7 2191010 008 007 11/21/16	11/21/16	1145	G	S	1
8					
9					
10					

Project Comments: _____
LOGGED BY (signature): _____
REVIEWED BY (signature): _____
Date: _____ Time: _____
Received By / Company Name: _____ Date: _____ Time: _____
Relinquished By / Company Name: _____ Date: _____ Time: _____
1 11/21/16 1630 2
3 4
5 6
7 8
9 10

State Samples Collected In
Standard ☐ CLP-like ☐ USACE ☐ NJ Reduced ☐
Special Processing ☐ USACE ☐ Navy ☐
ALS Field Services: ☐ Pickup ☐ Labor ☐
☐ Composite Sampling ☐ Rental Equipment ☐ Other: _____
Sample Disposal
Reportable to PADEP? ☐ Yes ☐ No
PWSID # _____
EDDs: Formal Type _____
other _____

Copies: _____
G=Grab, C=Composite
Matrix: Air=Air, DW=Drinking Water, GW=Groundwater, O=Oil, OL=Other Liquid, SL=Sludge, SD=Soil, WP=Wipe, WW=Wastewater
Copies: WHITE - ORIGINAL CANARY - CUSTOMER MAILING GOLDENROD - CUSTOMER COPY
E1601142 14 of 68
REV 5/05



**Analytical
Laboratory Services, Inc.**
Environmental • Industrial Hygiene • Field Services

34 Dogwood Lane • Middletown, PA 17057 • 717.944.5541 • Fax 717.944.1430

**CHAIN OF CUSTODY/
REQUEST FOR ANALYSIS**
ALL SHADED AREAS MUST BE COMPLETED BY THE CLIENT /
SAMPLER. INSTRUCTIONS ON THE BACK.

COC #: **1**
of **1**
ALSI Quote #:

Client Name: ALS Environmental		Container Type: AG		
Address: 34 Dogwood Lane		Container Size: 1L		
Middletown, PA 17057		Preservative: NONE		
Contact: Brad Kintzer		ANALYSES/METHOD REQUESTED		
Phone#: (717) 944-5541				
Project Name#:				
Bill To: ALS Environmental				
TAT <input checked="" type="checkbox"/> Normal-Standard TAT is 10-12 business days.				
Date Required: <input type="checkbox"/> Rush-Subject to ALSI approval and surcharges.				
Approved By: _____				
Email? <input checked="" type="checkbox"/> X - Y ALMDT.Subcontract@ALSGlobal.com				
Fax? <input type="checkbox"/> - Y No.:				
Sample Description/Location (as it will appear on the lab report)	Sample Date	Time	Enter Number of Containers Per Sample or Field Results Below.	
1 2195263 001	11/21/16	1245 G S 1		
2 2195263 002	11/21/16	1230 G S 1	Subcontract: ALS Houston	
3 2195263 003	11/21/16	1300 G S 1		
4 2195263 004	11/21/16	1315 G S 1		
5 2195263 005	11/21/16	1125 G S 1		
6 2195263 006	11/21/16	1130 G S 1		
7 2195263 007	11/21/16	1145 G S 1		
8				
9				
10				
Project Comments:		LOGGED BY (signature): _____		
Relinquished By / Company Name		Date	Time	Received By / Company Name
1 <i>Signature</i>			2	
3			4	
5			6	
7			8	
9			10	
Special Processing: USACE <input type="checkbox"/> Navy <input type="checkbox"/> State Samples Collected In: <input type="checkbox"/> NY <input type="checkbox"/> NJ <input type="checkbox"/> PA <input type="checkbox"/> NC <input type="checkbox"/> other		Sample Disposal: Lab <input type="checkbox"/> Special <input type="checkbox"/>		
Data Deliverables: <input type="checkbox"/> Standard <input type="checkbox"/> CLP-like <input type="checkbox"/> USACE <input type="checkbox"/> NJ Reduced		Reportable to PADEP? Yes <input type="checkbox"/> No <input type="checkbox"/> PWSID # _____		
ALSI Field Services: <input type="checkbox"/> Pickup <input type="checkbox"/> Labor <input type="checkbox"/> Composite Sampling <input type="checkbox"/> Rental Equipment <input type="checkbox"/> Other		EDDs: Format Type: _____		



Cooler Receipt Form

Project Chemist NB

Client/Project ALS Environmental

Thermometer ID SMO4

Date/Time Received: 11/30/16 8:55

Initials: AL

Date/Time Logged In: 11/30/16

Initials AL

1. Method of delivery: ☐ US Mail ☒ Fed Ex ☐ UPS ☐ DHL ☐ Courier ☐ Client

2. Samples received in: ☒ Cooler ☐ Box ☐ Envelope ☐ Other

3. Were custody seals on coolers? ☐ Yes ☒ No

Were they intact? ☐ Yes ☐ No N/A

Were they signed and dated? ☐ Yes ☐ No N/A

If yes, how many and where?

No seals

4. Packing Material: ☐ Inserts ☒ Baggies ☒ Bubble Wrap ☐ Gel Packs ☒ Wet Ice ☐ Sleeves ☐ Other

5. Foreign or Regulated Soil?

☐ Yes ☒ No

Location of Sampling:

Cooler Tracking Number	COC ID	Date Opened	Time Opened	Opened By	Temp °C	Temp Blank
7778 1991 0613		11/30/16	9:20	AL	56/4.6	<input type="checkbox"/>
						<input type="checkbox"/>
						<input type="checkbox"/>
						<input type="checkbox"/>

6. Were custody papers properly filled out (ink, signed, dated, etc)?

☒ Yes ☐ No

7. Did all bottles arrive in good condition (not broken, no signs of leakage)?

☒ Yes ☐ No

8. Were all sample labels complete (i.e., sample ID, analysis, preservation, etc)?

☒ Yes ☐ No

9. Were appropriate bottles/containers and volumes received for the requested tests?

☒ Yes ☐ No

10. Did sample labels and tags agree with custody documents?

☒ Yes ☐ No

Notes, Discrepancies, & Resolutions:

E1601142

Service request Label:



10450 Stancliff Rd., Suite 210
Houston, TX 77099
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F: +1 713 266 1599
www.alsglobal.com

SAMPLE ACCEPTANCE POLICY

This policy outlines the criteria samples must meet to be accepted by ALS Environmental – Houston HRMS.

Cooler Custody Seals (desirable, mandatory if specified in SAP):

- ✓ Intact on outside of cooler, signed and dated

Chain-of-Custody (COC) documentation (mandatory):

The following is required on each COC:

- ✓ Sample ID, the location, date and time of collection, collector's name, preservation type, sample type, and any other special remarks concerning the sample. The COC must be completed in ink.
- ✓ Signature and date of relinquishing party.

In the absence of a COC at sample receipt, the COC will be requested from the client.

Sample Integrity (mandatory):

Samples are inspected upon arrival to ensure that sample integrity was not compromised during transfer to the laboratory.

- ✓ Sample containers must arrive in good condition (not broken or leaking).
- ✓ Samples must be labeled appropriately, including Sample IDs, and requested test using durable labels and indelible ink.
- ✓ The correct type of sample bottle must be used for the method requested.
- ✓ An appropriate sample volume, or weight, must be received.
- ✓ Sample IDs and number of containers must reconcile with the COC.
- ✓ Samples must be received within the method defined holding time.

Temperature Requirement (varies by sample matrix):

- ✓ Aqueous and Non-aqueous samples must be shipped and stored cold, at 0 to 6°C.
- ✓ Tissue samples must be shipped and stored frozen, at -20 to -10°C.
- ✓ Air samples are shipped and stored cold, at 0 to 6°C.
- ✓ The sample temperature must be recorded on the COC.

All cooler inspections are documented on the Cooler Receipt Form (CRF). A separate CRF is completed for each service request. Any samples not meeting the above criteria are noted on the CRF and the Project Manager notified. The Project Manager must resolve any sample integrity issues with the client prior to proceeding with the analysis. Such resolutions are documented in writing and filed with the project folder. Data associated with samples received outside of this acceptance policy will be qualified on the case narrative of the final report.

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Preparation Information Benchsheets

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E1601142

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Preparation Information Benchsheet

Prep Run#: 277153
Team: Semiviva GCMS/ALOPEZ

Prep WorkFlow: OrgExtDioxS(30)
Prep Method: Method

Status: Prepped
Prep Date/Time: 12/5/16 11:00 AM

#	Lab Code	Client ID	B#	Method/Test	pH	CI	Matrix	Amt. Ext.	Sample Description
1	E1601139-001	Office SE	.01	8290/PCDD PCDF			Soil	10.104g	BROWN SOIL
2	E1601139-002	0+00 LEFT 37	.01	8290/PCDD PCDF			Soil	10.016g	BROWN SOIL
3	E1601139-003	SMALL EXCAVATION	.01	8290/PCDD PCDF			Soil	10.194g	BROWN SOIL
4	E1601139-004	0+25 LEFT 13	.01	8290/PCDD PCDF			Soil	10.032g	BROWN SOIL
5	E1601139-005	BLA, 1+75	.01	8290/PCDD PCDF			Soil	10.108g	BROWN SOIL
6	E1601142-001	2195263 001	.02	8290/APCDD PCDF			Soil	10.00g	BROWN RED SOIL WITH BLACK LAVA ROCKS
7	E1601142-002	2195263 002	.02	8290/APCDD PCDF			Soil	10.056g	BROWN RED SOIL WITH BLACK LAVA ROCKS
8	E1601142-003	2195263 003	.02	8290/APCDD PCDF			Soil	10.057g	DARK DAMP SOIL
9	E1601142-004	2195263 004	.02	8290/APCDD PCDF			Soil	10.297g	REDISH BROWN DAMP SOIL
10	E1601142-005	2195263 005	.02	8290/APCDD PCDF			Soil	10.250g	REDISH BROWN SOIL
11	E1601142-006	2195263 006	.02	8290/APCDD PCDF			Soil	10.090g	REDISH BROWN SOIL
12	E1601142-007	2195263 007	.02	8290/APCDD PCDF			Soil	10.041g	DARK SOIL
13	E1601145-001	AJB0053	.01	8290/PCDD PCDF			Soil	10.080g	BROWN SOIL
14	E1601145-002	AJB0059	.01	8290/PCDD PCDF			Soil	10.147g	RED SOIL
15	E1601151-001	Waste-HT2580-IDW-161202	.01	8290/PCDD PCDF			Sludge, Solid	10.192g	GREYISH BROWN SLUDGE
16	EQ1600536-01	MB		8290/APCDD PCDF			Solid	10.033g	
17	EQ1600536-02	LCS		8290/APCDD PCDF			Solid	10.071g	
18	EQ1600536-03	DLCS		8290/APCDD PCDF			Solid	10.002g	

Preparation Information Benchsheet

Prep Run#: 277153 **Prep WorkFlow:** OrgExtDioxS(30) **Status:** Prepped
Team: Semiviva GCMS/ALOPEZ **Prep Method:** Method **Prep Date/Time:** 12/5/16 11:00 AM
Spiking Solutions

Name:	1613B Matrix Working Standard	Inventory ID	177407	Logbook Ref:	TW 177407 11/17/16 2-20NG/ML	Expires On:	05/16/2017
EQ1600536-02	100.00µL	EQ1600536-02	100.00µL	EQ1600536-03	100.00µL		

Name:	8280/1613B Cleanup Working Standard	Inventory ID	177591	Logbook Ref:	177591 CID 11/29/16 EXT	Expires On:	01/29/2017
E1601139-001	100.00µL	E1601139-002	100.00µL	E1601139-003	100.00µL	E1601142-001	100.00µL
E1601142-002	100.00µL	E1601142-003	100.00µL	E1601142-004	100.00µL	E1601142-007	100.00µL
E1601145-001	100.00µL	E1601145-002	100.00µL	E1601145-002.R01	100.00µL	EQ1600536-01	100.00µL
EQ1600536-02	100.00µL	EQ1600536-02	100.00µL	EQ1600536-03	100.00µL		

Name:	1613B Labeled Working Standard	Inventory ID	177686	Logbook Ref:	JP 177686 12/1/16 2-4 ng/mL	Expires On:	01/22/2017
E1601139-001	1,000.00µL	E1601139-002	1,000.00µL	E1601139-003	1,000.00µL	E1601142-001	1,000.00µL
E1601142-002	1,000.00µL	E1601142-003	1,000.00µL	E1601142-004	1,000.00µL	E1601142-007	1,000.00µL
EQ1600536-01	1,000.00µL	EQ1600536-01	1,000.00µL	EQ1600536-02	1,000.00µL	EQ1600536-03	1,000.00µL

Name:	1613B Labeled Working Standard	Inventory ID	177759	Logbook Ref:	177759 TW 12/5/16 2-4NG/ML	Expires On:	01/22/2017
E1601145-001	1,000.00µL	E1601145-002	1,000.00µL	E1601145-002.R01	1,000.00µL	EQ1600536-01	1,000.00µL
EQ1600536-02	1,000.00µL	EQ1600536-02	1,000.00µL	EQ1600536-03	1,000.00µL		

Preparation Materials

Carbon, High Purity CID 11/3/16 (177078)
Hexanes 95% CID 12/2/16 (177710)
Sodium Sulfate Anhydrous AL 9/23/16 (175903)
Reagent Grade Na2SO4 CID 10/11/16 (176335)
sulfuric acid

Ethyl Acetate 99.9% Minimum AL 8/17/16 (175088)
EtOAc
Dichloromethane (Methylene Chloride) 99.9% MeCl2 JP 10/12/16 (176405)
Tridecane (n-Tridecane) AL 9/28/16 (176018)
Toluene 99.9% Minimum al 12/5/16 (177762)

Glass Wool CID 9/29/16 (176041)
Sodium Chloride Reagent Grade CZ-65-5 (38670)
NaCl
Silica Gel CID 9/28/16 (176042)

Preparation Steps

Step: Extraction
Started: 12/5/16 11:00
Finished: 12/6/16 08:00
By: TWOODS
Comments

Step: Acid Clean
Started: 12/7/16 13:00
Finished: 12/7/16 13:30
By: CDIAZ
Comments

Step: Silica Gel Clean
Started: 12/8/16 08:45
Finished: 12/8/16 10:15
By: CDIAZ
Comments

Step: Final Volume
Started: 12/8/16 14:10
Finished: 12/8/16 14:45
By: CDIAZ
Comments

E1601142

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Preparation Information Benchsheet

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Preparation Information Benchsheet

Prep Run#: 277153
Team: Semivoa GCMS/ALOPEZ

Prep WorkFlow: OrgExtDioxS(30)
Prep Method: Method

Status: Prepped
Prep Date/Time: 12/5/16 11:00 AM

Comments:

Reviewed By: _____

Date: _____

Chain of Custody

Relinquished By: _____

Date: _____

Received By: _____

Date: _____

Extracts Examined
Yes No

E1601142

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Preparation Information Benchsheet

Page 3



Analytical Results

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E1601142

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ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: ALS Environmental - US
Project: Dioxins Furans Analysis - 2195263
Sample Matrix: Soil

Sample Name: 2195263 001
Lab Code: E1601142-001

Service Request: E1601142
Date Collected: 11/21/16 12:45
Date Received: 11/30/16 08:55

Units: ng/Kg
Basis: Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method: 8290A
Prep Method: Method
Sample Amount: 10.00g

Data File Name: P606065
ICAL Date: 07/15/16

Date Analyzed: 12/12/16 14:16
Date Extracted: 12/5/16
Instrument Name: E-HRMS-08
GC Column: DB-5MSUI
Blank File Name: P507460
Cal Ver. File Name: P606062

Native Analyte Results

Analyte Name	Result	Q	EDL	MRL	Ion Ratio	RRT	Dilution Factor
2,3,7,8-TCDD	ND	U	0.254	0.588			1
1,2,3,7,8-PeCDD	ND	U	0.141	2.94			1
1,2,3,6,7,8-HxCDD	0.163BJ		0.0852	2.94	1.38	1.000	1
1,2,3,4,7,8-HxCDD	ND	U	0.0830	2.94			1
1,2,3,7,8,9-HxCDD	0.164BJ		0.0820	2.94	1.20	1.008	1
1,2,3,4,6,7,8-HpCDD	3.32B		0.118	2.94	1.06	1.000	1
OCDD	36.7		0.233	5.88	0.89	1.000	1
2,3,7,8-TCDF	ND	U	0.268	0.588			1
1,2,3,7,8-PeCDF	0.159JK		0.135	2.94	1.15	1.001	1
2,3,4,7,8-PeCDF	0.141JK		0.136	2.94	1.86	1.001	1
1,2,3,6,7,8-HxCDF	0.112BJK		0.0460	2.94	1.60	1.000	1
1,2,3,7,8,9-HxCDF	ND	U	0.0667	2.94			1
1,2,3,4,7,8-HxCDF	0.174BJK		0.0502	2.94	0.85	1.000	1
2,3,4,6,7,8-HxCDF	0.174BJ		0.0545	2.94	1.28	1.000	1
1,2,3,4,6,7,8-HpCDF	0.873BJ		0.0646	2.94	1.03	1.000	1
1,2,3,4,7,8,9-HpCDF	ND	U	0.0770	2.94			1
OCDF	1.54BJK		0.127	5.88	0.75	1.005	1

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: ALS Environmental - US
Project: Dioxins Furans Analysis - 2195263
Sample Matrix: Soil

Service Request: E1601142
Date Collected: 11/21/16 12:45
Date Received: 11/30/16 08:55

Sample Name: 2195263 001
Lab Code: E1601142-001

Units: ng/Kg
Basis: Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method: 8290A
Prep Method: Method
Sample Amount: 10.00g

Date Analyzed: 12/12/16 14:16
Date Extracted: 12/5/16
Instrument Name: E-HRMS-08
GC Column: DB-5MSUI
Blank File Name: P507460
Cal Ver. File Name: P606062

Data File Name: P606065
ICAL Date: 07/15/16

Native Analyte Results

Analyte Name	Result	Q	EDL	MRL	Ion Ratio	RRT	Dilution Factor
Total Tetra-Dioxins	ND	U	0.254	0.588			1
Total Penta-Dioxins	ND	U	0.141	2.94			1
Total Hexa-Dioxins	1.63J		0.0834	2.94	1.27		1
Total Hepta-Dioxins	6.66		0.118	2.94	1.12		1
Total Tetra-Furans	ND	U	0.268	0.588			1
Total Penta-Furans	ND	U	0.135	2.94			1
Total Hexa-Furans	0.964J		0.0534	2.94	1.11		1
Total Hepta-Furans	2.10J		0.0702	2.94	1.03		1

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: ALS Environmental - US
Project: Dioxins Furans Analysis - 2195263
Sample Matrix: Soil

Sample Name: 2195263 001
Lab Code: E1601142-001

Service Request: E1601142
Date Collected: 11/21/16 12:45
Date Received: 11/30/16 08:55

Units: Percent
Basis: Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method: 8290A
Prep Method: Method
Sample Amount: 10.00g

Data File Name: P606065
ICAL Date: 07/15/16

Date Analyzed: 12/12/16 14:16
Date Extracted: 12/5/16
Instrument Name: E-HRMS-08
GC Column: DB-5MSUI
Blank File Name: P507460
Cal Ver. File Name: P606062

Labeled Standard Results

Labeled Compounds	Spike Conc.(pg)	Conc. Found (pg)	% Rec	Q	Control Limits	Ion Ratio	RRT
13C-2,3,7,8-TCDD	2000	1031.036	52		40-135	0.79	1.032
13C-1,2,3,7,8-PeCDD	2000	1286.035	64		40-135	1.60	1.256
13C-1,2,3,4,7,8-HxCDD	2000	1198.897	60		40-135	1.26	0.991
13C-1,2,3,6,7,8-HxCDD	2000	1351.641	68		40-135	1.25	0.993
13C-1,2,3,4,6,7,8-HpCDD	2000	1196.206	60		40-135	1.06	1.072
13C-OCDD	4000	1980.887	50		40-135	0.90	1.141
13C-2,3,7,8-TCDF	2000	906.034	45		40-135	0.78	0.991
13C-1,2,3,7,8-PeCDF	2000	1203.951	60		40-135	1.57	1.201
13C-2,3,4,7,8-PeCDF	2000	1185.456	59		40-135	1.58	1.243
13C-1,2,3,4,7,8-HxCDF	2000	1191.335	60		40-135	0.51	0.968
13C-1,2,3,6,7,8-HxCDF	2000	1332.108	67		40-135	0.52	0.971
13C-1,2,3,7,8,9-HxCDF	2000	1186.964	59		40-135	0.52	1.009
13C-2,3,4,6,7,8-HxCDF	2000	1185.436	59		40-135	0.52	0.987
13C-1,2,3,4,6,7,8-HpCDF	2000	1157.471	58		40-135	0.44	1.046
13C-1,2,3,4,7,8,9-HpCDF	2000	1318.966	66		40-135	0.43	1.085
37Cl-2,3,7,8-TCDD	800	540.088	68		40-135	NA	1.033

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: ALS Environmental - US
Project: Dioxins Furans Analysis - 2195263
Sample Matrix: Soil

Service Request: E1601142
Date Collected: 11/21/16 12:45
Date Received: 11/30/16 08:55

Sample Name: 2195263 001
Lab Code: E1601142-001

Units: ng/Kg
Basis: Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method: 8290A
Prep Method: Method

Toxicity Equivalency Quotient

Analyte Name	Result	DL	MRL	Dilution Factor	TEF	TEF - Adjusted Concentration
2,3,7,8-TCDD	ND	0.254	0.588	1	1	
1,2,3,7,8-PeCDD	ND	0.141	2.94	1	1	
1,2,3,6,7,8-HxCDD	0.163	0.0852	2.94	1	0.1	0.0163
1,2,3,4,7,8-HxCDD	ND	0.0830	2.94	1	0.1	
1,2,3,7,8,9-HxCDD	0.164	0.0820	2.94	1	0.1	0.0164
1,2,3,4,6,7,8-HpCDD	3.32	0.118	2.94	1	0.01	0.0332
OCDD	36.7	0.233	5.88	1	0.0003	0.0110
2,3,7,8-TCDF	ND	0.268	0.588	1	0.1	
1,2,3,7,8-PeCDF	0.159	0.135	2.94	1	0.03	0.00477
2,3,4,7,8-PeCDF	0.141	0.136	2.94	1	0.3	0.0423
1,2,3,6,7,8-HxCDF	0.112	0.0460	2.94	1	0.1	0.0112
1,2,3,7,8,9-HxCDF	ND	0.0667	2.94	1	0.1	
1,2,3,4,7,8-HxCDF	0.174	0.0502	2.94	1	0.1	0.0174
2,3,4,6,7,8-HxCDF	0.174	0.0545	2.94	1	0.1	0.0174
1,2,3,4,6,7,8-HpCDF	0.873	0.0646	2.94	1	0.01	0.00873
1,2,3,4,7,8,9-HpCDF	ND	0.0770	2.94	1	0.01	
OCDF	1.54	0.127	5.88	1	0.0003	0.000462
Total TEQ						0.179

2005 WHO TEFs, ND = 0

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: ALS Environmental - US
Project: Dioxins Furans Analysis - 2195263
Sample Matrix: Soil
Sample Name: 2195263 001
Lab Code: E1601142-001

Service Request: E1601142
Date Collected: 11/21/16 12:45
Date Received: 11/30/16 08:55
Units: Percent
Basis: As Received

Total Solids

Analysis Method: ALS SOP
 6.695g

Date Analyzed: 12/09/16 11:59
 NA
 E-Balance-01

Native Analyte Results

Analyte Name	Result	Q	EDL	MRL	Ion Ratio	RRT	Dilution Factor
Total Solids	85.1		-	-			1

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 E1601142

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Superset Reference:16-0000403588 rev 00

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: ALS Environmental - US
Project: Dioxins Furans Analysis - 2195263
Sample Matrix: Soil

Service Request: E1601142
Date Collected: 11/21/16 12:30
Date Received: 11/30/16 08:55

Sample Name: 2195263 002
Lab Code: E1601142-002

Units: ng/Kg
Basis: Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method: 8290A
Prep Method: Method
Sample Amount: 10.056g

Date Analyzed: 12/12/16 15:05
Date Extracted: 12/5/16
Instrument Name: E-HRMS-08
GC Column: DB-5MSUI
Blank File Name: P507460
Cal Ver. File Name: P606062

Data File Name: P606066
ICAL Date: 07/15/16

Native Analyte Results

Analyte Name	Result	Q	EDL	MRL	Ion Ratio	RRT	Dilution Factor
2,3,7,8-TCDD	ND	U	0.0634	0.584			1
1,2,3,7,8-PeCDD	0.0899BJ		0.0493	2.92	1.74	1.001	1
1,2,3,6,7,8-HxCDD	0.149BJ		0.0495	2.92	1.27	1.000	1
1,2,3,4,7,8-HxCDD	0.0940BJK		0.0484	2.92	1.72	1.000	1
1,2,3,7,8,9-HxCDD	0.146BJ		0.0477	2.92	1.13	1.008	1
1,2,3,4,6,7,8-HpCDD	2.49BJ		0.0841	2.92	1.15	1.000	1
OCDD	41.7		0.221	5.84	0.91	1.000	1
2,3,7,8-TCDF	0.866		0.0701	0.584	0.75	1.000	1
1,2,3,7,8-PeCDF	0.310J		0.0749	2.92	1.36	1.001	1
2,3,4,7,8-PeCDF	0.358J		0.0763	2.92	1.62	1.001	1
1,2,3,6,7,8-HxCDF	0.144BJ		0.0237	2.92	1.08	1.000	1
1,2,3,7,8,9-HxCDF	0.0759BJK		0.0320	2.92	1.45	1.001	1
1,2,3,4,7,8-HxCDF	0.312BJ		0.0253	2.92	1.30	1.000	1
2,3,4,6,7,8-HxCDF	0.171BJ		0.0286	2.92	1.33	1.000	1
1,2,3,4,6,7,8-HpCDF	0.694BJ		0.0237	2.92	1.06	1.000	1
1,2,3,4,7,8,9-HpCDF	0.123BJ		0.0275	2.92	1.07	1.000	1
OCDF	0.977BJK		0.110	5.84	1.10	1.005	1

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: ALS Environmental - US
Project: Dioxins Furans Analysis - 2195263
Sample Matrix: Soil

Sample Name: 2195263 002
Lab Code: E1601142-002

Service Request: E1601142
Date Collected: 11/21/16 12:30
Date Received: 11/30/16 08:55

Units: ng/Kg
Basis: Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method: 8290A
Prep Method: Method
Sample Amount: 10.056g

Data File Name: P606066
ICAL Date: 07/15/16

Date Analyzed: 12/12/16 15:05
Date Extracted: 12/5/16
Instrument Name: E-HRMS-08
GC Column: DB-5MSUI
Blank File Name: P507460
Cal Ver. File Name: P606062

Native Analyte Results

Analyte Name	Result	Q	EDL	MRL	Ion Ratio	RRT	Dilution Factor
Total Tetra-Dioxins	0.287J		0.0634	0.584	0.68		1
Total Penta-Dioxins	0.206J		0.0493	2.92	1.42		1
Total Hexa-Dioxins	1.62J		0.0485	2.92	1.07		1
Total Hepta-Dioxins	5.03		0.0841	2.92	1.13		1
Total Tetra-Furans	3.05		0.0701	0.584	0.83		1
Total Penta-Furans	1.68J		0.0756	2.92	1.36		1
Total Hexa-Furans	1.17J		0.0271	2.92	1.30		1
Total Hepta-Furans	1.50J		0.0255	2.92	1.06		1

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: ALS Environmental - US
Project: Dioxins Furans Analysis - 2195263
Sample Matrix: Soil

Sample Name: 2195263 002
Lab Code: E1601142-002

Service Request: E1601142
Date Collected: 11/21/16 12:30
Date Received: 11/30/16 08:55

Units: Percent
Basis: Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method: 8290A
Prep Method: Method
Sample Amount: 10.056g

Data File Name: P606066
ICAL Date: 07/15/16

Date Analyzed: 12/12/16 15:05
Date Extracted: 12/5/16
Instrument Name: E-HRMS-08
GC Column: DB-5MSUI
Blank File Name: P507460
Cal Ver. File Name: P606062

Labeled Standard Results

Labeled Compounds	Spike Conc.(pg)	Conc. Found (pg)	% Rec	Q	Control Limits	Ion Ratio	RRT
13C-2,3,7,8-TCDD	2000	1320.146	66		40-135	0.80	1.033
13C-1,2,3,7,8-PeCDD	2000	1366.013	68		40-135	1.58	1.256
13C-1,2,3,4,7,8-HxCDD	2000	1197.090	60		40-135	1.24	0.991
13C-1,2,3,6,7,8-HxCDD	2000	1318.566	66		40-135	1.25	0.993
13C-1,2,3,4,6,7,8-HpCDD	2000	990.845	50		40-135	1.05	1.072
13C-OCDD	4000	1404.155	35	Y	40-135	0.91	1.141
13C-2,3,7,8-TCDF	2000	1213.540	61		40-135	0.78	0.992
13C-1,2,3,7,8-PeCDF	2000	1265.691	63		40-135	1.56	1.201
13C-2,3,4,7,8-PeCDF	2000	1233.879	62		40-135	1.58	1.244
13C-1,2,3,4,7,8-HxCDF	2000	1212.732	61		40-135	0.51	0.967
13C-1,2,3,6,7,8-HxCDF	2000	1300.538	65		40-135	0.53	0.971
13C-1,2,3,7,8,9-HxCDF	2000	1237.867	62		40-135	0.52	1.009
13C-2,3,4,6,7,8-HxCDF	2000	1153.638	58		40-135	0.52	0.987
13C-1,2,3,4,6,7,8-HpCDF	2000	936.104	47		40-135	0.44	1.046
13C-1,2,3,4,7,8,9-HpCDF	2000	1124.936	56		40-135	0.43	1.085
37Cl-2,3,7,8-TCDD	800	678.453	85		40-135	NA	1.033

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: ALS Environmental - US
 Project: Dioxins Furans Analysis - 2195263
 Sample Matrix: Soil
 Sample Name: 2195263 002
 Lab Code: E1601142-002

Service Request: E1601142
 Date Collected: 11/21/16 12:30
 Date Received: 11/30/16 08:55

Units: ng/Kg
 Basis: Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method: 8290A
 Prep Method: Method

Toxicity Equivalency Quotient

Analyte Name	Result	DL	MRL	Dilution Factor	TEF	TEF - Adjusted Concentration
2,3,7,8-TCDD	ND	0.0634	0.584	1	1	
1,2,3,7,8-PeCDD	0.0899	0.0493	2.92	1	1	0.0899
1,2,3,6,7,8-HxCDD	0.149	0.0495	2.92	1	0.1	0.0149
1,2,3,4,7,8-HxCDD	0.0940	0.0484	2.92	1	0.1	0.00940
1,2,3,7,8,9-HxCDD	0.146	0.0477	2.92	1	0.1	0.0146
1,2,3,4,6,7,8-HpCDD	2.49	0.0841	2.92	1	0.01	0.0249
OCDD	41.7	0.221	5.84	1	0.0003	0.0125
2,3,7,8-TCDF	0.866	0.0701	0.584	1	0.1	0.0866
1,2,3,7,8-PeCDF	0.310	0.0749	2.92	1	0.03	0.00930
2,3,4,7,8-PeCDF	0.358	0.0763	2.92	1	0.3	0.107
1,2,3,6,7,8-HxCDF	0.144	0.0237	2.92	1	0.1	0.0144
1,2,3,7,8,9-HxCDF	0.0759	0.0320	2.92	1	0.1	0.00759
1,2,3,4,7,8-HxCDF	0.312	0.0253	2.92	1	0.1	0.0312
2,3,4,6,7,8-HxCDF	0.171	0.0286	2.92	1	0.1	0.0171
1,2,3,4,6,7,8-HpCDF	0.694	0.0237	2.92	1	0.01	0.00694
1,2,3,4,7,8,9-HpCDF	0.123	0.0275	2.92	1	0.01	0.00123
OCDF	0.977	0.110	5.84	1	0.0003	0.000293
Total TEQ						0.448

2005 WHO TEFs, ND = 0

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: ALS Environmental - US
Project: Dioxins Furans Analysis - 2195263
Sample Matrix: Soil

Sample Name: 2195263 002
Lab Code: E1601142-002

Service Request: E1601142
Date Collected: 11/21/16 12:30
Date Received: 11/30/16 08:55

Units: Percent
Basis: As Received

Total Solids

Analysis Method: ALS SOP
8.139g

Date Analyzed: 12/09/16 11:59
NA
E-Balance-01

Native Analyte Results

Analyte Name	Result	Q	EDL	MRL	Ion Ratio	RRT	Dilution Factor
Total Solids	85.2		-	-			1

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: ALS Environmental - US
Project: Dioxins Furans Analysis - 2195263
Sample Matrix: Soil

Service Request: E1601142
Date Collected: 11/21/16 13:00
Date Received: 11/30/16 08:55

Sample Name: 2195263 003
Lab Code: E1601142-003

Units: ng/Kg
Basis: Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method: 8290A
Prep Method: Method
Sample Amount: 10.057g

Date Analyzed: 12/12/16 15:54
Date Extracted: 12/5/16
Instrument Name: E-HRMS-08
GC Column: DB-5MSUI
Blank File Name: P507460
Cal Ver. File Name: P606062

Data File Name: P606067
ICAL Date: 07/15/16

Native Analyte Results

Analyte Name	Result	Q	EDL	MRL	Ion Ratio	RRT	Dilution Factor
2,3,7,8-TCDD	ND	U	0.182	0.667			1
1,2,3,7,8-PeCDD	0.233BJK		0.124	3.34	1.88	1.001	1
1,2,3,6,7,8-HxCDD	0.732BJ		0.0947	3.34	1.07	1.000	1
1,2,3,4,7,8-HxCDD	0.317BJ		0.0892	3.34	1.08	1.000	1
1,2,3,7,8,9-HxCDD	0.478BJ		0.0895	3.34	1.28	1.008	1
1,2,3,4,6,7,8-HpCDD	16.1		0.132	3.34	1.01	1.000	1
OCDD	291		0.486	6.67	0.89	1.000	1
2,3,7,8-TCDF	0.496J		0.118	0.667	0.84	1.001	1
1,2,3,7,8-PeCDF	0.323JK		0.187	3.34	1.93	1.000	1
2,3,4,7,8-PeCDF	0.493J		0.190	3.34	1.63	1.001	1
1,2,3,6,7,8-HxCDF	0.438BJ		0.0800	3.34	1.36	1.000	1
1,2,3,7,8,9-HxCDF	0.172BJ		0.108	3.34	1.37	1.001	1
1,2,3,4,7,8-HxCDF	0.776J		0.0852	3.34	1.42	1.000	1
2,3,4,6,7,8-HxCDF	0.380BJK		0.0907	3.34	1.47	1.000	1
1,2,3,4,6,7,8-HpCDF	4.49		0.0717	3.34	1.07	1.000	1
1,2,3,4,7,8,9-HpCDF	0.309BJK		0.0823	3.34	0.73	1.000	1
OCDF	6.93		0.226	6.67	0.94	1.005	1

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: ALS Environmental - US
Project: Dioxins Furans Analysis - 2195263
Sample Matrix: Soil
Sample Name: 2195263 003
Lab Code: E1601142-003

Service Request: E1601142
Date Collected: 11/21/16 13:00
Date Received: 11/30/16 08:55
Units: ng/Kg
Basis: Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method: 8290A
Prep Method: Method
Sample Amount: 10.057g
Data File Name: P606067
ICAL Date: 07/15/16

Date Analyzed: 12/12/16 15:54
Date Extracted: 12/5/16
Instrument Name: E-HRMS-08
GC Column: DB-5MSUI
Blank File Name: P507460
Cal Ver. File Name: P606062

Native Analyte Results

Analyte Name	Result	Q	EDL	MRL	Ion Ratio	RRT	Dilution Factor
Total Tetra-Dioxins	3.13		0.182	0.667	0.81		1
Total Penta-Dioxins	1.45J		0.124	3.34	1.35		1
Total Hexa-Dioxins	7.05		0.0912	3.34	1.24		1
Total Hepta-Dioxins	34.6		0.132	3.34	1.06		1
Total Tetra-Furans	3.23		0.118	0.667	0.71		1
Total Penta-Furans	3.75		0.189	3.34	1.76		1
Total Hexa-Furans	6.22		0.0897	3.34	1.24		1
Total Hepta-Furans	12.4		0.0765	3.34	1.07		1

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: ALS Environmental - US
Project: Dioxins Furans Analysis - 2195263
Sample Matrix: Soil

Sample Name: 2195263 003
Lab Code: E1601142-003

Service Request: E1601142
Date Collected: 11/21/16 13:00
Date Received: 11/30/16 08:55

Units: Percent
Basis: Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method: 8290A
Prep Method: Method
Sample Amount: 10.057g

Date Analyzed: 12/12/16 15:54
Date Extracted: 12/5/16
Instrument Name: E-HRMS-08
GC Column: DB-5MSUI
Blank File Name: P507460
Cal Ver. File Name: P606062

Data File Name: P606067
ICAL Date: 07/15/16

Labeled Standard Results

Labeled Compounds	Spike Conc.(pg)	Conc. Found (pg)	% Rec	Q	Control Limits	Ion Ratio	RRT
13C-2,3,7,8-TCDD	2000	1294.469	65		40-135	0.79	1.033
13C-1,2,3,7,8-PeCDD	2000	1420.005	71		40-135	1.56	1.256
13C-1,2,3,4,7,8-HxCDD	2000	1259.663	63		40-135	1.24	0.991
13C-1,2,3,6,7,8-HxCDD	2000	1379.963	69		40-135	1.23	0.993
13C-1,2,3,4,6,7,8-HpCDD	2000	1116.268	56		40-135	1.06	1.072
13C-OCDD	4000	1685.416	42		40-135	0.89	1.141
13C-2,3,7,8-TCDF	2000	1201.144	60		40-135	0.79	0.991
13C-1,2,3,7,8-PeCDF	2000	1336.629	67		40-135	1.56	1.201
13C-2,3,4,7,8-PeCDF	2000	1309.544	65		40-135	1.58	1.243
13C-1,2,3,4,7,8-HxCDF	2000	1231.618	62		40-135	0.51	0.968
13C-1,2,3,6,7,8-HxCDF	2000	1342.921	67		40-135	0.51	0.971
13C-1,2,3,7,8,9-HxCDF	2000	1277.510	64		40-135	0.52	1.009
13C-2,3,4,6,7,8-HxCDF	2000	1215.926	61		40-135	0.51	0.987
13C-1,2,3,4,6,7,8-HpCDF	2000	1055.105	53		40-135	0.43	1.046
13C-1,2,3,4,7,8,9-HpCDF	2000	1252.375	63		40-135	0.44	1.085
37Cl-2,3,7,8-TCDD	800	674.432	84		40-135	NA	1.033

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: ALS Environmental - US
Project: Dioxins Furans Analysis - 2195263
Sample Matrix: Soil
Sample Name: 2195263 003
Lab Code: E1601142-003

Service Request: E1601142
Date Collected: 11/21/16 13:00
Date Received: 11/30/16 08:55

Units: ng/Kg
Basis: Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method: 8290A
Prep Method: Method

Toxicity Equivalency Quotient

Analyte Name	Result	DL	MRL	Dilution Factor	TEF	TEF - Adjusted Concentration
2,3,7,8-TCDD	ND	0.182	0.667	1	1	
1,2,3,7,8-PeCDD	0.233	0.124	3.34	1	1	0.233
1,2,3,6,7,8-HxCDD	0.732	0.0947	3.34	1	0.1	0.0732
1,2,3,4,7,8-HxCDD	0.317	0.0892	3.34	1	0.1	0.0317
1,2,3,7,8,9-HxCDD	0.478	0.0895	3.34	1	0.1	0.0478
1,2,3,4,6,7,8-HpCDD	16.1	0.132	3.34	1	0.01	0.161
OCDD	291	0.486	6.67	1	0.0003	0.0873
2,3,7,8-TCDF	0.496	0.118	0.667	1	0.1	0.0496
1,2,3,7,8-PeCDF	0.323	0.187	3.34	1	0.03	0.00969
2,3,4,7,8-PeCDF	0.493	0.190	3.34	1	0.3	0.148
1,2,3,6,7,8-HxCDF	0.438	0.0800	3.34	1	0.1	0.0438
1,2,3,7,8,9-HxCDF	0.172	0.108	3.34	1	0.1	0.0172
1,2,3,4,7,8-HxCDF	0.776	0.0852	3.34	1	0.1	0.0776
2,3,4,6,7,8-HxCDF	0.380	0.0907	3.34	1	0.1	0.0380
1,2,3,4,6,7,8-HpCDF	4.49	0.0717	3.34	1	0.01	0.0449
1,2,3,4,7,8,9-HpCDF	0.309	0.0823	3.34	1	0.01	0.00309
OCDF	6.93	0.226	6.67	1	0.0003	0.00208
Total TEQ						1.07

2005 WHO TEFs, ND = 0

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: ALS Environmental - US
Project: Dioxins Furans Analysis - 2195263
Sample Matrix: Soil
Sample Name: 2195263 003
Lab Code: E1601142-003

Service Request: E1601142
Date Collected: 11/21/16 13:00
Date Received: 11/30/16 08:55

Units: Percent
Basis: As Received

Total Solids

Analysis Method: ALS SOP
7.355g

Date Analyzed: 12/09/16 11:59
NA
E-Balance-01

Native Analyte Results

Analyte Name	Result	Q	EDL	MRL	Ion Ratio	RRT	Dilution Factor
Total Solids	74.5		-	-			1

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: ALS Environmental - US
Project: Dioxins Furans Analysis - 2195263
Sample Matrix: Soil

Sample Name: 2195263 004
Lab Code: E1601142-004

Service Request: E1601142
Date Collected: 11/21/16 13:15
Date Received: 11/30/16 08:55

Units: ng/Kg
Basis: Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method: 8290A
Prep Method: Method
Sample Amount: 10.297g

Data File Name: P606068
ICAL Date: 07/15/16

Date Analyzed: 12/12/16 16:43
Date Extracted: 12/5/16
Instrument Name: E-HRMS-08
GC Column: DB-5MSUI
Blank File Name: P507460
Cal Ver. File Name: P606062

Native Analyte Results

Analyte Name	Result	Q	EDL	MRL	Ion Ratio	RRT	Dilution Factor
2,3,7,8-TCDD	ND	U	0.352	0.688			1
1,2,3,7,8-PeCDD	ND	U	0.163	3.44			1
1,2,3,6,7,8-HxCDD	0.350BJ		0.106	3.44	1.36	1.000	1
1,2,3,4,7,8-HxCDD	0.177BJ		0.105	3.44	1.31	1.001	1
1,2,3,7,8,9-HxCDD	0.209BJK		0.103	3.44	1.98	1.008	1
1,2,3,4,6,7,8-HpCDD	12.9		0.139	3.44	1.10	1.000	1
OCDD	114		0.492	6.88	0.92	1.000	1
2,3,7,8-TCDF	ND	U	0.357	0.688			1
1,2,3,7,8-PeCDF	ND	U	0.281	3.44			1
2,3,4,7,8-PeCDF	ND	U	0.258	3.44			1
1,2,3,6,7,8-HxCDF	0.162BJ		0.0714	3.44	1.07	1.000	1
1,2,3,7,8,9-HxCDF	ND	U	0.103	3.44			1
1,2,3,4,7,8-HxCDF	0.255BJ		0.0743	3.44	1.33	1.000	1
2,3,4,6,7,8-HxCDF	0.183BJK		0.0764	3.44	0.92	1.000	1
1,2,3,4,6,7,8-HpCDF	1.55BJ		0.106	3.44	1.06	1.000	1
1,2,3,4,7,8,9-HpCDF	ND	U	0.135	3.44			1
OCDF	4.16BJ		0.243	6.88	0.86	1.005	1

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: ALS Environmental - US
Project: Dioxins Furans Analysis - 2195263
Sample Matrix: Soil

Sample Name: 2195263 004
Lab Code: E1601142-004

Service Request: E1601142
Date Collected: 11/21/16 13:15
Date Received: 11/30/16 08:55

Units: ng/Kg
Basis: Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method: 8290A
Prep Method: Method
Sample Amount: 10.297g

Data File Name: P606068
ICAL Date: 07/15/16

Date Analyzed: 12/12/16 16:43
Date Extracted: 12/5/16
Instrument Name: E-HRMS-08
GC Column: DB-5MSUI
Blank File Name: P507460
Cal Ver. File Name: P606062

Native Analyte Results

Analyte Name	Result	Q	EDL	MRL	Ion Ratio	RRT	Dilution Factor
Total Tetra-Dioxins	ND	U	0.352	0.688			
Total Penta-Dioxins	0.966J		0.163	3.44	1.52		
Total Hexa-Dioxins	2.41J		0.105	3.44	1.32		
Total Hepta-Dioxins	23.1		0.139	3.44	1.02		
Total Tetra-Furans	ND	U	0.357	0.688			
Total Penta-Furans	ND	U	0.270	3.44			
Total Hexa-Furans	1.73J		0.0797	3.44	1.39		
Total Hepta-Furans	4.33		0.119	3.44	1.06		

ALS Group USA, Corp. dba ALS Environmental
Analytical Report

Client: ALS Environmental - US
Project: Dioxins Furans Analysis - 2195263
Sample Matrix: Soil

Sample Name: 2195263 004
Lab Code: E1601142-004

Service Request: E1601142
Date Collected: 11/21/16 13:15
Date Received: 11/30/16 08:55

Units: Percent
Basis: Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method: 8290A
Prep Method: Method
Sample Amount: 10.297g

Data File Name: P606068
ICAL Date: 07/15/16

Date Analyzed: 12/12/16 16:43
Date Extracted: 12/5/16
Instrument Name: E-HRMS-08
GC Column: DB-5MSUI
Blank File Name: P507460
Cal Ver. File Name: P606062

Labeled Standard Results

Labeled Compounds	Spike Conc.(pg)	Conc. Found (pg)	% Rec	Q	Control Limits	Ion Ratio	RRT
13C-2,3,7,8-TCDD	2000	425.224	21	Y	40-135	0.78	1.033
13C-1,2,3,7,8-PeCDD	2000	626.403	31	Y	40-135	1.59	1.256
13C-1,2,3,4,7,8-HxCDD	2000	729.938	36	Y	40-135	1.25	0.990
13C-1,2,3,6,7,8-HxCDD	2000	863.218	43		40-135	1.23	0.993
13C-1,2,3,4,6,7,8-HpCDD	2000	753.198	38	Y	40-135	1.04	1.072
13C-OCDD	4000	1188.545	30	Y	40-135	0.90	1.141
13C-2,3,7,8-TCDF	2000	363.472	18	Y	40-135	0.78	0.992
13C-1,2,3,7,8-PeCDF	2000	528.684	26	Y	40-135	1.58	1.201
13C-2,3,4,7,8-PeCDF	2000	563.741	28	Y	40-135	1.58	1.244
13C-1,2,3,4,7,8-HxCDF	2000	666.248	33	Y	40-135	0.52	0.967
13C-1,2,3,6,7,8-HxCDF	2000	762.979	38	Y	40-135	0.52	0.970
13C-1,2,3,7,8,9-HxCDF	2000	661.038	33	Y	40-135	0.52	1.009
13C-2,3,4,6,7,8-HxCDF	2000	713.804	36	Y	40-135	0.52	0.986
13C-1,2,3,4,6,7,8-HpCDF	2000	702.993	35	Y	40-135	0.44	1.046
13C-1,2,3,4,7,8,9-HpCDF	2000	759.994	38	Y	40-135	0.44	1.084
37Cl-2,3,7,8-TCDD	800	301.796	38	Y	40-135	NA	1.033

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: ALS Environmental - US
Project: Dioxins Furans Analysis - 2195263
Sample Matrix: Soil
Sample Name: 2195263 004
Lab Code: E1601142-004

Service Request: E1601142
Date Collected: 11/21/16 13:15
Date Received: 11/30/16 08:55

Units: ng/Kg
Basis: Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method: 8290A
Prep Method: Method

Toxicity Equivalency Quotient

Analyte Name	Result	DL	MRL	Dilution Factor	TEF	TEF - Adjusted Concentration
2,3,7,8-TCDD	ND	0.352	0.688	1	1	
1,2,3,7,8-PeCDD	ND	0.163	3.44	1	1	
1,2,3,6,7,8-HxCDD	0.350	0.106	3.44	1	0.1	0.0350
1,2,3,4,7,8-HxCDD	0.177	0.105	3.44	1	0.1	0.0177
1,2,3,7,8,9-HxCDD	0.209	0.103	3.44	1	0.1	0.0209
1,2,3,4,6,7,8-HpCDD	12.9	0.139	3.44	1	0.01	0.129
OCDD	114	0.492	6.88	1	0.0003	0.0342
2,3,7,8-TCDF	ND	0.357	0.688	1	0.1	
1,2,3,7,8-PeCDF	ND	0.281	3.44	1	0.03	
2,3,4,7,8-PeCDF	ND	0.258	3.44	1	0.3	
1,2,3,6,7,8-HxCDF	0.162	0.0714	3.44	1	0.1	0.0162
1,2,3,7,8,9-HxCDF	ND	0.103	3.44	1	0.1	
1,2,3,4,7,8-HxCDF	0.255	0.0743	3.44	1	0.1	0.0255
2,3,4,6,7,8-HxCDF	0.183	0.0764	3.44	1	0.1	0.0183
1,2,3,4,6,7,8-HpCDF	1.55	0.106	3.44	1	0.01	0.0155
1,2,3,4,7,8,9-HpCDF	ND	0.135	3.44	1	0.01	
OCDF	4.16	0.243	6.88	1	0.0003	0.00125
Total TEQ						0.314

2005 WHO TEFs, ND = 0

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: ALS Environmental - US
Project: Dioxins Furans Analysis - 2195263
Sample Matrix: Soil
Sample Name: 2195263 004
Lab Code: E1601142-004

Service Request: E1601142
Date Collected: 11/21/16 13:15
Date Received: 11/30/16 08:55
Units: Percent
Basis: As Received

Total Solids

Analysis Method: ALS SOP
 4.696g

Date Analyzed: 12/09/16 11:59
 NA
 E-Balance-01

Native Analyte Results

Analyte Name	Result	Q	EDL	MRL	Ion Ratio	RRT	Dilution Factor
Total Solids	70.6		-	-			1

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: ALS Environmental - US
Project: Dioxins Furans Analysis - 2195263
Sample Matrix: Soil
Sample Name: 2195263 005
Lab Code: E1601142-005

Service Request: E1601142
Date Collected: 11/21/16 11:25
Date Received: 11/30/16 08:55
Units: ng/Kg
Basis: Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method: 8290A
Prep Method: Method
Sample Amount: 10.250g
Data File Name: P606069
ICAL Date: 07/15/16

Date Analyzed: 12/12/16 17:32
Date Extracted: 12/5/16
Instrument Name: E-HRMS-08
GC Column: DB-5MSUI
Blank File Name: P507460
Cal Ver. File Name: P606062

Native Analyte Results

Analyte Name	Result	Q	EDL	MRL	Ion Ratio	RRT	Dilution Factor
2,3,7,8-TCDD	0.394JK		0.106	0.596	0.53	1.001	1
1,2,3,7,8-PeCDD	1.72J		0.112	2.98	1.40	1.000	1
1,2,3,6,7,8-HxCDD	19.5		0.0632	2.98	1.25	1.000	1
1,2,3,4,7,8-HxCDD	2.39J		0.0614	2.98	1.20	1.000	1
1,2,3,7,8,9-HxCDD	7.83		0.0606	2.98	1.18	1.007	1
1,2,3,4,6,7,8-HpCDD	671		0.801	2.98	1.04	1.000	1
OCDD	7720E		9.90	9.90	0.89	1.000	1
2,3,7,8-TCDF	8.70		0.0616	0.596	0.76	1.001	1
1,2,3,7,8-PeCDF	1.64J		0.588	2.98	1.40	1.001	1
2,3,4,7,8-PeCDF	3.24		0.614	2.98	1.50	1.000	1
1,2,3,6,7,8-HxCDF	1.77J		0.281	2.98	1.35	1.000	1
1,2,3,7,8,9-HxCDF	0.681BJK		0.359	2.98	1.58	1.001	1
1,2,3,4,7,8-HxCDF	3.31		0.290	2.98	1.25	1.000	1
2,3,4,6,7,8-HxCDF	2.95J		0.319	2.98	1.22	1.000	1
1,2,3,4,6,7,8-HpCDF	79.8		0.164	2.98	1.05	1.000	1
1,2,3,4,7,8,9-HpCDF	3.46		0.192	2.98	1.03	1.000	1
OCDF	219		0.434	5.96	0.88	1.005	1

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: ALS-Environmental - US
Project: Dioxins Furans Analysis - 2195263
Sample Matrix: Soil
Sample Name: 2195263 005
Lab Code: E1601142-005

Service Request: E1601142
Date Collected: 11/21/16 11:25
Date Received: 11/30/16 08:55

Units: ng/Kg
Basis: Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method: 8290A
Prep Method: Method
Sample Amount: 10.250g
Data File Name: P606069
ICAL Date: 07/15/16

Date Analyzed: 12/12/16 17:32
Date Extracted: 12/5/16
Instrument Name: E-HRMS-08
GC Column: DB-5MSUI
Blank File Name: P507460
Cal Ver. File Name: P606062

Native Analyte Results

Analyte Name	Result	Q	EDL	MRL	Ion Ratio	RRT	Dilution Factor
Total Tetra-Dioxins	15.2		0.106	0.596	0.77		1
Total Penta-Dioxins	19.9		0.112	2.98	1.44		1
Total Hexa-Dioxins	141		0.0618	2.98	1.24		1
Total Hepta-Dioxins	1290		0.801	2.98	1.04		1
Total Tetra-Furans	41.5		0.0616	0.596	0.79		1
Total Penta-Furans	31.8		0.601	2.98	1.51		1
Total Hexa-Furans	87.1		0.309	2.98	1.20		1
Total Hepta-Furans	302		0.177	2.98	1.05		1

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: ALS Environmental - US
Project: Dioxins Furans Analysis - 2195263
Sample Matrix: Soil

Service Request: E1601142
Date Collected: 11/21/16 11:25
Date Received: 11/30/16 08:55

Sample Name: 2195263 005
Lab Code: E1601142-005

Units: Percent
Basis: Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method: 8290A
Prep Method: Method
Sample Amount: 10.250g

Date Analyzed: 12/12/16 17:32
Date Extracted: 12/5/16
Instrument Name: E-HRMS-08
GC Column: DB-5MSUI
Blank File Name: P507460
Cal Ver. File Name: P606062

Data File Name: P606069
ICAL Date: 07/15/16

Labeled Standard Results

Labeled Compounds	Spike Conc.(pg)	Conc. Found (pg)	% Rec	Q	Control Limits	Ion Ratio	RRT
13C-2,3,7,8-TCDD	2000	1400.166	70		40-135	0.79	1.032
13C-1,2,3,7,8-PeCDD	2000	1307.186	65		40-135	1.58	1.256
13C-1,2,3,4,7,8-HxCDD	2000	1224.237	61		40-135	1.25	0.991
13C-1,2,3,6,7,8-HxCDD	2000	1254.083	63		40-135	1.25	0.993
13C-1,2,3,4,6,7,8-HpCDD	2000	877.607	44		40-135	1.06	1.071
13C-OCDD	4000	1039.263	26	Y	40-135	0.89	1.141
13C-2,3,7,8-TCDF	2000	1278.663	64		40-135	0.78	0.991
13C-1,2,3,7,8-PeCDF	2000	1247.372	62		40-135	1.57	1.201
13C-2,3,4,7,8-PeCDF	2000	1194.668	60		40-135	1.57	1.244
13C-1,2,3,4,7,8-HxCDF	2000	1222.477	61		40-135	0.52	0.967
13C-1,2,3,6,7,8-HxCDF	2000	1272.245	64		40-135	0.51	0.971
13C-1,2,3,7,8,9-HxCDF	2000	1200.861	60		40-135	0.52	1.009
13C-2,3,4,6,7,8-HxCDF	2000	1146.370	57		40-135	0.52	0.986
13C-1,2,3,4,6,7,8-HpCDF	2000	850.592	43		40-135	0.44	1.046
13C-1,2,3,4,7,8,9-HpCDF	2000	939.919	47		40-135	0.44	1.084
37Cl-2,3,7,8-TCDD	800	686.450	86		40-135	NA	1.033

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: ALS Environmental - US
Project: Dioxins Furans Analysis - 2195263
Sample Matrix: Soil
Sample Name: 2195263 005
Lab Code: E1601142-005

Service Request: E1601142
Date Collected: 11/21/16 11:25
Date Received: 11/30/16 08:55
Units: ng/Kg
Basis: Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method: 8290A
Prep Method: Method

Toxicity Equivalency Quotient

Analyte Name	Result	DL	MRL	Dilution Factor	TEF	TEF - Adjusted Concentration
2,3,7,8-TCDD	0.394	0.106	0.596	1	1	0.394
1,2,3,7,8-PeCDD	1.72	0.112	2.98	1	1	1.72
1,2,3,6,7,8-HxCDD	19.5	0.0632	2.98	1	0.1	1.95
1,2,3,4,7,8-HxCDD	2.39	0.0614	2.98	1	0.1	0.239
1,2,3,7,8,9-HxCDD	7.83	0.0606	2.98	1	0.1	0.783
1,2,3,4,6,7,8-HpCDD	671	0.801	2.98	1	0.01	6.71
OCDD	7720	9.90	9.90	1	0.0003	2.32
2,3,7,8-TCDF	8.70	0.0616	0.596	1	0.1	0.870
1,2,3,7,8-PeCDF	1.64	0.588	2.98	1	0.03	0.0492
2,3,4,7,8-PeCDF	3.24	0.614	2.98	1	0.3	0.972
1,2,3,6,7,8-HxCDF	1.77	0.281	2.98	1	0.1	0.177
1,2,3,7,8,9-HxCDF	0.681	0.359	2.98	1	0.1	0.0681
1,2,3,4,7,8-HxCDF	3.31	0.290	2.98	1	0.1	0.331
2,3,4,6,7,8-HxCDF	2.95	0.319	2.98	1	0.1	0.295
1,2,3,4,6,7,8-HpCDF	79.8	0.164	2.98	1	0.01	0.798
1,2,3,4,7,8,9-HpCDF	3.46	0.192	2.98	1	0.01	0.0346
OCDF	219	0.434	5.96	1	0.0003	0.0657
Total TEQ						17.8

2005 WHO TEFs, ND = 0

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: ALS Environmental - US
Project: Dioxins Furans Analysis - 2195263
Sample Matrix: Soil

Sample Name: 2195263 005
Lab Code: E1601142-005

Service Request: E1601142
Date Collected: 11/21/16 11:25
Date Received: 11/30/16 08:55

Units: Percent
Basis: As Received

Total Solids

Analysis Method: ALS SOP
4.31g

Date Analyzed: 12/09/16 11:59
NA
E-Balance-01

Native Analyte Results

Analyte Name	Result	Q	EDL	MRL	Ion Ratio	RRT	Dilution Factor
Total Solids	81.9		-	-			1

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: ALS Environmental - US
Project: Dioxins Furans Analysis - 2195263
Sample Matrix: Soil

Sample Name: 2195263 006
Lab Code: E1601142-006

Service Request: E1601142
Date Collected: 11/21/16 11:30
Date Received: 11/30/16 08:55

Units: ng/Kg
Basis: Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method: 8290A
Prep Method: Method
Sample Amount: 10.090g

Data File Name: P606070
ICAL Date: 07/15/16

Date Analyzed: 12/12/16 18:21
Date Extracted: 12/5/16
Instrument Name: E-HRMS-08
GC Column: DB-5MSUI
Blank File Name: P507460
Cal Ver. File Name: P606062

Native Analyte Results

Analyte Name	Result	Q	EDL	MRL	Ion Ratio	RRT	Dilution Factor
2,3,7,8-TCDD	0.494JK		0.139	0.618	0.52	1.001	1
1,2,3,7,8-PeCDD	1.65J		0.0601	3.09	1.60	1.001	1
1,2,3,6,7,8-HxCDD	25.6		0.0817	3.09	1.24	1.000	1
1,2,3,4,7,8-HxCDD	6.02		0.0772	3.09	1.24	1.000	1
1,2,3,7,8,9-HxCDD	11.0		0.0773	3.09	1.21	1.008	1
1,2,3,4,6,7,8-HpCDD	1230		1.11	3.09	1.03	1.000	1
OCDD	8750E		13.1	13.1	0.89	1.000	1
2,3,7,8-TCDF	8.26		0.138	0.618	0.77	1.001	1
1,2,3,7,8-PeCDF	1.59J		0.137	3.09	1.50	1.001	1
2,3,4,7,8-PeCDF	3.00J		0.142	3.09	1.70	1.001	1
1,2,3,6,7,8-HxCDF	1.67JP		0.142	3.09	1.19	1.000	1
1,2,3,7,8,9-HxCDF	0.729BJ		0.187	3.09	1.22	1.001	1
1,2,3,4,7,8-HxCDF	3.11		0.147	3.09	1.18	1.000	1
2,3,4,6,7,8-HxCDF	2.78J		0.164	3.09	1.23	1.000	1
1,2,3,4,6,7,8-HpCDF	80.7		0.256	3.09	1.04	1.000	1
1,2,3,4,7,8,9-HpCDF	4.16		0.320	3.09	1.13	1.000	1
OCDF	214		0.531	6.18	0.88	1.005	1

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: ALS Environmental - US
Project: Dioxins Furans Analysis - 2195263
Sample Matrix: Soil

Sample Name: 2195263 006
Lab Code: E1601142-006

Service Request: E1601142
Date Collected: 11/21/16 11:30
Date Received: 11/30/16 08:55

Units: ng/Kg
Basis: Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method: 8290A
Prep Method: Method
Sample Amount: 10.090g

Date Analyzed: 12/12/16 18:21
Date Extracted: 12/5/16
Instrument Name: E-HRMS-08
GC Column: DB-5MSUI
Blank File Name: P507460
Cal Ver. File Name: P606062

Data File Name: P606070
ICAL Date: 07/15/16

Native Analyte Results

Analyte Name	Result	Q	EDL	MRL	Ion Ratio	RRT	Dilution Factor
Total Tetra-Dioxins	15.3		0.139	0.618	0.75		1
Total Penta-Dioxins	22.8		0.0601	3.09	1.49		1
Total Hexa-Dioxins	228		0.0788	3.09	1.22		1
Total Hepta-Dioxins	2160		1.11	3.09	1.03		1
Total Tetra-Furans	37.1		0.138	0.618	0.69		1
Total Penta-Furans	27.8		0.139	3.09	1.55		1
Total Hexa-Furans	82.8		0.158	3.09	1.19		1
Total Hepta-Furans	303		0.285	3.09	1.04		1

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: ALS Environmental - US
Project: Dioxins Furans Analysis - 2195263
Sample Matrix: Soil

Service Request: E1601142
Date Collected: 11/21/16 11:30
Date Received: 11/30/16 08:55

Sample Name: 2195263 006
Lab Code: E1601142-006

Units: Percent
Basis: Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method: 8290A
Prep Method: Method
Sample Amount: 10.090g

Date Analyzed: 12/12/16 18:21
Date Extracted: 12/5/16
Instrument Name: E-HRMS-08
GC Column: DB-5MSUI
Blank File Name: P507460
Cal Ver. File Name: P606062

Data File Name: P606070
ICAL Date: 07/15/16

Labeled Standard Results

Labeled Compounds	Spike Conc.(pg)	Conc. Found (pg)	% Rec	Q	Control Limits	Ion Ratio	RRT
13C-2,3,7,8-TCDD	2000	1316.350	66		40-135	0.79	1.032
13C-1,2,3,7,8-PeCDD	2000	1196.002	60		40-135	1.59	1.255
13C-1,2,3,4,7,8-HxCDD	2000	1147.330	57		40-135	1.25	0.991
13C-1,2,3,6,7,8-HxCDD	2000	1216.425	61		40-135	1.25	0.993
13C-1,2,3,4,6,7,8-HpCDD	2000	800.795	40		40-135	1.05	1.072
13C-OCDD	4000	881.068	22	Y	40-135	0.90	1.141
13C-2,3,7,8-TCDF	2000	1210.911	61		40-135	0.78	0.991
13C-1,2,3,7,8-PeCDF	2000	1163.670	58		40-135	1.58	1.200
13C-2,3,4,7,8-PeCDF	2000	1100.361	55		40-135	1.58	1.243
13C-1,2,3,4,7,8-HxCDF	2000	1181.591	59		40-135	0.52	0.967
13C-1,2,3,6,7,8-HxCDF	2000	1231.760	62		40-135	0.52	0.971
13C-1,2,3,7,8,9-HxCDF	2000	1143.650	57		40-135	0.52	1.009
13C-2,3,4,6,7,8-HxCDF	2000	1107.303	55		40-135	0.52	0.987
13C-1,2,3,4,6,7,8-HpCDF	2000	779.966	39	Y	40-135	0.44	1.046
13C-1,2,3,4,7,8,9-HpCDF	2000	831.951	42		40-135	0.45	1.085
37Cl-2,3,7,8-TCDD	800	650.103	81		40-135	NA	1.033

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: ALS Environmental - US
Project: Dioxins Furans Analysis - 2195263
Sample Matrix: Soil

Service Request: E1601142
Date Collected: 11/21/16 11:30
Date Received: 11/30/16 08:55

Sample Name: 2195263 006
Lab Code: E1601142-006

Units: ng/Kg
Basis: Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method: 8290A
Prep Method: Method

Toxicity Equivalency Quotient

Analyte Name	Result	DL	MRL	Dilution Factor	TEF	TEF - Adjusted Concentration
2,3,7,8-TCDD	0.494	0.139	0.618	1	1	0.494
1,2,3,7,8-PeCDD	1.65	0.0601	3.09	1	1	1.65
1,2,3,6,7,8-HxCDD	25.6	0.0817	3.09	1	0.1	2.56
1,2,3,4,7,8-HxCDD	6.02	0.0772	3.09	1	0.1	0.602
1,2,3,7,8,9-HxCDD	11.0	0.0773	3.09	1	0.1	1.10
1,2,3,4,6,7,8-HpCDD	1230	1.11	3.09	1	0.01	12.3
OCDD	8750	13.1	13.1	1	0.0003	2.63
2,3,7,8-TCDF	8.26	0.138	0.618	1	0.1	0.826
1,2,3,7,8-PeCDF	1.59	0.137	3.09	1	0.03	0.0477
2,3,4,7,8-PeCDF	3.00	0.142	3.09	1	0.3	0.900
1,2,3,6,7,8-HxCDF	1.67	0.142	3.09	1	0.1	0.167
1,2,3,7,8,9-HxCDF	0.729	0.187	3.09	1	0.1	0.0729
1,2,3,4,7,8-HxCDF	3.11	0.147	3.09	1	0.1	0.311
2,3,4,6,7,8-HxCDF	2.78	0.164	3.09	1	0.1	0.278
1,2,3,4,6,7,8-HpCDF	80.7	0.256	3.09	1	0.01	0.807
1,2,3,4,7,8,9-HpCDF	4.16	0.320	3.09	1	0.01	0.0416
OCDF	214	0.531	6.18	1	0.0003	0.0642
Total TEQ						24.9

2005 WHO TEFs, ND = 0

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: ALS Environmental - US
Project: Dioxins Furans Analysis - 2195263
Sample Matrix: Soil
Sample Name: 2195263 006
Lab Code: E1601142-006

Service Request: E1601142
Date Collected: 11/21/16 11:30
Date Received: 11/30/16 08:55
Units: Percent
Basis: As Received

Total Solids

Analysis Method: ALS SOP
 6.149g

Date Analyzed: 12/09/16 11:59
 NA
 E-Balance-01

Native Analyte Results

Analyte Name	Result	Q	EDL	MRL	Ion Ratio	RRT	Dilution Factor
Total Solids	80.2		-	-			1

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: ALS Environmental - US
Project: Dioxins Furans Analysis - 2195263
Sample Matrix: Soil
Sample Name: 2195263 007
Lab Code: E1601142-007

Service Request: E1601142
Date Collected: 11/21/16 11:45
Date Received: 11/30/16 08:55
Units: ng/Kg
Basis: Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method: 8290A
Prep Method: Method
Sample Amount: 10.041g
Data File Name: P606071
ICAL Date: 07/15/16

Date Analyzed: 12/12/16 19:10
Date Extracted: 12/5/16
Instrument Name: E-HRMS-08
GC Column: DB-5MSUI
Blank File Name: P507460
Cal Ver. File Name: P606062

Native Analyte Results

Analyte Name	Result	Q	EDL	MRL	Ion Ratio	RRT	Dilution Factor
2,3,7,8-TCDD	0.115JK		0.0943	0.603	0.26	1.001	1
1,2,3,7,8-PeCDD	0.654BJK		0.0877	3.01	1.23	1.001	1
1,2,3,6,7,8-HxCDD	1.72J		0.0946	3.01	1.39	1.000	1
1,2,3,4,7,8-HxCDD	0.846BJ		0.0912	3.01	1.26	1.000	1
1,2,3,7,8,9-HxCDD	1.58J		0.0904	3.01	1.16	1.008	1
1,2,3,4,6,7,8-HpCDD	31.2		0.149	3.01	1.04	1.000	1
OCDD	224		0.473	6.03	0.89	1.000	1
2,3,7,8-TCDF	10.5		0.116	0.603	0.75	1.001	1
1,2,3,7,8-PeCDF	1.99J		0.147	3.01	1.59	1.000	1
2,3,4,7,8-PeCDF	2.62J		0.152	3.01	1.56	1.001	1
1,2,3,6,7,8-HxCDF	1.45JP		0.101	3.01	1.37	1.000	1
1,2,3,7,8,9-HxCDF	0.594BJ		0.141	3.01	1.16	1.001	1
1,2,3,4,7,8-HxCDF	2.58J		0.107	3.01	1.23	1.000	1
2,3,4,6,7,8-HxCDF	1.43J		0.114	3.01	1.20	1.000	1
1,2,3,4,6,7,8-HpCDF	8.60		0.0895	3.01	0.99	1.000	1
1,2,3,4,7,8,9-HpCDF	1.04BJ		0.112	3.01	0.91	1.000	1
OCDF	20.0		0.216	6.03	0.90	1.005	1

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: ALS Environmental - US
Project: Dioxins Furans Analysis - 2195263
Sample Matrix: Soil
Sample Name: 2195263 007
Lab Code: E1601142-007

Service Request: E1601142
Date Collected: 11/21/16 11:45
Date Received: 11/30/16 08:55

Units: ng/Kg
Basis: Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method: 8290A
Prep Method: Method
Sample Amount: 10.041g
Data File Name: P606071
ICAL Date: 07/15/16

Date Analyzed: 12/12/16 19:10
Date Extracted: 12/5/16
Instrument Name: E-HRMS-08
GC Column: DB-5MSUI
Blank File Name: P507460
Cal Ver. File Name: P606062

Native Analyte Results

Analyte Name	Result	Q	EDL	MRL	Ion Ratio	RRT	Dilution Factor
Total Tetra-Dioxins	6.16		0.0943	0.603	0.75		1
Total Penta-Dioxins	8.37		0.0877	3.01	1.42		1
Total Hexa-Dioxins	23.2		0.0920	3.01	1.28		1
Total Hepta-Dioxins	66.1		0.149	3.01	1.00		1
Total Tetra-Furans	38.3		0.116	0.603	0.74		1
Total Penta-Furans	17.4		0.150	3.01	1.50		1
Total Hexa-Furans	14.6		0.114	3.01	1.08		1
Total Hepta-Furans	16.2		0.0994	3.01	0.99		1

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: ALS Environmental - US
Project: Dioxins Furans Analysis - 2195263
Sample Matrix: Soil
Sample Name: 2195263 007
Lab Code: E1601142-007

Service Request: E1601142
Date Collected: 11/21/16 11:45
Date Received: 11/30/16 08:55

Units: Percent
Basis: Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method: 8290A
Prep Method: Method
Sample Amount: 10.041g

Date Analyzed: 12/12/16 19:10
Date Extracted: 12/5/16
Instrument Name: E-HRMS-08
GC Column: DB-5MSUI
Blank File Name: P507460
Cal Ver. File Name: P606062

Data File Name: P606071
ICAL Date: 07/15/16

Labeled Standard Results

Labeled Compounds	Spike Conc.(pg)	Conc. Found (pg)	% Rec	Q	Control Limits	Ion Ratio	RRT
13C-2,3,7,8-TCDD	2000	1216.730	61		40-135	0.79	1.032
13C-1,2,3,7,8-PeCDD	2000	1145.152	57		40-135	1.57	1.255
13C-1,2,3,4,7,8-HxCDD	2000	1100.539	55		40-135	1.26	0.991
13C-1,2,3,6,7,8-HxCDD	2000	1195.948	60		40-135	1.26	0.993
13C-1,2,3,4,6,7,8-HpCDD	2000	896.557	45		40-135	1.05	1.072
13C-OCDD	4000	1193.401	30	Y	40-135	0.90	1.141
13C-2,3,7,8-TCDF	2000	1150.020	58		40-135	0.78	0.991
13C-1,2,3,7,8-PeCDF	2000	1114.086	56		40-135	1.56	1.201
13C-2,3,4,7,8-PeCDF	2000	1057.751	53		40-135	1.57	1.243
13C-1,2,3,4,7,8-HxCDF	2000	1101.029	55		40-135	0.52	0.967
13C-1,2,3,6,7,8-HxCDF	2000	1184.898	59		40-135	0.52	0.971
13C-1,2,3,7,8,9-HxCDF	2000	1100.791	55		40-135	0.52	1.009
13C-2,3,4,6,7,8-HxCDF	2000	1093.788	55		40-135	0.52	0.987
13C-1,2,3,4,6,7,8-HpCDF	2000	840.254	42		40-135	0.44	1.046
13C-1,2,3,4,7,8,9-HpCDF	2000	938.298	47		40-135	0.44	1.085
37Cl-2,3,7,8-TCDD	800	649.695	81		40-135	NA	1.033

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: ALS Environmental - US
Project: Dioxins Furans Analysis - 2195263
Sample Matrix: Soil
Sample Name: 2195263 007
Lab Code: E1601142-007

Service Request: E1601142
Date Collected: 11/21/16 11:45
Date Received: 11/30/16 08:55

Units: ng/Kg
Basis: Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method: 8290A
Prep Method: Method

Toxicity Equivalency Quotient

Analyte Name	Result	DL	MRL	Dilution Factor	TEF	TEF - Adjusted Concentration
2,3,7,8-TCDD	0.115	0.0943	0.603	1	1	0.115
1,2,3,7,8-PeCDD	0.654	0.0877	3.01	1	1	0.654
1,2,3,6,7,8-HxCDD	1.72	0.0946	3.01	1	0.1	0.172
1,2,3,4,7,8-HxCDD	0.846	0.0912	3.01	1	0.1	0.0846
1,2,3,7,8,9-HxCDD	1.58	0.0904	3.01	1	0.1	0.158
1,2,3,4,6,7,8-HpCDD	31.2	0.149	3.01	1	0.01	0.312
OCDD	224	0.473	6.03	1	0.0003	0.0672
2,3,7,8-TCDF	10.5	0.116	0.603	1	0.1	1.05
1,2,3,7,8-PeCDF	1.99	0.147	3.01	1	0.03	0.0597
2,3,4,7,8-PeCDF	2.62	0.152	3.01	1	0.3	0.786
1,2,3,6,7,8-HxCDF	1.45	0.101	3.01	1	0.1	0.145
1,2,3,7,8,9-HxCDF	0.594	0.141	3.01	1	0.1	0.0594
1,2,3,4,7,8-HxCDF	2.58	0.107	3.01	1	0.1	0.258
2,3,4,6,7,8-HxCDF	1.43	0.114	3.01	1	0.1	0.143
1,2,3,4,6,7,8-HpCDF	8.60	0.0895	3.01	1	0.01	0.0860
1,2,3,4,7,8,9-HpCDF	1.04	0.112	3.01	1	0.01	0.0104
OCDF	20.0	0.216	6.03	1	0.0003	0.00600
Total TEQ						4.17

2005 WHO TEFs, ND = 0

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: ALS Environmental - US
Project: Dioxins Furans Analysis - 2195263
Sample Matrix: Soil

Sample Name: 2195263 007
Lab Code: E1601142-007

Service Request: E1601142
Date Collected: 11/21/16 11:45
Date Received: 11/30/16 08:55

Units: Percent
Basis: As Received

Total Solids

Analysis Method: ALS SOP
 6.962g

Date Analyzed: 12/09/16 11:59
 NA
 E-Balance-01

Native Analyte Results

Analyte Name	Result	Q	EDL	MRL	Ion Ratio	RRT	Dilution Factor
Total Solids	82.6		-	-			1

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: ALS Environmental - US
Project: Dioxins Furans Analysis - 2195263
Sample Matrix: Soil

Service Request: E1601142
Date Collected: NA
Date Received: NA

Sample Name: Method Blank
Lab Code: EQ1600536-01

Units: ng/Kg
Basis: Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method: 8290A
Prep Method: Method
Sample Amount: 10.033g

Date Analyzed: 12/11/16 20:10
Date Extracted: 12/5/16
Instrument Name: E-HRMS-07
GC Column: DB-5MSUI
Blank File Name: P507460
Cal Ver. File Name: P507457

Data File Name: P507460
ICAL Date: 07/10/16

Native Analyte Results

Analyte Name	Result	Q	EDL	MRL	Ion Ratio	RRT	Dilution Factor
2,3,7,8-TCDD	ND	U	0.0635	0.498			1
1,2,3,7,8-PeCDD	0.112JK		0.0469	2.49	1.15	1.001	1
1,2,3,6,7,8-HxCDD	0.117JK		0.0250	2.49	0.65	1.000	1
1,2,3,4,7,8-HxCDD	0.0923JK		0.0244	2.49	1.01	1.000	1
1,2,3,7,8,9-HxCDD	0.0933J		0.0232	2.49	1.26	1.007	1
1,2,3,4,6,7,8-HpCDD	0.390JK		0.0251	2.49	0.67	1.000	1
OCDD	2.94J		0.115	4.98	0.87	1.000	1
2,3,7,8-TCDF	ND	U	0.0393	0.498			1
1,2,3,7,8-PeCDF	ND	U	0.0507	2.49			1
2,3,4,7,8-PeCDF	ND	U	0.0483	2.49			1
1,2,3,6,7,8-HxCDF	0.109J		0.00848	2.49	1.26	1.000	1
1,2,3,7,8,9-HxCDF	0.107JK		0.0122	2.49	2.82	1.000	1
1,2,3,4,7,8-HxCDF	0.0507JK		0.00927	2.49	2.68	1.000	1
2,3,4,6,7,8-HxCDF	0.126J		0.00957	2.49	1.31	1.000	1
1,2,3,4,6,7,8-HpCDF	0.242J		0.00937	2.49	0.96	1.000	1
1,2,3,4,7,8,9-HpCDF	0.118JK		0.0121	2.49	0.63	1.000	1
OCDF	0.477JK		0.0794	4.98	1.19	1.004	1

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: ALS Environmental - US
Project: Dioxins Furans Analysis - 2195263
Sample Matrix: Soil
Sample Name: Method Blank
Lab Code: EQ1600536-01

Service Request: E1601142
Date Collected: NA
Date Received: NA
Units: ng/Kg
Basis: Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method: 8290A
Prep Method: Method
Sample Amount: 10.033g
Data File Name: P507460
ICAL Date: 07/10/16

Date Analyzed: 12/11/16 20:10
Date Extracted: 12/5/16
Instrument Name: E-HRMS-07
GC Column: DB-5MSUI
Blank File Name: P507460
Cal Ver. File Name: P507457

Native Analyte Results

Analyte Name	Result	Q	EDL	MRL	Ion Ratio	RRT	Dilution Factor
Total Tetra-Dioxins	ND	U	0.0635	0.498			1
Total Penta-Dioxins	0.123J		0.0469	2.49	1.37		1
Total Hexa-Dioxins	0.0933J		0.0242	2.49	1.26		1
Total Hepta-Dioxins	0.283J		0.0251	2.49	1.03		1
Total Tetra-Furans	ND	U	0.0393	0.498			1
Total Penta-Furans	ND	U	0.0495	2.49			1
Total Hexa-Furans	0.235J		0.00967	2.49	1.26		1
Total Hepta-Furans	0.242J		0.0106	2.49	0.96		1

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: ALS Environmental - US
Project: Dioxins Furans Analysis - 2195263
Sample Matrix: Soil

Sample Name: Method Blank
Lab Code: EQ1600536-01

Service Request: E1601142
Date Collected: NA
Date Received: NA

Units: Percent
Basis: Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method: 8290A
Prep Method: Method
Sample Amount: 10.033g

Data File Name: P507460
ICAL Date: 07/10/16

Date Analyzed: 12/11/16 20:10
Date Extracted: 12/5/16
Instrument Name: E-HRMS-07
GC Column: DB-5MSUI
Blank File Name: P507460
Cal Ver. File Name: P507457

Labeled Standard Results

Labeled Compounds	Spike Conc.(pg)	Conc. Found (pg)	% Rec	Q	Control Limits	Ion Ratio	RRT
13C-2,3,7,8-TCDD	2000	1250.237	63		40-135	0.76	1.023
13C-1,2,3,7,8-PeCDD	2000	1332.568	67		40-135	1.57	1.207
13C-1,2,3,4,7,8-HxCDD	2000	1397.445	70		40-135	1.27	0.991
13C-1,2,3,6,7,8-HxCDD	2000	1349.612	67		40-135	1.26	0.993
13C-1,2,3,4,6,7,8-HpCDD	2000	1205.281	60		40-135	1.03	1.068
13C-OCDD	4000	1709.683	43		40-135	0.92	1.139
13C-2,3,7,8-TCDF	2000	1130.921	57		40-135	0.78	0.991
13C-1,2,3,7,8-PeCDF	2000	1248.232	62		40-135	1.55	1.160
13C-2,3,4,7,8-PeCDF	2000	1291.600	65		40-135	1.57	1.196
13C-1,2,3,4,7,8-HxCDF	2000	1322.299	66		40-135	0.51	0.970
13C-1,2,3,6,7,8-HxCDF	2000	1337.957	67		40-135	0.51	0.972
13C-1,2,3,7,8,9-HxCDF	2000	1169.954	58		40-135	0.51	1.008
13C-2,3,4,6,7,8-HxCDF	2000	1274.815	64		40-135	0.50	0.987
13C-1,2,3,4,6,7,8-HpCDF	2000	1219.162	61		40-135	0.44	1.043
13C-1,2,3,4,7,8,9-HpCDF	2000	1263.150	63		40-135	0.44	1.080
37Cl-2,3,7,8-TCDD	800	553.065	69		40-135	NA	1.024



Accuracy & Precision

ALS Environmental - Houston HRMS
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E1601142

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ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: ALS Environmental - US
Project: Dioxins Furans Analysis - 2195263
Sample Matrix: Soil

Service Request: E1601142
Date Analyzed: 12/12/16
Date Extracted: 12/05/16

Duplicate Lab Control Sample Summary
Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method: 8290A
Prep Method: Method

Units: ng/Kg
Basis: Dry
Analysis Lot: 528163

Lab Control Sample
EQ1600536-02

Duplicate Lab Control Sample
EQ1600536-03

Analyte Name	Result	Spike Amount	% Rec	Result	Spike Amount	% Rec	% Rec Limits	RPD	RPD Limit
1,2,3,4,6,7,8-HpCDD	96.9	99.3	98	97.6	100	98	70-130	<1	25
1,2,3,4,7,8-HxCDD	99.8	99.3	100	103	100	103	70-130	3	25
1,2,3,6,7,8-HxCDD	98.7	99.3	99	99.1	100	99	70-130	<1	25
1,2,3,7,8,9-HxCDD	97.9	99.3	99	98.2	100	98	70-130	<1	25
1,2,3,7,8-PeCDD	96.3	99.3	97	97.0	100	97	70-130	<1	25
2,3,7,8-TCDD	17.3	19.9	87	17.9	20.0	89	70-130	3	25
OCDD	198	199	100	195	200	98	70-130	1	25
1,2,3,4,6,7,8-HpCDF	99.2	99.3	100	101	100	101	70-130	1	25
1,2,3,4,7,8,9-HpCDF	93.8	99.3	94	92.0	100	92	70-130	2	25
1,2,3,4,7,8-HxCDF	96.7	99.3	97	99.2	100	99	70-130	3	25
1,2,3,6,7,8-HxCDF	92.8	99.3	93	94.8	100	95	70-130	2	25
1,2,3,7,8,9-HxCDF	95.5	99.3	96	95.7	100	96	70-130	<1	25
1,2,3,7,8-PeCDF	91.0	99.3	92	90.4	100	90	70-130	<1	25
2,3,4,6,7,8-HxCDF	102	99.3	103	104	100	104	70-130	2	25
2,3,4,7,8-PeCDF	97.2	99.3	98	97.8	100	98	70-130	<1	25
2,3,7,8-TCDF	19.3	19.9	97	19.4	20.0	97	70-130	<1	25
OCDF	204	199	103	198	200	99	70-130	3	25

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: ALS Environmental - US
Project: Dioxins Furans Analysis - 2195263
Sample Matrix: Soil

Sample Name: Lab Control Sample
Lab Code: EQ1600536-02

Service Request: E1601142
Date Collected: NA
Date Received: NA

Units: ng/Kg
Basis: Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method: 8290A
Prep Method: Method
Sample Amount: 10.071g

Data File Name: P507467
ICAL Date: 07/10/16

Date Analyzed: 12/12/16 01:50
Date Extracted: 12/5/16
Instrument Name: E-HRMS-07
GC Column: DB-5MSUI
Blank File Name: P507460
Cal Ver. File Name: P507457

Native Analyte Results

Analyte Name	Result	Q	EDL	MRL	Ion Ratio	RRT	Dilution Factor
2,3,7,8-TCDD	17.3		0.0572	0.496	0.73	1.000	1
1,2,3,7,8-PeCDD	96.3		0.0800	2.48	1.55	1.001	1
1,2,3,6,7,8-HxCDD	98.7		0.0173	2.48	1.25	1.000	1
1,2,3,4,7,8-HxCDD	99.8		0.0158	2.48	1.22	1.000	1
1,2,3,7,8,9-HxCDD	97.9		0.0155	2.48	1.22	1.006	1
1,2,3,4,6,7,8-HpCDD	96.9		0.0481	2.48	1.05	1.000	1
OCDD	198		0.434	4.96	0.87	1.000	1
2,3,7,8-TCDF	19.3		0.0366	0.496	0.73	1.001	1
1,2,3,7,8-PeCDF	91.0		0.102	2.48	1.51	1.001	1
2,3,4,7,8-PeCDF	97.2		0.0956	2.48	1.52	1.001	1
1,2,3,6,7,8-HxCDF	92.8		0.0141	2.48	1.21	1.000	1
1,2,3,7,8,9-HxCDF	95.5		0.0188	2.48	1.21	1.000	1
1,2,3,4,7,8-HxCDF	96.7		0.0147	2.48	1.20	1.000	1
2,3,4,6,7,8-HxCDF	102		0.0148	2.48	1.24	1.000	1
1,2,3,4,6,7,8-HpCDF	99.2		0.206	2.48	0.99	1.000	1
1,2,3,4,7,8,9-HpCDF	93.8		0.263	2.48	1.03	1.000	1
OCDF	204		0.451	4.96	0.90	1.005	1

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: ALS Environmental - US
Project: Dioxins Furans Analysis - 2195263
Sample Matrix: Soil
Sample Name: Lab Control Sample
Lab Code: EQ1600536-02

Service Request: E1601142
Date Collected: NA
Date Received: NA
Units: ng/Kg
Basis: Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method: 8290A
Prep Method: Method
Sample Amount: 10.071g
Data File Name: P507467
ICAL Date: 07/10/16

Date Analyzed: 12/12/16 01:50
Date Extracted: 12/5/16
Instrument Name: E-HRMS-07
GC Column: DB-5MSUI
Blank File Name: P507460
Cal Ver. File Name: P507457

Native Analyte Results

Analyte Name	Result	Q	EDL	MRL	Ion Ratio	RRT	Dilution Factor
Total Tetra-Dioxins	17.3		0.0572	0.496	0.73		1
Total Penta-Dioxins	96.3		0.0800	2.48	1.55		1
Total Hexa-Dioxins	296		0.0162	2.48	1.22		1
Total Hepta-Dioxins	97.5		0.0481	2.48	0.93		1
Total Tetra-Furans	19.4		0.0366	0.496	0.83		1
Total Penta-Furans	189		0.0985	2.48	1.51		1
Total Hexa-Furans	387		0.0154	2.48	1.20		1
Total Hepta-Furans	193		0.231	2.48	0.99		1

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: ALS Environmental - US
Project: Dioxins Furans Analysis - 2195263
Sample Matrix: Soil

Service Request: E1601142
Date Collected: NA
Date Received: NA

Sample Name: Lab Control Sample
Lab Code: EQ1600536-02

Units: Percent
Basis: Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method: 8290A
Prep Method: Method
Sample Amount: 10.071g

Date Analyzed: 12/12/16 01:50
Date Extracted: 12/5/16
Instrument Name: E-HRMS-07
GC Column: DB-5MSUI
Blank File Name: P507460
Cal Ver. File Name: P507457

Data File Name: P507467
ICAL Date: 07/10/16

Labeled Standard Results

Labeled Compounds	Spike Conc.(pg)	Conc. Found (pg)	% Rec	Q	Control Limits	Ion Ratio	RRT
13C-2,3,7,8-TCDD	2000	1249.219	62		40-135	0.78	1.024
13C-1,2,3,7,8-PeCDD	2000	1254.526	63		40-135	1.51	1.207
13C-1,2,3,4,7,8-HxCDD	2000	1374.971	69		40-135	1.24	0.991
13C-1,2,3,6,7,8-HxCDD	2000	1236.145	62		40-135	1.26	0.994
13C-1,2,3,4,6,7,8-HpCDD	2000	1118.375	56		40-135	1.06	1.068
13C-OCDD	4000	1543.367	39	Y	40-135	0.88	1.139
13C-2,3,7,8-TCDF	2000	1090.620	55		40-135	0.76	0.992
13C-1,2,3,7,8-PeCDF	2000	1132.177	57		40-135	1.56	1.160
13C-2,3,4,7,8-PeCDF	2000	1149.358	57		40-135	1.55	1.197
13C-1,2,3,4,7,8-HxCDF	2000	1219.774	61		40-135	0.50	0.970
13C-1,2,3,6,7,8-HxCDF	2000	1206.934	60		40-135	0.52	0.973
13C-1,2,3,7,8,9-HxCDF	2000	1118.084	56		40-135	0.51	1.008
13C-2,3,4,6,7,8-HxCDF	2000	1179.347	59		40-135	0.51	0.987
13C-1,2,3,4,6,7,8-HpCDF	2000	1092.584	55		40-135	0.44	1.043
13C-1,2,3,4,7,8,9-HpCDF	2000	1107.267	55		40-135	0.43	1.080
37Cl-2,3,7,8-TCDD	800	521.893	65		40-135	NA	1.024

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: ALS Environmental - US
Project: Dioxins Furans Analysis - 2195263
Sample Matrix: Soil
Sample Name: Duplicate Lab Control Sample
Lab Code: EQ1600536-03

Service Request: E1601142
Date Collected: NA
Date Received: NA
Units: ng/Kg
Basis: Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method: 8290A
Prep Method: Method
Sample Amount: 10.002g
Data File Name: P507468
ICAL Date: 07/10/16

Date Analyzed: 12/12/16 02:39
Date Extracted: 12/5/16
Instrument Name: E-HRMS-07
GC Column: DB-5MSUI
Blank File Name: P507460
Cal Ver. File Name: P507457

Native Analyte Results

Analyte Name	Result	Q	EDL	MRL	Ion Ratio	RRT	Dilution Factor
2,3,7,8-TCDD	17.9		0.0343	0.500	0.76	1.001	1
1,2,3,7,8-PeCDD	97.0		0.0462	2.50	1.52	1.000	1
1,2,3,6,7,8-HxCDD	99.1		0.00870	2.50	1.24	1.000	1
1,2,3,4,7,8-HxCDD	103		0.00820	2.50	1.26	1.000	1
1,2,3,7,8,9-HxCDD	98.2		0.00790	2.50	1.22	1.007	1
1,2,3,4,6,7,8-HpCDD	97.6		0.0185	2.50	1.01	1.000	1
OCDD	195		0.247	5.00	0.87	1.000	1
2,3,7,8-TCDF	19.4		0.0278	0.500	0.78	1.001	1
1,2,3,7,8-PeCDF	90.4		0.211	2.50	1.50	1.001	1
2,3,4,7,8-PeCDF	97.8		0.196	2.50	1.55	1.001	1
1,2,3,6,7,8-HxCDF	94.8		0.0139	2.50	1.23	1.000	1
1,2,3,7,8,9-HxCDF	95.7		0.0177	2.50	1.22	1.000	1
1,2,3,4,7,8-HxCDF	99.2		0.0147	2.50	1.25	1.000	1
2,3,4,6,7,8-HxCDF	104		0.0150	2.50	1.21	1.000	1
1,2,3,4,6,7,8-HpCDF	101		0.131	2.50	1.03	1.000	1
1,2,3,4,7,8,9-HpCDF	92.0		0.160	2.50	1.02	1.000	1
OCDF	198		0.289	5.00	0.90	1.005	1

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: ALS Environmental - US
Project: Dioxins Furans Analysis - 2195263
Sample Matrix: Soil

Sample Name: Duplicate Lab Control Sample
Lab Code: EQ1600536-03

Service Request: E1601142
Date Collected: NA
Date Received: NA

Units: ng/Kg
Basis: Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method: 8290A
Prep Method: Method
Sample Amount: 10.002g

Data File Name: P507468
ICAL Date: 07/10/16

Date Analyzed: 12/12/16 02:39
Date Extracted: 12/5/16
Instrument Name: E-HRMS-07
GC Column: DB-5MSUI
Blank File Name: P507460
Cal Ver. File Name: P507457

Native Analyte Results

Analyte Name	Result	Q	EDL	MRL	Ion Ratio	RRT	Dilution Factor
Total Tetra-Dioxins	17.9		0.0343	0.500	0.76		1
Total Penta-Dioxins	97.0		0.0462	2.50	1.52		1
Total Hexa-Dioxins	300		0.00830	2.50	1.26		1
Total Hepta-Dioxins	98.1		0.0185	2.50	0.92		1
Total Tetra-Furans	19.5		0.0278	0.500	0.80		1
Total Penta-Furans	188		0.203	2.50	1.40		1
Total Hexa-Furans	394		0.0152	2.50	1.25		1
Total Hepta-Furans	192		0.144	2.50	1.03		1

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: ALS Environmental - US
Project: Dioxins Furans Analysis - 2195263
Sample Matrix: Soil

Sample Name: Duplicate Lab Control Sample
Lab Code: EQ1600536-03

Service Request: E1601142
Date Collected: NA
Date Received: NA

Units: Percent
Basis: Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method: 8290A
Prep Method: Method
Sample Amount: 10.002g

Date Analyzed: 12/12/16 02:39
Date Extracted: 12/5/16
Instrument Name: E-HRMS-07
GC Column: DB-5MSUI
Blank File Name: P507460
Cal Ver. File Name: P507457

Data File Name: P507468
ICAL Date: 07/10/16

Labeled Standard Results

Labeled Compounds	Spike Conc.(pg)	Conc. Found (pg)	% Rec	Q	Control Limits	Ion Ratio	RRT
13C-2,3,7,8-TCDD	2000	1184.707	59		40-135	0.76	1.023
13C-1,2,3,7,8-PeCDD	2000	1524.907	76		40-135	1.56	1.207
13C-1,2,3,4,7,8-HxCDD	2000	1455.579	73		40-135	1.25	0.991
13C-1,2,3,6,7,8-HxCDD	2000	1365.296	68		40-135	1.26	0.994
13C-1,2,3,4,6,7,8-HpCDD	2000	1297.770	65		40-135	1.05	1.068
13C-OCDD	4000	1933.802	48		40-135	0.90	1.139
13C-2,3,7,8-TCDF	2000	979.086	49		40-135	0.77	0.991
13C-1,2,3,7,8-PeCDF	2000	1283.624	64		40-135	1.56	1.160
13C-2,3,4,7,8-PeCDF	2000	1321.396	66		40-135	1.54	1.196
13C-1,2,3,4,7,8-HxCDF	2000	1278.996	64		40-135	0.50	0.970
13C-1,2,3,6,7,8-HxCDF	2000	1268.240	63		40-135	0.52	0.973
13C-1,2,3,7,8,9-HxCDF	2000	1254.141	63		40-135	0.50	1.009
13C-2,3,4,6,7,8-HxCDF	2000	1236.952	62		40-135	0.52	0.988
13C-1,2,3,4,6,7,8-HpCDF	2000	1258.354	63		40-135	0.44	1.044
13C-1,2,3,4,7,8,9-HpCDF	2000	1311.293	66		40-135	0.43	1.081
37Cl-2,3,7,8-TCDD	800	486.652	61		40-135	NA	1.024

APPENDIX F – SEQRA NEGATIVE DECLARATION



ANDREW M. CUOMO
Governor

LISA BOVA-HIATT
Executive Director

**STATE ENVIRONMENTAL QUALITY REVIEW ACT
DETERMINATION OF NON-SIGNIFICANCE (NEGATIVE DECLARATION)**

**VILLAGE OF SAUGERTIES
TINA CHORVAS PARK RESTORATION**

DATE: May 2, 2017
NAME OF ACTION: Village of Saugerties – Tina Chorvas Park Restoration
LOCATION: 61 East Bridge Street, Village of Saugerties, Ulster County, NY
SEQRA CLASSIFICATION: ☒ Type I (*ENB Required*); ☐ Unlisted
REVIEW TYPE: ☒ Coordinated; ☐ Uncoordinated
DETERMINATION OF SIGNIFICANCE: ☒ Negative Declaration; ☐ Positive Declaration

The purpose of this Negative Declaration is to evaluate environmental impacts from the proposed Tina Chorvas Park restoration project, which is one of three projects proposed for the Village of Saugerties parks restoration project. The other two projects proposed at the Village will be evaluated separately.

The Proposed Project:

The Village of Saugerties is proposing an improvements project at Tina Chorvas Park, which is located at 61 East Bridge Street, in the Village of Saugerties, Ulster County, New York.

The proposed improvements will repair damaged public facilities that suffered impacts from storm events and help mitigate future impacts of tidal and coastal flooding to the public recreational facilities located at Tina Chorvas Park. The current shoreline of Esopus Creek contains a bulkhead that has failed due to erosion caused by stormwater. The bulkhead extending along the park property and the AOS property will be replaced. This project will restore existing parkland and stabilize the shoreline at the edge of Esopus Creek along the park boundaries in order to alleviate further erosion and reduce the introduction of sediment that may reach the waterway bordering the park. The proposed project will revitalize the waterfront and stabilize the shoreline with the following measures: (1) Shoreline stabilization by construction of new bulkhead, (2) Site access improvements through access road construction, (3) Fencing, (4) Enhancing amenities, and (5) Improving site drainage.

The overall construction activity should take from 4 to 6 months to complete, with the proposed improvements to project site being constructed anytime during the normal construction period from May to December.

The proposed project under the Community Development Block Grant-Disaster Recover (CDBG-DR) program will include the following improvements:

Shoreline Stabilization:

- Construct approximately 245 linear feet of new bulkhead to stabilize the Esopus Creek shoreline along the east side of the project site. The bulkhead will be installed to the north end of the existing coal bin ruins. The bulkhead will be constructed by driving H-piles into the river every six feet on-center. Pile-driven steel panels will be placed between the H-piles and the void behind will be filled and leveled to the existing ground surface.

Site Access – Road Construction:

- Construct a gravel access road to provide public access to the AOS property. The gravel access road will be constructed from the existing Tina Chorvas Park parking lot through a 16-footwide right-of-way to southern boundary of the AOS property
- Construct an 18-foot wide road gate at the park entrance
- Construct a retaining wall on the west side of the 16-foot gravel access road
- Construct a 10-foot-wide gravel road through the AOS property to provide access to the northern half of the AOS property
- Clear trees and brush up to 12.5 feet from the centerline of the road (minimum of 25 feet total clearing width) and as needed to construct the access road
- To provide for the access road, the roof slab and brick pillars will be removed from the building ruins on the AOS property. The east wall will remain in place
- Backfill void areas on the AOS property for the access road
- Construct a construction staging area on the AOS property that can be used in the future for additional vehicle parking
- Install a simple road gate near the Tina Chorvas parking lot to control access between the two properties

Fencing:

- Install eight-foothigh (8') chainlink fencing around the perimeter property line and around the ruins area on the northwest side of AOS property
- Clear trees and brush within five feet of the proposed fence locations. Trees and brush will be cut off at ground level and the stumps and roots will be left in-place

Amenities Enhancement:

- Construct a kayak/canoe ramp
- Relocate grills and tables
- Remove fencing and bollards no longer needed

Drainage:

- Install piping, headwalls and riprap for drainage
- Excavate an existing sluice way on the AOS property and install a culvert

Construction:

- Prepare an erosion and sediment control plan
- Create a construction staging area on the existing parking lot on the southern portion of the park

- Construct a stabilized construction entrance
- Install silt fencing and turbidity curtain for erosion control
- Remove small area of asphalt from the current parking area

Purpose and Need:

As a riverine community, the Village of Saugerties experiences flooding from overflows from the lower Esopus Creek and its tributaries during intense rain events as well as storms such as Hurricane Irene and Tropical Storm Lee. As a coastal community, the Village also absorbed the impact of storm surges from the Hudson River during Superstorm Sandy. These events damaged park amenities located at Tina Chorvas Park. Low-lying tidal areas are most impacted by flooding due to wave action from the Hudson River and/or heavy flows from Esopus Creek. The proposed project will mitigate flooding through repairs to deteriorating bulkheads.

The project is needed to repair public facilities that suffered impacts in previous storm events and help mitigate future impacts of tidal and coastal flooding to this public facility. Project goals include i public facilities, stabilizing the shoreline and supporting structures, and protecting aquatic species and habitat in the Esopus Creek during periods of high velocity flooding.

Existing Conditions:

The project will occur within the Village of Saugerties in Ulster County, New York. Specific conditions and trends for the project site are as follows.

Location

The park is located north of East Bridge Street in the Village of Saugerties on the banks of Esopus Creek.

Land Use

The character of land use in the project area is predominantly residential, with low to medium density residential as the dominant uses. Some aquatic commercial land uses, such as small marinas, can be found along Esopus Creek which serve the many boats docked in the community. An existing three-story multi-unit residential apartment complex (“The Mill”) is located immediately west of the park on East Bridge Street. Tina Chorvas Park is located in an area of Saugerties zoned as PW (“Planned Waterfront”). The Town of Saugerties describes the purpose of the Waterfront Overlay District as “protect[ing] the water quality, floodways, shorelines, embankments and slopes of the Hudson River, Esopus Creek, and Plattekill Creek within the Town of Saugerties against erosion, filling, diversion or other land activities and development which will degrade property or public enjoyment of these unique resources”.

Floodplain Management

Per Flood Insurance Rate Map (FIRM) Panel 36111C0305E, dated September 25, 2009, the bulkhead location associated with the project is located in the 100 year flood plain. The project area lies adjacent to Esopus Creek, which is classified as Riverine in the National Wetlands Inventory and may contain wetlands along the edges of the main waterway.

Coastal Zone Management

The project is located within the boundary of the New York State Coastal Zone. The Village of Saugerties also participates in the Local Waterfront Revitalization Program. It has a Local Waterfront Revitalization Plan, adopted in 1985.

Cultural and Ecological Resources

No historic resources were detected on or substantially contiguous to the site by the NYS DEC EAF Mapper. The park is located within the Ulster-North Scenic Area of Statewide Significance in the Hudson River Valley. According to the EAF Mapper, the project site is adjacent to a designated significant natural community of Freshwater Tidal Marsh and Freshwater Intertidal Mudflats. The park is situated upstream from a Significant Coastal Fish and Wildlife Habitat in the Esopus Creek. The site is located within the biologically important area of the Hudson River Estuary and within the Ecological Region Zone D Hudson Valley.

Funding:

The total project cost is estimated at \$260,000. GOSR proposes to allocate funding pursuant to the U.S. Department of Housing and Urban Development (HUD) Community Development Block Grant-Disaster Recovery (CDBG-DR) program as authorized by the Disaster Relief Appropriations Act of 2013 (Public Law 113-2, approved January 29, 2013). The NYS Housing Trust Fund Corporation (HTFC), which administers the CDBG-DR program funds on behalf of GOSR, intends to approve funding for the proposed project as described in this notice.

Environmental Considerations:

The SEQRA EAF Part 2 assessed multiple resource topics, for some of which no potential impacts were identified. However, potential impacts from the proposed action were identified for land, surface water, flooding, and plants and animals. The following analysis finds that the proposed action will not result in a significant adverse impact on these resources.

Land.

The proposed action will involve excavation for culvert installation, tree clearing and grading for gravel roadways at the site. Land surface modifications will be contained to areas of preexisting disturbance at the site. Overall, the project will result in minor adverse short-term impacts to land resulting from site-preparation and construction activities. Beneficial long-term impacts to the landscape will occur as a result on shoreline stabilization. As a result, the proposed action will not result in significant impacts on land.

Surface Water.

The proposed project involves shoreline stabilization and repairs to bulkheads that could result in disturbances within Esopus Creek, which is a Class B protected and navigable body of water. Because no wetlands occur at the project site, and Esopus Creek is not classified as a wetland, the project will not result in effects to wetlands under Executive Order 11990. Construction management practices will be utilized to avoid or minimize potential impacts to adjacent waters. The proposed improvements will disturb less than one acre of land and, therefore, the Village will not be required to apply for coverage under NYSDEC SPDES General Permit for Stormwater Discharges from Construction Activity Permit No. GP-0-15-002. The proposed construction work in the parking area where a portion of the asphalt

will be removed will involve stripping off the asphalt layer only and leaving the sub-base layer of gravel in place. An Erosion and Sediment Control Plan will be developed and provided on the final design plans. Given adherence to these permitting requirements and best management practices, the proposed action will not have an effect on wetlands and is in compliance with Executive Order 11990. As a result, the proposed action will not result in significant impacts on surface water.

Flooding.

The project will result in a beneficial impact on floodplains due to stabilization of the shoreline. Specific actions will include replacement of approximately 245 linear feet of bulkhead, which will be installed to stabilize the Esopus Creek shoreline along the east side of the project site and arrest further erosion of the shoreline. No structural footprints would be expanded and there will be no alteration of, increase or decrease in size of, or encroachment into any existing wetland, waterbody, shoreline, beach or adjacent area. The proposed project will not have an impact on floodplain values.

Plants and Animals.

Impacts to vegetation and wildlife will be minor and short-term. The new bulkhead will be constructed within the same location of the existing, damaged bulkhead. However, upland vegetation may be present landward of the bulkheads, likely grass with some opportunistic herbaceous species, that may be damaged during construction or mobilization of construction equipment. Following construction, the pervious and impervious surfaces at each project location will be allowed to naturally revegetate following construction.

Wildlife expected to occur within the vicinity of the project area include mobile species that can easily avoid the project area during construction.

The proposed project is not expected to adversely affect protected species or habitats. Two species managed by the Endangered Species Program occur within the vicinity of the project site: the Endangered Indiana Bat (*Myotis sodalist*) and Threatened Northern Long-eared Bat (*Myotis septentrionalis*). In addition, there are several migratory birds of concern that could potentially utilize proposed project. However, there is no critical habitat for any species within the project area.

A Phase 1 Summer Bat Habit Assessment was conducted by a NYSDEC Wildlife Biologist on April 3, 2017. The assessment concluded that the project is approximately 10 miles from nearest known Indian bat and northern long-eared bat occurrence and the trees to be removed do NOT have exfoliated bark or cavities. Therefore it was determined that no suitable habitat occurs at the site for both bat species. Based on the findings of the summer habitat assessment and supporting documentation, GOSR determined that the project would have “No Effect” on threatened or endangered species. USFWS concurred with this determination on April 20, 2017.

Atlantic sturgeon (*Acipenser oxyrinchus oxyrinchus*) and shortnose sturgeon (*Acipenser brevirostrum*) occur in the Hudson River and lower portion of Hudson River Tributaries. However, while these species may occur within the vicinity of the action area, they are not expected to frequent shallow waters such as the action area. Furthermore, no dredging is proposed as part of the project, and there will be no risk of entrapment. Construction will not result in an increase in vessel traffic in the area; therefore, there the project will not increase the risk of interactions between vessels and sturgeon. Additionally, Best Management Practices such as the use of sediment barriers and silt fencing will be utilized during construction to avoid or minimize potential impacts to riparian species along Esopus Creek.

The restoration activities proposed will have no major impact on the human environment and is expected to improve some aspects of the human environment in the vicinity of the project site, such as recreational opportunities and public health and safety. The proposed project will not result in major impacts with respect to geology, soils and topography, air quality, cultural resources, aesthetic resources and neighborhood character, land use and planning, socioeconomics and environmental justice, noise, transportation, and hazardous materials. No major cumulative impacts will result from the proposed project in conjunction with the other activities occurring or planned for the project area.

Short-term impacts during construction are anticipated on soils, surface water, transportation, air quality, and noise. In cases where short-term potential impacts have been identified, impacts would be mitigated through design, regulatory compliance, and/or implementation of BMPs.

Standard Requirements:

Any change to the Proposed Project as described will require re-evaluation by GOSR's Certifying Officer for compliance with SEQRA and other law, regulations and policies.

This review does not address all federal, state and local requirements. Acceptance of federal funding requires recipient to comply with all federal, state and local laws. Failure to obtain all appropriate federal, state and local environmental permits and clearances may jeopardize federal funding.

Additional Mitigation Measures:

To the extent required and/or practicable, any approval of the proposed project is subject to following mitigation measures being adhered to by the grant recipient to minimize environmental impacts and create a more sustainable project:

- Construction and demolition – to the maximum extent possible, utilize local and recycled materials in construction process and recycle materials generated onsite.
- Clean diesel – implement diesel controls, cleaner fuel, and cleaner construction practices for on-road and off-road equipment used for transportation, soil movement, or other construction activities, including:
 - Strategies and technologies that reduce unnecessary idling, including auxiliary power units, the use of electric equipment, and strict enforcement of idling limits; and
 - Use of clean diesel through add-on control technologies like diesel particulate filters and diesel oxidation catalysts, repowers, or newer, cleaner equipment.
- Stormwater – utilize low impact development (LID) principles such as minimizing effective imperviousness to create site drainage.

In addition to the factors considered above, GOSR considered the following guidance from the State Environmental Quality Review Act and its implementing regulations and determined that the Proposed Action would:

- (i) Not result in “a substantial adverse change in existing air quality, ground or surface water quality or quantity, traffic or noise levels; a substantial increase in solid waste production; a substantial increase in potential for erosion, flooding, leaching or drainage problems;” (§617.7(c)(1)(i))
- (ii) Not result in “the removal or destruction of large quantities of vegetation or fauna; substantial interference with the movement of any resident or migratory fish or wildlife species; impacts on a significant habitat area; substantial adverse impacts on a threatened or endangered species of animal or plant, or the habitat of such a species; or other significant adverse impacts to natural resources;” (§617.7(c)(1)(iii))
- (iii) Not result in “the impairment of the environmental characteristics of a Critical Environmental Area as designated pursuant to subdivision 617.14(g) of this Part;” (§617.7(c)(1)(iii))
- (iv) Not result in “the creation of a material conflict with a community’s current plans or goals as officially approved or adopted;” (§617.7(c)(1)(iv))
- (v) Not result in “the impairment of the character or quality of important historical, archaeological, architectural, or aesthetic resources or of existing community or neighborhood character;” (§617.7(c)(1)(v))
- (vi) Not result in “a major change in the use of either the quantity or type of energy;” (§617.7(c)(1)(vi))
- (vii) Not result in “the creation of a hazard to human health;” (§617.7(c)(1)(vii))
- (viii) Not result in “a substantial change in the use, or intensity of use, of land including agricultural, open space or recreational resources, or in its capacity to support existing uses;” (§617.7(c)(1)(viii))
- (ix) Not result in “the encouraging or attracting of a large number of people to a place or places for more than a few days, compared to the number of people who would come to such place absent the action;” (§617.7(c)(1)(ix))
- (x) Not result in “the creation of a material demand for other actions that would result in one of the above consequences;” (§617.7(c)(1)(x))
- (xi) Not result in “changes in two or more elements of the environment, no one of which has a significant impact on the environment, but when considered together result in a substantial adverse impact on the environment; or (§617.7(c)(1)(xi))

Therefore, GOSR, acting as Lead Agency, and having prepared a Full Environmental Assessment Form (FEAF), has determined that the proposed action will not have a significant effect on the environment and a Draft Environmental Impact Statement will not need to be prepared.



Lori A. Shirley
Date: May 2, 2017
Certifying Officer, Bureau of Environmental Review and Assessment,
Governor’s Office of Storm Recovery
99 Washington Avenue Suite 1224
Albany, New York 12260

Office: (518) 474-0755

Attachments:

- Attachment 1. Environmental Assessment Form (Parts 1, 2 and 3)
- Attachment 2. Negative Declaration Distribution List

A copy of this Notice is available at the following web address:

<http://www.stormrecovery.ny.gov/environmental-docs>

Full Environmental Assessment Form
Part 1 - Project and Setting

Instructions for Completing Part 1

Part 1 is to be completed by the applicant or project sponsor. Responses become part of the application for approval or funding, are subject to public review, and may be subject to further verification.

Complete Part 1 based on information currently available. If additional research or investigation would be needed to fully respond to any item, please answer as thoroughly as possible based on current information; indicate whether missing information does not exist, or is not reasonably available to the sponsor; and, when possible, generally describe work or studies which would be necessary to update or fully develop that information.

Applicants/sponsors must complete all items in Sections A & B. In Sections C, D & E, most items contain an initial question that must be answered either “Yes” or “No”. If the answer to the initial question is “Yes”, complete the sub-questions that follow. If the answer to the initial question is “No”, proceed to the next question. Section F allows the project sponsor to identify and attach any additional information. Section G requires the name and signature of the project sponsor to verify that the information contained in Part 1 is accurate and complete.

A. Project and Sponsor Information.

Name of Action or Project: Restoration of Tina Chorvas Park		
Project Location (describe, and attach a general location map): 61 East Bridge Street, at Underwood Street, Village of Saugerties, NY 12447		
Brief Description of Proposed Action (include purpose or need): The proposed project would repair damaged public facilities that suffered impacts in previous storm events and help mitigate future impacts of tidal and coastal flooding to public facilities and low-lying areas at Tina Chorvas Waterfront Park and the adjacent Arm of the Sea property along Esopus Creek (Figure 1). The current shoreline of the creek contains bulkhead that has failed due to erosion caused by stormwater. The bulkhead in the park property will be replaced and shoreline stabilization work would be performed in the Arm of the Sea property. This preparation for predicted sea level rise will provide enhanced public access and will allow for redevelopment along the abandoned waterfront industrial site. The proposed project will revitalize the waterfront and stabilize the shoreline with the following measures: (1) Shoreline stabilization by construction of a new bulkhead, (2) Site access improvements through access road construction, (3) Fencing, (4) Enhancing amenities, and (5) Improving site drainage.		
Name of Applicant/Sponsor: Applicant: Village of Saugerties / Sponsor: NY GOSR (Lead Agency)	Telephone: 845-246-2321 x1	
	E-Mail: WMurphy@villageofsaugerties.org	
Address: 43 Partition Street		
City/PO: Saugerties	State: New York	Zip Code: 12477
Project Contact (if not same as sponsor; give name and title/role): Lori A. Shirley, Certifying Officer, Governor's Office of Storm Recovery	Telephone: (518) 474-0755	
	E-Mail: lori.shirley@nyshcr.org	
Address: 38-40 State St., Hampton Plaza		
City/PO: Albany	State: NY	Zip Code: 12207
Property Owner (if not same as sponsor): Village of Saugerties	Telephone: 845-246-2321 x1	
	E-Mail: WMurphy@villageofsaugerties.org	
Address: 3 Partition Street		
City/PO: Saugerties	State: New York	Zip Code: 12477



 Project Boundary

Figure 1: Project Area

Tina Chorvas Park
Restoration Project

B. Government Approvals

B. Government Approvals, Funding, or Sponsorship. (“Funding” includes grants, loans, tax relief, and any other forms of financial assistance.)		
Government Entity	If Yes: Identify Agency and Approval(s) Required	Application Date (Actual or projected)
a. City Council, Town Board, <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No or Village Board of Trustees		
b. City, Town or Village <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Planning Board or Commission		
c. City Council, Town or <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Village Zoning Board of Appeals		
d. Other local agencies <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Floodplain Development Permit: Village of Saugerties	03-23-2017
e. County agencies <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
f. Regional agencies <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
g. State agencies <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	NYSDEC (401; Article 15, Title 5) permits; HTFC (HUD) CDBG-DR funding	NYSDEC Permits received 01-09-2015 and 11-07-2014
h. Federal agencies <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	US Army Corps of Engineers (Section 10, Section 404) permit	Pre-Construction Notification not required
i. Coastal Resources. i. Is the project site within a Coastal Area, or the waterfront area of a Designated Inland Waterway? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No ii. Is the project site located in a community with an approved Local Waterfront Revitalization Program? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No iii. Is the project site within a Coastal Erosion Hazard Area? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		

C. Planning and Zoning

C.1. Planning and zoning actions.	
Will administrative or legislative adoption, or amendment of a plan, local law, ordinance, rule or regulation be the only approval(s) which must be granted to enable the proposed action to proceed? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No • If Yes , complete sections C, F and G. • If No , proceed to question C.2 and complete all remaining sections and questions in Part 1	
C.2. Adopted land use plans.	
a. Do any municipally- adopted (city, town, village or county) comprehensive land use plan(s) include the site where the proposed action would be located? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If Yes, does the comprehensive plan include specific recommendations for the site where the proposed action would be located? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
b. Is the site of the proposed action within any local or regional special planning district (for example: Greenway Brownfield Opportunity Area (BOA); designated State or Federal heritage area; watershed management plan; or other?) <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If Yes, identify the plan(s): _____ _____ _____	
c. Is the proposed action located wholly or partially within an area listed in an adopted municipal open space plan, or an adopted municipal farmland protection plan? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If Yes, identify the plan(s): Saugerties Open Space Plan _____ _____ _____	

C.3. Zoning

a. Is the site of the proposed action located in a municipality with an adopted zoning law or ordinance. ☒ Yes ☐ No

If Yes, what is the zoning classification(s) including any applicable overlay district?

The zoning code of the Tina Chorvas Waterfront Park parcel is 08 with a property class of 340-vacant industrial within the Planned Waterfront zoning district.

b. Is the use permitted or allowed by a special or conditional use permit? ☒ Yes ☐ No

c. Is a zoning change requested as part of the proposed action? ☐ Yes ☒ No

If Yes,

i. What is the proposed new zoning for the site? _____

C.4. Existing community services.

a. In what school district is the project site located? Saugerties Central School District

b. What police or other public protection forces serve the project site?

Saugerties Village Police Department

c. Which fire protection and emergency medical services serve the project site?

Saugerties Village Fire Department and NYS Department of State Office of Fire Prevention and Control

d. What parks serve the project site?

The site itself is a municipal park which is bordered by Esopus Creek.

D. Project Details

D.1. Proposed and Potential Development

a. What is the general nature of the proposed action (e.g., residential, industrial, commercial, recreational; if mixed, include all components)? The proposed improvements are municipal and recreational in nature as they would repair the park bulkheads and stabilize the shoreline for enhanced public access.

b. a. Total acreage of the site of the proposed action? 2.6 acres

b. Total acreage to be physically disturbed? 0.82 acres

c. Total acreage (project site and any contiguous properties) owned or controlled by the applicant or project sponsor? 2.6 acres

c. Is the proposed action an expansion of an existing project or use? ☐ Yes ☒ No

i. If Yes, what is the approximate percentage of the proposed expansion and identify the units (e.g., acres, miles, housing units, square feet)? % _____ Units: _____

d. Is the proposed action a subdivision, or does it include a subdivision? ☐ Yes ☒ No

If Yes,

i. Purpose or type of subdivision? (e.g., residential, industrial, commercial; if mixed, specify types)

ii. Is a cluster/conservation layout proposed? ☐ Yes ☒ No

iii. Number of lots proposed? _____

iv. Minimum and maximum proposed lot sizes? Minimum _____ Maximum _____

e. Will proposed action be constructed in multiple phases? ☐ Yes ☒ No

i. If No, anticipated period of construction: 4-6 months

ii. If Yes:

- Total number of phases anticipated _____

- Anticipated commencement date of phase 1 (including demolition) _____ month _____ year

- Anticipated completion date of final phase _____ month _____ year

- Generally describe connections or relationships among phases, including any contingencies where progress of one phase may determine timing or duration of future phases: _____

f. Does the project include new residential uses? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No				
If Yes, show numbers of units proposed.				
	<u>One Family</u>	<u>Two Family</u>	<u>Three Family</u>	<u>Multiple Family (four or more)</u>
Initial Phase	_____	_____	_____	_____
At completion	_____	_____	_____	_____
of all phases	_____	_____	_____	_____

g. Does the proposed action include new non-residential construction (including expansions)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
If Yes,	
i. Total number of structures _____	
ii. Dimensions (in feet) of largest proposed structure: _____ height; _____ width; and _____ length	
iii. Approximate extent of building space to be heated or cooled: _____ square feet	

h. Does the proposed action include construction or other activities that will result in the impoundment of any liquids, such as creation of a water supply, reservoir, pond, lake, waste lagoon or other storage? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
If Yes,	
i. Purpose of the impoundment: _____	
ii. If a water impoundment, the principal source of the water: <input type="checkbox"/> Ground water <input type="checkbox"/> Surface water streams <input type="checkbox"/> Other specify: _____	
iii. If other than water, identify the type of impounded/contained liquids and their source. _____	
iv. Approximate size of the proposed impoundment. Volume: _____ million gallons; surface area: _____ acres	
v. Dimensions of the proposed dam or impounding structure: _____ height; _____ length	
vi. Construction method/materials for the proposed dam or impounding structure (e.g., earth fill, rock, wood, concrete): _____	

D.2. Project Operations

a. Does the proposed action include any excavation, mining, or dredging, during construction, operations, or both? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
(Not including general site preparation, grading or installation of utilities or foundations where all excavated materials will remain onsite)	
If Yes:	
i. What is the purpose of the excavation or dredging? <u>To remove shallow debris prior to H piles and create a uniform streambed surface.</u>	
ii. How much material (including rock, earth, sediments, etc.) is proposed to be removed from the site?	
<ul style="list-style-type: none"> • Volume (specify tons or cubic yards): <u>53 cubic yards</u> • Over what duration of time? <u>Approximately 2-week period</u> 	
iii. Describe nature and characteristics of materials to be excavated or dredged, and plans to use, manage or dispose of them.	
<u>Brown, fine silty sand. If the gravity drained material is suitable for use as compacted structural fill, it can be used as backfill behind the bulkhead and/or used to onsite to level road or parking areas. If it is not suitable for structural backfill, then it will be used for other general site grading at the site.</u>	
iv. Will there be onsite dewatering or processing of excavated materials? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
If yes, describe. <u>Excavated materials would be placed and contained within a designated stockpile area and allowed to gravity drain. Appropriate erosion and sediment control measures will be used around the perimeter of the stockpile area.</u>	
v. What is the total area to be dredged or excavated? _____ 0.02 acres	
vi. What is the maximum area to be worked at any one time? _____ 0.008 acres	
vii. What would be the maximum depth of excavation or dredging? _____ 2 feet	
viii. Will the excavation require blasting? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
ix. Summarize site reclamation goals and plan: _____	

b. Would the proposed action cause or result in alteration of, increase or decrease in size of, or encroachment into any existing wetland, waterbody, shoreline, beach or adjacent area? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
If Yes:	
i. Identify the wetland or waterbody which would be affected (by name, water index number, wetland map number or geographic description): <u>Esopus Creek NYS Water Index#: H-171, Class C</u>	

ii. Describe how the proposed action would affect that waterbody or wetland, e.g. excavation, fill, placement of structures, or alteration of channels, banks and shorelines. Indicate extent of activities, alterations and additions in square feet or acres:
Excavation, fill and placement of bulkheads will take place within the navigable waterbody Esopus Creek (NYS Water Index#: H-171, Class C) in association with the waterfront revitalization and shoreline stabilization project. The project consists of rehabilitation of a failing wooden bulkhead placement of riprap along the bank for shoreline stabilization.

iii. Will proposed action cause or result in disturbance to bottom sediments? ☒ Yes ☐ No
 If Yes, describe: Excavation, fill and placement of bulkheads would result in temporary disturbance of bottom sediments

iv. Will proposed action cause or result in the destruction or removal of aquatic vegetation? ☐ Yes ☒ No
 If Yes:

- acres of aquatic vegetation proposed to be removed: _____
- expected acreage of aquatic vegetation remaining after project completion: _____
- purpose of proposed removal (e.g. beach clearing, invasive species control, boat access): _____
- proposed method of plant removal: _____
- if chemical/herbicide treatment will be used, specify product(s): _____

v. Describe any proposed reclamation/mitigation following disturbance: _____

c. Will the proposed action use, or create a new demand for water? ☐ Yes ☒ No
 If Yes:

i. Total anticipated water usage/demand per day: _____ gallons/day

ii. Will the proposed action obtain water from an existing public water supply? ☐ Yes ☐ No
 If Yes:

- Name of district or service area: _____
- Does the existing public water supply have capacity to serve the proposal? ☐ Yes ☐ No
- Is the project site in the existing district? ☐ Yes ☐ No
- Is expansion of the district needed? ☐ Yes ☐ No
- Do existing lines serve the project site? ☐ Yes ☐ No

iii. Will line extension within an existing district be necessary to supply the project? ☐ Yes ☐ No
 If Yes:

- Describe extensions or capacity expansions proposed to serve this project: _____
- Source(s) of supply for the district: _____

iv. Is a new water supply district or service area proposed to be formed to serve the project site? ☐ Yes ☐ No
 If, Yes:

- Applicant/sponsor for new district: _____
- Date application submitted or anticipated: _____
- Proposed source(s) of supply for new district: _____

v. If a public water supply will not be used, describe plans to provide water supply for the project: _____

vi. If water supply will be from wells (public or private), maximum pumping capacity: _____ gallons/minute.

d. Will the proposed action generate liquid wastes? ☐ Yes ☒ No
 If Yes:

i. Total anticipated liquid waste generation per day: _____ gallons/day

ii. Nature of liquid wastes to be generated (e.g., sanitary wastewater, industrial; if combination, describe all components and approximate volumes or proportions of each): _____

iii. Will the proposed action use any existing public wastewater treatment facilities? ☐ Yes ☒ No
 If Yes:

- Name of wastewater treatment plant to be used: _____
- Name of district: _____
- Does the existing wastewater treatment plant have capacity to serve the project? ☐ Yes ☐ No
- Is the project site in the existing district? ☐ Yes ☐ No
- Is expansion of the district needed? ☐ Yes ☐ No

<ul style="list-style-type: none"> • Do existing sewer lines serve the project site? _____ • Will line extension within an existing district be necessary to serve the project? _____ <p>If Yes:</p> <ul style="list-style-type: none"> • Describe extensions or capacity expansions proposed to serve this project: _____ _____ _____ 	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> No
<p>iv. Will a new wastewater (sewage) treatment district be formed to serve the project site? _____</p> <p>If Yes:</p> <ul style="list-style-type: none"> • Applicant/sponsor for new district: _____ • Date application submitted or anticipated: _____ • What is the receiving water for the wastewater discharge? _____ 	<input type="checkbox"/> Yes <input type="checkbox"/> No
<p>v. If public facilities will not be used, describe plans to provide wastewater treatment for the project, including specifying proposed receiving water (name and classification if surface discharge, or describe subsurface disposal plans): _____ _____ _____</p>	
<p>vi. Describe any plans or designs to capture, recycle or reuse liquid waste: _____ _____ _____</p>	
<p>e. Will the proposed action disturb more than one acre and create stormwater runoff, either from new point sources (i.e. ditches, pipes, swales, curbs, gutters or other concentrated flows of stormwater) or non-point source (i.e. sheet flow) during construction or post construction? _____</p> <p>If Yes:</p> <p>i. How much impervious surface will the project create in relation to total size of project parcel?</p> <p style="padding-left: 20px;">_____ Square feet or _____ acres (impervious surface)</p> <p style="padding-left: 20px;">_____ Square feet or _____ acres (parcel size)</p> <p>ii. Describe types of new point sources. _____ _____</p> <p>iii. Where will the stormwater runoff be directed (i.e. on-site stormwater management facility/structures, adjacent properties, groundwater, on-site surface water or off-site surface waters)? _____ _____</p> <ul style="list-style-type: none"> • If to surface waters, identify receiving water bodies or wetlands: _____ _____ • Will stormwater runoff flow to adjacent properties? _____ 	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> No
<p>iv. Does proposed plan minimize impervious surfaces, use pervious materials or collect and re-use stormwater? _____</p>	<input type="checkbox"/> Yes <input type="checkbox"/> No
<p>f. Does the proposed action include, or will it use on-site, one or more sources of air emissions, including fuel combustion, waste incineration, or other processes or operations? _____</p> <p>If Yes, identify:</p> <p>i. Mobile sources during project operations (e.g., heavy equipment, fleet or delivery vehicles) _____</p> <p>ii. Stationary sources during construction (e.g., power generation, structural heating, batch plant, crushers) _____</p> <p>iii. Stationary sources during operations (e.g., process emissions, large boilers, electric generation) _____ _____</p>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
<p>g. Will any air emission sources named in D.2.f (above), require a NY State Air Registration, Air Facility Permit, or Federal Clean Air Act Title IV or Title V Permit? _____</p> <p>If Yes:</p> <p>i. Is the project site located in an Air quality non-attainment area? (Area routinely or periodically fails to meet ambient air quality standards for all or some parts of the year) _____</p> <p>ii. In addition to emissions as calculated in the application, the project will generate:</p> <ul style="list-style-type: none"> • _____ Tons/year (short tons) of Carbon Dioxide (CO₂) • _____ Tons/year (short tons) of Nitrous Oxide (N₂O) • _____ Tons/year (short tons) of Perfluorocarbons (PFCs) • _____ Tons/year (short tons) of Sulfur Hexafluoride (SF₆) • _____ Tons/year (short tons) of Carbon Dioxide equivalent of Hydrofluorocarbons (HFCs) • _____ Tons/year (short tons) of Hazardous Air Pollutants (HAPs) 	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> No

<p>h. Will the proposed action generate or emit methane (including, but not limited to, sewage treatment plants, landfills, composting facilities)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> <p>If Yes:</p> <p>i. Estimate methane generation in tons/year (metric): _____</p> <p>ii. Describe any methane capture, control or elimination measures included in project design (e.g., combustion to generate heat or electricity, flaring): _____</p>			
<p>i. Will the proposed action result in the release of air pollutants from open-air operations or processes, such as quarry or landfill operations? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> <p>If Yes: Describe operations and nature of emissions (e.g., diesel exhaust, rock particulates/dust): _____</p>			
<p>j. Will the proposed action result in a substantial increase in traffic above present levels or generate substantial new demand for transportation facilities or services? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> <p>If Yes:</p> <p>i. When is the peak traffic expected (Check all that apply): <input type="checkbox"/> Morning <input type="checkbox"/> Evening <input type="checkbox"/> Weekend <input type="checkbox"/> Randomly between hours of _____ to _____.</p> <p>ii. For commercial activities only, projected number of semi-trailer truck trips/day: _____</p> <p>iii. Parking spaces: Existing _____ Proposed _____ Net increase/decrease _____</p> <p>iv. Does the proposed action include any shared use parking? <input type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>v. If the proposed action includes any modification of existing roads, creation of new roads or change in existing access, describe: _____</p> <p>vi. Are public/private transportation service(s) or facilities available within 1/2 mile of the proposed site? <input type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>vii. Will the proposed action include access to public transportation or accommodations for use of hybrid, electric or other alternative fueled vehicles? <input type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>viii. Will the proposed action include plans for pedestrian or bicycle accommodations for connections to existing pedestrian or bicycle routes? <input type="checkbox"/> Yes <input type="checkbox"/> No</p>			
<p>k. Will the proposed action (for commercial or industrial projects only) generate new or additional demand for energy? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> <p>If Yes:</p> <p>i. Estimate annual electricity demand during operation of the proposed action: _____</p> <p>ii. Anticipated sources/suppliers of electricity for the project (e.g., on-site combustion, on-site renewable, via grid/local utility, or other): _____</p> <p>iii. Will the proposed action require a new, or an upgrade to, an existing substation? <input type="checkbox"/> Yes <input type="checkbox"/> No</p>			
<p>l. Hours of operation. Answer all items which apply.</p> <table style="width: 100%;"> <tr> <td style="width: 50%; vertical-align: top;"> <p>i. During Construction:</p> <ul style="list-style-type: none"> • Monday - Friday: _____ 7:00 a.m. through 3:30 p.m. • Saturday: _____ 7:00 a.m. through 3:30 p.m. • Sunday: _____ 7:00 a.m. through 3:30 p.m. • Holidays: _____ 7:00 a.m. through 3:30 p.m. </td> <td style="width: 50%; vertical-align: top;"> <p>ii. During Operations:</p> <ul style="list-style-type: none"> • Monday - Friday: _____ 7:00 a.m. through 9:00 p.m. • Saturday: _____ 7:00 a.m. through 9:00 p.m. • Sunday: _____ 7:30 a.m. through 9:00 p.m. • Holidays: _____ 7:30 a.m. through 9:00 p.m. </td> </tr> </table>		<p>i. During Construction:</p> <ul style="list-style-type: none"> • Monday - Friday: _____ 7:00 a.m. through 3:30 p.m. • Saturday: _____ 7:00 a.m. through 3:30 p.m. • Sunday: _____ 7:00 a.m. through 3:30 p.m. • Holidays: _____ 7:00 a.m. through 3:30 p.m. 	<p>ii. During Operations:</p> <ul style="list-style-type: none"> • Monday - Friday: _____ 7:00 a.m. through 9:00 p.m. • Saturday: _____ 7:00 a.m. through 9:00 p.m. • Sunday: _____ 7:30 a.m. through 9:00 p.m. • Holidays: _____ 7:30 a.m. through 9:00 p.m.
<p>i. During Construction:</p> <ul style="list-style-type: none"> • Monday - Friday: _____ 7:00 a.m. through 3:30 p.m. • Saturday: _____ 7:00 a.m. through 3:30 p.m. • Sunday: _____ 7:00 a.m. through 3:30 p.m. • Holidays: _____ 7:00 a.m. through 3:30 p.m. 	<p>ii. During Operations:</p> <ul style="list-style-type: none"> • Monday - Friday: _____ 7:00 a.m. through 9:00 p.m. • Saturday: _____ 7:00 a.m. through 9:00 p.m. • Sunday: _____ 7:30 a.m. through 9:00 p.m. • Holidays: _____ 7:30 a.m. through 9:00 p.m. 		

<p>m. Will the proposed action produce noise that will exceed existing ambient noise levels during construction, operation, or both? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>If yes:</p> <p>i. Provide details including sources, time of day and duration:</p> <p>Operation of a hydraulic excavator such as a CAT 320 and/or mini-excavator such as a CAT 305 will produce intermittent noise during hours of construction.</p>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
<p>ii. Will proposed action remove existing natural barriers that could act as a noise barrier or screen? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> <p>Describe: <u>Limited Tree and brush removal is proposed as part of this project</u></p>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
<p>n.. Will the proposed action have outdoor lighting? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> <p>If yes:</p> <p>i. Describe source(s), location(s), height of fixture(s), direction/aim, and proximity to nearest occupied structures:</p>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
<p>ii. Will proposed action remove existing natural barriers that could act as a light barrier or screen? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> <p>Describe: _____</p>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
<p>o. Does the proposed action have the potential to produce odors for more than one hour per day? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> <p>If Yes, describe possible sources, potential frequency and duration of odor emissions, and proximity to nearest occupied structures: _____</p> <p>Typical fuel combustion odors from earth moving vehicles intermittently throughout the day during project construction only. These will dissipate quickly and will not have a significant adverse impact.</p>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
<p>p. Will the proposed action include any bulk storage of petroleum (combined capacity of over 1,100 gallons) or chemical products 185 gallons in above ground storage or any amount in underground storage? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> <p>If Yes:</p> <p>i. Product(s) to be stored _____</p> <p>ii. Volume(s) _____ per unit time _____ (e.g., month, year)</p> <p>iii. Generally describe proposed storage facilities: _____</p>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
<p>q. Will the proposed action (commercial, industrial and recreational projects only) use pesticides (i.e., herbicides, insecticides) during construction or operation? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> <p>If Yes:</p> <p>i. Describe proposed treatment(s):</p> <p>_____</p> <p>_____</p> <p>_____</p>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
<p>ii. Will the proposed action use Integrated Pest Management Practices? <input type="checkbox"/> Yes <input type="checkbox"/> No</p>	<input type="checkbox"/> Yes <input type="checkbox"/> No
<p>r. Will the proposed action (commercial or industrial projects only) involve or require the management or disposal of solid waste (excluding hazardous materials)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> <p>If Yes:</p> <p>i. Describe any solid waste(s) to be generated during construction or operation of the facility:</p> <ul style="list-style-type: none"> • Construction: _____ tons per _____ (unit of time) • Operation : _____ tons per _____ (unit of time) <p>ii. Describe any proposals for on-site minimization, recycling or reuse of materials to avoid disposal as solid waste:</p> <ul style="list-style-type: none"> • Construction: _____ • Operation: _____ <p>iii. Proposed disposal methods/facilities for solid waste generated on-site:</p> <ul style="list-style-type: none"> • Construction: _____ • Operation: _____ 	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

s. Does the proposed action include construction or modification of a solid waste management facility? ☐ Yes ☒ No

If Yes:

i. Type of management or handling of waste proposed for the site (e.g., recycling or transfer station, composting, landfill, or other disposal activities): _____

ii. Anticipated rate of disposal/processing:

- _____ Tons/month, if transfer or other non-combustion/thermal treatment, or
- _____ Tons/hour, if combustion or thermal treatment

iii. If landfill, anticipated site life: _____ years

t. Will proposed action at the site involve the commercial generation, treatment, storage, or disposal of hazardous waste? ☐ Yes ☒ No

If Yes:

i. Name(s) of all hazardous wastes or constituents to be generated, handled or managed at facility: _____

ii. Generally describe processes or activities involving hazardous wastes or constituents: _____

iii. Specify amount to be handled or generated _____ tons/month

iv. Describe any proposals for on-site minimization, recycling or reuse of hazardous constituents: _____

v. Will any hazardous wastes be disposed at an existing offsite hazardous waste facility? ☐ Yes ☐ No

If Yes: provide name and location of facility: _____

If No: describe proposed management of any hazardous wastes which will not be sent to a hazardous waste facility: _____

E. Site and Setting of Proposed Action

E.1. Land uses on and surrounding the project site

a. Existing land uses.

i. Check all uses that occur on, adjoining and near the project site.

☐ Urban ☐ Industrial ☐ Commercial ☒ Residential (suburban) ☐ Rural (non-farm)

☒ Forest ☐ Agriculture ☒ Aquatic ☒ Other (specify): municipal parkland

ii. If mix of uses, generally describe:

The site is a waterfront park surrounded by mixed use low-density residential and waterfront uses amid a semi-forested landscape.

b. Land uses and covertypes on the project site.

Land use or Covertypes	Current Acreage	Acreage After Project Completion	Change (Acres +/-)
• Roads, buildings, and other paved or impervious surfaces	0.34	0.34	0
• Forested	1.89	1.07	0.82
• Meadows, grasslands or brushlands (non-agricultural, including abandoned agricultural)	0.37	0.37	0
• Agricultural (includes active orchards, field, greenhouse etc.)	0	0	0
• Surface water features (lakes, ponds, streams, rivers, etc.)	0	0	0
• Wetlands (freshwater or tidal)	0	0	0
• Non-vegetated (bare rock, earth or fill)	0	0	0
• Other Describe: _____			

c. Is the project site presently used by members of the community for public recreation? ☒ Yes ☐ No
i. If Yes: explain: Park is used for passive recreation such as walking and picnicking but also for active recreation such as kayak launching.

d. Are there any facilities serving children, the elderly, people with disabilities (e.g., schools, hospitals, licensed day care centers, or group homes) within 1500 feet of the project site? ☐ Yes ☒ No
If Yes,
i. Identify Facilities:

e. Does the project site contain an existing dam? ☐ Yes ☒ No
If Yes:
i. Dimensions of the dam and impoundment:
• Dam height: _____ feet
• Dam length: _____ feet
• Surface area: _____ acres
• Volume impounded: _____ gallons OR acre-feet
ii. Dam's existing hazard classification: _____
iii. Provide date and summarize results of last inspection:

f. Has the project site ever been used as a municipal, commercial or industrial solid waste management facility, or does the project site adjoin property which is now, or was at one time, used as a solid waste management facility? ☐ Yes ☒ No
If Yes:
i. Has the facility been formally closed? ☐ Yes ☐ No
• If yes, cite sources/documentation: _____
ii. Describe the location of the project site relative to the boundaries of the solid waste management facility:

iii. Describe any development constraints due to the prior solid waste activities: _____

g. Have hazardous wastes been generated, treated and/or disposed of at the site, or does the project site adjoin property which is now or was at one time used to commercially treat, store and/or dispose of hazardous waste? ☐ Yes ☒ No
If Yes:
i. Describe waste(s) handled and waste management activities, including approximate time when activities occurred:

h. Potential contamination history. Has there been a reported spill at the proposed project site, or have any remedial actions been conducted at or adjacent to the proposed site? ☐ Yes ☒ No
If Yes:
i. Is any portion of the site listed on the NYSDEC Spills Incidents database or Environmental Site Remediation database? Check all that apply: ☐ Yes ☒ No
☐ Yes – Spills Incidents database Provide DEC ID number(s): _____
☐ Yes – Environmental Site Remediation database Provide DEC ID number(s): _____
☐ Neither database
ii. If site has been subject of RCRA corrective activities, describe control measures: _____

iii. Is the project within 2000 feet of any site in the NYSDEC Environmental Site Remediation database? ☒ Yes ☐ No
If yes, provide DEC ID number(s): 546031 , 356018
iv. If yes to (i), (ii) or (iii) above, describe current status of site(s):
546031 - Hudson River PCB Sediments, The General Electric Company (GE) discharged PCBs into the river from two capacitor manufacturing plants located in Hudson Falls and Fort Edward starting sometime in 1946. 356018 - Saugerties former Manufactured Gas Plant is 180 feet away from Esopus Creek. A small amount of coal tar-like product was observed in the location as a result of conversion from the coal gasification process from 1923-1928.

v. Is the project site subject to an institutional control limiting property uses? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
<ul style="list-style-type: none"> • If yes, DEC site ID number: _____ • Describe the type of institutional control (e.g., deed restriction or easement): _____ • Describe any use limitations: _____ • Describe any engineering controls: _____ • Will the project affect the institutional or engineering controls in place? <input type="checkbox"/> Yes <input type="checkbox"/> No • Explain: _____ _____ 	
E.2. Natural Resources On or Near Project Site	
a. What is the average depth to bedrock on the project site? _____ >6 feet	
b. Are there bedrock outcroppings on the project site? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If Yes, what proportion of the site is comprised of bedrock outcroppings? _____ %	
c. Predominant soil type(s) present on project site: <div style="display: flex; justify-content: space-between;"> <div style="width: 60%;"> BOD - Bath-Nassau Complex _____ _____ </div> <div style="width: 35%; text-align: right;"> 100 % _____ _____ </div> </div>	
d. What is the average depth to the water table on the project site? Average: _____ >6 feet	
e. Drainage status of project site soils: <div style="display: flex; justify-content: space-between;"> <div style="width: 40%;"> <input checked="" type="checkbox"/> Well Drained: <input type="checkbox"/> Moderately Well Drained: <input type="checkbox"/> Poorly Drained </div> <div style="width: 55%; text-align: right;"> 100 % of site _____% of site _____% of site </div> </div>	
f. Approximate proportion of proposed action site with slopes: <div style="display: flex; justify-content: space-between;"> <div style="width: 40%;"> <input type="checkbox"/> 0-10%: <input checked="" type="checkbox"/> 10-15%: <input type="checkbox"/> 15% or greater: </div> <div style="width: 55%; text-align: right;"> _____% of site 100 % of site _____% of site </div> </div>	
g. Are there any unique geologic features on the project site? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If Yes, describe: _____ _____	
h. Surface water features.	
i. Does any portion of the project site contain wetlands or other waterbodies (including streams, rivers, ponds or lakes)? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
ii. Do any wetlands or other waterbodies adjoin the project site? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
If Yes to either <i>i</i> or <i>ii</i> , continue. If No, skip to E.2.i.	
iii. Are any of the wetlands or waterbodies within or adjoining the project site regulated by any federal, state or local agency? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
iv. For each identified regulated wetland and waterbody on the project site, provide the following information:	
<ul style="list-style-type: none"> • Streams: Name _____ Classification _____ • Lakes or Ponds: Name _____ Classification _____ • Wetlands: Name Federal Waters Approximate Size _____ • Wetland No. (if regulated by DEC) _____ 	
v. Are any of the above water bodies listed in the most recent compilation of NYS water quality-impaired waterbodies? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
If yes, name of impaired water body/bodies and basis for listing as impaired: _____ Name - Pollutants - Uses: Hudson River – Priority Organics – Fish Consumption	
i. Is the project site in a designated Floodway? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
j. Is the project site in the 100 year Floodplain? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
k. Is the project site in the 500 year Floodplain? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
l. Is the project site located over, or immediately adjoining, a primary, principal or sole source aquifer? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If Yes:	
i. Name of aquifer: _____	

<p>m. Identify the predominant wildlife species that occupy or use the project site: _____</p> <p><u>Predominant Wildlife Species for Tina Chorvas Waterfront Park: largemouth bass (<i>Micropterus salmoides</i>), smallmouth bass (<i>Micropterus dolomieu</i>), American eel (<i>Anguilla rostrata</i>), common map turtles (<i>Graptemys geographica</i>), American black duck (<i>Anas rubripes</i>), mallard (<i>Anas platyrhynchos</i>), muskrat (<i>Ondatra zibethicus</i>)</u></p>	
<p>n. Does the project site contain a designated significant natural community? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>If Yes:</p> <p style="margin-left: 20px;">i. Describe the habitat/community (composition, function, and basis for designation): _____</p> <p>Freshwater Tidal Marsh, Freshwater Intertidal Mudflats, Freshwater Tidal Swamp</p> <p style="margin-left: 20px;">ii. Source(s) of description or evaluation: _____</p> <p style="margin-left: 20px;">iii. Extent of community/habitat:</p> <ul style="list-style-type: none"> • Currently: _____ 45.0, 20.0 acres • Following completion of project as proposed: _____ 45.0, 20.0 acres • Gain or loss (indicate + or -): _____ acres 	
<p>o. Does project site contain any species of plant or animal that is listed by the federal government or NYS as <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No endangered or threatened, or does it contain any areas identified as habitat for an endangered or threatened species?</p> <p>Federal and NYS Endangered: Indiana bat (<i>Myotis sodalis</i>); Shortnose sturgeon (<i>Acipenser brevirostrum</i>). Federal and NYS Threatened: Northern long-eared Bat (<i>Myotis septentrionalis</i>). Federal Endangered: Atlantic sturgeon (<i>Acipenser oxyrinchus</i>). NYS Threatened: Bald eagle (<i>Haliaeetus leucocephalus</i>) - breeding bald eagle have been documented within .5 mile of the Saugerties Lighthouse, on the east side of the Hudson River.</p>	
<p>p. Does the project site contain any species of plant or animal that is listed by NYS as rare, or as a species of <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No special concern?</p> <p>Rare/ Vulnerable in NYS: Heartleaf plantain (<i>Plantago cordata</i>) recorded around mouth of Esopus Creek in 1988. Freshwater tidal marsh, swamp, and intertidal flats are significant natural communities located nearby. Esopus Creek is a classified waterbody in NY. It is designated as Class C at Tina Chorvas Park. Additionally, part of the lower Esopus is impaired for turbidity.</p>	
<p>q. Is the project site or adjoining area currently used for hunting, trapping, fishing or shell fishing? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>If yes, give a brief description of how the proposed action may affect that use: _____</p> <p>The park is occasionally used for fishing. Proposed action will improve this use with enhanced public access.</p>	
<p>E.3. Designated Public Resources On or Near Project Site</p>	
<p>a. Is the project site, or any portion of it, located in a designated agricultural district certified pursuant to <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Agriculture and Markets Law, Article 25-AA, Section 303 and 304?</p> <p>If Yes, provide county plus district name/number: _____</p>	
<p>b. Are agricultural lands consisting of highly productive soils present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> <p style="margin-left: 20px;">i. If Yes: acreage(s) on project site? _____</p> <p style="margin-left: 20px;">ii. Source(s) of soil rating(s): _____</p>	
<p>c. Does the project site contain all or part of, or is it substantially contiguous to, a registered National <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Natural Landmark?</p> <p>If Yes:</p> <p style="margin-left: 20px;">i. Nature of the natural landmark: <input type="checkbox"/> Biological Community <input type="checkbox"/> Geological Feature</p> <p style="margin-left: 20px;">ii. Provide brief description of landmark, including values behind designation and approximate size/extent: _____</p> <p>_____</p> <p>_____</p>	
<p>d. Is the project site located in or does it adjoin a state listed Critical Environmental Area? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> <p>If Yes:</p> <p style="margin-left: 20px;">i. CEA name: _____</p> <p style="margin-left: 20px;">ii. Basis for designation: _____</p> <p style="margin-left: 20px;">iii. Designating agency and date: _____</p>	

e. Does the project site contain, or is it substantially contiguous to, a building, archaeological site, or district which is listed on, or has been nominated by the NYS Board of Historic Preservation for inclusion on, the State or National Register of Historic Places?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
If Yes: <div style="margin-left: 20px;"> i. Nature of historic/archaeological resource: <input type="checkbox"/> Archaeological Site <input type="checkbox"/> Historic Building or District ii. Name: _____ iii. Brief description of attributes on which listing is based: _____ </div>	
f. Is the project site, or any portion of it, located in or adjacent to an area designated as sensitive for archaeological sites on the NY State Historic Preservation Office (SHPO) archaeological site inventory?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
g. Have additional archaeological or historic site(s) or resources been identified on the project site? If Yes: <div style="margin-left: 20px;"> i. Describe possible resource(s): _____ ii. Basis for identification: _____ </div>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
h. Is the project site within five miles of any officially designated and publicly accessible federal, state, or local scenic or aesthetic resource? If Yes: <div style="margin-left: 20px;"> i. Identify resource: <u>Site is within the Ulster North Scenic Area of Statewide Significance which encompasses a ten mile stretch of the Hudson River.</u> ii. Nature of, or basis for, designation (e.g., established highway overlook, state or local park, state historic trail or scenic byway, etc.): <u>The Scenic Area is highly scenic and valued portion of the Hudson River Valley, rich in natural</u> iii. Distance between project and resource: _____ <u>within scenic area - 0</u> miles. </div>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
i. Is the project site located within a designated river corridor under the Wild, Scenic and Recreational Rivers Program 6 NYCRR 666? If Yes: <div style="margin-left: 20px;"> i. Identify the name of the river and its designation: _____ ii. Is the activity consistent with development restrictions contained in 6NYCRR Part 666? </div>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> No

F. Additional Information

Attach any additional information which may be needed to clarify your project.

If you have identified any adverse impacts which could be associated with your proposal, please describe those impacts plus any measures which you propose to avoid or minimize them.

G. Verification

I certify that the information provided is true to the best of my knowledge.

Applicant/Sponsor Name Lori A. Shirley, GOSR Date May 2, 2017

Signature _____ Title Certifying Officer

Lori A Shirley



Disclaimer: The EAF Mapper is a screening tool intended to assist project sponsors and reviewing agencies in preparing an environmental assessment form (EAF). Not all questions asked in the EAF are answered by the EAF Mapper. Additional information on any EAF question can be obtained by consulting the EAF Workbooks. Although the EAF Mapper provides the most up-to-date digital data available to DEC, you may also need to contact local or other data sources in order to obtain data not provided by the Mapper. Digital data is not a substitute for agency determinations.



B.i.i [Coastal or Waterfront Area]	Yes
B.i.ii [Local Waterfront Revitalization Area]	Yes
C.2.b. [Special Planning District]	Digital mapping data are not available or are incomplete. Refer to EAF Workbook.
E.1.h [DEC Spills or Remediation Site - Potential Contamination History]	Digital mapping data are not available or are incomplete. Refer to EAF Workbook.
E.1.h.i [DEC Spills or Remediation Site - Listed]	Digital mapping data are not available or are incomplete. Refer to EAF Workbook.
E.1.h.i [DEC Spills or Remediation Site - Environmental Site Remediation Database]	Digital mapping data are not available or are incomplete. Refer to EAF Workbook.
E.1.h.iii [Within 2,000' of DEC Remediation Site]	Yes
E.1.h.iii [Within 2,000' of DEC Remediation Site - DEC ID]	546031 , 356018
E.2.g [Unique Geologic Features]	No
E.2.h.i [Surface Water Features]	Yes
E.2.h.ii [Surface Water Features]	Yes
E.2.h.iii [Surface Water Features]	Yes - Digital mapping information on local and federal wetlands and waterbodies is known to be incomplete. Refer to EAF Workbook.
E.2.h.iv [Surface Water Features - Wetlands Name]	Federal Waters
E.2.h.v [Impaired Water Bodies]	Yes
E.2.h.v [Impaired Water Bodies - Name and Basis for Listing]	Name - Pollutants - Uses: Hudson River – Priority Organics – Fish Consumption
E.2.i. [Floodway]	No
E.2.j. [100 Year Floodplain]	Yes
E.2.k. [500 Year Floodplain]	Yes

E.2.l. [Aquifers]	No
E.2.n. [Natural Communities]	Yes
E.2.n.i [Natural Communities - Name]	Freshwater Tidal Marsh, Freshwater Intertidal Mudflats, Freshwater Tidal Swamp
E.2.n.i [Natural Communities - Acres]	45.0, 20.0
E.2.o. [Endangered or Threatened Species]	Yes
E.2.p. [Rare Plants or Animals]	No
E.3.a. [Agricultural District]	No
E.3.c. [National Natural Landmark]	No
E.3.d [Critical Environmental Area]	No
E.3.e. [National Register of Historic Places]	Digital mapping data are not available or are incomplete. Refer to EAF Workbook.
E.3.f. [Archeological Sites]	Yes
E.3.i. [Designated River Corridor]	No

Full Environmental Assessment Form
Part 2 - Identification of Potential Project Impacts

Agency Use Only [If applicable]

Project : _____

Date : _____

Part 2 is to be completed by the lead agency. Part 2 is designed to help the lead agency inventory all potential resources that could be affected by a proposed project or action. We recognize that the lead agency's reviewer(s) will not necessarily be environmental professionals. So, the questions are designed to walk a reviewer through the assessment process by providing a series of questions that can be answered using the information found in Part 1. To further assist the lead agency in completing Part 2, the form identifies the most relevant questions in Part 1 that will provide the information needed to answer the Part 2 question. When Part 2 is completed, the lead agency will have identified the relevant environmental areas that may be impacted by the proposed activity.

If the lead agency is a state agency **and** the action is in any Coastal Area, complete the Coastal Assessment Form before proceeding with this assessment.

Tips for completing Part 2:

- Review all of the information provided in Part 1.
- Review any application, maps, supporting materials and the Full EAF Workbook.
- Answer each of the 18 questions in Part 2.
- If you answer “**Yes**” to a numbered question, please complete all the questions that follow in that section.
- If you answer “**No**” to a numbered question, move on to the next numbered question.
- Check appropriate column to indicate the anticipated size of the impact.
- Proposed projects that would exceed a numeric threshold contained in a question should result in the reviewing agency checking the box “Moderate to large impact may occur.”
- The reviewer is not expected to be an expert in environmental analysis.
- If you are not sure or undecided about the size of an impact, it may help to review the sub-questions for the general question and consult the workbook.
- When answering a question consider all components of the proposed activity, that is, the “whole action”.
- Consider the possibility for long-term and cumulative impacts as well as direct impacts.
- Answer the question in a reasonable manner considering the scale and context of the project.

1. Impact on Land Proposed action may involve construction on, or physical alteration of, the land surface of the proposed site. (See Part 1. D.1) <i>If “Yes”, answer questions a - j. If “No”, move on to Section 2.</i> <div style="text-align: right;"> <input type="checkbox"/> NO <input checked="" type="checkbox"/> YES </div>			
	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. The proposed action may involve construction on land where depth to water table is less than 3 feet.	E2d	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. The proposed action may involve construction on slopes of 15% or greater.	E2f	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c. The proposed action may involve construction on land where bedrock is exposed, or generally within 5 feet of existing ground surface.	E2a	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d. The proposed action may involve the excavation and removal of more than 1,000 tons of natural material.	D2a	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e. The proposed action may involve construction that continues for more than one year or in multiple phases.	D1e	<input checked="" type="checkbox"/>	<input type="checkbox"/>
f. The proposed action may result in increased erosion, whether from physical disturbance or vegetation removal (including from treatment by herbicides).	D2e, D2q	<input checked="" type="checkbox"/>	<input type="checkbox"/>
g. The proposed action is, or may be, located within a Coastal Erosion hazard area.	B1i	<input checked="" type="checkbox"/>	<input type="checkbox"/>
h. Other impacts: _____ _____		<input type="checkbox"/>	<input type="checkbox"/>

2. Impact on Geological Features

The proposed action may result in the modification or destruction of, or inhibit access to, any unique or unusual land forms on the site (e.g., cliffs, dunes, minerals, fossils, caves). (See Part 1. E.2.g)

☒ NO☐ YES

If "Yes", answer questions a - c. If "No", move on to Section 3.

	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. Identify the specific land form(s) attached: _____ _____	E2g	<input type="checkbox"/>	<input type="checkbox"/>
b. The proposed action may affect or is adjacent to a geological feature listed as a registered National Natural Landmark. Specific feature: _____	E3c	<input type="checkbox"/>	<input type="checkbox"/>
c. Other impacts: _____ _____		<input type="checkbox"/>	<input type="checkbox"/>

3. Impacts on Surface Water

The proposed action may affect one or more wetlands or other surface water bodies (e.g., streams, rivers, ponds or lakes). (See Part 1. D.2, E.2.h)

☐ NO☒ YES

If "Yes", answer questions a - l. If "No", move on to Section 4.

	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. The proposed action may create a new water body.	D2b, D1h	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. The proposed action may result in an increase or decrease of over 10% or more than a 10 acre increase or decrease in the surface area of any body of water.	D2b	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c. The proposed action may involve dredging more than 100 cubic yards of material from a wetland or water body.	D2a	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d. The proposed action may involve construction within or adjoining a freshwater or tidal wetland, or in the bed or banks of any other water body.	E2h	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e. The proposed action may create turbidity in a waterbody, either from upland erosion, runoff or by disturbing bottom sediments.	D2a, D2h	<input checked="" type="checkbox"/>	<input type="checkbox"/>
f. The proposed action may include construction of one or more intake(s) for withdrawal of water from surface water.	D2c	<input checked="" type="checkbox"/>	<input type="checkbox"/>
g. The proposed action may include construction of one or more outfall(s) for discharge of wastewater to surface water(s).	D2d	<input checked="" type="checkbox"/>	<input type="checkbox"/>
h. The proposed action may cause soil erosion, or otherwise create a source of stormwater discharge that may lead to siltation or other degradation of receiving water bodies.	D2e	<input checked="" type="checkbox"/>	<input type="checkbox"/>
i. The proposed action may affect the water quality of any water bodies within or downstream of the site of the proposed action.	E2h	<input checked="" type="checkbox"/>	<input type="checkbox"/>
j. The proposed action may involve the application of pesticides or herbicides in or around any water body.	D2q, E2h	<input checked="" type="checkbox"/>	<input type="checkbox"/>
k. The proposed action may require the construction of new, or expansion of existing, wastewater treatment facilities.	D1a, D2d	<input checked="" type="checkbox"/>	<input type="checkbox"/>

I. Other impacts: _____ _____		<input type="checkbox"/>	<input type="checkbox"/>
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4. Impact on groundwater The proposed action may result in new or additional use of ground water, or may have the potential to introduce contaminants to ground water or an aquifer. (See Part 1. D.2.a, D.2.c, D.2.d, D.2.p, D.2.q, D.2.t) <i>If “Yes”, answer questions a - h. If “No”, move on to Section 5.</i>			
		<input checked="" type="checkbox"/> NO	<input type="checkbox"/> YES
	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. The proposed action may require new water supply wells, or create additional demand on supplies from existing water supply wells.	D2c	<input type="checkbox"/>	<input type="checkbox"/>
b. Water supply demand from the proposed action may exceed safe and sustainable withdrawal capacity rate of the local supply or aquifer. Cite Source: _____	D2c	<input type="checkbox"/>	<input type="checkbox"/>
c. The proposed action may allow or result in residential uses in areas without water and sewer services.	D1a, D2c	<input type="checkbox"/>	<input type="checkbox"/>
d. The proposed action may include or require wastewater discharged to groundwater.	D2d, E2l	<input type="checkbox"/>	<input type="checkbox"/>
e. The proposed action may result in the construction of water supply wells in locations where groundwater is, or is suspected to be, contaminated.	D2c, E1f, E1g, E1h	<input type="checkbox"/>	<input type="checkbox"/>
f. The proposed action may require the bulk storage of petroleum or chemical products over ground water or an aquifer.	D2p, E2l	<input type="checkbox"/>	<input type="checkbox"/>
g. The proposed action may involve the commercial application of pesticides within 100 feet of potable drinking water or irrigation sources.	E2h, D2q, E2l, D2c	<input type="checkbox"/>	<input type="checkbox"/>
h. Other impacts: _____ _____		<input type="checkbox"/>	<input type="checkbox"/>

5. Impact on Flooding The proposed action may result in development on lands subject to flooding. (See Part 1. E.2) <i>If “Yes”, answer questions a - g. If “No”, move on to Section 6.</i>			
		<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES
	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. The proposed action may result in development in a designated floodway.	E2i	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. The proposed action may result in development within a 100 year floodplain.	E2j	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c. The proposed action may result in development within a 500 year floodplain.	E2k	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d. The proposed action may result in, or require, modification of existing drainage patterns.	D2b, D2e	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e. The proposed action may change flood water flows that contribute to flooding.	D2b, E2i, E2j, E2k	<input checked="" type="checkbox"/>	<input type="checkbox"/>
f. If there is a dam located on the site of the proposed action, is the dam in need of repair, or upgrade?	E1e	<input type="checkbox"/>	<input checked="" type="checkbox"/>

g. Other impacts: _____ _____		<input type="checkbox"/>	<input type="checkbox"/>
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6. Impacts on Air The proposed action may include a state regulated air emission source. (See Part 1. D.2.f., D.2.h, D.2.g) <i>If "Yes", answer questions a - f. If "No", move on to Section 7.</i>				<input checked="" type="checkbox"/> NO	<input type="checkbox"/> YES
	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur		
a. If the proposed action requires federal or state air emission permits, the action may also emit one or more greenhouse gases at or above the following levels:					
i. More than 1000 tons/year of carbon dioxide (CO ₂)	D2g	<input type="checkbox"/>	<input type="checkbox"/>		
ii. More than 3.5 tons/year of nitrous oxide (N ₂ O)	D2g	<input type="checkbox"/>	<input type="checkbox"/>		
iii. More than 1000 tons/year of carbon equivalent of perfluorocarbons (PFCs)	D2g	<input type="checkbox"/>	<input type="checkbox"/>		
iv. More than .045 tons/year of sulfur hexafluoride (SF ₆)	D2g	<input type="checkbox"/>	<input type="checkbox"/>		
v. More than 1000 tons/year of carbon dioxide equivalent of hydrochloroflourocarbons (HFCs) emissions	D2g	<input type="checkbox"/>	<input type="checkbox"/>		
vi. 43 tons/year or more of methane	D2h	<input type="checkbox"/>	<input type="checkbox"/>		
b. The proposed action may generate 10 tons/year or more of any one designated hazardous air pollutant, or 25 tons/year or more of any combination of such hazardous air pollutants.	D2g	<input type="checkbox"/>	<input type="checkbox"/>		
c. The proposed action may require a state air registration, or may produce an emissions rate of total contaminants that may exceed 5 lbs. per hour, or may include a heat source capable of producing more than 10 million BTU's per hour.	D2f, D2g	<input type="checkbox"/>	<input type="checkbox"/>		
d. The proposed action may reach 50% of any of the thresholds in "a" through "c", above.	D2g	<input type="checkbox"/>	<input type="checkbox"/>		
e. The proposed action may result in the combustion or thermal treatment of more than 1 ton of refuse per hour.	D2s	<input type="checkbox"/>	<input type="checkbox"/>		
f. Other impacts: _____ _____		<input type="checkbox"/>	<input type="checkbox"/>		

7. Impact on Plants and Animals The proposed action may result in a loss of flora or fauna. (See Part 1. E.2. m.-q.) <i>If "Yes", answer questions a - j. If "No", move on to Section 8.</i>				<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES
	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur		
a. The proposed action may cause reduction in population or loss of individuals of any threatened or endangered species, as listed by New York State or the Federal government, that use the site, or are found on, over, or near the site.	E2o	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
b. The proposed action may result in a reduction or degradation of any habitat used by any rare, threatened or endangered species, as listed by New York State or the federal government.	E2o	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
c. The proposed action may cause reduction in population, or loss of individuals, of any species of special concern or conservation need, as listed by New York State or the Federal government, that use the site, or are found on, over, or near the site.	E2p	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
d. The proposed action may result in a reduction or degradation of any habitat used by any species of special concern and conservation need, as listed by New York State or the Federal government.	E2p	<input checked="" type="checkbox"/>	<input type="checkbox"/>		

e. The proposed action may diminish the capacity of a registered National Natural Landmark to support the biological community it was established to protect.	E3c	<input checked="" type="checkbox"/>	<input type="checkbox"/>
f. The proposed action may result in the removal of, or ground disturbance in, any portion of a designated significant natural community. Source: _____	E2n	<input checked="" type="checkbox"/>	<input type="checkbox"/>
g. The proposed action may substantially interfere with nesting/breeding, foraging, or over-wintering habitat for the predominant species that occupy or use the project site.	E2m	<input checked="" type="checkbox"/>	<input type="checkbox"/>
h. The proposed action requires the conversion of more than 10 acres of forest, grassland or any other regionally or locally important habitat. Habitat type & information source: _____	E1b	<input checked="" type="checkbox"/>	<input type="checkbox"/>
i. Proposed action (commercial, industrial or recreational projects, only) involves use of herbicides or pesticides.	D2q	<input checked="" type="checkbox"/>	<input type="checkbox"/>
j. Other impacts: _____		<input checked="" type="checkbox"/>	<input type="checkbox"/>

8. Impact on Agricultural Resources The proposed action may impact agricultural resources. (See Part 1. E.3.a. and b.) <input checked="" type="checkbox"/> NO <input type="checkbox"/> YES <i>If "Yes", answer questions a - h. If "No", move on to Section 9.</i>			
	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. The proposed action may impact soil classified within soil group 1 through 4 of the NYS Land Classification System.	E2c, E3b	<input type="checkbox"/>	<input type="checkbox"/>
b. The proposed action may sever, cross or otherwise limit access to agricultural land (includes cropland, hayfields, pasture, vineyard, orchard, etc).	E1a, E1b	<input type="checkbox"/>	<input type="checkbox"/>
c. The proposed action may result in the excavation or compaction of the soil profile of active agricultural land.	E3b	<input type="checkbox"/>	<input type="checkbox"/>
d. The proposed action may irreversibly convert agricultural land to non-agricultural uses, either more than 2.5 acres if located in an Agricultural District, or more than 10 acres if not within an Agricultural District.	E1b, E3a	<input type="checkbox"/>	<input type="checkbox"/>
e. The proposed action may disrupt or prevent installation of an agricultural land management system.	E1 a, E1b	<input type="checkbox"/>	<input type="checkbox"/>
f. The proposed action may result, directly or indirectly, in increased development potential or pressure on farmland.	C2c, C3, D2c, D2d	<input type="checkbox"/>	<input type="checkbox"/>
g. The proposed project is not consistent with the adopted municipal Farmland Protection Plan.	C2c	<input type="checkbox"/>	<input type="checkbox"/>
h. Other impacts: _____		<input type="checkbox"/>	<input type="checkbox"/>

9. Impact on Aesthetic Resources The land use of the proposed action are obviously different from, or are in sharp contrast to, current land use patterns between the proposed project and a scenic or aesthetic resource. (Part 1. E.1.a, E.1.b, E.3.h.) <i>If "Yes", answer questions a - g. If "No", go to Section 10.</i>			
		<input checked="" type="checkbox"/> NO	<input type="checkbox"/> YES
	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. Proposed action may be visible from any officially designated federal, state, or local scenic or aesthetic resource.	E3h	<input type="checkbox"/>	<input type="checkbox"/>
b. The proposed action may result in the obstruction, elimination or significant screening of one or more officially designated scenic views.	E3h, C2b	<input type="checkbox"/>	<input type="checkbox"/>
c. The proposed action may be visible from publicly accessible vantage points: i. Seasonally (e.g., screened by summer foliage, but visible during other seasons) ii. Year round	E3h	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>
d. The situation or activity in which viewers are engaged while viewing the proposed action is: i. Routine travel by residents, including travel to and from work ii. Recreational or tourism based activities	E3h E2q, E1c	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>
e. The proposed action may cause a diminishment of the public enjoyment and appreciation of the designated aesthetic resource.	E3h	<input type="checkbox"/>	<input type="checkbox"/>
f. There are similar projects visible within the following distance of the proposed project: 0-1/2 mile 1/2 -3 mile 3-5 mile 5+ mile	D1a, E1a, D1f, D1g	<input type="checkbox"/>	<input type="checkbox"/>
g. Other impacts: _____ _____		<input type="checkbox"/>	<input type="checkbox"/>

10. Impact on Historic and Archeological Resources The proposed action may occur in or adjacent to a historic or archaeological resource. (Part 1. E.3.e, f. and g.) <i>If "Yes", answer questions a - e. If "No", go to Section 11.</i>			
		<input checked="" type="checkbox"/> NO	<input type="checkbox"/> YES
	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. The proposed action may occur wholly or partially within, or substantially contiguous to, any buildings, archaeological site or district which is listed on or has been nominated by the NYS Board of Historic Preservation for inclusion on the State or National Register of Historic Places.	E3e	<input type="checkbox"/>	<input type="checkbox"/>
b. The proposed action may occur wholly or partially within, or substantially contiguous to, an area designated as sensitive for archaeological sites on the NY State Historic Preservation Office (SHPO) archaeological site inventory.	E3f	<input type="checkbox"/>	<input type="checkbox"/>
c. The proposed action may occur wholly or partially within, or substantially contiguous to, an archaeological site not included on the NY SHPO inventory. Source: _____	E3g	<input type="checkbox"/>	<input type="checkbox"/>

d. Other impacts: _____ _____		<input type="checkbox"/>	<input type="checkbox"/>
If any of the above (a-d) are answered "Moderate to large impact may occur", continue with the following questions to help support conclusions in Part 3:			
i. The proposed action may result in the destruction or alteration of all or part of the site or property.	E3e, E3g, E3f	<input type="checkbox"/>	<input type="checkbox"/>
ii. The proposed action may result in the alteration of the property's setting or integrity.	E3e, E3f, E3g, E1a, E1b	<input type="checkbox"/>	<input type="checkbox"/>
iii. The proposed action may result in the introduction of visual elements which are out of character with the site or property, or may alter its setting.	E3e, E3f, E3g, E3h, C2, C3	<input type="checkbox"/>	<input type="checkbox"/>

11. Impact on Open Space and Recreation The proposed action may result in a loss of recreational opportunities or a reduction of an open space resource as designated in any adopted municipal open space plan. (See Part 1. C.2.c, E.1.c., E.2.q.) If "Yes", answer questions a - e. If "No", go to Section 12.			
		<input checked="" type="checkbox"/> NO	<input type="checkbox"/> YES
	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. The proposed action may result in an impairment of natural functions, or "ecosystem services", provided by an undeveloped area, including but not limited to stormwater storage, nutrient cycling, wildlife habitat.	D2e, E1b E2h, E2m, E2o, E2n, E2p	<input type="checkbox"/>	<input type="checkbox"/>
b. The proposed action may result in the loss of a current or future recreational resource.	C2a, E1c, C2c, E2q	<input type="checkbox"/>	<input type="checkbox"/>
c. The proposed action may eliminate open space or recreational resource in an area with few such resources.	C2a, C2c E1c, E2q	<input type="checkbox"/>	<input type="checkbox"/>
d. The proposed action may result in loss of an area now used informally by the community as an open space resource.	C2c, E1c	<input type="checkbox"/>	<input type="checkbox"/>
e. Other impacts: _____ _____		<input type="checkbox"/>	<input type="checkbox"/>

12. Impact on Critical Environmental Areas The proposed action may be located within or adjacent to a critical environmental area (CEA). (See Part 1. E.3.d) If "Yes", answer questions a - c. If "No", go to Section 13.			
		<input checked="" type="checkbox"/> NO	<input type="checkbox"/> YES
	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. The proposed action may result in a reduction in the quantity of the resource or characteristic which was the basis for designation of the CEA.	E3d	<input type="checkbox"/>	<input type="checkbox"/>
b. The proposed action may result in a reduction in the quality of the resource or characteristic which was the basis for designation of the CEA.	E3d	<input type="checkbox"/>	<input type="checkbox"/>
c. Other impacts: _____ _____		<input type="checkbox"/>	<input type="checkbox"/>

13. Impact on Transportation

The proposed action may result in a change to existing transportation systems.

☒ NO

☐ YES

(See Part 1. D.2.j)

If "Yes", answer questions a - f. If "No", go to Section 14.

	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. Projected traffic increase may exceed capacity of existing road network.	D2j	<input type="checkbox"/>	<input type="checkbox"/>
b. The proposed action may result in the construction of paved parking area for 500 or more vehicles.	D2j	<input type="checkbox"/>	<input type="checkbox"/>
c. The proposed action will degrade existing transit access.	D2j	<input type="checkbox"/>	<input type="checkbox"/>
d. The proposed action will degrade existing pedestrian or bicycle accommodations.	D2j	<input type="checkbox"/>	<input type="checkbox"/>
e. The proposed action may alter the present pattern of movement of people or goods.	D2j	<input type="checkbox"/>	<input type="checkbox"/>
f. Other impacts: _____ _____		<input type="checkbox"/>	<input type="checkbox"/>

14. Impact on Energy

The proposed action may cause an increase in the use of any form of energy.

☒ NO

☐ YES

(See Part 1. D.2.k)

If "Yes", answer questions a - e. If "No", go to Section 15.

	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. The proposed action will require a new, or an upgrade to an existing, substation.	D2k	<input type="checkbox"/>	<input type="checkbox"/>
b. The proposed action will require the creation or extension of an energy transmission or supply system to serve more than 50 single or two-family residences or to serve a commercial or industrial use.	D1f, D1q, D2k	<input type="checkbox"/>	<input type="checkbox"/>
c. The proposed action may utilize more than 2,500 MWhrs per year of electricity.	D2k	<input type="checkbox"/>	<input type="checkbox"/>
d. The proposed action may involve heating and/or cooling of more than 100,000 square feet of building area when completed.	D1g	<input type="checkbox"/>	<input type="checkbox"/>
e. Other Impacts: _____ _____			

15. Impact on Noise, Odor, and Light

The proposed action may result in an increase in noise, odors, or outdoor lighting.

☒ NO

☐ YES

(See Part 1. D.2.m., n., and o.)

If "Yes", answer questions a - f. If "No", go to Section 16.

	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. The proposed action may produce sound above noise levels established by local regulation.	D2m	<input type="checkbox"/>	<input type="checkbox"/>
b. The proposed action may result in blasting within 1,500 feet of any residence, hospital, school, licensed day care center, or nursing home.	D2m, E1d	<input type="checkbox"/>	<input type="checkbox"/>
c. The proposed action may result in routine odors for more than one hour per day.	D2o	<input type="checkbox"/>	<input type="checkbox"/>

d. The proposed action may result in light shining onto adjoining properties.	D2n	<input type="checkbox"/>	<input type="checkbox"/>
e. The proposed action may result in lighting creating sky-glow brighter than existing area conditions.	D2n, E1a	<input type="checkbox"/>	<input type="checkbox"/>
f. Other impacts: _____ _____		<input type="checkbox"/>	<input type="checkbox"/>

16. Impact on Human Health

The proposed action may have an impact on human health from exposure to new or existing sources of contaminants. (See Part 1.D.2.q., E.1. d. f. g. and h.)

☒ NO

☐ YES

If "Yes", answer questions a - m. If "No", go to Section 17.

	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. The proposed action is located within 1500 feet of a school, hospital, licensed day care center, group home, nursing home or retirement community.	E1d	<input type="checkbox"/>	<input type="checkbox"/>
b. The site of the proposed action is currently undergoing remediation.	E1g, E1h	<input type="checkbox"/>	<input type="checkbox"/>
c. There is a completed emergency spill remediation, or a completed environmental site remediation on, or adjacent to, the site of the proposed action.	E1g, E1h	<input type="checkbox"/>	<input type="checkbox"/>
d. The site of the action is subject to an institutional control limiting the use of the property (e.g., easement or deed restriction).	E1g, E1h	<input type="checkbox"/>	<input type="checkbox"/>
e. The proposed action may affect institutional control measures that were put in place to ensure that the site remains protective of the environment and human health.	E1g, E1h	<input type="checkbox"/>	<input type="checkbox"/>
f. The proposed action has adequate control measures in place to ensure that future generation, treatment and/or disposal of hazardous wastes will be protective of the environment and human health.	D2t	<input type="checkbox"/>	<input type="checkbox"/>
g. The proposed action involves construction or modification of a solid waste management facility.	D2q, E1f	<input type="checkbox"/>	<input type="checkbox"/>
h. The proposed action may result in the unearthing of solid or hazardous waste.	D2q, E1f	<input type="checkbox"/>	<input type="checkbox"/>
i. The proposed action may result in an increase in the rate of disposal, or processing, of solid waste.	D2r, D2s	<input type="checkbox"/>	<input type="checkbox"/>
j. The proposed action may result in excavation or other disturbance within 2000 feet of a site used for the disposal of solid or hazardous waste.	E1f, E1g E1h	<input type="checkbox"/>	<input type="checkbox"/>
k. The proposed action may result in the migration of explosive gases from a landfill site to adjacent off site structures.	E1f, E1g	<input type="checkbox"/>	<input type="checkbox"/>
l. The proposed action may result in the release of contaminated leachate from the project site.	D2s, E1f, D2r	<input type="checkbox"/>	<input type="checkbox"/>
m. Other impacts: _____ _____			

17. Consistency with Community Plans

The proposed action is not consistent with adopted land use plans.
(See Part 1. C.1, C.2. and C.3.)

☒ NO☐ YES

If "Yes", answer questions a - h. If "No", go to Section 18.

	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. The proposed action's land use components may be different from, or in sharp contrast to, current surrounding land use pattern(s).	C2, C3, D1a E1a, E1b	<input type="checkbox"/>	<input type="checkbox"/>
b. The proposed action will cause the permanent population of the city, town or village in which the project is located to grow by more than 5%.	C2	<input type="checkbox"/>	<input type="checkbox"/>
c. The proposed action is inconsistent with local land use plans or zoning regulations.	C2, C2, C3	<input type="checkbox"/>	<input type="checkbox"/>
d. The proposed action is inconsistent with any County plans, or other regional land use plans.	C2, C2	<input type="checkbox"/>	<input type="checkbox"/>
e. The proposed action may cause a change in the density of development that is not supported by existing infrastructure or is distant from existing infrastructure.	C3, D1c, D1d, D1f, D1d, E1b	<input type="checkbox"/>	<input type="checkbox"/>
f. The proposed action is located in an area characterized by low density development that will require new or expanded public infrastructure.	C4, D2c, D2d D2j	<input type="checkbox"/>	<input type="checkbox"/>
g. The proposed action may induce secondary development impacts (e.g., residential or commercial development not included in the proposed action)	C2a	<input type="checkbox"/>	<input type="checkbox"/>
h. Other: _____ _____		<input type="checkbox"/>	<input type="checkbox"/>

18. Consistency with Community Character

The proposed project is inconsistent with the existing community character.
(See Part 1. C.2, C.3, D.2, E.3)

☒ NO☐ YES

If "Yes", answer questions a - g. If "No", proceed to Part 3.

	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. The proposed action may replace or eliminate existing facilities, structures, or areas of historic importance to the community.	E3e, E3f, E3g	<input type="checkbox"/>	<input type="checkbox"/>
b. The proposed action may create a demand for additional community services (e.g. schools, police and fire)	C4	<input type="checkbox"/>	<input type="checkbox"/>
c. The proposed action may displace affordable or low-income housing in an area where there is a shortage of such housing.	C2, C3, D1f D1g, E1a	<input type="checkbox"/>	<input type="checkbox"/>
d. The proposed action may interfere with the use or enjoyment of officially recognized or designated public resources.	C2, E3	<input type="checkbox"/>	<input type="checkbox"/>
e. The proposed action is inconsistent with the predominant architectural scale and character.	C2, C3	<input type="checkbox"/>	<input type="checkbox"/>
f. Proposed action is inconsistent with the character of the existing natural landscape.	C2, C3 E1a, E1b E2g, E2h	<input type="checkbox"/>	<input type="checkbox"/>
g. Other impacts: _____ _____		<input type="checkbox"/>	<input type="checkbox"/>

SEQRA EAF PART 3

Reasons Supporting Determination of Significance

Village Beach Park Restoration Project

Village of Saugerties, NY

May 2, 2017

The Governor's Office of Storm Recovery ("GOSR"), an office of New York State Homes and Community Renewal's Housing Trust Fund Corporation ("HTFC"), has established Lead Agency status pursuant to the State Environmental Quality Review Act ("SEQRA") (ECL Sections 3-0301(1)(b), 3-0301(2)(m) and 8-0113 and 6 NYCRR Part 617) for the environmental review of the proposed Village Beach Park Restoration (the "proposed action") in the Village of Saugerties, Ulster County, New York. In accordance with SEQRA and its implementing regulations found at 6 NYCRR Part 617, GOSR has established itself as SEQRA lead agency and has re-classified the proposed action as an Unlisted Action (originally classified as Type I). A full Environmental Assessment Form (EAF) Part 1 regarding the proposed action has been circulated for review and comment to interested and involved agencies. GOSR has evaluated the criteria found under 6 NYCRR 617.7(c), completed Parts 2 and 3 of the EAF, and determined that the proposed action would not result in significant environmental impacts. This memo is incorporated by reference into Part 3 of the EAF and serves as the rationale for GOSR's determination of significance.

1. Impact on Land

The proposed action will involve excavation for culvert installation, tree clearing and grading for gravel roadways at the site. Land surface modifications will be contained to areas of preexisting disturbance at the site. Overall, the project will result in minor adverse short-term impacts to land resulting from site-preparation and construction activities. Beneficial long-term impacts to the landscape will occur as a result on shoreline stabilization. As a result, the proposed action will not result in significant impacts on land.

2. Impact on Surface Water

The proposed project involves shoreline stabilization and repairs to bulkheads that could result in disturbances within Esopus Creek, which is a Class B protected and navigable body of water. Because no wetlands occur at the project site, and Esopus Creek is not classified as a wetland, the project will not result in effects to wetlands under Executive Order 11990. Construction management practices will be utilized to avoid or minimize potential impacts to adjacent waters. The proposed improvements will disturb less than one acre of land and, therefore, the Village will not be required to apply for coverage under NYSDEC SPDES General Permit for Stormwater Discharges from Construction Activity Permit No. GP-0-15-002. The proposed construction work in the parking area where a portion of the asphalt will be removed will involve stripping off the asphalt layer only and leaving the sub-base layer of gravel in place. An Erosion and Sediment Control Plan will be developed and provided on the final design plans. Given adherence to these permitting requirements and best management practices, the proposed action will not have an effect on wetlands and is in compliance with Executive Order 11990. The proposed action will not result in significant impacts on surface water.

3. Impact on Flooding

Per Flood Insurance Rate Map (FIRM) Panel 36111C0305E, dated September 25, 2009, the bulkhead location associated with the project is located in the 100 year flood plain. The project area lies adjacent to Esopus Creek, which is classified as Riverine in the National Wetlands Inventory and may contain wetlands along the edges of the main waterway. The project will result in a beneficial impact on floodplains due to stabilization of the shoreline. Specific actions will include replacement of approximately 245 linear feet of bulkhead, which will be installed to stabilize the Esopus Creek shoreline along the east side of the project site and arrest further erosion of the shoreline. No structural footprints will be expanded and there will be no alteration of, increase or decrease in size of, or encroachment into any existing wetland, waterbody, shoreline, beach or adjacent area. The proposed project will not have an impact on floodplain values. Therefore, no direct or indirect adverse impacts to the floodplain are anticipated as a result of the proposed action, and the proposed action will not result in significant impacts on flooding.

4. Impact on Plants and Animals

Impacts to vegetation and wildlife will be minor and short-term. The new bulkhead will be constructed within the same location of the existing, damaged bulkhead. However, upland vegetation may be present landward of the bulkheads, likely grass with some opportunistic herbaceous species, that may be damaged during construction or mobilization of construction equipment. Following construction, the pervious and impervious surfaces at each project location will be allowed to naturally revegetate following construction.

Wildlife expected to occur within the vicinity of the project area includes mobile species that can easily avoid the project area during construction.

The proposed project will not adversely affect protected species or habitats. Two species managed by the Endangered Species Program occur within the vicinity of the project site: the Endangered Indiana Bat (*Myotis sodalist*) and Threatened Northern Long-eared Bat (*Myotis septentrionalis*). In addition, there are several migratory birds of concern that could potentially utilize proposed project. However, there is no critical habitat for any species within the project area.

A Phase 1 Summer Bat Habit Assessment was conducted by a NYSDEC Wildlife Biologist on April 3, 2017. The assessment concluded that the project is approximately 10 miles from nearest known Indian bat and northern long-eared bat occurrence and the trees to be removed do NOT have exfoliated bark or cavities. Therefore it was determined that no suitable habitat occurs at the site for either bat species. Based on the findings of the summer habitat assessment and supporting documentation, GOSR determined that the project would have “No Effect” on threatened or endangered species. USFWS concurred with this determination on April 20, 2017.

Atlantic sturgeon (*Acipenser oxyrinchus oxyrinchus*) and shortnose sturgeon (*Acipenser brevirostrum*) occur in the Hudson River and lower portion of Hudson River Tributaries. However, while these species may occur within the vicinity of the action area, they are not expected to frequent shallow waters such as the action area. Furthermore, no dredging is proposed as part of the project, and there will be no risk of entrapment. Construction will not result in an increase in vessel traffic in the area; therefore, there the project will not increase the risk of interactions between vessels and sturgeon. Additionally, Best Management Practices such as the use of sediment barriers and silt fencing will be utilized to avoid or minimize potential impacts to riparian species along Esopus Creek.

The restoration activities proposed will have no major impact on the human environment and is expected to improve some aspects of the human environment in the vicinity of the project site, such as recreational opportunities and public health and safety. The proposed project will not result in major impacts with respect to geology, soils and topography, air quality, cultural resources, aesthetic resources and neighborhood character, land use and planning, socioeconomics and environmental justice, noise, transportation, and hazardous materials. No major cumulative impacts will result from

the proposed project in conjunction with the other activities occurring or planned for the project area.

Short-term impacts during construction are anticipated on soils, surface water, transportation, air quality, and noise. In cases where short-term potential impacts have been identified, impacts will be mitigated through design, regulatory compliance, and/or implementation of BMPs.

Lead Agency Letter Distribution List
VILLAGE OF SAUGERTIES – RESTORATION OF TINA CHORVAS PARK

INVOLVED

William E. Murphy, Mayor
Village of Saugerties
43 Partition Street
Saugerties, NY 12477-1134

Eyal Saad, Code Enforcement Officer
Village of Saugerties
43 Partition Street
Saugerties, NY 12477-1134

Kelly Turturo, Acting Regional Permit Administrator
New York State Department of Environmental Conservation
21 South Putt Corners Road
New Paltz, NY 12561-1696

INTERESTED

Brian Orzel, Regulatory Project Manager
US Army Corps of Engineers
Rm 1937, 26 Federal Plaza
New York, NY 10278-0090

Lisa Mayone, Village Clerk
Village of Saugerties
43 Partition Street
Saugerties, NY 12477-1134

Special Projects, Planning and Zoning
Village Of Saugerties
43 Partition Street
Saugerties, NY 12477-1134

Robert (Bob) Fanelli, Superintendent
Village of Saugerties, Department of Public Works
43 Partition Street
Saugerties, NY 12477-1134

George Terpening, Caretaker
Village of Saugerties Parks, Buildings and Grounds
43 Partition Street
Saugerties, NY 12477-1134

Mr. Ron Rausch, Director
Environmental Management Bureau
Office of Parks, Recreation and Historic Preservation
625 Broadway, 2nd Floor
Albany, New York 12238

Mr. Richard Lord
Chief of Mitigation Programs & Agency Preservation Officer
NYS Division of Homeland Security & Emergency Services
1220 Washington Avenue
Bldg 7A, Floor 4
Albany NY 12242

Susan K. Plonski, Commissioner
Ulster County Department of Public Works
313-317 Shamrock Lane
Kingston, NY 12401

Dennis Doyle, Director
Ulster County Planning Department
County Office Building 244 Fair Street, 6th Floor
Kingston, NY 12401

Amanda LaValle, Coordinator
Ulster County Department of the Environment
17 Pearl Street
Kingston, NY 12401

Patrick Wadden
Arm-of-the-Sea
PO Box 175
Malden on Hudson, NY 12453

APPENDIX G – NEW YORK STATE NHP AND U.S. FWS CORRESPONDENCE

New York Natural Heritage Program Consultation

NHP response and initial GOSR submission

From: dec.sm.NaturalHeritage <NaturalHeritage@dec.ny.gov>
Sent: Friday, October 14, 2016 4:22 PM
To: Shultz, Alicia (NYSHCR)
Cc: Schnabel, Joshua; O'Malley, May H (DEC)
Subject: RE: Request for Information - Tina Chorvas Park Restoration
Attachments: 2016_1253.pdf

Ms. Shultz,
In response to your request, please see the attached letter and reports.

Sincerely,

Nicholas Conrad
Information Resources Coordinator
New York Natural Heritage Program
SUNY College of Environmental Science and Forestry
In partnership with NYS Department of Environmental Conservation
625 Broadway
Albany, NY 12233-4757
(518) 402-8935
www.nynhp.org

From: Shultz, Alicia (NYSHCR)
Sent: Tuesday, September 27, 2016 9:13 AM
To: dec.sm.NaturalHeritage <NaturalHeritage@dec.ny.gov>
Cc: 'jschnabel@louisberger.com' <jschnabel@louisberger.com>; O'Malley, May H (DEC) <May.OMalley@dec.ny.gov>
Subject: Request for Information - Tina Chorvas Park Restoration

Natural Heritage Program:

The Governor's Office of Storm Recovery (GOSR), an office of the New York State Homes and Community Renewal's (NYSHCR) Housing Trust Fund Corporation, was established to aid the statewide recovery of disaster-affected communities in New York State. GOSR is administering a U.S. Department of Housing and Urban Development (HUD) Community Development Block Grant for Disaster Recovery (CDBG-DR), including the New York Rising Community Reconstruction (NYRCR) Program. GOSR is proposing to fund the project described in the attached letter and is therefore conducting an environmental review.

The Village of Saugerties is proposing Hurricane Sandy-related restoration projects that would repair damaged public facilities that suffered impacts from storm events and help mitigate future impacts of tidal and coastal flooding to public facilities and low-lying areas. GOSR previously submitted a request for information in October 2015 that included three project components of the Village of Saugerties Parks Restoration Project, including the Tina Chorvas Park Restoration project. A response to that request was received from your office on November 3, 2015. GOSR is submitting a request for updated information regarding the Tina Chorvas Park project component.

Alicia Shultz

Community Developer - Environmental Services

New York State Homes & Community Renewal
38-40 State St., 408N, Hampton Plaza, Albany, NY 12207
(518) 474-0647 | cell (917) 376-9003 Alicia.Shultz@nyshcr.org |

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
Division of Fish, Wildlife & Marine Resources
New York Natural Heritage Program
625 Broadway, 5th Floor, Albany, New York 12233-4757
Phone: (518) 402-8935 • **Fax:** (518) 402-8925
Website: www.dec.ny.gov



October 14, 2016

Alicia Shultz
Governor's Office of Storm Recovery
38-40 State Street
Albany, NY 12207

Re: Tina Chorvas Park Restoration, Village of Saugerties
Town/City: Saugerties. County: Ulster.

Dear Alicia Shultz:

In response to your recent request, we have reviewed the New York Natural Heritage Program database with respect to the above project.

Enclosed is a report of rare or state-listed animals and plants, and significant natural communities that our database indicates occur, or may occur, at the project site or in its vicinity.

For most sites, comprehensive field surveys have not been conducted; the enclosed report only includes records from our database. We cannot provide a definitive statement as to the presence or absence of all rare or state-listed species or significant natural communities. Depending on the nature of the project and the conditions at the project site, further information from on-site surveys or other sources may be required to fully assess impacts on biological resources.

Our database is continually growing as records are added and updated. If this proposed project is still under development one year from now, we recommend that you contact us again so that we may update this response with the most current information.

The presence of the plants and animals identified in the enclosed report may result in this project requiring additional review or permit conditions. For further guidance, and for information regarding other permits that may be required under state law for regulated areas or activities (e.g., regulated wetlands), please contact the NYS DEC Region 3 Office, Division of Environmental Permits, at dep.r3@dec.ny.gov, (845) 256-3054.

Sincerely,

A handwritten signature in black ink that reads "Nick Conrad".

Nicholas Conrad
Information Resources Coordinator
New York Natural Heritage Program



**The following state-listed animals have been documented
at the project site or in its vicinity.**

The following list includes animals that are listed by NYS as Endangered, Threatened, or Special Concern; and/or that are federally listed or are candidates for federal listing.

For information about any permit considerations for your project, please contact the Permits staff at the NYSDEC Region 3 Office at dep.r3@dec.ny.gov, (845) 256-3054. For information about potential impacts of your project on these species, and how to avoid, minimize, or mitigate any impacts, contact the Hudson River Fisheries staff, HudsonRiverFish@dec.ny.gov, 845-256-3073.

The following species have been documented in the tidal Hudson River, which includes Esopus Creek at the project site.

<i>COMMON NAME</i>	<i>SCIENTIFIC NAME</i>	<i>NY STATE LISTING</i>	<i>FEDERAL LISTING</i>	
Fish				
Shortnose Sturgeon	<i>Acipenser brevirostrum</i>	Endangered	Endangered	1091
Atlantic Sturgeon	<i>Acipenser oxyrinchus</i>	No Open Season	Endangered	11464

This report only includes records from the NY Natural Heritage database. For most sites, comprehensive field surveys have not been conducted, and we cannot provide a definitive statement as to the presence or absence of all rare or state-listed species. Depending on the nature of the project and the conditions at the project site, further information from on-site surveys or other sources may be required to fully assess impacts on biological resources.

Information about many of the listed animals in New York, including habitat, biology, identification, conservation, and management, are available online in Natural Heritage's Conservation Guides at www.guides.nynhp.org, and from NYSDEC at www.dec.ny.gov/animals/7494.html.



**The following rare plants, rare animals, and significant natural communities
have been documented at your project site, or in its vicinity.**

We recommend that potential onsite and offsite impacts of the proposed project on these species or communities be addressed as part of any environmental assessment or review conducted as part of the planning, permitting and approval process, such as reviews conducted under SEQR. Field surveys of the project site may be necessary to determine the status of a species at the site, particularly for sites that are currently undeveloped and may still contain suitable habitat. Final requirements of the project to avoid, minimize, or mitigate potential impacts are determined by the lead permitting agency or the government body approving the project.

The following significant animal concentration areas, while not listed by New York State as Endangered or Threatened, are of conservation concern to the state.

<i>COMMON NAME</i>	<i>SCIENTIFIC NAME</i>	<i>NY STATE LISTING</i>	<i>HERITAGE CONSERVATION STATUS</i>
Animal Assemblages			
Waterfowl Winter Concentration Area			
Esopus Estuary, including project site: Tidal marsh and deepwater section.			8999
Anadromous Fish Concentration Area			
Esopus Estuary, including project site: Tidal marsh and deepwater section.			5710

The following significant natural communities are considered significant from a statewide perspective by the NY Natural Heritage Program. They are either occurrences of a community type that is rare in the state, or a high quality example of a more common community type. By meeting specific, documented criteria, the NY Natural Heritage Program considers these community occurrences to have high ecological and conservation value.

<i>COMMON NAME</i>	<i>SCIENTIFIC NAME</i>	<i>NY STATE LISTING</i>	<i>HERITAGE CONSERVATION STATUS</i>
Wetland/Aquatic Communities: Tidal wetlands at mouth of Esopus Creek:			
Freshwater Tidal Swamp		High Quality Occurrence of Rare Community Type and Globally Rare	
The swamp is small, but fairly diverse and somewhat disturbed.			9176
Freshwater Tidal Marsh		High Quality Occurrence of Rare Community Type	
Good condition, site disturbed by bulkheads and riprap.			4570
Freshwater Intertidal Mudflats		High Quality Occurrence of Rare Community Type	
Small, low diversity.			5799

The following plants are listed as Endangered or Threatened by New York State, and/or are considered rare by the New York Natural Heritage Program, and so are a vulnerable natural resource of conservation concern.

COMMON NAME	SCIENTIFIC NAME	NY STATE LISTING	HERITAGE CONSERVATION STATUS
Vascular Plants			
Heartleaf Plantain	<i>Plantago cordata</i>	Rare	Vulnerable in NYS
Mouth of Esopus Creek, 1988-09-09: Group 1: Tidal mud flats. Group 2: Small marsh surrounding the channel.			
Hudson River Water Nymph	<i>Najas guadalupensis</i> <i>ssp. muenschleri</i>	Endangered	Critically Imperiled in NYS
<i>Historical Record Only:</i> 1927, Tidal marsh at mouth of Esopus Creek.			

9344

702

This report only includes records from the NY Natural Heritage database. For most sites, comprehensive field surveys have not been conducted, and we cannot provide a definitive statement as to the presence or absence of all rare or state-listed species. Depending on the nature of the project and the conditions at the project site, further information from on-site surveys or other sources may be required to fully assess impacts on biological resources.

If any rare plants or animals are documented during site visits, we request that information on the observations be provided to the New York Natural Heritage Program so that we may update our database.

Information about many of the rare animals and plants in New York, including habitat, biology, identification, conservation, and management, are available online in Natural Heritage's Conservation Guides at www.guides.nynhp.org, from NatureServe Explorer at www.natureserve.org/explorer, and from USDA's Plants Database at <http://plants.usda.gov/index.html> (for plants).

Information about many of the natural community types in New York, including identification, dominant and characteristic vegetation, distribution, conservation, and management, is available online in Natural Heritage's Conservation Guides at www.guides.nynhp.org. For descriptions of all community types, go to www.dec.ny.gov/animals/97703.html for Ecological Communities of New York State.

US Fish and Wildlife Service Consultation

USFWS response and GOSR determination



United States Department of the Interior

FISH AND WILDLIFE SERVICE

New York Field Office

3817 Luker Road

Cortland, NY 13045

Phone: (607) 753-9334 Fax: (607) 753-9699

<http://www.fws.gov/northeast/nyfo>



To: Alicia Shultz

Date: Apr 20, 2017

USFWS File No: 16I0752

Regarding your: ☒ Letter ☐ Fax ☐ Email

Dated: Apr 11, 2017

For project: Tina Chorvas Park Restoration

Located: _____

In Town/County: Village of Saugerties / Ulster County

Pursuant to the Endangered Species Act of 1973 (ESA) (87 Stat. 884, as amended; 16 U.S.C. 1531 *et seq.*), the U.S. Fish and Wildlife Service:

☒ Acknowledges receipt of your "no effect" and/or no impact determination. No further ESA coordination or consultation is required.

☐ Acknowledges receipt of your determination. Please provide a copy of your determination and supporting materials to any involved Federal agency for their final ESA determination.

☐ Is taking no action pursuant to ESA or any legislation at this time, but would like to be kept informed of project developments.

As a reminder, until the proposed project is complete, we recommend that you check our website (<http://www.fws.gov/northeast/nyfo/es/section7.htm>) every 90 days from the date of this letter to ensure that listed species presence/absence information for the proposed project is current. Should project plans change or if additional information on listed or proposed species or critical habitat becomes available, this determination may be reconsidered.

USFWS Contact(s): Noelle Rayman

Supervisor: Anne S. Seard Date: 4/20/17



**Governor's Office of
Storm Recovery**

ANDREW M. CUOMO
Governor

LISA BOVA-HIATT
Executive Director

April 19, 2017

Noelle L. Rayman-Metcalf
Endangered Species Biologist
U. S. Fish and Wildlife Service
New York Field Office
3817 Luker Road
Cortland, NY 13045

Re: Project file 1610752
Section 7 Project Review - ESA/MBTA/BGEPA Consultation
Tina Chorvas Park Restoration, Village of Saugerties, Ulster County, New York

Dear Ms. Rayman-Metcalf,

The Governor's Office of Storm Recovery (GOSR), acting under the auspices of New York State Homes and Community Renewal's (HCR) Housing Trust Fund Corporation (HTFC), on behalf of the Department of Housing & Urban Development (HUD), is conducting environmental reviews under HUD's environmental review regulations (24 CFR Part 58) and New York State's Environmental Quality Review Act (SEQRA) for the Tina Chorvas Park Restoration project, located in the Village of Saugerties, Ulster County, New York.

GOSR provided a letter on November 9, 2017 to U.S. Fish and Wildlife Service – New York Field Office (USFWS) of notice of the proposed project and to document compliance with Section 7 of the Endangered Species Act (ESA) (87 Stat. 884, as amended; 16 U.S.C. 1531 et seq.), as well as the Migratory Bird Treaty Act of 1918 (MBTA) (40 Stat. 755, as amended; 16 U.S.C. 703-712), and the Bald and Golden Eagle Protection Act of 1940 (BGEPA) (54 Stat. 240, as amended; 16 U.S.C. 668-668c).

Since the initial letter (Attachment 1) it was determined that trees need to be removed from the project area during the active season of the threatened *Myotis septentrionalis* [northern long-eared bat (NLEB)] and the endangered *Myotis sodalis* (Indiana bat) which may occur or could potentially be affected by activities at the project site. The initial letter stated that trees would be removed between October 31 and March 31, which is outside of the active season for bats. However, due to construction schedules and funding limitations, the project is expected to occur during the active season. Therefore, GORS has reviewed its initial determination that the proposed project may

affect, but is not likely to adversely affect ESA species under USFWS jurisdiction. As part of this review a *Phase 1 Summer Habit Assessment* was completed (Attachment 2). The assessment concluded that the project is approximately 10 miles from nearest known Indian bat and northern long-eared bat occurrence and the trees to be removed do **NOT** have exfoliated bark or cavities. **Therefore there is no suitable habit for both bath species.**

Based on the findings of the summer habitat assessment (Attachment 2) and the documentation presented in the initial consultation letter (Attachment 1), GOSR's initial determination changes to a **"No Affect"**. Additional trees to be removed will be clearly marked and only those trees removed. Project implementation is conditioned upon issuance of applicable federal and state permits and would be constructed in accordance with federal and state permit conditions. The proposed project would not have a significant impact on ESA species or adversely modify any critical habitat.

GOSR is submitting case materials so that the USFWS can acknowledge the determination made by GOSR that the proposed project will have "No Effect" on endangered/threatened species or critical habitat for species under USFWS jurisdiction for the project. If the USFWS does not respond within 30 days from submittal of this form, then GOSR may presume that its determination for the project is informed by the best available information and its project responsibilities under Section 7 of the ESA have been fulfilled. GOSR understands that the USFWS presumes that all activities will be implemented as described herein. GOSR will promptly report any departures from the described activities to the New York Field Office.

If you have any questions or concerns, please feel free to contact me at (518) 473-0647 or Alicia.Shultz@nysher.org. Thank you for your assistance.

Sincerely,



Alicia Shultz
Senior Environmental Scientist
Governor's Office of Storm Recovery
99 Washington Ave. Suite 1224
Albany, New York 12260

Enclosures (2)

Attachment 1



**Governor's Office of
Storm Recovery**

ANDREW M. CUOMO
Governor

LISA BOVA-HIATT
Executive Director

November 9, 2016

Noelle L. Rayman-Metcalf
Endangered Species Biologist
U. S. Fish and Wildlife Service
New York Field Office
3817 Luker Road
Cortland, NY 13045

Re: Section 7 Project Review - ESA/MBTA/BGEPA Consultation
Tina Chorvas Park Restoration, Village of Saugerties, Ulster County, New York

Dear Ms. Rayman-Metcalf,

The Governor's Office of Storm Recovery (GOSR), acting under the auspices of New York State Homes and Community Renewal's (HCR) Housing Trust Fund Corporation (HTFC), on behalf of the Department of Housing & Urban Development (HUD), is conducting environmental reviews under HUD's environmental review regulations (24 CFR Part 58) and New York State's Environmental Quality Review Act (SEQRA) for the Tina Chorvas Park Restoration project, located in the Village of Saugerties, Ulster County, New York.

The purpose of this letter is to provide the U.S. Fish and Wildlife Service – New York Field Office (USFWS) notice of the proposed project and to document compliance with Section 7 of the Endangered Species Act (ESA) (87 Stat. 884, as amended; 16 U.S.C. 1531 et seq.), as well as the Migratory Bird Treaty Act of 1918 (MBTA) (40 Stat. 755, as amended; 16 U.S.C. 703-712), and the Bald and Golden Eagle Protection Act of 1940 (BGEPA) (54 Stat. 240, as amended; 16 U.S.C. 668-668c). As discussed below, we have reviewed the project and found that the proposed project may affect, but is not likely to adversely affect (NLTA) ESA species under USFWS jurisdiction. This letter requests acknowledgement from the USFWS that they have received our determination regarding the subject project provided in this letter, and that USFWS has no objections to the NLTA Determination.

1.0 PROJECT DESCRIPTION

The Village of Saugerties is proposing Hurricane Sandy–related restoration projects that would repair damaged public facilities that suffered impacts from storm events and help mitigate future impacts of tidal and coastal flooding to public facilities and low-lying areas. The Tina Chorvas Park Restoration project is one component of the Village of Saugerties Parks Restoration Project. The proposed project would improve storm resiliency, provide enhanced public access, and would allow for redevelopment along the abandoned waterfront industrial site.

As depicted on **Figures 1 and 2**, the proposed project is located at 61 East Bridge Street within a bend of Esopus Creek approximately 0.2 miles east of the intersection of Hill Street and East Bridge Street in the Village of Saugerties. The project area encompasses approximately 2.6 acres and includes the 1.10 acre Tina Chorvas Park and the 1.5 acre parcel of vacant land bordering the north side of the Tina Chorvas Park. The Hudson River Sloop Clearwater Inc., who currently owns the vacant land, is in the process of transferring the property to Arm-of-the-Sea Productions, Inc., a private non-for-profit corporation who would use the property for theatrical productions.

The current shoreline of Esopus Creek contains a total of 420 linear feet of former bulkhead that has failed due to lack of maintenance and erosion and needs reinforcement to improve storm resiliency. The proposed project would replace 245 linear feet of bulkhead along the eastern project boundary, construct a staging area (future parking) and access road, and install a chain-link fence around existing building ruins. The 245 linear feet of new bulkhead would be placed along the western shoreline of Esopus Creek, immediately in front of the existing deteriorated wood piles, and would consist of precast concrete panels placed between H-piles. The precast concrete panels have a formliner to give the surface a finished timber look and the concrete would be colored to look like wood.

As depicted on **Attachment 1 – Selective Demolition Plan**, the proposed project would involve approximately 0.7 acre of tree removal to establish an access road and parking area. All tree clearing would take place between October 31 and March 31. Prior to the initiation of any construction, bright orange construction fencing and flagging would be used to demarcate trees to be protected compared with those to be cut.

2.0 ESA, MIGRATORY BIRD TREATY ACT, AND BALD AND GOLDEN EAGLE PROTECTION ACT SPECIES

The USFWS, New York Ecological Services Field Office was contacted through the Information, Planning, and Conservation System (IPaC) regarding the potential presence of species under the jurisdiction of the USFWS within the project area. The IPaC Trust Resources Report is included as **Attachment 2**, and the USFWS Official Species List is included as **Attachment 3**. According to the USFWS IPaC Trust Resource Report and Official Species Lists,

the threatened *Myotis septentrionalis* [northern long-eared bat (NLEB)] and the endangered *Myotis sodalis* (Indiana bat) may occur or could potentially be affected by activities at the project site. USFWS documentation indicates that there is no critical habitat for these or any other species at the project site. The IPac Trust Resources Report also indicates that there are nineteen species of migratory birds that are protected by the Migratory Bird Treaty Act and the Bald and Golden Eagle Protection Act that could potentially be affected by the proposed project, including *Haliaeetus leucocephalus* (bald eagle).

A request for species records within the vicinity of the project sites was sent to the New York State Natural Heritage Program (NYSNHP). A response letter from NYSNHP dated October 14, 2015 (included as **Attachment 4**) does not indicate records of NLEB, Indiana bat, or any other ESA species under USFWS jurisdiction within the vicinity of the project site. The NYSNHP response letter does not indicate records of breeding or foraging bald eagle within the vicinity of the project site. NYSNHP does state that the federally endangered *Acipenser oxyrinchus oxyrinchus* (Atlantic sturgeon) and *Acipenser brevirostrum* (shortnose sturgeon) occur in the tidal Hudson River, including Esopus Creek. GOSR is consulting with the National Marine Fisheries Service (NMFS) regarding potential project impacts to sturgeon.

3.0 ANALYSIS AND DETERMINATION OF EFFECTS

According to the USFWS IPac Trust Resource Report and Official Species List of threatened and endangered species, there are two listed species under USFWS jurisdiction that may potentially occur with the project area (Indiana bat and NLEB), and nineteen migratory birds of concern that could potentially be affected by the proposed project. There is no critical habitat designated within the project area.

ESA - NYSNHP does not indicate records of NLEB, Indiana bat, or any other ESA species under USFWS jurisdiction within the vicinity of the project site. New York State (NYS) Resource Maps, provided by the New York State Department of Environmental Conservation on September 26, 2016, are included as **Attachment 5**. The NYS Resource Maps indicate that the project site is not located within the vicinity of known or assumed Indiana bat or NLEB hibernacula or maternity roosts. Additionally, there are currently no known maternity roost trees or hibernacula known to be occupied by NLEB within the vicinity of the project location according to geospatial information provided by the USFWS. However, since the proposed project would involve approximately 0.7 acre of tree removal within the range of potential occurrence of Indiana bat and NLEB habitat, GOSR determines that this project may affect but is not likely to adversely affect NLEB and Indiana bat. The project area is not within five miles of bat hibernacula or known maternity colonies and involves less than one acre of tree removal. All tree removal would take place between October 31 and March 31, which is outside of the active season for bats. Additionally, trees to be protected from cutting would be clearly demarcated to prevent unnecessary clearing.

MBTA - GOSR has determined that the project would have no significant adverse impact on migratory birds or their habitat. The area proposed for tree clearing is within or directly adjacent

to an existing public park that experiences frequent human disturbance. It is anticipated that passerine birds would temporarily leave the area during construction due to noise and disturbance. The proposed loss of approximately 0.7 acre of wooded area within in a public park that experiences frequent human disturbance would not significantly affect migratory bird species. Extensive areas of high quality woodland habitat is available approximately 0.5 acre upstream of the project site within the 161-acre Esopus Bend Nature Preserve, as well as large stands of undeveloped wooded area southeast of the project site.

BGEPA – GOSR has determined that the proposed project would have no significant adverse impact on bald eagle. The project area is not located within the vicinity of documented breeding bald eagle. As with other migratory birds, foraging bald eagles may temporarily avoid the area during construction due to noise and disturbance. The proposed loss of less than one acre of wooded area within in a public park that experiences frequent human disturbance would not significantly affect foraging bald eagle as extensive areas of suitable, undisturbed foraging habitat are available nearby the site.

4.0 CONCLUSION

Project implementation is conditioned upon issuance of applicable federal and state permits and would be constructed in accordance with federal and state permit conditions. The proposed project would not have a significant impact on ESA species or adversely modify any critical habitat. Conservation measures would be employed to avoid impacts to bats, including limiting tree clearing to between October 31 and March 31, and clearly demarcating trees to be protected compared with those to be cut.

GOSR is submitting the above information to request acknowledgement from USFWS that they have no objections to the determination made by GOSR that the proposed project may affect, but is not likely to adversely affect ESA species under USFWS jurisdiction. If USFWS does not respond within 30 days from submittal of this letter, then GOSR may presume that its determination for each project is informed by the best available information and its project responsibilities under Section 7 of the ESA have been fulfilled. GOSR understands that the USFWS presumes that all activities will be implemented as described herein. GOSR will promptly report any departures from the described activities to the New York Field Office.

If you have any questions, please feel free to contact me at (518) 473-0015. Thank you for your consideration and cooperation.

Sincerely,

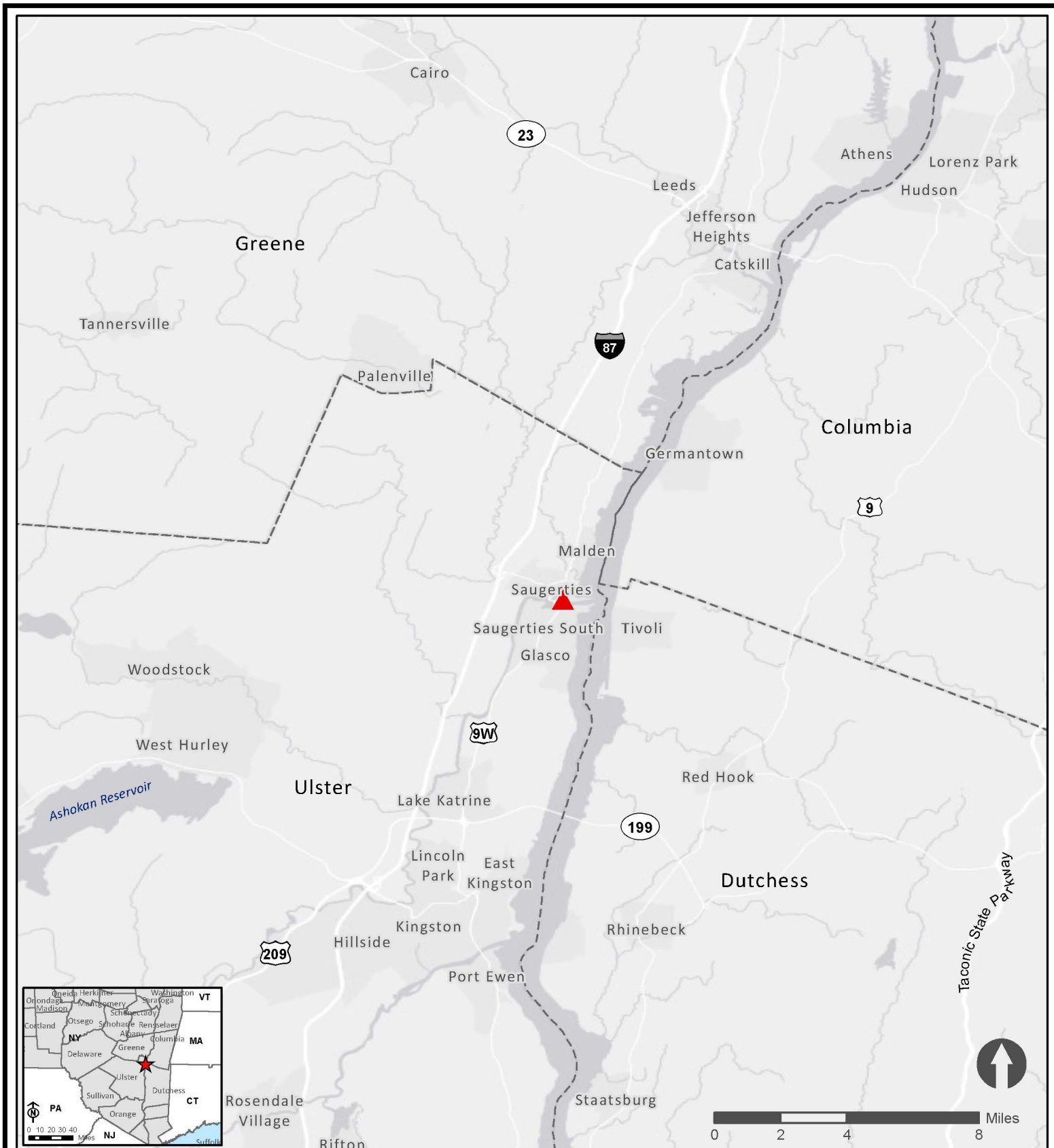
A handwritten signature in dark ink, appearing to read "Alicia Shultz". The signature is fluid and cursive, with the first name "Alicia" written in a larger, more prominent script than the last name "Shultz".

Alicia Shultz
Community Developer – Environmental Services
Governor's Office of Storm Recovery
99 Washington Ave. Suite 1224
Albany, New York 12260

Enclosures

Figure 1: Regional Location
Figure 2: Project Area
Attachment 1: Select Demolition Plan
Attachment 2: IPaC Trust Resources Report
Attachment 3: USFWS Official Species Lists
Attachment 4: NYSNHP Response
Attachment 5: NYSDEC Resource Maps

Figures



- ▲ Project Location
- County Boundary

Figure 1
Regional Location

Tina Chorvas Park
Restoration Project

Source: U.S. Fish and Wildlife Service; Ulster County GIS Datasets;
NYS Dept. of State; NYS Department of Environmental Conservation;
U.S. Department of Agriculture; FEMA; ESRI World Imagery; ESRI Street Map



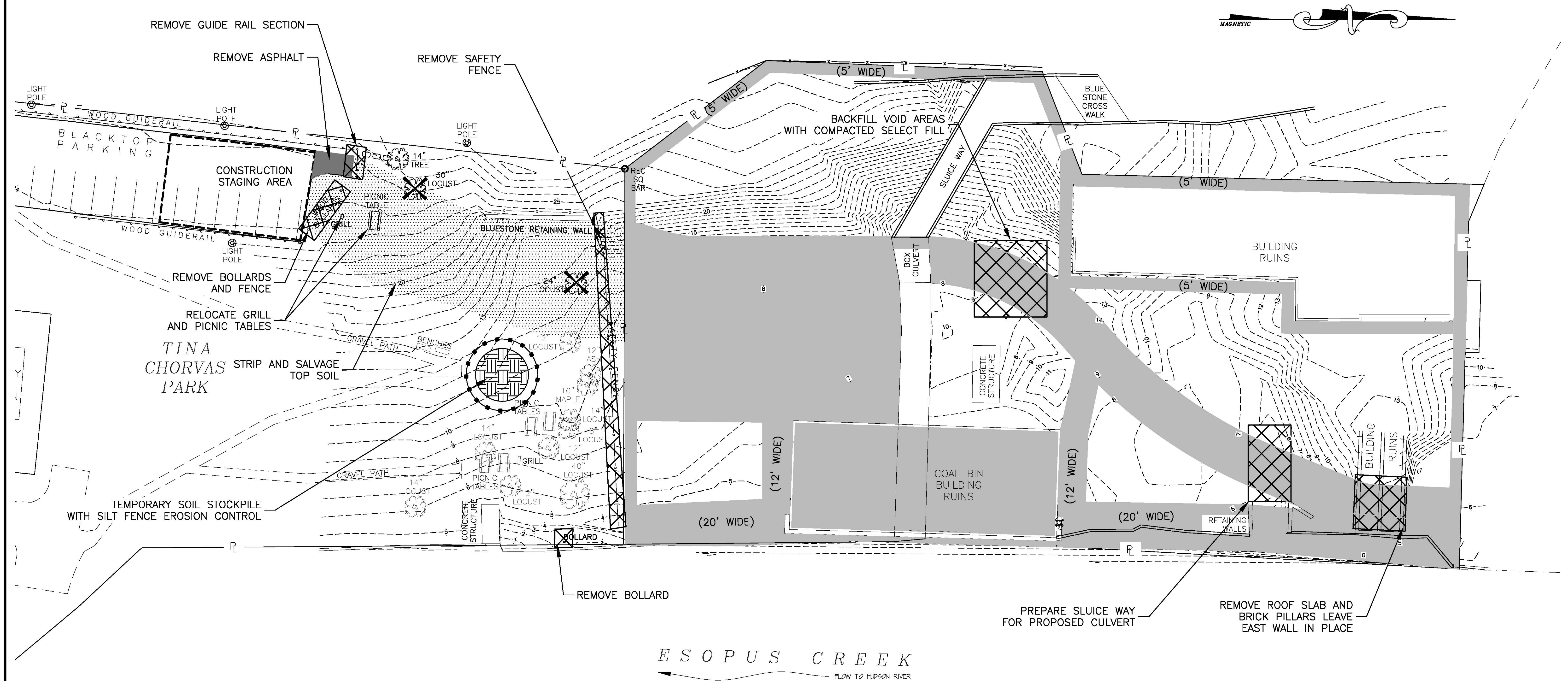


 Project Boundary

Figure 2
Project Area

Tina Chorvas Park
Restoration Project

Attachment 1



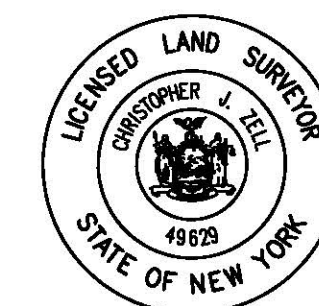
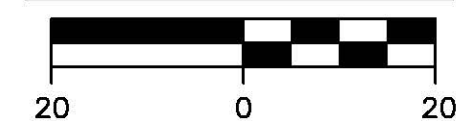
LEGEND

- 10--- CONTOURS (MINOR)
- 12--- CONTOURS (MAJOR)
- P— PROPERTY LINE
- PA— PROPERTY ADJOINING LINE
- SS— EXISTING SANITARY SEWER
- ST— EXISTING STORM SEWER
- EXISTING OVER HEAD WIRES
- +— EXISTING GUIDE RAIL
- E— EDGE OF WATER
- MANHOLE
- ⊙ UTILITY POLE
- ⊙ LIGHT POLE
- +— WITH THREE STRANDS OF BARB WIRE
- +— PROPOSED 8' HIGH CHAIN LINK FENCE
- +— PROPOSED GATE
- +— REMOVE TREES AND LEAVE STUMPS
- ✕ TO BE REMOVED
- ▨ AREAS OF DEMOLITION
- ▨ TOPSOIL TO BE REMOVED

SELECTIVE DEMOLITION PLAN

SCALE: 1" = 20'

GRAPHIC SCALE IN FEET



Unauthorized alteration or addition to a plan bearing a licensed engineer's seal is a violation of section 7209, subdivision 2, of the New York State Education Law.

SELECTIVE DEMOLITION PLAN CONTRACT VSA-162

PARKS RESTORATION PROJECT – TINA CHORVAS PARK NY RISING COMMUNITY RECONSTRUCTION PROGRAM NEW YORK STATE GOVERNORS OFFICE OF STORM RECOVERY			
VILLAGE OF SAUGERTIES		ULSTER COUNTY	
		NEW YORK	
DATE	REVISION RECORD		
5/13/16	PRELIMINARY DESIGN FOR REVIEW		
6/7/16	PRELIMINARY DESIGN FOR REVIEW		

NOTE: The location of existing underground utilities are shown in an approximate way only and have not been independently verified by the owner or its representative. The contractor shall determine the exact location of all existing utilities before commencing work, and agrees to be fully responsible for any and all damages which might be occasioned by the contractor's failure to exactly locate and preserve any and all underground utilities.

Attachment 2

Village of Saugerties Restoration - Tina Chorvas Waterfront Park Shoreline Stabilization

IPaC Trust Resources Report

Generated September 27, 2016 11:42 AM MDT, IPaC v3.0.9

This report is for informational purposes only and should not be used for planning or analyzing project level impacts. For project reviews that require U.S. Fish & Wildlife Service review or concurrence, please return to the IPaC website and request an official species list from the Regulatory Documents page.



Table of Contents

IPaC Trust Resources Report	<u>1</u>
Project Description	<u>1</u>
Endangered Species	<u>2</u>
Migratory Birds	<u>3</u>
Refuges & Hatcheries	<u>5</u>
Wetlands	<u>6</u>

U.S. Fish & Wildlife Service

IPaC Trust Resources Report



NAME

Village of Saugerties Restoration - Tina
Chorvas Waterfront Park Shoreline
Stabilization

LOCATION

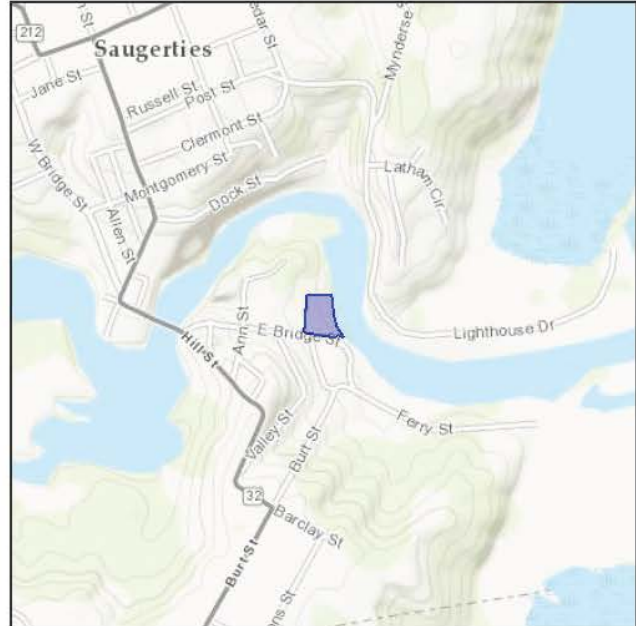
Ulster County, New York

DESCRIPTION

Replacing existing bulkheads and
stabilizing the shoreline in Tina
Chorvas Waterfront Park along Esopus
Creek, E. Bridge Street at Underwood
Street, Village of Saugerties, NY

IPAC LINK

[https://ecos.fws.gov/ipac/project/
HVVUB-EBS7V-CYRPA-TJAK7-DT7J6Y](https://ecos.fws.gov/ipac/project/HVVUB-EBS7V-CYRPA-TJAK7-DT7J6Y)



U.S. Fish & Wildlife Service Contact Information

Trust resources in this location are managed by:

New York Ecological Services Field Office

3817 Luker Road

Cortland, NY 13045-9349

(607) 753-9334

Endangered Species

Proposed, candidate, threatened, and endangered species are managed by the [Endangered Species Program](#) of the U.S. Fish & Wildlife Service.

This USFWS trust resource report is for informational purposes only and should not be used for planning or analyzing project level impacts.

For project evaluations that require USFWS concurrence/review, please return to the IPaC website and request an official species list from the Regulatory Documents section.

[Section 7](#) of the Endangered Species Act **requires** Federal agencies to "request of the Secretary information whether any species which is listed or proposed to be listed may be present in the area of such proposed action" for any project that is conducted, permitted, funded, or licensed by any Federal agency.

A letter from the local office and a species list which fulfills this requirement can only be obtained by requesting an official species list either from the Regulatory Documents section in IPaC or from the local field office directly.

The list of species below are those that may occur or could potentially be affected by activities in this location:

Mammals

Indiana Bat *Myotis sodalis* Endangered

CRITICAL HABITAT

No critical habitat has been designated for this species.

http://ecos.fws.gov/tess_public/profile/speciesProfile.action?spcode=A000

Northern Long-eared Bat *Myotis septentrionalis* Threatened

CRITICAL HABITAT

No critical habitat has been designated for this species.

http://ecos.fws.gov/tess_public/profile/speciesProfile.action?spcode=A0JE

Critical Habitats

There are no critical habitats in this location

Migratory Birds

Birds are protected by the [Migratory Bird Treaty Act](#) and the [Bald and Golden Eagle Protection Act](#).

Any activity that results in the take of migratory birds or eagles is prohibited unless authorized by the U.S. Fish & Wildlife Service.^[1] There are no provisions for allowing the take of migratory birds that are unintentionally killed or injured.

Any person or organization who plans or conducts activities that may result in the take of migratory birds is responsible for complying with the appropriate regulations and implementing appropriate conservation measures.

1. 50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)

Additional information can be found using the following links:

- Birds of Conservation Concern
<http://www.fws.gov/birds/management/managed-species/birds-of-conservation-concern.php>
- Conservation measures for birds
<http://www.fws.gov/birds/management/project-assessment-tools-and-guidance/conservation-measures.php>
- Year-round bird occurrence data
<http://www.birdscanada.org/birdmon/default/datasummaries.jsp>

The following species of migratory birds could potentially be affected by activities in this location:

American Bittern *Botaurus lentiginosus*

Bird of conservation concern

Season: Breeding

http://ecos.fws.gov/tess_public/profile/speciesProfile.action?spcode=B0F3

Bald Eagle *Haliaeetus leucocephalus*

Bird of conservation concern

Season: Year-round

http://ecos.fws.gov/tess_public/profile/speciesProfile.action?spcode=B008

Black-billed Cuckoo *Coccyzus erythrophthalmus*

Bird of conservation concern

Season: Breeding

http://ecos.fws.gov/tess_public/profile/speciesProfile.action?spcode=B0H1

Black-crowned Night-heron *Nycticorax nycticorax*

Bird of conservation concern

Season: Breeding

http://ecos.fws.gov/tess_public/profile/speciesProfile.action?spcode=B0EU

Blue-winged Warbler *Vermivora pinus*

Season: Breeding

Bird of conservation concern

Canada Warbler *Wilsonia canadensis*

Season: Breeding

Bird of conservation concern

Cerulean Warbler *Dendroica cerulea*

Season: Breeding

Bird of conservation concern

http://ecos.fws.gov/tess_public/profile/speciesProfile.action?spcode=B09I

Golden-winged Warbler *Vermivora chrysoptera*

Season: Breeding

Bird of conservation concern

http://ecos.fws.gov/tess_public/profile/speciesProfile.action?spcode=B0G4

Least Bittern *Ixobrychus exilis*

Season: Breeding

http://ecos.fws.gov/tess_public/profile/speciesProfile.action?spcode=B092

Olive-sided Flycatcher *Contopus cooperi*

Season: Breeding

Bird of conservation concern

http://ecos.fws.gov/tess_public/profile/speciesProfile.action?spcode=B0AN

Peregrine Falcon *Falco peregrinus*

Season: Breeding

Bird of conservation concern

http://ecos.fws.gov/tess_public/profile/speciesProfile.action?spcode=B0FU

Pied-billed Grebe *Podilymbus podiceps*

Season: Breeding

Bird of conservation concern

Prairie Warbler *Dendroica discolor*

Season: Breeding

Bird of conservation concern

Red-headed Woodpecker *Melanerpes erythrocephalus*

Season: Breeding

Bird of conservation concern

Rusty Blackbird *Euphagus carolinus*

Season: Wintering

Bird of conservation concern

Short-eared Owl *Asio flammeus*

Season: Wintering

Bird of conservation concern

http://ecos.fws.gov/tess_public/profile/speciesProfile.action?spcode=B0HD

Willow Flycatcher *Empidonax traillii*

Season: Breeding

Bird of conservation concern

http://ecos.fws.gov/tess_public/profile/speciesProfile.action?spcode=B0F6

Wood Thrush *Hylocichla mustelina*

Season: Breeding

Bird of conservation concern

Worm Eating Warbler *Helmitheros vermivorum*

Season: Breeding

Bird of conservation concern

Wildlife refuges and fish hatcheries

There are no refuges or fish hatcheries in this location

Wetlands in the National Wetlands Inventory

Impacts to [NWI wetlands](#) and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local [U.S. Army Corps of Engineers District](#).

DATA LIMITATIONS

The Service's objective of mapping wetlands and deepwater habitats is to produce reconnaissance level information on the location, type and size of these resources. The maps are prepared from the analysis of high altitude imagery. Wetlands are identified based on vegetation, visible hydrology and geography. A margin of error is inherent in the use of imagery; thus, detailed on-the-ground inspection of any particular site may result in revision of the wetland boundaries or classification established through image analysis.

The accuracy of image interpretation depends on the quality of the imagery, the experience of the image analysts, the amount and quality of the collateral data and the amount of ground truth verification work conducted. Metadata should be consulted to determine the date of the source imagery used and any mapping problems.

Wetlands or other mapped features may have changed since the date of the imagery or field work. There may be occasional differences in polygon boundaries or classifications between the information depicted on the map and the actual conditions on site.

DATA EXCLUSIONS

Certain wetland habitats are excluded from the National mapping program because of the limitations of aerial imagery as the primary data source used to detect wetlands. These habitats include seagrasses or submerged aquatic vegetation that are found in the intertidal and subtidal zones of estuaries and nearshore coastal waters. Some deepwater reef communities (coral or tubercid worm reefs) have also been excluded from the inventory. These habitats, because of their depth, go undetected by aerial imagery.

DATA PRECAUTIONS

Federal, state, and local regulatory agencies with jurisdiction over wetlands may define and describe wetlands in a different manner than that used in this inventory. There is no attempt, in either the design or products of this inventory, to define the limits of proprietary jurisdiction of any Federal, state, or local government or to establish the geographical scope of the regulatory programs of government agencies. Persons intending to engage in activities involving modifications within or adjacent to wetland areas should seek the advice of appropriate federal, state, or local agencies concerning specified agency regulatory programs and proprietary jurisdictions that may affect such activities.

There are no wetlands in this location

Attachment 3



United States Department of the Interior



FISH AND WILDLIFE SERVICE
New York Ecological Services Field Office
3817 LUKER ROAD
CORTLAND, NY 13045
PHONE: (607)753-9334 FAX: (607)753-9699
URL: www.fws.gov/northeast/nyfo/es/section7.htm

Consultation Code: 05E1NY00-2016-SLI-0115

September 27, 2016

Event Code: 05E1NY00-2016-E-06076

Project Name: Village of Saugerties Restoration - Tina Chorvas Waterfront Park Shoreline Stabilization

Subject: Updated list of threatened and endangered species that may occur in your proposed project location, and/or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (ESA) of 1973, as amended (16 U.S.C. 1531 *et seq.*). This list can also be used to determine whether listed species may be present for projects without federal agency involvement. New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list.

Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the ESA, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the ECOS-IPaC site at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the ECOS-IPaC system by completing the same process used to receive the enclosed list. If listed, proposed, or candidate species were identified as potentially occurring in the project area, coordination with our office is encouraged. Information on the steps involved with assessing potential impacts from projects can be found at: <http://www.fws.gov/northeast/nyfo/es/section7.htm>

Please be aware that bald and golden eagles are protected under the Bald and Golden Eagle Protection Act (16 U.S.C. 668 *et seq.*), and projects affecting these species may require

development of an eagle conservation plan (http://www.fws.gov/windenergy/eagle_guidance.html). Additionally, wind energy projects should follow the Services wind energy guidelines (<http://www.fws.gov/windenergy/>) for minimizing impacts to migratory birds and bats.

Guidance for minimizing impacts to migratory birds for projects including communications towers (e.g., cellular, digital television, radio, and emergency broadcast) can be found at: <http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/towers.htm>; <http://www.towerkill.com>; and <http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/comtow.html>.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the ESA. Please include the Consultation Tracking Number in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

Attachment



United States Department of Interior
Fish and Wildlife Service

Project name: Village of Saugerties Restoration - Tina Chorvas Waterfront Park Shoreline Stabilization

Official Species List

Provided by:

New York Ecological Services Field Office

3817 LUKER ROAD

CORTLAND, NY 13045

(607) 753-9334

<http://www.fws.gov/northeast/nyfo/es/section7.htm>

Consultation Code: 05E1NY00-2016-SLI-0115

Event Code: 05E1NY00-2016-E-06076

Project Type: SHORELINE USAGE FACILITIES / DEVELOPMENT

Project Name: Village of Saugerties Restoration - Tina Chorvas Waterfront Park Shoreline Stabilization

Project Description: Replacing existing bulkheads and stabilizing the shoreline in Tina Chorvas Waterfront Park along Esopus Creek, E. Bridge Street at Underwood Street, Village of Saugerties, NY

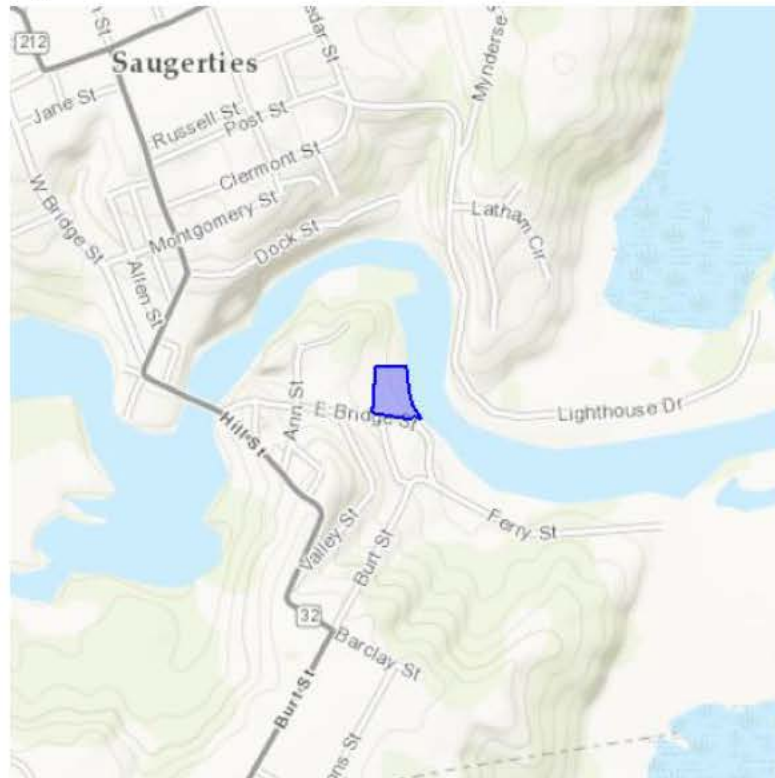
Please Note: The FWS office may have modified the Project Name and/or Project Description, so it may be different from what was submitted in your previous request. If the Consultation Code matches, the FWS considers this to be the same project. Contact the office in the 'Provided by' section of your previous Official Species list if you have any questions or concerns.



United States Department of Interior
Fish and Wildlife Service

Project name: Village of Saugerties Restoration - Tina Chorvas Waterfront Park Shoreline Stabilization

Project Location Map:



Project Coordinates: MULTIPOLYGON (((-73.94571304321289 42.07204999349759, -73.94591689109802 42.07204202945205, -73.94599199295044 42.071205799108725, -73.94505858421326 42.07108633673176, -73.94497275352478 42.071134121709534, -73.94479036331177 42.07109430089722, -73.94501566886902 42.07134118953082, -73.9450854063034 42.07155223873046, -73.94517123699188 42.07204202945205, -73.94571304321289 42.07204999349759))))

Project Counties: Ulster, NY



United States Department of Interior
Fish and Wildlife Service

Project name: Village of Saugerties Restoration - Tina Chorvas Waterfront Park Shoreline Stabilization

Endangered Species Act Species List

There are a total of 2 threatened or endangered species on your species list. Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species. Critical habitats listed under the **Has Critical Habitat** column may or may not lie within your project area. See the **Critical habitats within your project area** section further below for critical habitat that lies within your project. Please contact the designated FWS office if you have questions.

Mammals	Status	Has Critical Habitat	Condition(s)
Indiana bat (<i>Myotis sodalis</i>) Population: Wherever found	Endangered		
Northern long-eared Bat (<i>Myotis septentrionalis</i>) Population: Wherever found	Threatened		



United States Department of Interior
Fish and Wildlife Service

Project name: Village of Saugerties Restoration - Tina Chorvas Waterfront Park Shoreline
Stabilization

Critical habitats that lie within your project area

There are no critical habitats within your project area.

Attachment 4

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
Division of Fish, Wildlife & Marine Resources
New York Natural Heritage Program
625 Broadway, 5th Floor, Albany, New York 12233-4757
Phone: (518) 402-8935 • **Fax:** (518) 402-8925
Website: www.dec.ny.gov



October 14, 2016

Alicia Shultz
Governor's Office of Storm Recovery
38-40 State Street
Albany, NY 12207

Re: Tina Chorvas Park Restoration, Village of Saugerties
Town/City: Saugerties. County: Ulster.

Dear Alicia Shultz:

In response to your recent request, we have reviewed the New York Natural Heritage Program database with respect to the above project.

Enclosed is a report of rare or state-listed animals and plants, and significant natural communities that our database indicates occur, or may occur, at the project site or in its vicinity.

For most sites, comprehensive field surveys have not been conducted; the enclosed report only includes records from our database. We cannot provide a definitive statement as to the presence or absence of all rare or state-listed species or significant natural communities. Depending on the nature of the project and the conditions at the project site, further information from on-site surveys or other sources may be required to fully assess impacts on biological resources.

Our database is continually growing as records are added and updated. If this proposed project is still under development one year from now, we recommend that you contact us again so that we may update this response with the most current information.

The presence of the plants and animals identified in the enclosed report may result in this project requiring additional review or permit conditions. For further guidance, and for information regarding other permits that may be required under state law for regulated areas or activities (e.g., regulated wetlands), please contact the NYS DEC Region 3 Office, Division of Environmental Permits, at dep.r3@dec.ny.gov, (845) 256-3054.

Sincerely,

A handwritten signature in dark ink, appearing to read "Nick Conrad", written in a cursive style.

Nicholas Conrad
Information Resources Coordinator
New York Natural Heritage Program



**The following state-listed animals have been documented
at the project site or in its vicinity.**

The following list includes animals that are listed by NYS as Endangered, Threatened, or Special Concern; and/or that are federally listed or are candidates for federal listing.

For information about any permit considerations for your project, please contact the Permits staff at the NYSDEC Region 3 Office at dep.r3@dec.ny.gov, (845) 256-3054. For information about potential impacts of your project on these species, and how to avoid, minimize, or mitigate any impacts, contact the Hudson River Fisheries staff, HudsonRiverFish@dec.ny.gov, 845-256-3073.

The following species have been documented in the tidal Hudson River, which includes Esopus Creek at the project site.

<i>COMMON NAME</i>	<i>SCIENTIFIC NAME</i>	<i>NY STATE LISTING</i>	<i>FEDERAL LISTING</i>	
Fish				
Shortnose Sturgeon	<i>Acipenser brevirostrum</i>	Endangered	Endangered	1091
Atlantic Sturgeon	<i>Acipenser oxyrinchus</i>	No Open Season	Endangered	11464

This report only includes records from the NY Natural Heritage database. For most sites, comprehensive field surveys have not been conducted, and we cannot provide a definitive statement as to the presence or absence of all rare or state-listed species. Depending on the nature of the project and the conditions at the project site, further information from on-site surveys or other sources may be required to fully assess impacts on biological resources.

Information about many of the listed animals in New York, including habitat, biology, identification, conservation, and management, are available online in Natural Heritage's Conservation Guides at www.guides.nynhp.org, and from NYSDEC at www.dec.ny.gov/animals/7494.html.



**The following rare plants, rare animals, and significant natural communities
have been documented at your project site, or in its vicinity.**

We recommend that potential onsite and offsite impacts of the proposed project on these species or communities be addressed as part of any environmental assessment or review conducted as part of the planning, permitting and approval process, such as reviews conducted under SEQR. Field surveys of the project site may be necessary to determine the status of a species at the site, particularly for sites that are currently undeveloped and may still contain suitable habitat. Final requirements of the project to avoid, minimize, or mitigate potential impacts are determined by the lead permitting agency or the government body approving the project.

The following significant animal concentration areas, while not listed by New York State as Endangered or Threatened, are of conservation concern to the state.

<i>COMMON NAME</i>	<i>SCIENTIFIC NAME</i>	<i>NY STATE LISTING</i>	<i>HERITAGE CONSERVATION STATUS</i>
Animal Assemblages			
Waterfowl Winter Concentration Area			
Esopus Estuary, including project site: Tidal marsh and deepwater section.			8999
Anadromous Fish Concentration Area			
Esopus Estuary, including project site: Tidal marsh and deepwater section.			5710

The following significant natural communities are considered significant from a statewide perspective by the NY Natural Heritage Program. They are either occurrences of a community type that is rare in the state, or a high quality example of a more common community type. By meeting specific, documented criteria, the NY Natural Heritage Program considers these community occurrences to have high ecological and conservation value.

<i>COMMON NAME</i>	<i>SCIENTIFIC NAME</i>	<i>NY STATE LISTING</i>	<i>HERITAGE CONSERVATION STATUS</i>
Wetland/Aquatic Communities: Tidal wetlands at mouth of Esopus Creek:			
Freshwater Tidal Swamp		High Quality Occurrence of Rare Community Type and Globally Rare	
The swamp is small, but fairly diverse and somewhat disturbed.			9176
Freshwater Tidal Marsh		High Quality Occurrence of Rare Community Type	
Good condition, site disturbed by bulkheads and riprap.			4570
Freshwater Intertidal Mudflats		High Quality Occurrence of Rare Community Type	
Small, low diversity.			5799

The following plants are listed as Endangered or Threatened by New York State, and/or are considered rare by the New York Natural Heritage Program, and so are a vulnerable natural resource of conservation concern.

COMMON NAME	SCIENTIFIC NAME	NY STATE LISTING	HERITAGE CONSERVATION STATUS
Vascular Plants			
Heartleaf Plantain	<i>Plantago cordata</i>	Rare	Vulnerable in NYS
Mouth of Esopus Creek, 1988-09-09: Group 1: Tidal mud flats. Group 2: Small marsh surrounding the channel.			
Hudson River Water Nymph	<i>Najas guadalupensis</i> <i>ssp. muenscheri</i>	Endangered	Critically Imperiled in NYS
<i>Historical Record Only:</i> 1927, Tidal marsh at mouth of Esopus Creek.			

9344

702

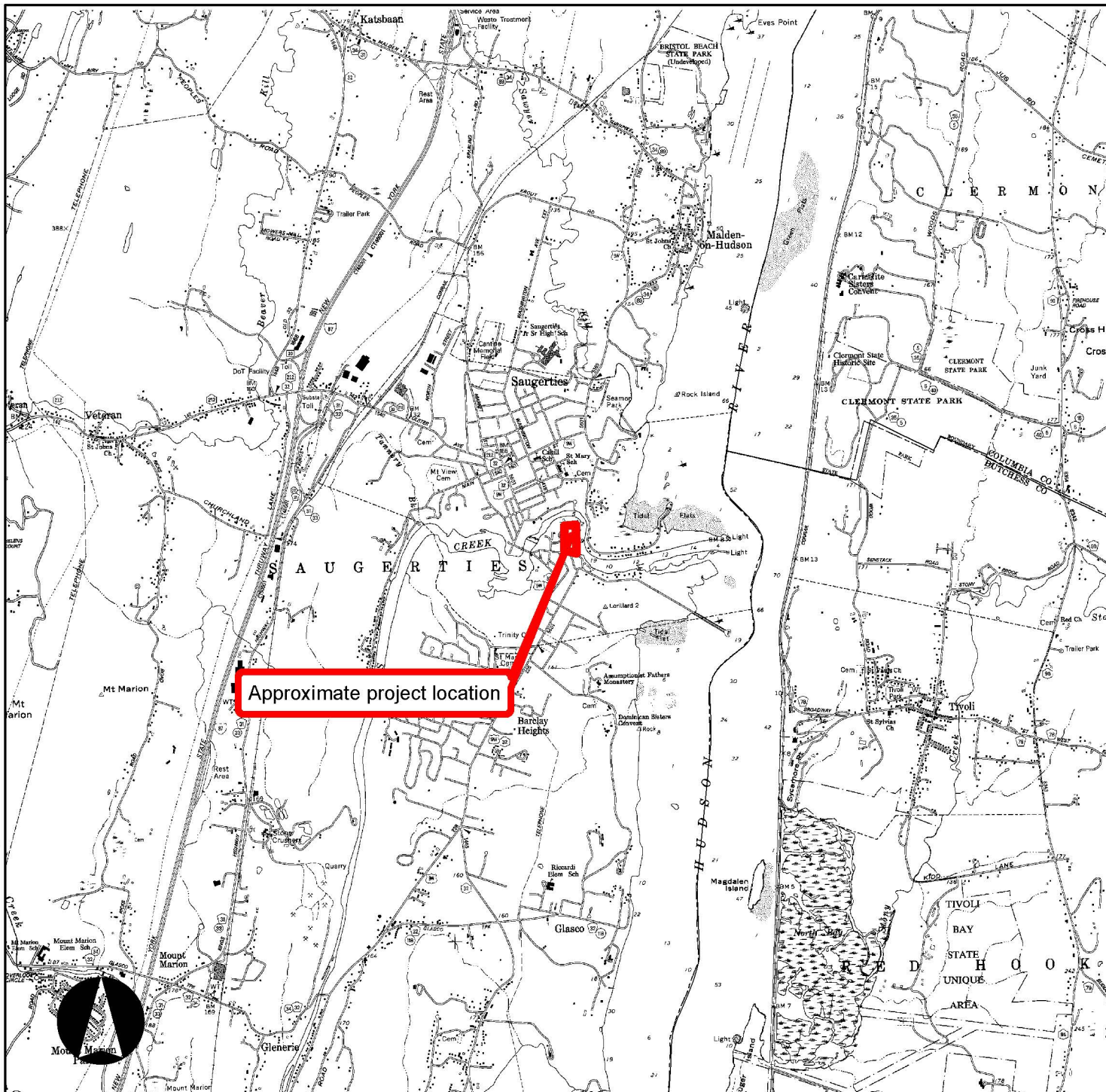
This report only includes records from the NY Natural Heritage database. For most sites, comprehensive field surveys have not been conducted, and we cannot provide a definitive statement as to the presence or absence of all rare or state-listed species. Depending on the nature of the project and the conditions at the project site, further information from on-site surveys or other sources may be required to fully assess impacts on biological resources.

If any rare plants or animals are documented during site visits, we request that information on the observations be provided to the New York Natural Heritage Program so that we may update our database.

Information about many of the rare animals and plants in New York, including habitat, biology, identification, conservation, and management, are available online in Natural Heritage's Conservation Guides at www.guides.nynhp.org, from NatureServe Explorer at www.natureserve.org/explorer, and from USDA's Plants Database at <http://plants.usda.gov/index.html> (for plants).

Information about many of the natural community types in New York, including identification, dominant and characteristic vegetation, distribution, conservation, and management, is available online in Natural Heritage's Conservation Guides at www.guides.nynhp.org. For descriptions of all community types, go to www.dec.ny.gov/animals/97703.html for Ecological Communities of New York State.

Attachment 5





NYS Resources Map

Bats in Town of Saugerties Ulster County

Prepared by MHO Date: 9/26/16

0 4,000 8,000 Feet

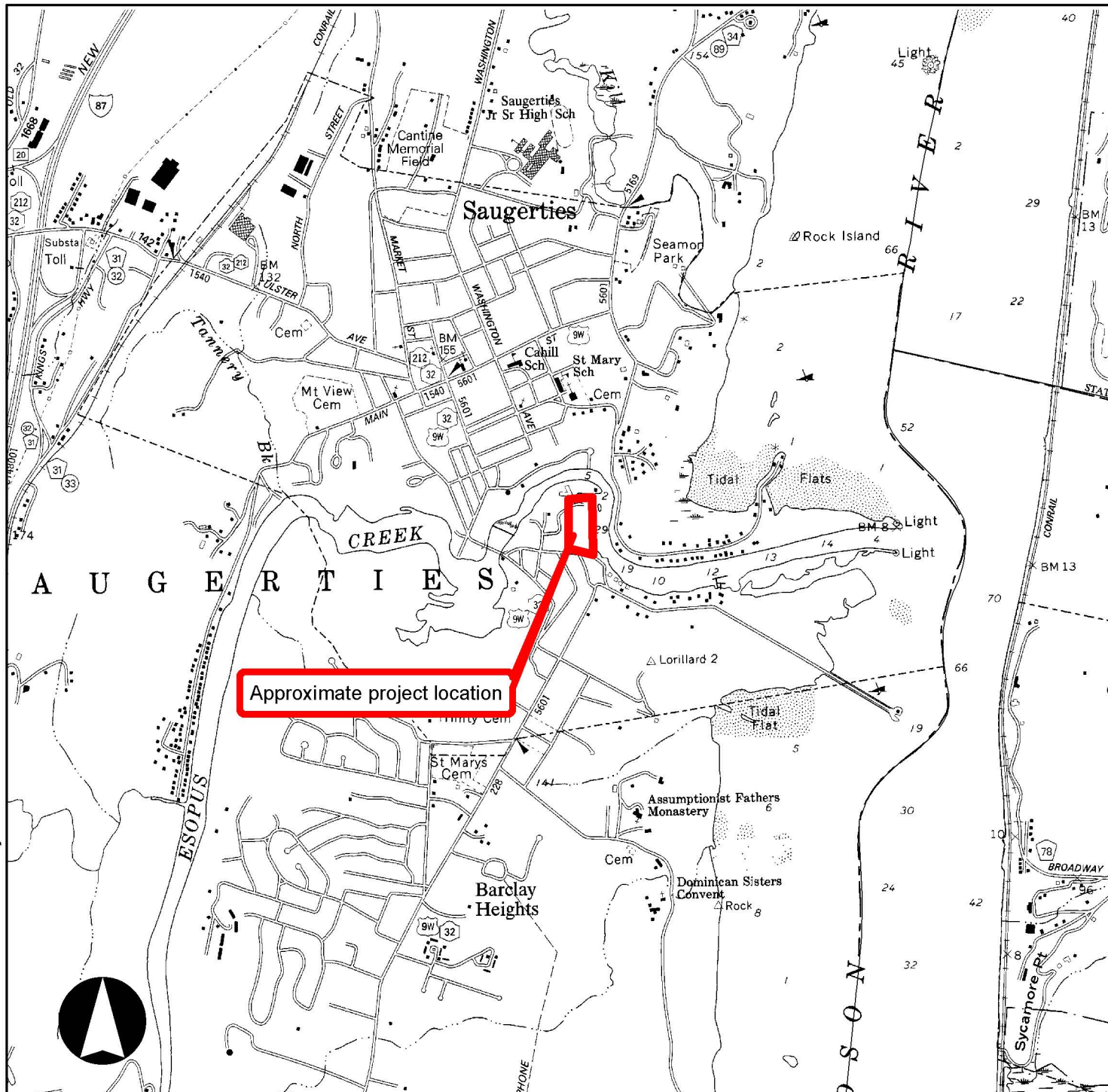
1 inch equals 4,000 feet

-  Indiana_Bat
-  Northern long-eared bats

Disclaimer: This map was prepared by the NYSDEC using the most current data available. It is deemed accurate but is not guaranteed. NYSDEC is not responsible for any inaccuracies in the data and does not necessarily endorse any interpretations or products derived from the data. This map may contain information that is considered sensitive and therefore the distribution of this map is strictly prohibited.



Department of
Environmental
Conservation



NYS Resources Map

Bats in Town of Saugerties Ulster County

Prepared by MHO Date: 9/26/16

0 2,000 4,000 Feet

1 inch equals 2,000 feet

- Indiana_Bat
- Northern long-eared bats

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Department of
Environmental
Conservation

Attachment 2

APPENDIX A PHASE 1 SUMMER HABITAT ASSESSMENTS

INDIANA BAT HABITAT ASSESSMENT DATASHEET

Project Name: Tina Chovras Park Date: 4/3/2017
 Township/Range/Section: Saugerties, NY
 Lat Long/UTM/ Zone: 18 E: 587238.94 N: 4658296.43 Surveyor: A. Bailey, NYDEC

Brief Project Description

This residential park (mowed grass with some large trees retained), will be expanded into a forested area adjacent.

Project Area

	Total Acres	Forest Acres		Open Acres
Project				
Proposed Tree Removal (ac)	Completely cleared	Partially cleared (will leave trees)	Preserve acres- no clearing	
	-	~1.2	-	

Vegetation Cover Types

Pre-Project	Post-Project
Residential park adjacent to a small forested patch with early successional habitat.	Entirety will be a residential park with mowed grass and a few, large trees retained.

Landscape within 5 mile radius

Flight corridors to other forested areas? immediately surrounded by development, but there is forested areas within 600m.

Describe Adjacent Properties (e.g. forested, grassland, commercial or residential development, water sources)
The park is part of a small forested area (53 acres) that is completely surrounded by commercial and residential development. On Esopus Creek off Hudson River.

Proximity to Public Land

What is the distance (mi.) from the project area to forested public lands (e.g., national or state forests, national or state parks, conservation areas, wildlife management areas)?

1.7 miles from wildlife management area.

APPENDIX A PHASE 1 SUMMER HABITAT ASSESSMENTS

Use additional sheets to assess discrete habitat types at multiple sites in a project area
Include a map depicting locations of sample sites if assessing discrete habitats at multiple sites in a project area
A single sheet can be used for multiple sample sites if habitat is the same

Sample Site Description	
Sample Site No.(s): <u>TC1</u>	

Water Resources at Sample Site				Describe existing condition of water sources: <u>located along Esopus Creek</u>
Stream Type (# and length)	Ephemeral	Intermittent	Perennial	
			<u>30m</u>	
Pools/Ponds (# and size)	Open and accessible to bats?			
Wetlands (approx. ac.)	Permanent	Seasonal		
	<u>N/A</u>	<u>N/A</u>		

Forest Resources at Sample Site			
Closure/Density	Canopy (> 50%)	Midstory (20-50%)	Understory (<20%)
		<u>5</u>	
Dominant Species of Mature Trees	<u>maple and oak</u>		
% Trees w/ Exfoliating Bark	<u>0</u>	<u>0</u>	<u>10</u>
Size Composition of Live Trees (%)	Small (3-8 in)	Med (9-15 in)	Large (>15 in)
	<u>90</u>	<u>5</u>	<u>5</u>
No. of Suitable Snags	<u>0</u>		

Standing dead trees with exfoliating bark, cracks, crevices, or hollows. Snags without these characteristics are not considered suitable.

IS THE HABITAT SUITABLE FOR INDIANA BATS? unlikely

Additional Comments:	<p>This project is located ~10 mi from nearest Indiana bat known occurrence, and a similar distance from northern long-eared bat known locations. It is part of a residential park, surrounded by development. Large trees will be retained with few exceptions, thus preserving roosting habitat. Trees (larger) that will be removed do not have exfoliating bark or cavities visible.</p>
-----------------------------	----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

Attach aerial photo of project site with all forested areas labeled and a general description of the habitat

Photographic Documentation: habitat shots at edge and interior from multiple locations; understory/midstory/canopy; examples of potential suitable snags and live trees; water sources

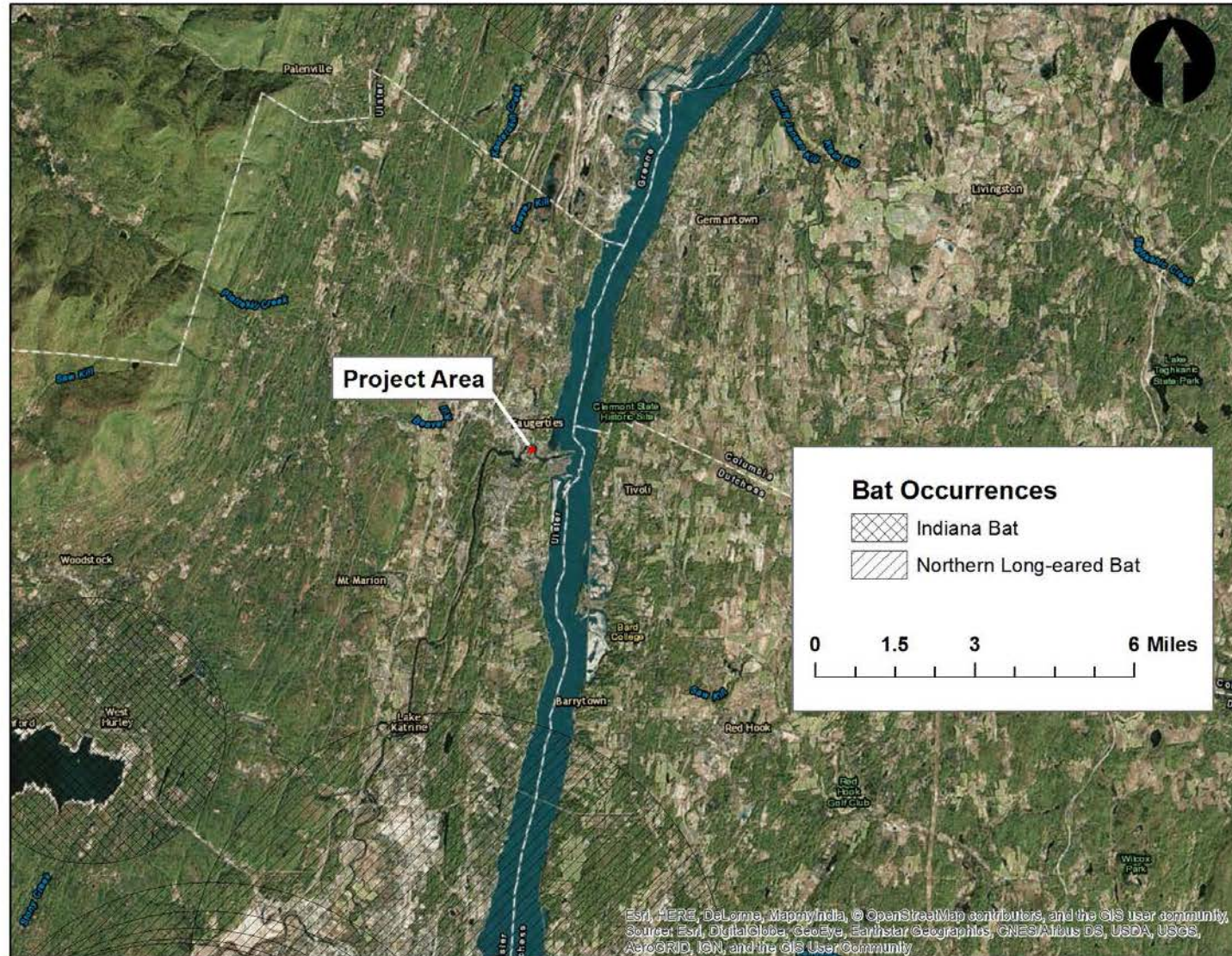


Figure 1. Location of the project area in relation to known occurrences of Indiana bats and northern long-eared bats (Occupied habitat is defined by NYSDEC as the areas 2.5 miles around known Indiana bat locations and 5 miles around known northern long-eared bat winter locations).

Tina Chorvas Park – Saugerties, NY

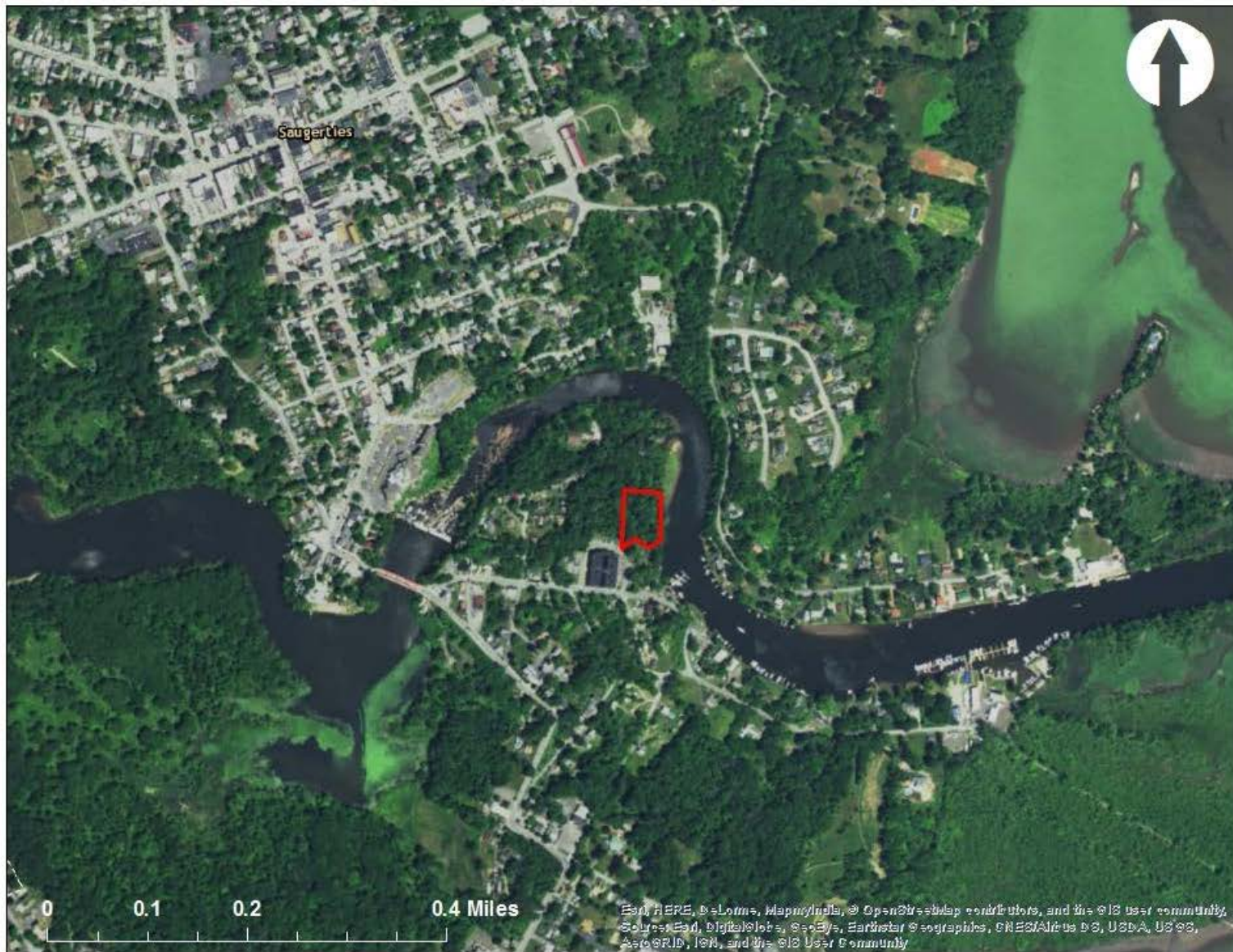


Figure 2. Aerial view of the project area.



Figure 3. Example of trees that will be removed as the park is expanded and a new culvert is installed. Marked trees will be retained.



Figure 4. Example of trees that will be removed as the park is expanded and a new culvert is installed. Marked trees will be retained.



Figure 5. Example of trees that will be removed as the park is expanded and a new culvert is installed. Marked trees will be retained.



Figure 6. The area of the park adjacent to the area to be cleared. The new area will look similar.

APPENDIX H - NATIONAL MARINE FISHERIES SERVICE CORRESPONDENCE

On Thu, Jan 26, 2017 at 3:07 PM, Shultz, Alicia (NYSHCR) <Alicia.Shultz@nyshcr.org> wrote:

We are withdrawing this consultation as we have re-reviewed and come to a no effect determination.

Alicia Shultz
Senior Environmental Scientist
Governor’s Office of Storm Recovery
New York State Homes & Community Renewal
38-40 State St., 408 N, Hampton Plaza, Albany, NY 12207
O: [\(518\) 474-0647](tel:(518)474-0647) C: [\(917\) 376-9003](tel:(917)376-9003) | F: [\(212\) 480-2393](tel:(212)480-2393) |
Alicia.Shultz@nyshcr.org
www.stormrecovery.ny.gov

From: Edith Carson - NOAA Federal [mailto:edith.carson@noaa.gov]
Sent: Thursday, November 17, 2016 11:44 AM
To: Shultz, Alicia (NYSHCR)
Cc: daniel.marrone@noaa.gov; King, Thomas J (STORMRECOVERY); jschnabel@louisberger.com
Subject: Re: Effect Determination - Tina Chorvas

Hi Alicia,

Thank you for your request. I will review your documents and will let you know if I have any questions or comments.

Edith

Edith Carson, M.Sc.
Section 7/Shortnose Sturgeon Fish Biologist
NOAA Fisheries
U.S. Department of Commerce
Greater Atlantic Regional Fisheries Office
Phone: [978-282-8490](tel:978-282-8490) edith.carson@noaa.gov
www.greateratlantic.fisheries.noaa.gov/protected

On Thu, Nov 17, 2016 at 11:20 AM, Shultz, Alicia (NYSHCR) <Alicia.Shultz@nyshcr.org> wrote:

Dear Mr. Marrone:

The Governor's Office of Storm Recovery (GOSR), an office of the New York State Homes and Community Renewal’s (NYSHCR) Housing Trust Fund Corporation, was established to aid the statewide recovery of disaster-affected communities in New York State. GOSR is administering a U.S. Department of Housing and Urban Development (HUD) Community Development Block Grant for Disaster Recovery (CDBG-DR), including the New York Rising Community Reconstruction (NYRCR) Program. The environmental review for projects funded under the NYRCR Program are processed on a case-by-case basis in accordance with the National Oceanic and Atmospheric Administration – National Marine Fisheries Service (NMFS) Greater Atlantic Region Section 7 Program Guidance and pursuant to Section 7 of the Endangered Species Act (ESA) of 1973 (87 Stat. 884, as amended; 16 U.S.C. 1531 et seq.) and the Marine Mammal Protection Act (MMPA).

The attached letter serves to request concurrence from your office regarding the effect determination made for the subject project which is proposed to receive CDBG-DR assistance. We have made the determination that the proposed activity **may affect, but is not likely to adversely affect** any ESA listed species under NMFS jurisdiction.

Thanks for your assistance.

Alicia Shultz
Community Developer – Environmental Services
Governor’s Office of Storm Recovery
New York State Homes & Community Renewal
38-40 State St., 408 N, Hampton Plaza, Albany, NY 12207
O: [\(518\) 474-0647](tel:(518)474-0647) C: [\(917\) 376-9003](tel:(917)376-9003) | F: [\(212\) 480-2393](tel:(212)480-2393) |
Alicia.Shultz@nyshcr.org www.stormrecovery.ny.gov

APPENDIX I - SHPO CONSULTATION



Louis Berger

October 7, 2016

Larry K. Moss, Historic Preservation Technical Specialist
Technical Assistance & Compliance Unit, Division for Historic Preservation
New York State Office of Parks, Recreation & Historic Preservation
Peebles Island, P.O. Box 189
Waterford, New York 12188-0189

RE: New York State CDBG Disaster Recovery Program
New York State Sandy Recovery
Tina Chorvas Park Restoration Project, Village of Saugerties, NY 12477

Mr. Moss,

The New York State Governor's Office of Storm Recovery is proposing to fund restoration of Tina Chorvas Park in the Village of Saugerties, Ulster County, New York (Figure 1). The project is to be funded being funded through a Community Development Block Grant Disaster Recovery (CDBG-DR) obtained through the NYS Governor's Office of Storm Recovery (GOSR), NY Rising Community Reconstruction Program. The project is expected to cost \$260,000.00.

As a riverine community, the Village of Saugerties experiences flooding from overflows from the lower Esopus Creek and its tributaries during intense rain events as well as Hurricane Irene, Tropical Storm Lee and Superstorm Sandy. As a coastal community, the Village also absorbed the impact of storm surges through the Hudson River during Superstorm Sandy. These events damaged Tina Chorvas Waterfront Park. Low-lying tidal areas are most impacted by flooding due to wave action from the Hudson River and/or heavy flows from Esopus Creek.

Project Description

The Tina Chorvas Park site also includes the 1.5 acre parcel of vacant land bordering the north side of the Tina Chorvas Park. The Hudson River Sloop Clearwater Inc., who currently owns the land, is in the process of transferring the property to Arm-of-the-Sea Productions, Inc., a private non-for-profit corporation who will use the property for theatrical productions. Tina Chorvas Park is used as a public recreation area offering picnicking, fishing, swimming and access to the Esopus Creek.

This project would extend the existing bulkheads in Tina Chorvas Waterfront Park along Esopus Creek, a staging area (future parking) and access road would be constructed, and a chain-link fence would be installed around building ruins. The current shoreline of the creek contains 235 feet of wooden bulkhead and 420 feet of

former bulkhead that has failed due to lack of maintenance and erosion caused by stormwater. The bulkhead needs reinforcement to improve storm resiliency. This preparation for predicted sea level rise would provide enhanced public access and would allow for redevelopment along the abandoned waterfront industrial site. These goals are part of the Village of Saugerties' Local Waterfront Revitalization Plan. The proposed project component would revitalize the waterfront and stabilize the shoreline with the following measures:

(1) Shoreline Stabilization

- Construct approximately 245 linear feet of new bulkhead to stabilize the Esopus Creek shoreline along the east side of the project site. The bulkhead will be installed to the north end of the existing coal bin ruins. The bulkhead will be constructed by driving H-piles into the river every 6 feet on-center. Concrete panels will be placed between the H-piles and the void behind will be filled and leveled to the existing ground surface.

(2) Site Access – Road Construction

- Construct a two-lane gravel access road to provide public access to the AOS property. The gravel access road would be constructed from the existing Tina Chorvas Park parking lot through a 16 feet wide right-of-way to southern boundary of the AOS property. The side of the hill in this area will be cut and filled downslope to create the roadway.
- Construct an 18 foot road gate at entrance.
- Construct a retaining wall on the west side of the 16 feet two-lane gravel access road.
- Construct a single lane, 10-foot-wide gravel road through the AOS property to provide access to the north half of the AOS property. The road will be constructed using approximately 12-15 inches of fill material and Item 4 gravel.
- Cut brush up to 12.5 feet from the centerline of the road (minimum of 25 feet total clearing width) and as needed to construct the access road.
- Cut trees on the AOS property for access. The stumps will be left in place to avoid ground disturbance.
- Backfill void areas on the AOS property for the access road.
- Install a simple road gate near the Tina Chorvas parking lot to control access between the two properties.

(3) Fencing

- Install eight feet high (8') chainlink fencing around the perimeter property line and around the ruins area on the northwest side of AOS property (Ruins of the former Sheffield paper mill complex)
- Clear trees and brush within five feet of the proposed fence locations. Trees and brush would be cut off at ground level and the stumps and roots will be left in-place.

(4) Enhancement

- Construct a kayak/canoe ramp
- Move grills and tables.
- Remove fencing and bollards no longer needed.

(5) Drainage

- Install piping, headwalls and riprap for drainage
- Install turbidity curtain
- Excavate an existing sluice way on the AOS property and install a culvert

(6) Construction

- Construct construction staging area on the existing parking lot on the southern portion of the park.
- Prepared erosion and sediment control plan.
- Construct a stabilized construction entrance and silt fencing to control

(7) Erosion

- Remove small area of asphalt from the current parking area

NY-CRIS Site File Review

The park site consists of two parcels that combined have 655-feet of shoreline on the southern shore of the Esopus Creek Street. The site is located at 61 East Bridge Street within a bend of the Esopus Creek approximately 0.2 miles east of intersection of Hill Street and East Bridge. The park was formerly part of the Sheffield Paper Mill complex and part of the larger property parcel owned by the Sheffield estate. The park was subdivided from the larger Sheffield property in about 1989.

Examination of the project area in NY-CRIS indicates that two properties located across the street from the project area have been previously surveyed but not evaluated with respect to National Register Criteria: the Former Barclay Hotel at 88 East Bridge Street and an Italianate style residence at 76 East Bridge Street. Review of Google Street Views indicates that the Former Barclay Hotel is non-extant and that the residence at 76 East Bridge Street is extant, retains a high degree of integrity, and appears to be eligible for listing in the National Register. There are no other surveyed resources within the immediate vicinity of the project area. Though not documented in NY-CRIS, the former Sheffield Paper Mill building, which is adjacent to the project area, appears to be eligible for listing in the National Register of Historic Places.

Archaeology

Examination of NY-CRIS indicates that two historic archaeological sites are in close proximity to the project area and one historic archaeological site is within the project area. The Ulster Ironworks site and a worker's tenement structure site are located to the northeast and west, respectively of the project area. They do not appear to be historically associated with the Sheffield Paper Mill. However, the site within the project area is associated with the large Sheffield Paper Mill complex and consists of an historic barge slip and the extant main mill building, which is immediately adjacent to the project on the west side appears to be potentially eligible for listing in the National Register. The association of the barge slip archaeological site with the Sheffield Paper Mill complex and the presence of foundation remnants in the project area indicates that there is a high probability of additional historic archaeological sites within the project area. Examination of soils in the area indicate Bath-Nassau-Rock outcrop complex is prevalent in the project area. This complex is generally characterized by slopes of 10 to 25 percent.

Recommendations

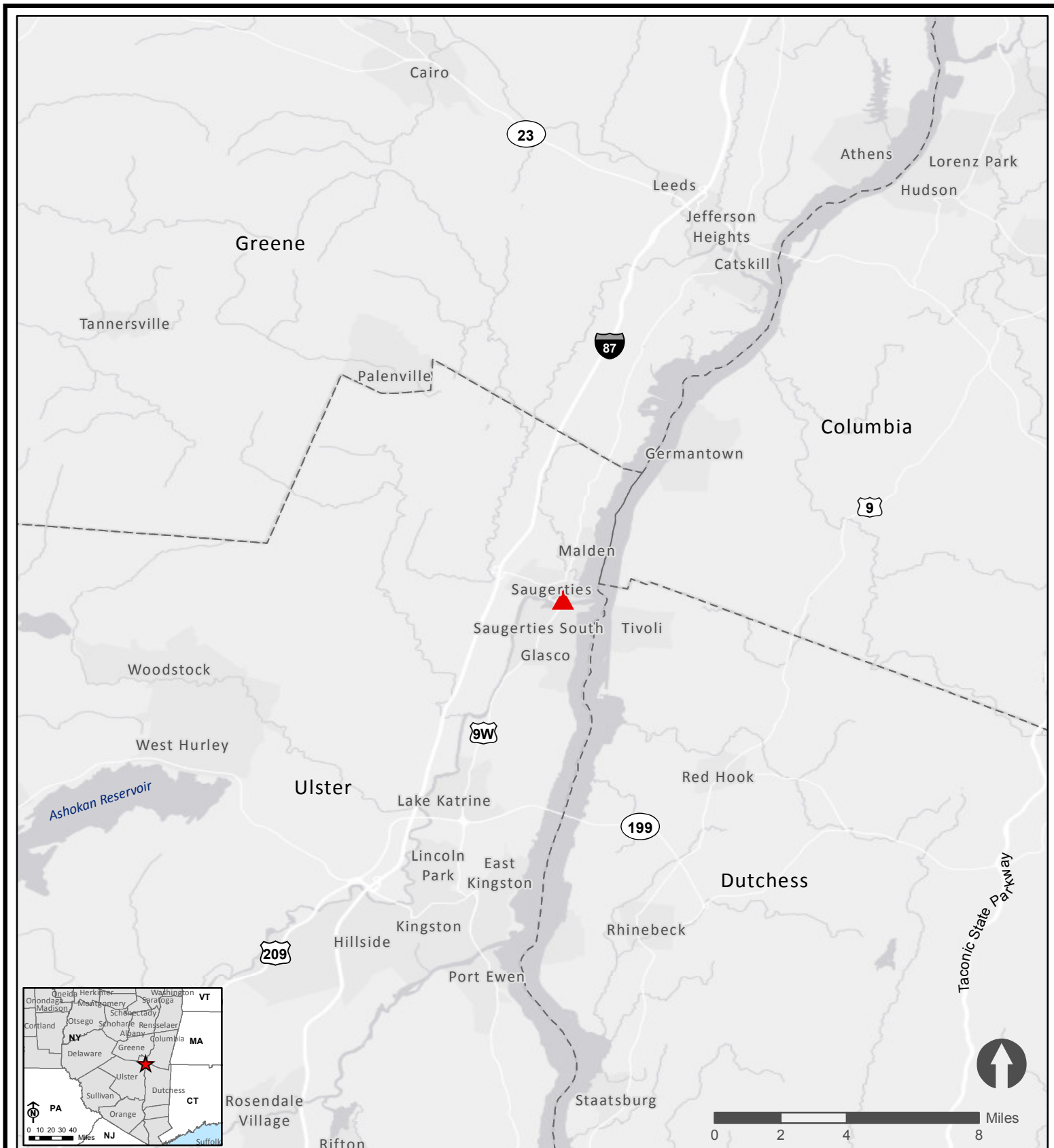
Review of historic aerials of the project area indicates that large buildings associated with the Sheffield Paper Mill Complex were present on the property until at least 1956. Topographic maps show buildings on the site as late as 2000. There are also known historic archaeological sites that are associated with the potentially eligible Sheffield Paper Mill building. Project planners have altered the original scope of minimize ground disturbance for the project. Stumps will be left in place for any trees cut in the area to minimize ground disturbance. Construction of the road will involve ground disturbance. The area in which the 16' roadway will be constructed has a slope of greater than 12% will very low potential for archaeological remains. The limited amount of fill proposed for the remaining 10' wide road will not involve ground disturbance. The project activities will not alter the characteristics of nearby historic properties. Given this information, Louis Berger recommends that this project constitutes **No Historic Properties Affected**.

Sincerely,

A handwritten signature in cursive script that reads "Camilla R. Deiber". The signature is written in black ink and is positioned above the printed name and title.

Camilla Deiber
Senior Architectural Historian

Cc: Thomas King, GOSR





-  Project Location
-  County Boundary

Figure 1
Regional Location

Tina Chorvas Park
Restoration Project

Source: U.S. Fish and Wildlife Service; Ulster County GIS Datasets;
NYS Dept. of State; NYS Department of Environmental Conservation;
U.S. Department of Agriculture; FEMA; ESRI World Imagery; ESRI Street Map





 Project Boundary

Figure 2
Project Area

Tina Chorvas Park
Restoration Project



Parks, Recreation, and Historic Preservation

ANDREW M. CUOMO
Governor

ROSE HARVEY
Commissioner

October 25, 2016

Mary Barthelme
GOSR
99 Washington Ave, Suite 1224
Albany, NY 12260

Re: HTF/ GOSR
Tina Chorvas Park Restoration
61 East Bridge Street, Saugerties/ Ulster County
16PR07029

Dear Ms. Barthelme:

Thank you for requesting the comments of the New York State Historic Preservation Office (SHPO). We have reviewed the submitted materials in accordance with Title 54, Section 306108 of the National Historic Preservation Act of 1966. These comments are those of the SHPO and relate only to Historic/ Cultural resources. They do not include other environmental impacts to New York State Parkland that may be involved in or near your project. Such impacts must be considered as part of the environmental review of the project pursuant to the National Environmental Policy Act and/or the State Environmental Quality Review Act (New York Environmental Conservation Law Article 8).

Based on this review, it is the opinion of SHPO that there will be No Historic Properties Affected by the proposed undertaking.

If I can be of further assistance, please contact me at (518) 268-2187 or Larry.moss@parks.ny.gov

Sincerely,

Larry K Moss, Historic Preservation Technical Specialist

CC: Amy Lentz

Division for Historic Preservation

P.O. Box 189, Waterford, New York 12188-0189 • (518) 237-8643 • www.nysparks.com

APPENDIX J - TRIBAL CONSULTATION



**Governor's Office of
Storm Recovery**

ANDREW M. CUOMO
Governor

LISA BOVA-HIATT
Executive Director

October 17, 2016

RE: Section 106 Compliance for Tina Chorvas Park Restoration Project, Village of Saugerties, Ulster County, New York

Dear [Tribal Representative]:

Pursuant to the Disaster Relief Appropriations Act, 2013 (Public Law 113-2) and the Housing and Community Development Act (42 U.S.C. § 5301 et seq.), the Governor's Office of Storm Recovery (GOSR) is acting under the auspices of New York State Homes and Community Renewal's Housing Trust Fund Corporation as a recipient of Community Development Block Grant – Disaster Recovery (“CDBG-DR”) funds from the United States Department of Housing and Urban Development (“HUD”). GOSR is the entity responsible for compliance with the HUD environmental review procedures set forth in 24 CFR Part 58. GOSR is acting on behalf of HUD in providing the enclosed project information and inviting this discussion with your Nation to respond with any concerns or comments.

GOSR processes environmental reviews for projects funded with HUD CDBG-DR on a case-by-case basis. GOSR proposes to provide funding for restoration work to sections of the Tina Chorvas Park in Saugerties, New York. In accordance with Section 101(d)(6)(B) of the National Historic Preservation Act of 1966, as amended (54 U.S.C. 302706(b)), and its implementing regulations, 36 Code of Federal Regulations (CFR) Part 800, this letter serves as notification of the proposed action. This consultation is being sent to the Delaware Nation, the Delaware Tribe of Indians, the Saint Regis Mohawk Tribe, the Mohawk Nation, and the Stockbridge-Munsee Community Band of Mohicans.

Area of Potential Effect: The proposed project is located at the Tina Chorvas Park, which is located at 61 East Bridge Street within a bend of the Esopus Creek in the Village of Saugerties, Ulster County, New York. A project map is included with this letter.

Proposed Project Description: Please see the attached historical review letter for the project with a recommendation of No Historic Properties Affected. Pursuant to NHPA Section 106, GOSR has initiated consultation with the State Historic Preservation Office (SHPO) concerning this Project and its potential to affect historic resources that are listed on or eligible for listing on the NRHP. No comments have been received from the SHPO to date.



**Governor's Office of
Storm Recovery**

ANDREW M. CUOMO
Governor

LISA BOVA-HIATT
Executive Director

GOSR is completing an environmental review for this project pursuant to HUD NEPA regulations. If the Area of Potential Effect encompasses historic properties of religious or cultural significance to your Nation, please respond within 30 days or sooner. Additionally, please indicate if there are other sources of information or other parties, Nations, Tribes, or members of the public you believe should be included in the consultation process. Please respond by email or in writing to the address listed below.

Mrs. Alicia Shultz
Community Developer - Environmental Services
New York State Homes & Community Renewal
38-40 State St., 408N, Hampton Plaza
Albany, NY 12207

If you have any questions or require additional information regarding this request, please feel free to contact me at (518) 474-0647 or via email at Alicia.Shultz@nyshcr.org. Thank you for your time and consideration.

Sincerely,

Alicia Shultz
Community Developer – Environmental Services
New York State Homes and Community Renewal

Enclosures:

Attachment 1 Project Historical Review
Attachment 2: Project Location Maps



Louis Berger

October 7, 2016

Larry K. Moss, Historic Preservation Technical Specialist
Technical Assistance & Compliance Unit, Division for Historic Preservation
New York State Office of Parks, Recreation & Historic Preservation
Peebles Island, P.O. Box 189
Waterford, New York 12188-0189

RE: New York State CDBG Disaster Recovery Program
New York State Sandy Recovery
Tina Chorvas Park Restoration Project, Village of Saugerties, NY 12477

Mr. Moss,

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Project Description

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This project would extend the existing bulkheads in Tina Chorvas Waterfront Park along Esopus Creek, a staging area (future parking) and access road would be constructed, and a chain-link fence would be installed around building ruins. The current shoreline of the creek contains 235 feet of wooden bulkhead and 420 feet of

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(2) Site Access – Road Construction

- Construct a two-lane gravel access road to provide public access to the AOS property. The gravel access road would be constructed from the existing Tina Chorvas Park parking lot through a 16 feet wide right-of-way to southern boundary of the AOS property. The side of the hill in this area will be cut and filled downslope to create the roadway.
- Construct an 18 foot road gate at entrance.
- Construct a retaining wall on the west side of the 16 feet two-lane gravel access road.
- Construct a single lane, 10-foot-wide gravel road through the AOS property to provide access to the north half of the AOS property. The road will be constructed using approximately 12-15 inches of fill material and Item 4 gravel.
- Cut brush up to 12.5 feet from the centerline of the road (minimum of 25 feet total clearing width) and as needed to construct the access road.
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(3) Fencing

- Install eight feet high (8') chainlink fencing around the perimeter property line and around the ruins area on the northwest side of AOS property (Ruins of the former Sheffield paper mill complex)
- Clear trees and brush within five feet of the proposed fence locations. Trees and brush would be cut off at ground level and the stumps and roots will be left in-place.

(4) Enhancement

- Construct a kayak/canoe ramp
- Move grills and tables.
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- Excavate an existing sluice way on the AOS property and install a culvert

(6) Construction

- Construct construction staging area on the existing parking lot on the southern portion of the park.
- Prepared erosion and sediment control plan.
- Construct a stabilized construction entrance and silt fencing to control

(7) Erosion

- Remove small area of asphalt from the current parking area

NY-CRIS Site File Review

The park site consists of two parcels that combined have 655-feet of shoreline on the southern shore of the Esopus Creek Street. The site is located at 61 East Bridge Street within a bend of the Esopus Creek approximately 0.2 miles east of intersection of Hill Street and East Bridge. The park was formerly part of the Sheffield Paper Mill complex and part of the larger property parcel owned by the Sheffield estate. The park was subdivided from the larger Sheffield property in about 1989.

Examination of the project area in NY-CRIS indicates that two properties located across the street from the project area have been previously surveyed but not evaluated with respect to National Register Criteria: the Former Barclay Hotel at 88 East Bridge Street and an Italianate style residence at 76 East Bridge Street. Review of Google Street Views indicates that the Former Barclay Hotel is non-extant and that the residence at 76 East Bridge Street is extant, retains a high degree of integrity, and appears to be eligible for listing in the National Register. There are no other surveyed resources within the immediate vicinity of the project area. Though not documented in NY-CRIS, the former Sheffield Paper Mill building, which is adjacent to the project area, appears to be eligible for listing in the National Register of Historic Places.

Archaeology

Examination of NY-CRIS indicates that two historic archaeological sites are in close proximity to the project area and one historic archaeological site is within the project area. The Ulster Ironworks site and a worker's tenement structure site are located to the northeast and west, respectively of the project area. They do not appear to be historically associated with the Sheffield Paper Mill. However, the site within the project area is associated with the large Sheffield Paper Mill complex and consists of an historic barge slip and the extant main mill building, which is immediately adjacent to the project on the west side appears to be potentially eligible for listing in the National Register. The association of the barge slip archaeological site with the Sheffield Paper Mill complex and the presence of foundation remnants in the project area indicates that there is a high probability of additional historic archaeological sites within the project area. Examination of soils in the area indicate Bath-Nassau-Rock outcrop complex is prevalent in the project area. This complex is generally characterized by slopes of 10 to 25 percent.

Recommendations

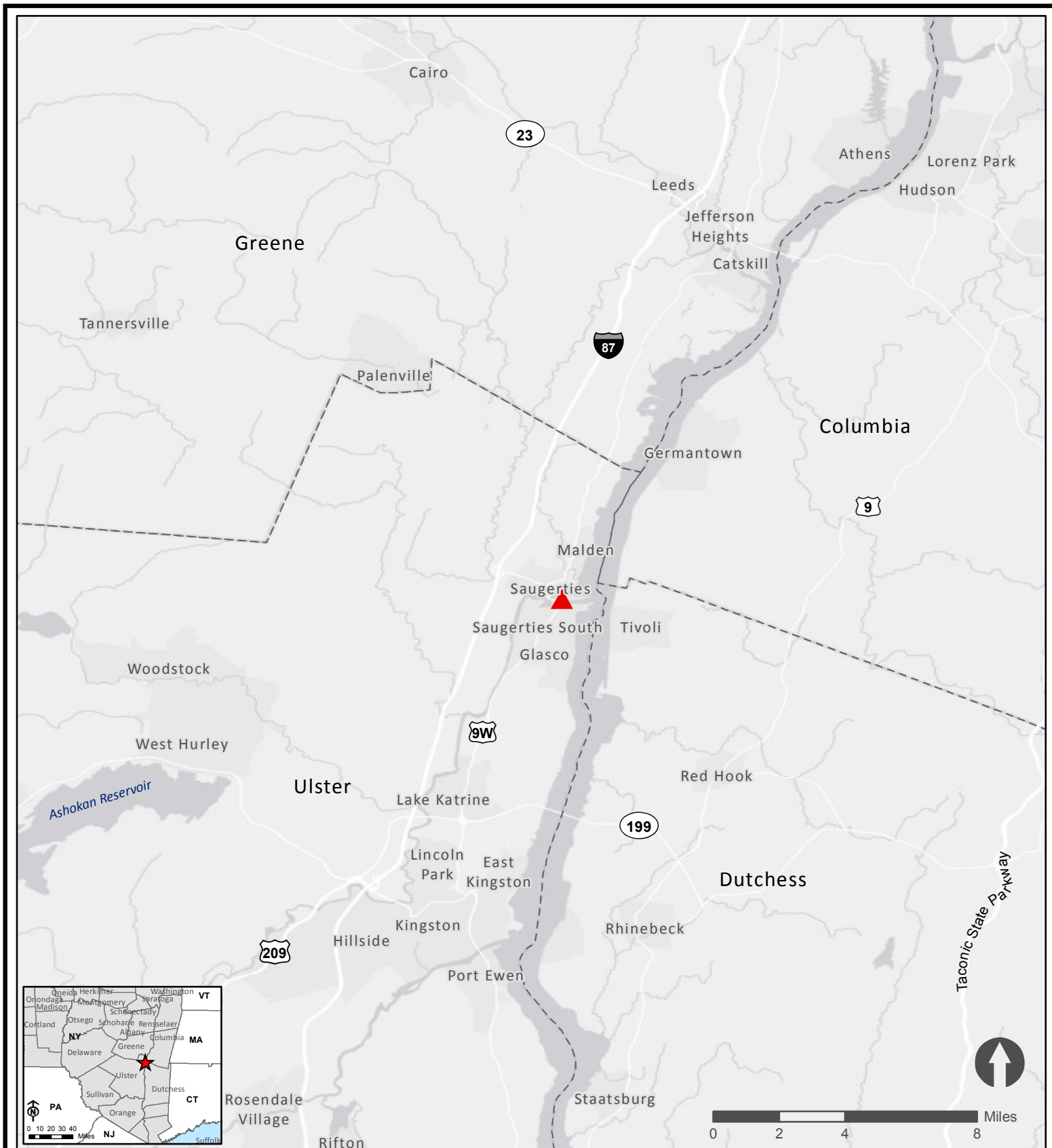
Review of historic aerials of the project area indicates that large buildings associated with the Sheffield Paper Mill Complex were present on the property until at least 1956. Topographic maps show buildings on the site as late as 2000. There are also known historic archaeological sites that are associated with the potentially eligible Sheffield Paper Mill building. Project planners have altered the original scope of minimize ground disturbance for the project. Stumps will be left in place for any trees cut in the area to minimize ground disturbance. Construction of the road will involve ground disturbance. The area in which the 16' roadway will be constructed has a slope of greater than 12% will very low potential for archaeological remains. The limited amount of fill proposed for the remaining 10' wide road will not involve ground disturbance. The project activities will not alter the characteristics of nearby historic properties. Given this information, Louis Berger recommends that this project constitutes **No Historic Properties Affected**.

Sincerely,

A handwritten signature in cursive script that reads "Camilla R Deiber". The signature is written in black ink and is positioned above the printed name and title.

Camilla Deiber
Senior Architectural Historian

Cc: Thomas King, GOSR





-  Project Location
-  County Boundary

Figure 1
Regional Location

Tina Chorvas Park
Restoration Project

Source: U.S. Fish and Wildlife Service; Ulster County GIS Datasets;
NYS Dept. of State; NYS Department of Environmental Conservation;
U.S. Department of Agriculture; FEMA; ESRI World Imagery; ESRI Street Map





 Project Boundary

Figure 2
Project Area


Tina Chorvas Park
Restoration Project

Affidavit of Mailing

[illegible]

MARY BARTHELME, being duly sworn, deposes and says:

1. I am over the age of eighteen years.
2. On October 17, 2016, I mailed true and correct copies of the annexed Tina Chorvas Park Restoration Project Tribal Consultations dated October 17, 2016 by placing the same in first class post-paid envelopes addressed: SEE ATTACHED LIST.
3. On said day, I deposited said envelopes in a mailbox at 99 Washington Avenue, Albany, New York 12210.


Mary Barthelme

Sworn to before me this
21st day of October, 2016
Casey R. Dwyer
Notary Public

Casey R. Dwyer
Notary Public, State of New York
Qualified in Rensselaer County
No. 01DW6346468
Commission Expires August 15, 2026

Mohawk Nation Council of Chiefs
Of Haudenosaunee Six Nations
Confederacy
Akwasasne Territory Box 336
Via Rooseveltown, NY 13683-0366

Shannon Holsey, President
Stockbridge-Munsee Community,
Band of the Mohicans
N8476 Moh He Con Nuck Road
Bowler, WI 54416
Chet Brooks, Chief
Delaware Tribe of Indians, Delaware
Tribal Headquarters
5100 Tuxedo Blvd
Bartlesville, OK 74006

Ron LaFrance, Jr.; Paul Thompson;
and Beverly Cook, Chiefs
St. Regis Mohawk Tribe
412 State Route 37
Akwasasne, NY 13655



Delaware Tribe Historic Preservation Representatives
P.O. Box 64
Pocono Lake, PA 18347
temple@delawaretribe.org

November 18, 2016

Governor's Office of Storm Recovery
Bureau of Environmental Review and Assessment
25 Beaver St.
New York, NY 10004

Re: Section 106 Compliance for Tina Chorvas Park Restoration Project, Village of Saugerties, Ulster County, New York

Ms. Shultz,

Thank you for sending the Delaware Tribe information regarding the above referenced project. Our review indicates that there may be religious or culturally significant sites within the project area but due to prior disturbance we have no objection to the proposed project.

We ask that in the event a concentration of artifacts and/or in the unlikely event any human remains are accidentally unearthed during the course of the project that all work is halted until the Delaware Tribe of Indians is informed of the inadvertent discovery and a qualified archaeologist can evaluate the find.

We appreciate your cooperation and look forward to working together on our shared interests in preserving Delaware cultural heritage. If you have any questions, feel free to contact this office by phone at (610) 761-7452 or by e-mail at temple@delawaretribe.org.

Sincerely,

Susan Bachor
Delaware Tribe Historic Preservation Representative

APPENDIX K - DOS CONSULTATION AND GENERAL CONSISTENCY DETERMINATION

Schnabel, Joshua

From: Shultz, Alicia (NYSHCR) <Alicia.Shultz@nyshcr.org>
Sent: Tuesday, November 08, 2016 6:31 AM
To: Zappieri, Jeffrey D (DOS)
Cc: King, Thomas J (STORMRECOVERY); Schnabel, Joshua
Subject: Tina Chorvas Park Restoration
Attachments: Attachment B_FCAF_Form_Rev1.pdf; Draft Coastal Consency v1 - TinaChorvas_11072016.pdf

Dear Mr. Zappieri:

The Governor's Office of Storm Recovery (GOSR), operating under the auspices of the New York Homes and Community Renewal’s Housing Trust Fund Corporation, was established to aid the statewide recovery of disaster-affected communities in New York State. GOSR is administering a U.S. Department of Housing and Urban Development (HUD) Community Development Block Grant for Disaster Recovery (CDBG-DR), including the “Tina Chorvas Park Restoration” project (the “Proposed Project”) located at 61 East Bridge Street in the Village of Saugerties, Ulster County, New York . On behalf of GOSR, please find the attached coastal zone consistency materials for your review.

Alicia Shultz
Community Developer – Environmental Services
Governor’s Office of Storm Recovery
New York State Homes & Community Renewal
38-40 State St., 408 N, Hampton Plaza, Albany, NY 12207
O: [\(518\) 474-0647](tel:5184740647) C: [\(917\) 376-9003](tel:9173769003) | F: [\(212\) 480-2393](tel:2124802393) |
Alicia.Shultz@nyshcr.org
www.stormrecovery.ny.gov

NEW YORK STATE DEPARTMENT OF STATE
COASTAL MANAGEMENT PROGRAM

Federal Consistency Assessment Form

An applicant, seeking a permit, license, waiver, certification or similar type of approval from a federal agency which is subject to the New York State Coastal Management Program (CMP), shall complete this assessment form for any proposed activity that will occur within and/or directly affect the State's Coastal Area. This form is intended to assist an applicant in certifying that the proposed activity is consistent with New York State's CMP as required by U.S. Department of Commerce regulations (15 CFR 930.57). It should be completed at the time when the federal application is prepared. The Department of State will use the completed form and accompanying information in its review of the applicant's certification of consistency.

A. APPLICANT (please print)

1. Name: New York State Governor's Office of Storm Recovery (GOSR)
2. Address: 25 Beaver Street, 5th Floor, New York, NY 10004
3. Telephone: Area Code (212) 480.6265

B. PROPOSED ACTIVITY

1. Brief description of activity:

This project will restore existing parkland and stabilize the shoreline at the edge of Esopus Creek along the park boundaries in order to alleviate further erosion and reduce the introduction of sediment that may reach the waterway bordering the park. The proposed project would ~~revitalize~~ the waterfront through installation of approximately 245 linear feet of new bulkhead to stabilize the shoreline along Esopus Creek.

2. Purpose of activity:

To provide disaster risk reduction through shoreline stabilization, which would increase the storm resiliency of this public amenity and reduce the risk of flooding and flood damage from future storms.

3. Location of activity:

<u>Ulster</u>	<u>Village of Saugerties</u>	<u>61 East Bridge Street</u>
County	City, Town, or Village	Street or Site Description

4. Type of federal permit/license required: _____

5. Federal application number, if known: _____

6. If a state permit/license was issued or is required for the proposed activity, identify the state agency and provide the application or permit number, if known:

SPDES General Permit for Stormwater Discharges from Construction (NYSDEC)

C. COASTAL ASSESSMENT Check either "YES" or "NO" for each of these questions. The numbers following each question refer to the policies described in the CMP document (see footnote on page 2) which may be affected by the proposed activity.

1. Will the proposed activity result in any of the following: YES / NO

- | | | |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------|-------------------------------------|
| a. Large physical change to a site within the coastal area which will require the preparation of an environmental impact statement? (11, 22, 25, 32, 37, 38, 41, 43) | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b. Physical alteration of more than two acres of land along the shoreline, land under water or coastal waters? (2, 11, 12, 20, 28, 35, 44) | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| c. Revitalization/redevelopment of a deteriorated or underutilized waterfront site? (1) | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| d. Reduction of existing or potential public access to or along coastal waters? (19, 20) | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| e. Adverse effect upon the commercial or recreational use of coastal fish resources? (9,10) | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| f. Siting of a facility essential to the exploration, development and production of energy resources in coastal waters or on the Outer Continental Shelf? (29) | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| g. Siting of a facility essential to the generation or transmission of energy? (27) | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| h. Mining, excavation, or dredging activities, or the placement of dredged or fill material in coastal waters? (15, 35) | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| i. Discharge of toxics, hazardous substances or other pollutants into coastal waters? (8, 15, 35) | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| j. Draining of stormwater runoff or sewer overflows into coastal waters? (33) | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| k. Transport, storage, treatment, or disposal of solid wastes or hazardous materials? (36, 39) | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| l. Adverse effect upon land or water uses within the State's small harbors? (4) | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

2. Will the proposed activity affect or be located in, on, or adjacent to any of the following: YES / NO

- | | | |
|----------------------------------------------------------------------------------------------------|-------------------------------------|-------------------------------------|
| a. State designated freshwater or tidal wetland? (44) | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| b. Federally designated flood and/or state designated erosion hazard area? (11, 12, 17,) | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| c. State designated significant fish and/or wildlife habitat? (7) | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| d. State designated significant scenic resource or area? (24) | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| e. State designated important agricultural lands? (26) | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| f. Beach, dune or barrier island? (12) | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| g. Major ports of Albany, Buffalo, Ogdensburg, Oswego or New York? (3) | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| h. State, county, or local park? (19, 20) | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| i. Historic resource listed on the National or State Register of Historic Places? (23) | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

3. Will the proposed activity require any of the following: YES / NO

- | | | |
|----------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------|-------------------------------------|
| a. Waterfront site? (2, 21, 22) | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b. Provision of new public services or infrastructure in undeveloped or sparsely populated sections of the coastal area? (5) | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| c. Construction or reconstruction of a flood or erosion control structure? (13, 14, 16) | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| d. State water quality permit or certification? (30, 38, 40) | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| e. State air quality permit or certification? (41, 43) | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

4. Will the proposed activity occur within and/or affect an area covered by a State approved local waterfront revitalization program? (see policies in local program document) ☒ ☐

D. ADDITIONAL STEPS

1. If all of the questions in Section C are answered "NO", then the applicant or agency shall complete Section E and submit the documentation required by Section F.

2. If any of the questions in Section C are answered "YES", then the applicant or agent is advised to consult the CMP, or where appropriate, the local waterfront revitalization program document*. The proposed activity must be analyzed in more detail with respect to the applicable state or local coastal policies. On a separate page(s), the applicant or agent shall: (a) identify, by their policy numbers, which coastal policies are affected by the activity, (b) briefly assess the effects of the activity upon the policy; and, (c) state how the activity is consistent with each policy. Following the completion of this written assessment, the applicant or agency shall complete Section E and submit the documentation required by Section F.

E. CERTIFICATION

The applicant or agent must certify that the proposed activity is consistent with the State's CMP or the approved local waterfront revitalization program, as appropriate. If this certification cannot be made, the proposed activity shall not be undertaken. If this certification can be made, complete this Section.

"The proposed activity complies with New York State's approved Coastal Management Program, or with the applicable approved local waterfront revitalization program, and will be conducted in a manner consistent with such program."

Applicant/Agent's Name: New York State Governor's Office of Storm Recovery

Address: 38-40 State Street, 408N, Hampton Plaza, Albany, NY 12207

Telephone: Area Code (518) 474-0647

Applicant/Agent's Signature: Alicia Shultz Digitally signed by Alicia Shultz
DN: cn=Alicia Shultz, o=GOSR, ou,
email=alicia.shultz@nysor.org, c=US
Date: 2016.11.08 08:24:16 -0500 Date: 11072016

F. SUBMISSION REQUIREMENTS

1. The applicant or agent shall submit the following documents to the **New York State Department of State, Office of Coastal, Local Government and Community Sustainability, Attn: Consistency Review Unit, 1 Commerce Plaza, 99 Washington Avenue - Suite 1010, Albany, New York 12231.**

- a. Copy of original signed form.
- b. Copy of the completed federal agency application.
- c. Other available information which would support the certification of consistency.

2. The applicant or agent shall also submit a copy of this completed form along with his/her application to the federal agency.

3. If there are any questions regarding the submission of this form, contact the Department of State at (518) 474-6000.

*These state and local documents are available for inspection at the offices of many federal agencies, Department of environmental Conservation and Department of State regional offices, and the appropriate regional and county planning agencies. Local program documents are also available for inspection at the offices of the appropriate local government.



Governor's Office of Storm Recovery

ANDREW M. CUOMO
Governor

LISA BOVA-HIATT
Executive Director

November 7, 2016

Mr. Jeffrey Zappieri
Consistency Review Unit
New York State Department of State
Division of Coastal Resources
One Commerce Place
99 Washington Avenue
Albany, NY 12231-0001

**Re: Coastal Zone Management Act Consistency Review – CDBG-DR Funding Application
Tina Chorvas Park Restoration Project (Village of Saugerties, Ulster County, NY)**

Dear Mr. Zappieri:

The Governor's Office of Storm Recovery (GOSR), operating under the auspices of the New York Homes and Community Renewal's Housing Trust Fund Corporation, was established to aid the statewide recovery of disaster-affected communities in New York State. GOSR is administering a U.S. Department of Housing and Urban Development (HUD) Community Development Block Grant for Disaster Recovery (CDBG-DR), including the "Tina Chorvas Park Restoration" project (the "Proposed Project") located at 61 East Bridge Street in the Village of Saugerties, Ulster County, New York (Attachment A). On behalf of GOSR, please find the enclosed coastal zone consistency materials for your review.

The proposed project would repair damaged public facilities that suffered impacts from storm events and help mitigate future impacts of tidal and coastal flooding to the public recreational facilities located at Tina Chorvas Park. The current shoreline of Esopus Creek contains a bulkhead that has failed due to lack of maintenance and erosion caused by stormwater. The bulkhead extending along the shoreline bordering the park would be replaced in order to alleviate further erosion and reduce the introduction of sediment that may reach the waterway bordering the park. All work within the floodplain associated with the proposed project would take place within the existing footprint of previous shoreline development. Construction would entail approximately 245 linear feet of new bulkhead to stabilize the Esopus Creek shoreline along the east side of the project site. The bulkhead will be constructed by driving H-piles into the river every 6 feet on-center. Concrete panels will be placed between the H-piles and the void behind will be filled and leveled to the existing ground surface.

The project area is located within the boundary of the New York State Coastal Zone. The Village of Saugerties also participates in the Local Waterfront Revitalization Program. Pursuant to the Coastal Zone Management Act, enclosed please find a completed Federal Consistency Assessment form and supporting documentation for your review. GOSR is requesting a response letter from your office that can be included as an attachment to the Categorical Exclusion to document that coordination with the New York State Department of State has been completed, and general consistency concurrence criteria will be met.

The overall construction activity should take from 4 to 6 months to complete, with the proposed improvements to project site being constructed anytime during the normal construction period from May to December.

GOSR is acting as the Responsible Entity in accordance with 24 C.F.R. Part 58—Environmental Review Procedures for Entities Assuming HUD Environmental Responsibilities. GOSR has prepared the attached Federal Consistency Assessment Form to certify that the proposed project is consistent with New York’s Coastal Management Program. At this time, we are requesting that the New York State Department of State concur with the attached certification.

Thank you for taking the time to review the enclosed materials. Please do not hesitate to contact me by email at Alicia.shultz@nyshcr.org or by telephone at (518) 474-0647 should you have any questions or require additional information.

Sincerely,

A handwritten signature in cursive script that reads "Alicia Shultz".

Alicia Shultz
Community Developer – Environmental Services
Governor’s Office of Storm Recovery

Attachments:

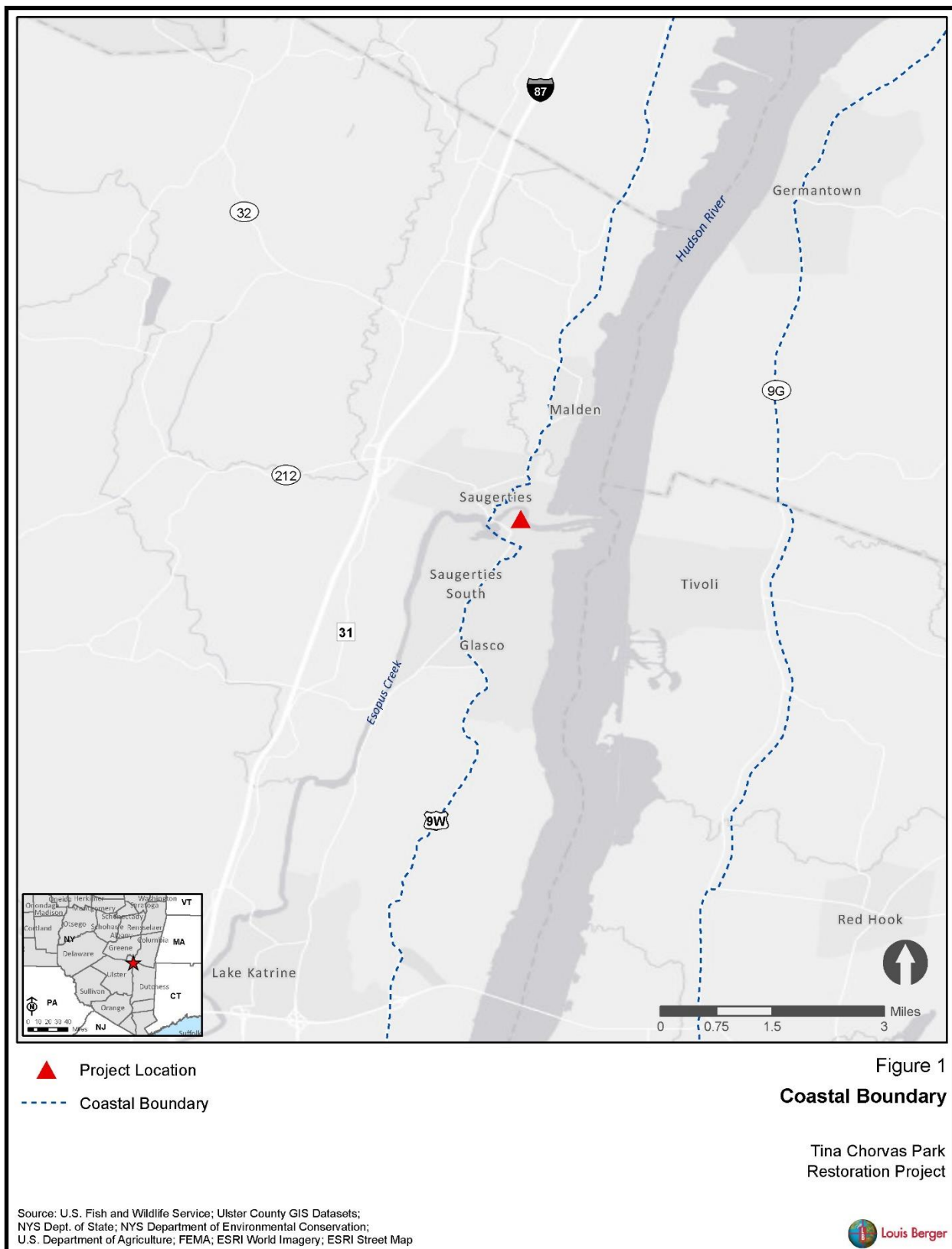
Attachment A – Site Map

Attachment B – Federal Consistency Form

Attachment C – Detailed Project Description and Policy Analysis

Attachment A

Site Map



Attachment B Provided separately

Federal Consistency Form

Attachment C

Detailed Project Description and Policy Analysis

Federal Consistency Assessment Form: Assessment of Effects
Re: Tina Chorvas Park restoration – Village of Saugerties, Ulster County, New York

1.c. *Revitalization/redevelopment of a deteriorated or underutilized waterfront site? (1).*

Policy 1 applies – Restore, revitalize, and redevelop deteriorated and underutilized waterfront areas for commercial, industrial, cultural, recreational, and other compatible uses.

- The current shoreline of Esopus Creek along the eastern edge of Tina Chorvas Park contains a total of 420 linear feet of former bulkhead that has failed due to lack of maintenance and erosion caused by stormwater. The bulkhead needs reinforcement to improve storm resiliency, and the Project would extend the existing bulkheads in Tina Chorvas Waterfront Park along Esopus Creek Construct approximately 245 linear feet of new bulkhead to stabilize the Esopus Creek shoreline. This preparation for predicted sea level rise would provide enhanced public access and would allow for redevelopment along the abandoned waterfront industrial site, goals which are consistent with the Village of Saugerties' Local Waterfront Revitalization Plan. Project benefits would include disaster risk reduction through shoreline stabilization, which would increase the storm resiliency of this public amenity and reduce the risk of flooding and flood damage from future storms. Therefore, it is anticipated that the proposed project is consistent with this policy.

2.a. *State designated freshwater or tidal wetland (44).*

Policy 44 applies – Preserve and protect tidal and freshwater wetlands and preserve the benefits derived from these areas.

- The project area lies adjacent to Esopus Creek, which is classified as Riverine in the National Wetlands Inventory and may contain wetlands along the edges of the main waterway. However, the construction of the proposed improvements would take place within the existing footprint of previous shoreline development. Additional impacts to freshwater wetlands would not occur. Therefore, it is anticipated that the proposed project is consistent with this policy.

2.b. *Federally designated flood and/or state designated erosion hazard area? (11, 12, 17)*

Policy 11 Applies - Buildings and other structures will be sited in the coastal area so as to minimize damage to property and the endangering of human lives caused by flooding and erosion.

Policy 12 Applies - Activities or development in the coastal area will be undertaken so as to minimize damage to natural resources and property from flooding and erosion by protecting natural protective features including beaches, dunes, barrier islands and bluffs.

- According to FIRM panel 36111C0305E dated September 25, 2009, the easternmost boundary of the project area along Esopus Creek lies within a Special Flood Hazard Area Zone AE. This is a 100 year floodplain with a base flood elevation of 9 feet. No alterations to floodplains would occur. Overall the project should reduce the risk of damage from future floods through improvements which would stabilize the existing shoreline. The Project components located within the floodplain would provide enhanced protection from erosion and project construction activities and would not impact floodplain values. Therefore, it is anticipated that the proposed project is consistent with this policy.

2.c. *State designated significant fish and/or wildlife habitat? (7)*

Policy 7 Applies – Significant coastal fish and wildlife habitats will be protected, preserved, and where practical, restored so as to maintain their viability as habitats.

- According to the New York State Department of Environmental Protection (NYSDEC) Natural Heritage Program (NHP), several rare or state-listed animals and plants, and significant natural communities occur in the vicinity of the Project site:
 - The Shortnose Sturgeon and the Atlantic Sturgeon, both listed Endangered species, have been documented in the Hudson River and the lower portion of Hudson River Tributaries. Esopus Creek discharges to the Hudson River, approximately one mile east of the Project site.
 - The state-listed Threatened Bald Eagle has been documented within ½ mile of the Saugerties Lighthouse, and may travel one mile from documented locations.
 - Heartleaf Plantain is identified as a Rare plant species that is present in Saugerties Marsh, around the mouth of Esopus Creek, approximately ½ to one mile east of the Project site.
 - The Saugerties Marsh, around the mouth of Esopus Creek is identified by the NHP as having significant natural communities including freshwater tidal marsh, freshwater intertidal mudflats, and freshwater tidal swamp. These features are high quality occurrences of rare community types, and are all located ½ to one mile east of the Project site.
 - The NHP also identifies the Esopus Estuary, Saugerties Marsh: tidal marsh and deepwater section as having significant concentrations of anadromous fish and winter waterfowl. These features are also located ½ to one mile east of the Project site. Proposed project activities include the installation of new bulkhead, construction of a kayak/canoe ramp, and improving site drainage. Water quality impacts which could adversely impact the species and significant habitats identified above are not anticipated. However, the project is subject to the NYSDEC Stream Protection Act, Environmental Conservation Law (Article 15, Title 5), which was enacted to minimize disturbances to the beds and banks of certain protected streams in order to protect fish and wildlife and their habitats. Therefore, it is anticipated that the proposed project is consistent with this policy.

2.d. *State designated significant scenic resource or area? (24)*

Policy 24 Applies – Prevent impairment of scenic resources of statewide significance.

- The Project is located within a Scenic Area of Statewide Significance (SASS), as identified by the New York State Department of State in 1933 (reprinted in 2004). The project is within the Ulster North SASS, which encompasses a ten-mile stretch of the Hudson River and its western shorelands varying from 1.25 to 2.5 miles in width. The boundary of the SASS follows the coastal area boundary through the Village of Saugerties and therefore includes the Project Site. The Ulster North SASS is a highly scenic and valued portion of the Hudson River Valley, rich in natural beauty, cultural and historic features. The project will not impair scenic resources associated with this SASS. Rather, the Project will improve deteriorating features and stabilize the shoreline in order to preserve and improve the scenic resources in the immediate vicinity.

2.h. *State, county, or local park? (19, 20)*

Policy 20 Applies – Access to the publicly-owned foreshore and to lands immediately adjacent to the foreshore or the water's edge that are publicly-owned shall be provided and it shall be provided in a manner compatible with adjoining uses.

- The Project would benefit the residents of the Village of Saugerties by providing an access road and enhanced shoreline stabilization at Tina Chorvas Park. Implementation of the Project would increase the storm resiliency of this public amenity and improve access to the recreational resources available at the park, while also protecting natural resources.

3.a. *Waterfront site? (2, 21, 22)*

Policy 22 Applies - Development when located adjacent to the shore would provide for water-related recreation whenever such use is compatible with reasonably anticipated demand for such activities, and is compatible with the primary purpose of the development.

- The Project is located on a waterfront site and will provide for improved enjoyment of the adjacent Esopus Creek to visitors who come to Tina Chorvas Park. After the improvements are finished, the Tina Chorvas Park will continue to be used as a public recreation area offering picnicking, fishing, swimming and access to the Esopus Creek. Therefore, it is anticipated that the proposed project is consistent with this policy.

3.c. *Construction or reconstruction of a flood or erosion control structure? (13, 14, 16)*

Policy 13 Applies - The construction or reconstruction of erosion protection structures shall be undertaken only if they have a reasonable probability of controlling erosion for at least thirty years as demonstrated in design and construction standards and/or assured maintenance or replacement programs.

- The current shoreline of Esopus Creek along the eastern edge of Tina Chorvas Park contains a total of 420 linear feet of former bulkhead that has failed due to lack of maintenance and erosion caused by stormwater. The bulkhead needs reinforcement to improve storm resiliency, and the Project would extend the existing bulkheads in Tina Chorvas Waterfront Park along Esopus Creek Construct approximately 245 linear feet of new bulkhead to stabilize the Esopus Creek shoreline. This preparation for predicted sea level rise would provide enhanced public access and would allow for redevelopment along the abandoned waterfront industrial site, goals which are consistent with the Village of Saugerties' Local Waterfront Revitalization Plan. Project benefits would include disaster risk reduction through shoreline stabilization, which would increase the storm resiliency of this public amenity and reduce the risk of flooding and flood damage from future storms. Therefore, it is anticipated that the proposed project is consistent with this policy.

3.d. *State water quality permit or certification? (30, 38, 40)*

Policy 38 Applies - The quality and quantity of surface water and groundwater supplies will be conserved and protected, particularly where such waters constitute the primary or sole source of water supply.

- Due to excavation during construction, the project would require a New York State Department of Environmental Conservation (NYSDEC) State Pollutant Discharge Elimination System (SPDES) General Permit for Storm Water Discharges from Construction Activity, which would include an Erosion and Sediment Control Plan and Storm Water Pollution Prevention Plan (SWPPP). Short-term, temporary impacts to water quality may result during construction. Mitigation measures would include best management practices for soil erosion and sediment control. The SWPPP would identify best management practices that would be employed for construction stormwater management. Therefore, it is anticipated that the proposed project is consistent with this policy.

4. *Will the proposed activity occur within and/or affect an area covered by a State approved local waterfront revitalization program?*

- The Village of Saugerties Local Waterfront Revitalization Program (LWRP) was approved in 1985, and is a locally prepared comprehensive land and water use plan for the Village's natural, public, and developed waterfront resources along the Hudson River. The LWRP includes generally the same policies as the State's Coastal Management Program, discussed above.

December 9, 2016

Alicia Shultz
Community Developer - Environmental Services
Governor's Office of Storm Recovery
New York State Homes & Community Renewal
38-40 State St., 408N, Hampton Plaza
Albany, New York 12207

Re: F-2016-1012(FA)
GOSR - Tina Chorvas Park Restoration
Restore existing parkland and stabilize the shoreline at the
edge of Esopus Creek along the park boundaries.
31 East Bridge Street, Village of Saugerties, Ulster County
General Concurrence - No Objection To Funding

Dear Ms. Shultz:

The Department of State received the information you submitted regarding the above matter on 11/8/2016.

The Department of State has determined that this proposal meets the Department's general consistency concurrence criteria. Therefore, the Department of State has no objection to the use of the U. S. Housing and Urban Development funds for this financial assistance activity. This concurrence pertains to the financial assistance activity for this project only. If federal permits or other form of federal agency authorization is required for this activity, the Department of State will conduct a separate review for those permit activities. In such a case, please forward a copy of the federal application for authorization, a completed Federal Consistency Assessment Form, and all supporting information to the Department at the same time it is submitted to the federal agency from which the necessary authorization is requested.

When communicating with us regarding this matter, please contact Jeffrey Zappieri at (518) 474-6000 and refer to our file #F-2016-1012(FA).

Sincerely,



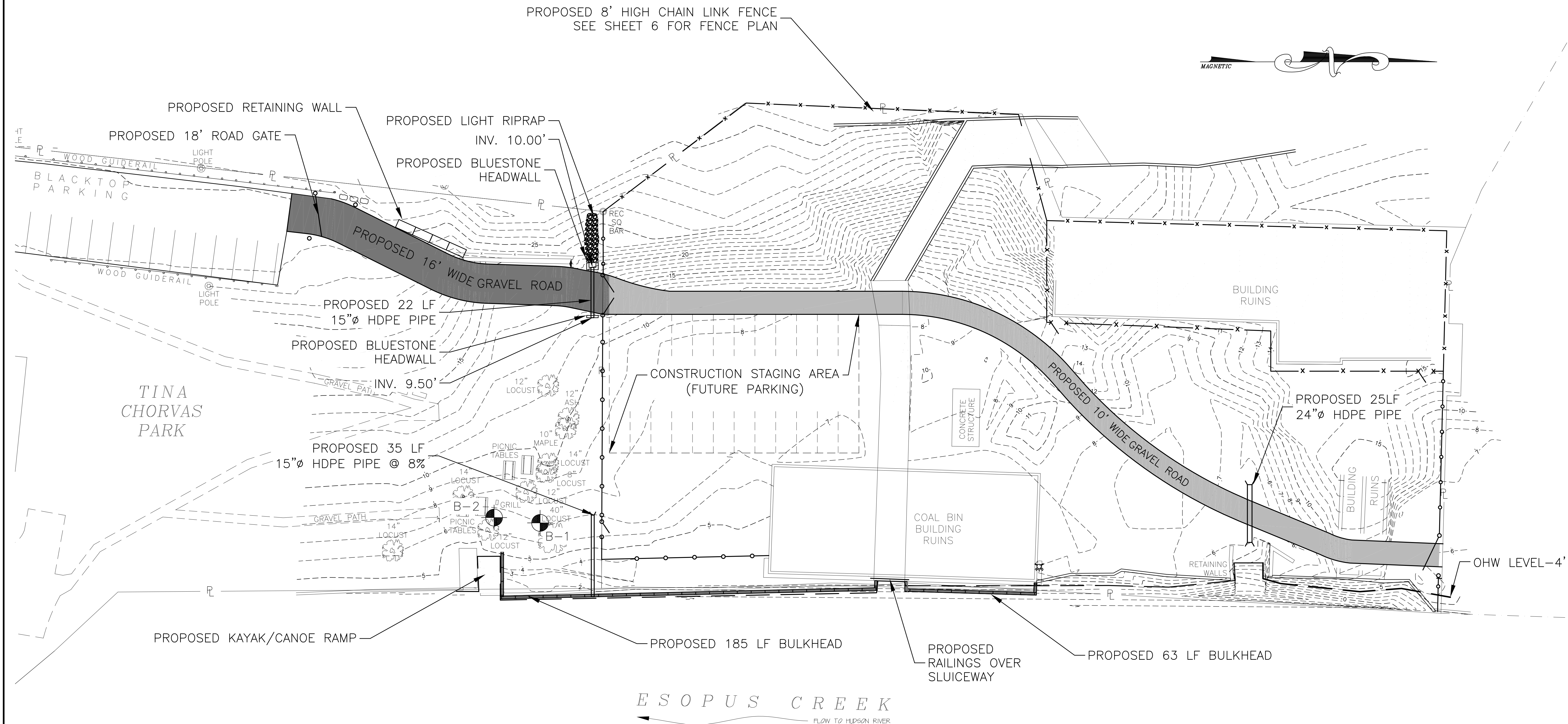
Jeffrey Zappieri
Supervisor, Consistency Review Unit
Office of Planning and Development

JZ/ks



**Department
of State**

APPENDIX L – DETAILED SITE PLAN FOR TINA CHORVAS PARK RESTORATION



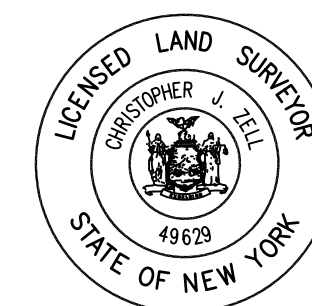
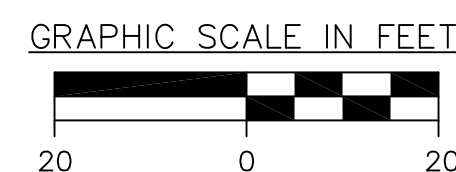
LEGEND

- 10--- CONTOURS (MINOR)
- 12--- CONTOURS (MAJOR)
- P— PROPERTY LINE
- P— PROPERTY ADJOINING LINE
- SS— EXISTING SANITARY SEWER
- ST— EXISTING STORM SEWER
- O— EXISTING OVER HEAD WIRES
- G— EXISTING GUIDE RAIL
- E— EDGE OF WATER
- MANHOLE
- UTILITY POLE
- LIGHT POLE
- PROPOSED 16' GRAVEL ROAD
- PROPOSED 10' GRAVEL CONSTRUCTION ROAD
- PROPOSED BULK HEAD
- PROPOSED MEDIUM RIPRAP
- x—x— PROPOSED 8' HIGH CHAIN LINK FENCE WITH THREE STRANDS OF BARB WIRE
- x—x— PROPOSED 8' HIGH CHAIN LINK FENCE
- x—x— PROPOSED GATE
- x—x— PROPOSED STORM STRONG WALL

OVERALL SITE PLAN

SCALE: 1" = 20'

USACE PARAMETERS			
OHW LEVEL - 4 FEET			
LENGTH ALONG STREAMBANK WITH STABILIZATION ARMOR - 160 FEET			
BELOW OHW	AREA	1,530 FT ²	
	FILL VOLUME	120 CY	
ABOVE OHW	AREA	1,530 FT ²	
	FILL VOLUME	120 CY	



Unauthorized alteration or addition to a plan bearing a licensed engineer's seal is a violation of section 7209, subdivision 2, of the New York State Education Law.

SITE PLAN CONTRACT VSA-162

PARKS RESTORATION PROJECT - TINA CHORVAS PARK			
NY RISING COMMUNITY RECONSTRUCTION PROGRAM			
NEW YORK STATE GOVERNORS OFFICE OF STORM RECOVERY			
VILLAGE OF SAUGERTIES		ULSTER COUNTY	
DATE		REVISION RECORD	
6/7/16		PRELIMINARY DESIGN FOR REVIEW	
8/3/16		VILLAGE COMMENTS - EXTENDED	
		BULKHEAD AND REMOVE RIPRAP	
DATE		BRINNIE & LARIOS, P.C.	
JUNE 2016		ENGINEERS & LAND SURVEYORS	
DWG		67 MAIDEN LANE	
RJS		KINGSTON, N.Y.	
1" = 20'		Phone: 845-338-7622 Fax: 845-338-7660	
		SCALE	
		DATE	
		JUNE 2016	
		DWG	
		RJS	
		SHEET NO.	
		3 OF 7	

NOTE: The location of existing underground utilities are shown in an approximate way only and have not been independently verified by the owner or its representative. The contractor shall determine the exact location of all existing utilities before commencing work, and agrees to be fully responsible for any and all damages which might be occasioned by the contractor's failure to exactly locate and preserve any and all underground utilities.

APPENDIX M – PERMITS



F

PERMIT
Under the Environmental Conservation Law (ECL)

Permittee and Facility Information

Permit Issued To:
VILLAGE OF SAUGERTIES
43 PARTITION ST
SAUGERTIES, NY 12477
(845) 246-2821

Facility:
TINA CHORVAS PARK
61 E BRIDGE ST
SAUGERTIES, NY 12477

Facility Location: in SAUGERTIES in ULSTER COUNTY

Facility Principal Reference Point: NYTM-E: 587.236 NYTM-N: 4658.259
Latitude: 42°04'17.6" Longitude: 73°56'43.7"

Project Location: ~ 0.2 mile east of intersection of Hill St. and East Bridge St.

Authorized Activity: This permit authorizes the placement of 72 cubic yards of stone fill below the mean high water level or tide of the navigable waterbody Esopus Creek (NYS Water Index #: H-171, Class C) in association with the rehabilitation of a failing wooden bulkhead.

All work must be conducted in strict accordance with the plans referenced in Natural Resource Condition No. 1 of this permit.

Permit Authorizations

Stream Disturbance - Under Article 15, Title 5

Permit ID 3-5148-00207/00005

New Permit

Effective Date: 11/7/2014

Expiration Date: 12/31/2019

Water Quality Certification - Under Section 401 - Clean Water Act

Permit ID 3-5148-00207/00006

New Permit

Effective Date: 11/7/2014

Expiration Date: 12/31/2019

NYSDEC Approval

By acceptance of this permit, the permittee agrees that the permit is contingent upon strict compliance with the ECL, all applicable regulations, and all conditions included as part of this permit.

Permit Administrator: JOHN W PETRONELLA, Deputy Regional Permit Administrator
Address: NYSDEC REGION 3 HEADQUARTERS
21 SOUTH PUTT CORNERS RD
NEW PALTZ, NY 12561-1620

Authorized Signature: _____

Date 11 / 7 / 2014



Distribution List

Alexander Wade, Village of Saugerties
Brian Drumm, R3 DEC

Permit Components

NATURAL RESOURCE PERMIT CONDITIONS

WATER QUALITY CERTIFICATION SPECIFIC CONDITION

GENERAL CONDITIONS, APPLY TO ALL AUTHORIZED PERMITS

NOTIFICATION OF OTHER PERMITTEE OBLIGATIONS

NATURAL RESOURCE PERMIT CONDITIONS - Apply to the Following Permits: STREAM DISTURBANCE; WATER QUALITY CERTIFICATION

- 1. Conformance With Plans** All activities authorized by this permit must be in strict conformance with the approved plans submitted by the applicant or applicant's agent as part of the permit application. Such approved plans were prepared by Greenway Environmental Services and titled Esopus Creek Shoreline Restoration (2 sheets: Temporary Construction Road C-4, last revised 3/13/2014; Site Plan C-2, last revised 2/13/2014).
- 2. Post Permit Sign** The permit sign enclosed with this permit shall be posted in a conspicuous location on the worksite and adequately protected from the weather.
- 3. Notify DEC 48 Hrs Prior to Work** The permittee or a representative must contact by telephone Brian Drumm, NYSDEC Bureau of Habitat, at (845) 256-3091, or preferably by email at brian.drumm@dec.ny.gov, at least 48 hours prior to the commencement of the project authorized herein.
- 4. Erosion and Sedimentation Controls** Prior to commencement of the activities authorized herein, the permittee shall install securely anchored silt fencing and/or continuous staked straw bales between any disturbed soil and water at locations where the installation (driving of silt fencing stakes) of these controls can be achieved.
- 5. Treated Wood Use** All treated wood used in the project must be approved for use in water applications.
- 6. Cutting of Wood** The cutting of wooden timbers, ribbon boards or other materials used in the re-constructed bulkhead must take place in a location that ensures no wood dust or other debris may enter the stream or any other body of water.



7. Materials Removed from Bed and Banks Any debris or excess materials from construction of this project shall be immediately and completely removed from the bed and banks of all water areas to an appropriate upland area for disposal.

8. Seed, Mulch Disturbed Soils All areas of soil disturbance resulting from this project (above the mean high water line) shall be seeded with an appropriate perennial grass seed and mulched with straw within one week of final grading.

9. Maintain Mulch Mulch shall be maintained until a suitable vegetative cover is established.

10. State Not Liable for Damage The State of New York shall in no case be liable for any damage or injury to the structure or work herein authorized which may be caused by or result from future operations undertaken by the State for the conservation or improvement of navigation, or for other purposes, and no claim or right to compensation shall accrue from any such damage.

11. State May Order Removal or Alteration of Work If future operations by the State of New York require an alteration in the position of the structure or work herein authorized, or if, in the opinion of the Department of Environmental Conservation it shall cause unreasonable obstruction to the free navigation of said waters or flood flows or endanger the health, safety or welfare of the people of the State, or cause loss or destruction of the natural resources of the State, the owner may be ordered by the Department to remove or alter the structural work, obstructions, or hazards caused thereby without expense to the State, and if, upon the expiration or revocation of this permit, the structure, fill, excavation, or other modification of the watercourse hereby authorized shall not be completed, the owners, shall, without expense to the State, and to such extent and in such time and manner as the Department of Environmental Conservation may require, remove all or any portion of the uncompleted structure or fill and restore to its former condition the navigable and flood capacity of the watercourse. No claim shall be made against the State of New York on account of any such removal or alteration.

12. State May Require Site Restoration If upon the expiration or revocation of this permit, the project hereby authorized has not been completed, the applicant shall, without expense to the State, and to such extent and in such time and manner as the Department of Environmental Conservation may lawfully require, remove all or any portion of the uncompleted structure or fill and restore the site to its former condition. No claim shall be made against the State of New York on account of any such removal or alteration.

13. Precautions Against Contamination of Waters All necessary precautions shall be taken to preclude contamination of any wetland or waterway by suspended solids, sediments, fuels, solvents, lubricants, epoxy coatings, paints, concrete, leachate or any other environmentally deleterious materials associated with the project.

WATER QUALITY CERTIFICATION SPECIFIC CONDITIONS

1. Water Quality Certification The NYS Department of Environmental Conservation hereby certifies that the subject project will not contravene effluent limitations or other limitations or standards under Sections 301, 302, 303, 306 and 307 of the Clean Water Act of 1977 (PL 95-217) provided that all of the conditions listed herein are met.



GENERAL CONDITIONS - Apply to ALL Authorized Permits:

1. Facility Inspection by The Department The permitted site or facility, including relevant records, is subject to inspection at reasonable hours and intervals by an authorized representative of the Department of Environmental Conservation (the Department) to determine whether the permittee is complying with this permit and the ECL. Such representative may order the work suspended pursuant to ECL 71- 0301 and SAPA 401(3).

The permittee shall provide a person to accompany the Department's representative during an inspection to the permit area when requested by the Department.

A copy of this permit, including all referenced maps, drawings and special conditions, must be available for inspection by the Department at all times at the project site or facility. Failure to produce a copy of the permit upon request by a Department representative is a violation of this permit.

2. Relationship of this Permit to Other Department Orders and Determinations Unless expressly provided for by the Department, issuance of this permit does not modify, supersede or rescind any order or determination previously issued by the Department or any of the terms, conditions or requirements contained in such order or determination.

3. Applications For Permit Renewals, Modifications or Transfers The permittee must submit a separate written application to the Department for permit renewal, modification or transfer of this permit. Such application must include any forms or supplemental information the Department requires. Any renewal, modification or transfer granted by the Department must be in writing. Submission of applications for permit renewal, modification or transfer are to be submitted to:

Regional Permit Administrator
NYSDEC REGION 3 HEADQUARTERS
21 SOUTH PUTT CORNERS RD
NEW PALTZ, NY12561 -1620

4. Submission of Renewal Application The permittee must submit a renewal application at least 30 days before permit expiration for the following permit authorizations: Water Quality Certification, Stream Disturbance.



5. Permit Modifications, Suspensions and Revocations by the Department The Department reserves the right to exercise all available authority to modify, suspend or revoke this permit. The grounds for modification, suspension or revocation include:

- a. materially false or inaccurate statements in the permit application or supporting papers;
- b. failure by the permittee to comply with any terms or conditions of the permit;
- c. exceeding the scope of the project as described in the permit application;
- d. newly discovered material information or a material change in environmental conditions, relevant technology or applicable law or regulations since the issuance of the existing permit;
- e. noncompliance with previously issued permit conditions, orders of the commissioner, any provisions of the Environmental Conservation Law or regulations of the Department related to the permitted activity.

6. Permit Transfer Permits are transferrable unless specifically prohibited by statute, regulation or another permit condition. Applications for permit transfer should be submitted prior to actual transfer of ownership.

NOTIFICATION OF OTHER PERMITTEE OBLIGATIONS

Item A: Permittee Accepts Legal Responsibility and Agrees to Indemnification

The permittee, excepting state or federal agencies, expressly agrees to indemnify and hold harmless the Department of Environmental Conservation of the State of New York, its representatives, employees, and agents ("DEC") for all claims, suits, actions, and damages, to the extent attributable to the permittee's acts or omissions in connection with the permittee's undertaking of activities in connection with, or operation and maintenance of, the facility or facilities authorized by the permit whether in compliance or not in compliance with the terms and conditions of the permit. This indemnification does not extend to any claims, suits, actions, or damages to the extent attributable to DEC's own negligent or intentional acts or omissions, or to any claims, suits, or actions naming the DEC and arising under Article 78 of the New York Civil Practice Laws and Rules or any citizen suit or civil rights provision under federal or state laws.

Item B: Permittee's Contractors to Comply with Permit

The permittee is responsible for informing its independent contractors, employees, agents and assigns of their responsibility to comply with this permit, including all special conditions while acting as the permittee's agent with respect to the permitted activities, and such persons shall be subject to the same sanctions for violations of the Environmental Conservation Law as those prescribed for the permittee.



Item C: Permittee Responsible for Obtaining Other Required Permits

The permittee is responsible for obtaining any other permits, approvals, lands, easements and rights-of-way that may be required to carry out the activities that are authorized by this permit.

Item D: No Right to Trespass or Interfere with Riparian Rights

This permit does not convey to the permittee any right to trespass upon the lands or interfere with the riparian rights of others in order to perform the permitted work nor does it authorize the impairment of any rights, title, or interest in real or personal property held or vested in a person not a party to the permit.

Item E: SEQR Unlisted Action, No Lead Agency, No Significant Impact Under the State Environmental Quality Review Act (SEQR), the project associated with this permit is classified as an Unlisted Action and the Department of Environmental Conservation has determined that it will not have a significant effect on the environment. Other involved agencies may reach an independent determination of environmental significance for this project.

New York State
Department of Environmental Conservation



NOTICE



The Department of Environmental Conservation (DEC) has issued permit(s) pursuant to the Environmental Conservation Law for work being conducted at this site. For further information regarding the nature and extent of work approved and any Department conditions on it, contact the DEC at 845/256-3054. Please refer to the permit number shown when contacting the DEC.

Permittee: Village of Saugerties Permit No. 3-5149-00207/00005,6

Effective Date: 11/7/2014 Expiration date: 12/31/2019

☐ Applicable if checked. No instream work allowed between October 1 & April 30

NOTE: This notice is **NOT** a permit.

New York State Department of Environmental Conservation

Division of Environmental Permits, Region 3

21 South Putt Corners Road, New Paltz, New York 12561-1620

FAX: (845) 255-4659

Website: www.dec.ny.gov



IMPORTANT NOTICE TO ALL PERMITTEES

The permit you requested is enclosed. Please read it carefully and note the conditions that are included in it. The permit is valid for only that activity expressly authorized therein; work beyond the scope of the permit may be considered a violation of law and be subject to appropriate enforcement action. Granting of this permit does not relieve the permittee of the responsibility of obtaining any other permission, consent or approval from any other federal, state, or local government which may be required.

Please note the expiration date of the permit. Applications for permit renewal should be made well in advance of the expiration date (minimum of 30 days) and submitted to the Regional Permit Administrator at the above address. For SPDES, Solid Waste and Hazardous Waste Permits, renewals must be made at least 180 days prior to the expiration date.

- ☐ Applicable only if checked. Please note all work authorized under this permit is prohibited during trout spawning season commencing October 1 and ending April 30.

The DEC permit number & program ID number noted on page 1 under "Permit Authorization" of the permit are important and should be retained for your records. These numbers should be referenced on all correspondence related to the permit, and on any future applications for permits associated with this facility/project area.

If a permit notice sign is enclosed, you must post it at the work site with appropriate weather protection, as well as a copy of the permit per General Condition 1.

If the permit is associated with a project that will entail construction of new water pollution control facilities or modifications to existing facilities, plan approval for the system design will be required from the appropriate Department's regional Division of Water or delegated local Health Department, as specified in the State Pollutant Discharge Elimination System (SPDES) permit.

If you have any questions on the extent of work authorized or your obligations under the permit, please contact the staff person indicated below or the Division of Environmental Permits at the above address.

Jonathan Stercho

A handwritten signature in dark ink, appearing to read "J. Stercho", written over a horizontal line.

Division of Environmental Permits, Region 3

Telephone (845) 256-3096

☐ Applicable Only if Checked for **STORMWATER SPDES INFORMATION:** We have determined that your project qualifies for coverage under the General Stormwater SPDES Permit. You must now file a Notice of Intent to obtain coverage under the General Permit. This form can be downloaded at: <http://www.dec.ny.gov/chemical/43133.html>

☐ Applicable Only if Checked **MS4 Areas:** This site is within an MS4 area (Municipal Separate Storm Sewer System), therefore the SWPPP must be reviewed and accepted by the municipality. The MS-4 Acceptance Form must be submitted in addition to the Notice of Intent.

Send the completed form(s) to: NYS DEC, Stormwater Permitting, Division of Water, 625 Broadway, Albany, New York 12233-3505

In addition, DEC requests that you provide one electronic copy of the approved SWPPP directly to Natalie Browne at NYS DEC, 100 Hillside Avenue - Suite 1W, White Plains, NY 10603-2860.



PERMIT

Under the Environmental Conservation Law (ECL)

Permittee and Facility Information

Permit Issued To:

ARM-OF-THE-SEA PRODUCTIONS INC
1036 MAIN ST
MALDEN ON HUDSON, NY 12453
(845) 380-6559

Facility:

ARM OF THE SEA THEATRE
E BRIDGE ST ADJACENT TO #61
SAUGERTIES, NY

Facility Location: in SAUGERTIES in ULSTER COUNTY

Facility Principal Reference Point: NYTM-E: 587.254 NYTM-N: 4658.289
Latitude: 42°04'18.6" Longitude: 73°56'42.9"

Project Location: ~ 0.2 mile east of intersection of Hill St. and East Bridge St.

Authorized Activity: This permit authorizes the placement of fill within the navigable waterbody Esopus Creek (NYS Water Index#: H-171, Class C) in association with the waterfront revitalization and shoreline stabilization project located on the adjacent property north of the Village of Saugerties' Tina Chorvas Park. The project consists of the following: rehabilitation of a failing wooden bulkhead; construction of a new public access area along the rehabilitated bulkhead; placement of stone within the former mill sluiceways along the shoreline for public access to Esopus Creek; and the placement of rip rap along 145 feet of the bank for shoreline stabilization.

All work must be conducted in strict accordance with the plans referenced in Natural Resource Condition No. 1 of this permit.

Permit Authorizations

Excavation & Fill in Navigable Waters - Under Article 15, Title 5

Permit ID 3-5148-00430/00001

New Permit

Effective Date: 1/9/2015

Expiration Date: 12/31/2019

Water Quality Certification - Under Section 401 - Clean Water Act

Permit ID 3-5148-00430/00002

New Permit

Effective Date: 1/9/2015

Expiration Date: 12/31/2019



NYSDEC Approval

By acceptance of this permit, the permittee agrees that the permit is contingent upon strict compliance with the ECL, all applicable regulations, and all conditions included as part of this permit.

Permit Administrator: JOHN W PETRONELLA, Deputy Regional Permit Administrator
Address: NYSDEC REGION 3 HEADQUARTERS
21 SOUTH PUTT CORNERS RD
NEW PALTZ, NY 12561 -1620

Authorized Signature: _____

Date 1 / 9 / 2015

Distribution List

Patrick Wadden, Arm of the Sea Productions, Inc.
Brian Drumm, R3 DEC

Permit Components

NATURAL RESOURCE PERMIT CONDITIONS

WATER QUALITY CERTIFICATION SPECIFIC CONDITION

GENERAL CONDITIONS, APPLY TO ALL AUTHORIZED PERMITS

NOTIFICATION OF OTHER PERMITTEE OBLIGATIONS

NATURAL RESOURCE PERMIT CONDITIONS - Apply to the Following Permits: EXCAVATION & FILL IN NAVIGABLE WATERS; WATER QUALITY CERTIFICATION

- 1. Conformance With Plans** All activities authorized by this permit must be in strict conformance with the approved plans submitted by the applicant or applicant's agent as part of the permit application. Such approved plans were prepared by Greenway Environmental Services and titled Esopus Creek Shoreline Restoration (2 sheets: Temporary Construction Road C-4, last revised 3/13/2014; Site Plan C-2, last revised 2/13/2014).
- 2. Post Permit Sign** The permit sign enclosed with this permit shall be posted in a conspicuous location on the worksite and adequately protected from the weather.



3. Notify DEC 48 Hrs Prior to Work The permittee or a representative must contact by telephone Brian Drumm, NYSDEC Bureau of Habitat, at (845) 256-3091, or preferably by email at brian.drumm@dec.ny.gov, at least 48 hours prior to the commencement of the project authorized herein.

4. Erosion and Sedimentation Controls Prior to commencement of the activities authorized herein, the permittee shall install securely anchored silt fencing and/or continuous staked straw bales between any disturbed soil and water at locations where the installation (driving of silt fencing stakes) of these controls can be achieved.

5. No Interference With Navigation There shall be no unreasonable interference with navigation by the work herein authorized.

6. Treated Wood Use All treated wood used in the project must be approved for use in water applications.

7. Cutting of Wood The cutting of wooden timbers, ribbon boards or other materials used in the reconstructed bulkhead must take place in a location that ensures no wood dust or other debris may enter the stream or any other body of water.

8. Materials Removed from Bed and Banks Any debris or excess materials from construction of this project shall be immediately and completely removed from the bed and banks of all water areas to an appropriate upland area for disposal.

9. Seed, Mulch Disturbed Soils All areas of soil disturbance resulting from this project (above the mean high water line) shall be seeded with an appropriate perennial grass seed and mulched with straw within one week of final grading.

10. Maintain Mulch Mulch shall be maintained until a suitable vegetative cover is established.

11. State Not Liable for Damage The State of New York shall in no case be liable for any damage or injury to the structure or work herein authorized which may be caused by or result from future operations undertaken by the State for the conservation or improvement of navigation, or for other purposes, and no claim or right to compensation shall accrue from any such damage.

12. State May Order Removal or Alteration of Work If future operations by the State of New York require an alteration in the position of the structure or work herein authorized, or if, in the opinion of the Department of Environmental Conservation it shall cause unreasonable obstruction to the free navigation of said waters or flood flows or endanger the health, safety or welfare of the people of the State, or cause loss or destruction of the natural resources of the State, the owner may be ordered by the Department to remove or alter the structural work, obstructions, or hazards caused thereby without expense to the State, and if, upon the expiration or revocation of this permit, the structure, fill, excavation, or other modification of the watercourse hereby authorized shall not be completed, the owners, shall, without expense to the State, and to such extent and in such time and manner as the Department of Environmental Conservation may require, remove all or any portion of the uncompleted structure or fill and restore to its former condition the navigable and flood capacity of the watercourse. No claim shall be made against the State of New York on account of any such removal or alteration.



13. State May Require Site Restoration If upon the expiration or revocation of this permit, the project hereby authorized has not been completed, the applicant shall, without expense to the State, and to such extent and in such time and manner as the Department of Environmental Conservation may lawfully require, remove all or any portion of the uncompleted structure or fill and restore the site to its former condition. No claim shall be made against the State of New York on account of any such removal or alteration.

14. Precautions Against Contamination of Waters All necessary precautions shall be taken to preclude contamination of any wetland or waterway by suspended solids, sediments, fuels, solvents, lubricants, epoxy coatings, paints, concrete, leachate or any other environmentally deleterious materials associated with the project.

WATER QUALITY CERTIFICATION SPECIFIC CONDITIONS

1. Water Quality Certification The NYS Department of Environmental Conservation hereby certifies that the subject project will not contravene effluent limitations or other limitations or standards under Sections 301, 302, 303, 306 and 307 of the Clean Water Act of 1977 (PL 95-217) provided that all of the conditions listed herein are met.

GENERAL CONDITIONS - Apply to ALL Authorized Permits:

1. Facility Inspection by The Department The permitted site or facility, including relevant records, is subject to inspection at reasonable hours and intervals by an authorized representative of the Department of Environmental Conservation (the Department) to determine whether the permittee is complying with this permit and the ECL. Such representative may order the work suspended pursuant to ECL 71- 0301 and SAPA 401(3).

The permittee shall provide a person to accompany the Department's representative during an inspection to the permit area when requested by the Department.

A copy of this permit, including all referenced maps, drawings and special conditions, must be available for inspection by the Department at all times at the project site or facility. Failure to produce a copy of the permit upon request by a Department representative is a violation of this permit.

2. Relationship of this Permit to Other Department Orders and Determinations Unless expressly provided for by the Department, issuance of this permit does not modify, supersede or rescind any order or determination previously issued by the Department or any of the terms, conditions or requirements contained in such order or determination.



3. Applications For Permit Renewals, Modifications or Transfers The permittee must submit a separate written application to the Department for permit renewal, modification or transfer of this permit. Such application must include any forms or supplemental information the Department requires. Any renewal, modification or transfer granted by the Department must be in writing. Submission of applications for permit renewal, modification or transfer are to be submitted to:

Regional Permit Administrator
NYSDEC REGION 3 HEADQUARTERS
21 SOUTH PUTT CORNERS RD
NEW PALTZ, NY12561 -1620

4. Submission of Renewal Application The permittee must submit a renewal application at least 30 days before permit expiration for the following permit authorizations: Excavation & Fill in Navigable Waters, Water Quality Certification.

5. Permit Modifications, Suspensions and Revocations by the Department The Department reserves the right to exercise all available authority to modify, suspend or revoke this permit. The grounds for modification, suspension or revocation include:

- a. materially false or inaccurate statements in the permit application or supporting papers;
- b. failure by the permittee to comply with any terms or conditions of the permit;
- c. exceeding the scope of the project as described in the permit application;
- d. newly discovered material information or a material change in environmental conditions, relevant technology or applicable law or regulations since the issuance of the existing permit;
- e. noncompliance with previously issued permit conditions, orders of the commissioner, any provisions of the Environmental Conservation Law or regulations of the Department related to the permitted activity.

6. Permit Transfer Permits are transferrable unless specifically prohibited by statute, regulation or another permit condition. Applications for permit transfer should be submitted prior to actual transfer of ownership.



NOTIFICATION OF OTHER PERMITTEE OBLIGATIONS

Item A: Permittee Accepts Legal Responsibility and Agrees to Indemnification

The permittee, excepting state or federal agencies, expressly agrees to indemnify and hold harmless the Department of Environmental Conservation of the State of New York, its representatives, employees, and agents ("DEC") for all claims, suits, actions, and damages, to the extent attributable to the permittee's acts or omissions in connection with the permittee's undertaking of activities in connection with, or operation and maintenance of, the facility or facilities authorized by the permit whether in compliance or not in compliance with the terms and conditions of the permit. This indemnification does not extend to any claims, suits, actions, or damages to the extent attributable to DEC's own negligent or intentional acts or omissions, or to any claims, suits, or actions naming the DEC and arising under Article 78 of the New York Civil Practice Laws and Rules or any citizen suit or civil rights provision under federal or state laws.

Item B: Permittee's Contractors to Comply with Permit

The permittee is responsible for informing its independent contractors, employees, agents and assigns of their responsibility to comply with this permit, including all special conditions while acting as the permittee's agent with respect to the permitted activities, and such persons shall be subject to the same sanctions for violations of the Environmental Conservation Law as those prescribed for the permittee.

Item C: Permittee Responsible for Obtaining Other Required Permits

The permittee is responsible for obtaining any other permits, approvals, lands, easements and rights-of-way that may be required to carry out the activities that are authorized by this permit.

Item D: No Right to Trespass or Interfere with Riparian Rights

This permit does not convey to the permittee any right to trespass upon the lands or interfere with the riparian rights of others in order to perform the permitted work nor does it authorize the impairment of any rights, title, or interest in real or personal property held or vested in a person not a party to the permit.

Item E: SEQR Unlisted Action, No Lead Agency, No Significant Impact Under the State Environmental Quality Review Act (SEQR), the project associated with this permit is classified as an Unlisted Action and the Department of Environmental Conservation has determined that it will not have a significant effect on the environment. Other involved agencies may reach an independent determination of environmental significance for this project.

New York State
Department of Environmental Conservation



NOTICE



The Department of Environmental Conservation (DEC) has issued permit(s) pursuant to the Environmental Conservation Law for work being conducted at this site. For further information regarding the nature and extent of work approved and any Department conditions on it, contact the DEC at 845/256-3054. Please refer to the permit number shown when contacting the DEC.

Permittee: ARM OF THE SEA PRODUCTIONS, Inc Permit No. 3-5148-00430/00001,2

Effective Date: 1/9/2015 Expiration date: 12/31/2019

☐ Applicable if checked. No instream work allowed between October 1 & April 30

NOTE: This notice is **NOT** a permit.

New York State Department of Environmental Conservation

Division of Environmental Permits, Region 3

21 South Putt Corners Road, New Paltz, New York 12561-1620

FAX: (845) 255-4659

Website: www.dec.ny.gov



IMPORTANT NOTICE TO ALL PERMITTEES

The permit you requested is enclosed. Please read it carefully and note the conditions that are included in it. The permit is valid for only that activity expressly authorized therein; work beyond the scope of the permit may be considered a violation of law and be subject to appropriate enforcement action. Granting of this permit does not relieve the permittee of the responsibility of obtaining any other permission, consent or approval from any other federal, state, or local government which may be required.

Please note the expiration date of the permit. Applications for permit renewal should be made well in advance of the expiration date (minimum of 30 days) and submitted to the Regional Permit Administrator at the above address. For SPDES, Solid Waste and Hazardous Waste Permits, renewals must be made at least 180 days prior to the expiration date.

- ☐ Applicable only if checked. Please note all work authorized under this permit is prohibited during trout spawning season commencing October 1 and ending April 30.

The DEC permit number & program ID number noted on page 1 under "Permit Authorization" of the permit are important and should be retained for your records. These numbers should be referenced on all correspondence related to the permit, and on any future applications for permits associated with this facility/project area.

If a permit notice sign is enclosed, you must post it at the work site with appropriate weather protection, as well as a copy of the permit per General Condition 1.

If the permit is associated with a project that will entail construction of new water pollution control facilities or modifications to existing facilities, plan approval for the system design will be required from the appropriate Department's regional Division of Water or delegated local Health Department, as specified in the State Pollutant Discharge Elimination System (SPDES) permit.

If you have any questions on the extent of work authorized or your obligations under the permit, please contact the staff person indicated below or the Division of Environmental Permits at the above address.

Jonathan Stercho

A handwritten signature in black ink, appearing to read "J. Stercho", written over a horizontal line.

Division of Environmental Permits, Region 3

Telephone (845) 256-3096

☐ Applicable Only if Checked for **STORMWATER SPDES INFORMATION**: We have determined that your project qualifies for coverage under the General Stormwater SPDES Permit. You must now file a Notice of Intent to obtain coverage under the General Permit. This form can be downloaded at: <http://www.dec.ny.gov/chemical/43133.html>

☐ Applicable Only if Checked **MS4 Areas**: This site is within an MS4 area (Municipal Separate Storm Sewer System), therefore the SWPPP must be reviewed and accepted by the municipality. The MS-4 Acceptance Form must be submitted in addition to the Notice of Intent.

Send the completed form(s) to: NYS DEC, Stormwater Permitting, Division of Water, 625 Broadway, Albany, New York 12233-3505

In addition, DEC requests that you provide one electronic copy of the approved SWPPP directly to Natalie Browne at NYS DEC, 100 Hillside Avenue - Suite 1W, White Plains, NY 10603-2860.



5

PERMIT
Under the Environmental Conservation Law (ECL)

Permittee and Facility Information

Permit Issued To:

ARM-OF-THE-SEA PRODUCTIONS INC
1036 MAIN ST
MALDEN ON HUDSON, NY 12453
(845) 380-6559

Facility:

ARM OF THE SEA THEATRE
E BRIDGE ST ADJACENT TO #61
SAUGERTIES, NY

Facility Location: in SAUGERTIES in ULSTER COUNTY

Facility Principal Reference Point: NYTM-E: 587.254 NYTM-N: 4658.289
Latitude: 42°04'18.6" Longitude: 73°56'42.9"

Project Location: ~ 0.2 mile east of intersection of Hill St. and East Bridge St.

Authorized Activity: This permit authorizes the placement of fill within the navigable waterbody Esopus Creek (NYS Water Index#: H-171, Class C) in association with the waterfront revitalization and shoreline stabilization project located on the adjacent property north of the Village of Saugerties' Tina Chorvas Park. The project consists of the following: rehabilitation of a failing wooden bulkhead; construction of a new public access area along the rehabilitated bulkhead; placement of stone within the former mill sluiceways along the shoreline for public access to Esopus Creek; and the placement of rip rap along 145 feet of the bank for shoreline stabilization.

All work must be conducted in strict accordance with the plans referenced in Natural Resource Condition No. 1 of this permit.

Permit Authorizations

Excavation & Fill in Navigable Waters - Under Article 15, Title 5

Permit ID 3-5148-00430/00001

New Permit

Effective Date: 1/9/2015

Expiration Date: 12/31/2019

Water Quality Certification - Under Section 401 - Clean Water Act

Permit ID 3-5148-00430/00002

New Permit

Effective Date: 1/9/2015

Expiration Date: 12/31/2019



NYSDEC Approval

By acceptance of this permit, the permittee agrees that the permit is contingent upon strict compliance with the ECL, all applicable regulations, and all conditions included as part of this permit.

Permit Administrator: JOHN W PETRONELLA, Deputy Regional Permit Administrator
Address: NYSDEC REGION 3 HEADQUARTERS
21 SOUTH PUTT CORNERS RD
NEW PALTZ, NY 12561 -1620

Authorized Signature: _____

Date 1 / 9 / 2015

Distribution List

Patrick Wadden, Arm of the Sea Productions, Inc.
Brian Drumm, R3 DEC

Permit Components

NATURAL RESOURCE PERMIT CONDITIONS
WATER QUALITY CERTIFICATION SPECIFIC CONDITION
GENERAL CONDITIONS, APPLY TO ALL AUTHORIZED PERMITS
NOTIFICATION OF OTHER PERMITTEE OBLIGATIONS

NATURAL RESOURCE PERMIT CONDITIONS - Apply to the Following Permits: EXCAVATION & FILL IN NAVIGABLE WATERS; WATER QUALITY CERTIFICATION

- 1. Conformance With Plans** All activities authorized by this permit must be in strict conformance with the approved plans submitted by the applicant or applicant's agent as part of the permit application. Such approved plans were prepared by Greenway Environmental Services and titled Esopus Creek Shoreline Restoration (2 sheets: Temporary Construction Road C-4, last revised 3/13/2014; Site Plan C-2, last revised 2/13/2014).
- 2. Post Permit Sign** The permit sign enclosed with this permit shall be posted in a conspicuous location on the worksite and adequately protected from the weather.



3. Notify DEC 48 Hrs Prior to Work The permittee or a representative must contact by telephone Brian Drumm, NYSDEC Bureau of Habitat, at (845) 256-3091, or preferably by email at brian.drumm@dec.ny.gov, at least 48 hours prior to the commencement of the project authorized herein.

4. Erosion and Sedimentation Controls Prior to commencement of the activities authorized herein, the permittee shall install securely anchored silt fencing and/or continuous staked straw bales between any disturbed soil and water at locations where the installation (driving of silt fencing stakes) of these controls can be achieved.

5. No Interference With Navigation There shall be no unreasonable interference with navigation by the work herein authorized.

6. Treated Wood Use All treated wood used in the project must be approved for use in water applications.

7. Cutting of Wood The cutting of wooden timbers, ribbon boards or other materials used in the reconstructed bulkhead must take place in a location that ensures no wood dust or other debris may enter the stream or any other body of water.

8. Materials Removed from Bed and Banks Any debris or excess materials from construction of this project shall be immediately and completely removed from the bed and banks of all water areas to an appropriate upland area for disposal.

9. Seed, Mulch Disturbed Soils All areas of soil disturbance resulting from this project (above the mean high water line) shall be seeded with an appropriate perennial grass seed and mulched with straw within one week of final grading.

10. Maintain Mulch Mulch shall be maintained until a suitable vegetative cover is established.

11. State Not Liable for Damage The State of New York shall in no case be liable for any damage or injury to the structure or work herein authorized which may be caused by or result from future operations undertaken by the State for the conservation or improvement of navigation, or for other purposes, and no claim or right to compensation shall accrue from any such damage.

12. State May Order Removal or Alteration of Work If future operations by the State of New York require an alteration in the position of the structure or work herein authorized, or if, in the opinion of the Department of Environmental Conservation it shall cause unreasonable obstruction to the free navigation of said waters or flood flows or endanger the health, safety or welfare of the people of the State, or cause loss or destruction of the natural resources of the State, the owner may be ordered by the Department to remove or alter the structural work, obstructions, or hazards caused thereby without expense to the State, and if, upon the expiration or revocation of this permit, the structure, fill, excavation, or other modification of the watercourse hereby authorized shall not be completed, the owners, shall, without expense to the State, and to such extent and in such time and manner as the Department of Environmental Conservation may require, remove all or any portion of the uncompleted structure or fill and restore to its former condition the navigable and flood capacity of the watercourse. No claim shall be made against the State of New York on account of any such removal or alteration.



13. State May Require Site Restoration If upon the expiration or revocation of this permit, the project hereby authorized has not been completed, the applicant shall, without expense to the State, and to such extent and in such time and manner as the Department of Environmental Conservation may lawfully require, remove all or any portion of the uncompleted structure or fill and restore the site to its former condition. No claim shall be made against the State of New York on account of any such removal or alteration.

14. Precautions Against Contamination of Waters All necessary precautions shall be taken to preclude contamination of any wetland or waterway by suspended solids, sediments, fuels, solvents, lubricants, epoxy coatings, paints, concrete, leachate or any other environmentally deleterious materials associated with the project.

WATER QUALITY CERTIFICATION SPECIFIC CONDITIONS

1. Water Quality Certification The NYS Department of Environmental Conservation hereby certifies that the subject project will not contravene effluent limitations or other limitations or standards under Sections 301, 302, 303, 306 and 307 of the Clean Water Act of 1977 (PL 95-217) provided that all of the conditions listed herein are met.

GENERAL CONDITIONS - Apply to ALL Authorized Permits:

1. Facility Inspection by The Department The permitted site or facility, including relevant records, is subject to inspection at reasonable hours and intervals by an authorized representative of the Department of Environmental Conservation (the Department) to determine whether the permittee is complying with this permit and the ECL. Such representative may order the work suspended pursuant to ECL 71-0301 and SAPA 401(3).

The permittee shall provide a person to accompany the Department's representative during an inspection to the permit area when requested by the Department.

A copy of this permit, including all referenced maps, drawings and special conditions, must be available for inspection by the Department at all times at the project site or facility. Failure to produce a copy of the permit upon request by a Department representative is a violation of this permit.

2. Relationship of this Permit to Other Department Orders and Determinations Unless expressly provided for by the Department, issuance of this permit does not modify, supersede or rescind any order or determination previously issued by the Department or any of the terms, conditions or requirements contained in such order or determination.



3. Applications For Permit Renewals, Modifications or Transfers The permittee must submit a separate written application to the Department for permit renewal, modification or transfer of this permit. Such application must include any forms or supplemental information the Department requires. Any renewal, modification or transfer granted by the Department must be in writing. Submission of applications for permit renewal, modification or transfer are to be submitted to:

Regional Permit Administrator
NYSDEC REGION 3 HEADQUARTERS
21 SOUTH PUTT CORNERS RD
NEW PALTZ, NY 12561 -1620

4. Submission of Renewal Application The permittee must submit a renewal application at least 30 days before permit expiration for the following permit authorizations: Excavation & Fill in Navigable Waters, Water Quality Certification.

5. Permit Modifications, Suspensions and Revocations by the Department The Department reserves the right to exercise all available authority to modify, suspend or revoke this permit. The grounds for modification, suspension or revocation include:

- a. materially false or inaccurate statements in the permit application or supporting papers;
- b. failure by the permittee to comply with any terms or conditions of the permit;
- c. exceeding the scope of the project as described in the permit application;
- d. newly discovered material information or a material change in environmental conditions, relevant technology or applicable law or regulations since the issuance of the existing permit;
- e. noncompliance with previously issued permit conditions, orders of the commissioner, any provisions of the Environmental Conservation Law or regulations of the Department related to the permitted activity.

6. Permit Transfer Permits are transferrable unless specifically prohibited by statute, regulation or another permit condition. Applications for permit transfer should be submitted prior to actual transfer of ownership.



NOTIFICATION OF OTHER PERMITTEE OBLIGATIONS

Item A: Permittee Accepts Legal Responsibility and Agrees to Indemnification

The permittee, excepting state or federal agencies, expressly agrees to indemnify and hold harmless the Department of Environmental Conservation of the State of New York, its representatives, employees, and agents ("DEC") for all claims, suits, actions, and damages, to the extent attributable to the permittee's acts or omissions in connection with the permittee's undertaking of activities in connection with, or operation and maintenance of, the facility or facilities authorized by the permit whether in compliance or not in compliance with the terms and conditions of the permit. This indemnification does not extend to any claims, suits, actions, or damages to the extent attributable to DEC's own negligent or intentional acts or omissions, or to any claims, suits, or actions naming the DEC and arising under Article 78 of the New York Civil Practice Laws and Rules or any citizen suit or civil rights provision under federal or state laws.

Item B: Permittee's Contractors to Comply with Permit

The permittee is responsible for informing its independent contractors, employees, agents and assigns of their responsibility to comply with this permit, including all special conditions while acting as the permittee's agent with respect to the permitted activities, and such persons shall be subject to the same sanctions for violations of the Environmental Conservation Law as those prescribed for the permittee.

Item C: Permittee Responsible for Obtaining Other Required Permits

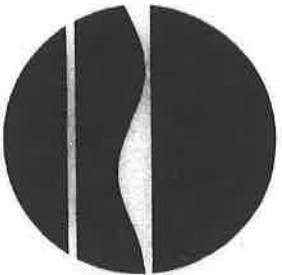
The permittee is responsible for obtaining any other permits, approvals, lands, easements and rights-of-way that may be required to carry out the activities that are authorized by this permit.

Item D: No Right to Trespass or Interfere with Riparian Rights

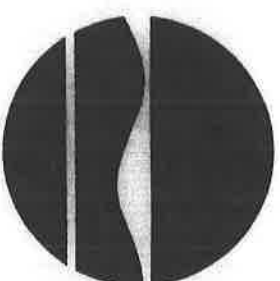
This permit does not convey to the permittee any right to trespass upon the lands or interfere with the riparian rights of others in order to perform the permitted work nor does it authorize the impairment of any rights, title, or interest in real or personal property held or vested in a person not a party to the permit.

Item E: SEQR Unlisted Action, No Lead Agency, No Significant Impact Under the State Environmental Quality Review Act (SEQR), the project associated with this permit is classified as an Unlisted Action and the Department of Environmental Conservation has determined that it will not have a significant effect on the environment. Other involved agencies may reach an independent determination of environmental significance for this project.

New York State
Department of Environmental Conservation



NOTICE



The Department of Environmental Conservation (DEC) has issued permit(s) pursuant to the Environmental Conservation Law for work being conducted at this site. For further information regarding the nature and extent of work approved and any Department conditions on it, contact the DEC at 845/256-3054. Please refer to the permit number shown when contacting the DEC.

Permittee: Alem of THE SEA Productions, Inc Permit No. 3-5148-00430/00001, 2

Effective Date: 1/9/2015 Expiration date: 12/31/2019

☐ Applicable if checked. No instream work allowed between October 1 & April 30

NOTE: This notice is **NOT** a permit.

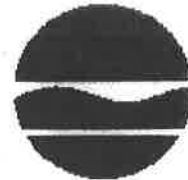
New York State Department of Environmental Conservation

Division of Environmental Permits, Region 3

21 South Platt Corners Road, New Paltz, New York 12561-1620

FAX: (845) 255-4659

Website: www.dec.ny.gov



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Please note the expiration date of the permit. Applications for permit renewal should be made well in advance of the expiration date (minimum of 30 days) and submitted to the Regional Permit Administrator at the above address. For SPDES, Solid Waste and Hazardous Waste Permits, renewals must be made at least 180 days prior to the expiration date.

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If you have any questions on the extent of work authorized or your obligations under the permit, please contact the staff person indicated below or the Division of Environmental Permits at the above address.

Jonathan Stercho

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Division of Environmental Permits, Region 3

Telephone (845) 256-3096

- ☐ Applicable Only if Checked for **STORMWATER SPDES INFORMATION**: We have determined that your project qualifies for coverage under the General Stormwater SPDES Permit. You must now file a Notice of Intent to obtain coverage under the General Permit. This form can be downloaded at: <http://www.dec.ny.gov/chemical/43133.html>

- ☐ Applicable Only if Checked **MS4 Areas**: This site is within an MS4 area (Municipal Separate Storm Sewer System), therefore the SWPPP must be reviewed and accepted by the municipality. The MS-4 Acceptance Form must be submitted in addition to the Notice of Intent.

Send the completed form(s) to: NYS DEC, Stormwater Permitting, Division of Water, 625 Broadway, Albany, New York 12233-3505

In addition, DEC requests that you provide one electronic copy of the approved SWPPP directly to Natalie Browne at NYS DEC, 100 Hillside Avenue - Suite 1W, White Plains, NY 10603-2860.



DEPARTMENT OF THE ARMY
NEW YORK DISTRICT, CORPS OF ENGINEERS
JACOB K. JAVITS FEDERAL BUILDING
26 FEDERAL PLAZA
NEW YORK, NEW YORK 10278-0090

AUG 10 2016

Regulatory Branch

SUBJECT: Permit Application Number NAN-2016-00625-WOR
by Village of Saugerties

Joseph E. Mihm
Brinnier and Larios, P.C.
67 Maiden Lane
Kingston, New York 12401

Dear Mr. Mihm:

On April 25, 2016, the New York District of the U.S. Army Corps of Engineers received a request for Department of the Army authorization for the discharge of fill material into waters of the United States in association with the rehabilitation of the Village's South Partition Street Park. The site is in the Hudson River watershed, located at 50 South Partition Street, in the Village of Saugerties, Ulster County, New York.

The submittal entitled "Site Plan Contract VSA – 161 Parks Restoration Project – Village Beach NY Rising Community Reconstruction Program New York State Governors Office of Storm Recovery Village of Saugerties Ulster County New York", prepared by Brinnier & Larios P.C., dated April 2016, and last revised June 29, 2016, indicates that the total impacts to waters of the United States would involve the discharge of fill material into a maximum of 0.08 acres of Esopus Creek, below Ordinary High Water (OHW). The fill would be placed in association with beach replenishment, replacement of grassed areas, bank stabilization and the installation of a new boat launch. Non-jurisdictional activities would include work to be performed above OHW, and the installation of floating pier assemblies.

Based on the information submitted to this office, and accomplishment of notification in accordance with the applicable federal requirements, our review of the project indicates that an individual permit is not required. It appears that the activities within the jurisdiction of this office could be accomplished under Department of the Army Nationwide General Permit Number 42. The nationwide permits are prescribed as a Reissuance of Nationwide Permits in the Federal Register dated February 21, 2012 (77 FR 10184). The work may be performed without further authorization from this office provided the activity complies with the permit conditions listed in Section B, No. 42, Section C, any applicable New York District regional conditions, and any applicable regional conditions added by the State of New York, copies enclosed.

This determination covers only the work described in the submitted material. Any major changes in the project may require additional authorizations from the New York District.

AUG 10 2016

Care should be taken so that construction materials, including debris, do not enter any waterway to become drift or pollution hazards. You are to contact the appropriate state and local government officials to ensure that the subject work is performed in compliance with their requirements.

Please note that this nationwide permit (NWP) verification is based on a preliminary jurisdictional determination (JD). A preliminary JD is not appealable. If you wish, prior to commencement of the authorized work you may request an approved JD, which may be appealed, by contacting the New York District, U.S. Army Corps of Engineers for further instruction. To assist you in this decision and address any questions you may have on the differences between preliminary and approved jurisdictional determinations, please review U.S. Army Corps of Engineers Regulatory Guidance Letter No. 08-02, which can be found at: <http://www.usace.army.mil/Portals/2/docs/civilworks/RGLS/rgl08-02.pdf>

This verification is valid until March 18, 2017, unless the nationwide permit is modified, reissued, or revoked. This verification will remain valid until March 18, 2017, if the activity complies with the terms of any subsequent modifications of the nationwide permit authorization. If the nationwide permits are suspended, revoked, or modified in such a way that the activity would no longer comply with the terms and conditions of a nationwide permit, and the proposed activity has commenced, or is under contract to commence, the permittee shall have 12 months from the date of such action to complete the activity.

Within 30 days of the completion of the activity authorized by this permit and any mitigation required by this permit, you are to sign and submit the attached compliance certification form to this office.

In order for us to better serve you, please complete our Customer Service Survey located at <http://www.nan.usace.army.mil/Missions/Regulatory/CustomerSurvey.aspx>.

If any questions should arise concerning this matter, please contact Brian A. Orzel, of my staff, at (917) 790-8413.

Sincerely,



Rosita Miranda
Chief, Western Section

Enclosures

NOTIFICATION OF ADMINISTRATIVE APPEAL OPTIONS AND PROCESS AND REQUEST FOR APPEAL

Applicant: Village of Saugerties	File Number: NAN-2016-00625-WOR	Date: AUG 10 2016
Attached is:		See Section below
<input type="checkbox"/>	INITIAL PROFFERED PERMIT (Standard Permit or Letter of permission)	A
<input type="checkbox"/>	PROFFERED PERMIT (Standard Permit or Letter of permission)	B
<input type="checkbox"/>	PERMIT DENIAL	C
<input type="checkbox"/>	APPROVED JURISDICTIONAL DETERMINATION	D
<input checked="" type="checkbox"/>	PRELIMINARY JURISDICTIONAL DETERMINATION	E

SECTION I - The following identifies your rights and options regarding an administrative appeal of the above decision. Additional information may be found at <http://www.usace.army.mil/Missions/CivilWorks/RegulatoryProgramandPermits/appeals.aspx> or Corps regulations at 33 CFR Part 331.

A: INITIAL PROFFERED PERMIT: You may accept or object to the permit.

- **ACCEPT:** If you received a Standard Permit, you may sign the permit document and return it to the district engineer for final authorization. If you received a Letter of Permission (LOP), you may accept the LOP and your work is authorized. Your signature on the Standard Permit or acceptance of the LOP means that you accept the permit in its entirety, and waive all rights to appeal the permit, including its terms and conditions, and approved jurisdictional determinations associated with the permit.
- **OBJECT:** If you object to the permit (Standard or LOP) because of certain terms and conditions therein, you may request that the permit be modified accordingly. You must complete Section II of this form and return the form to the district engineer. Your objections must be received by the district engineer within 60 days of the date of this notice, or you will forfeit your right to appeal the permit in the future. Upon receipt of your letter, the district engineer will evaluate your objections and may: (a) modify the permit to address all of your concerns, (b) modify the permit to address some of your objections, or (c) not modify the permit having determined that the permit should be issued as previously written. After evaluating your objections, the district engineer will send you a proffered permit for your reconsideration, as indicated in Section B below.

B: PROFFERED PERMIT: You may accept or appeal the permit

- **ACCEPT:** If you received a Standard Permit, you may sign the permit document and return it to the district engineer for final authorization. If you received a Letter of Permission (LOP), you may accept the LOP and your work is authorized. Your signature on the Standard Permit or acceptance of the LOP means that you accept the permit in its entirety, and waive all rights to appeal the permit, including its terms and conditions, and approved jurisdictional determinations associated with the permit.
- **APPEAL:** If you choose to decline the proffered permit (Standard or LOP) because of certain terms and conditions therein, you may appeal the declined permit under the Corps of Engineers Administrative Appeal Process by completing Section II of this form and sending the form to the division engineer. This form must be received by the division engineer within 60 days of the date of this notice.

C: PERMIT DENIAL: You may appeal the denial of a permit under the Corps of Engineers Administrative Appeal Process by completing Section II of this form and sending the form to the division engineer. This form must be received by the division engineer within 60 days of the date of this notice.

D: APPROVED JURISDICTIONAL DETERMINATION: You may accept or appeal the approved JD or provide new information.

- **ACCEPT:** You do not need to notify the Corps to accept an approved JD. Failure to notify the Corps within 60 days of the date of this notice, means that you accept the approved JD in its entirety, and waive all rights to appeal the approved JD.
- **APPEAL:** If you disagree with the approved JD, you may appeal the approved JD under the Corps of Engineers Administrative Appeal Process by completing Section II of this form and sending the form to the division engineer. This form must be received by the division engineer within 60 days of the date of this notice.

E: PRELIMINARY JURISDICTIONAL DETERMINATION: You do not need to respond to the Corps regarding the preliminary JD. The Preliminary JD is not appealable. If you wish, you may request an approved JD (which may be appealed), by contacting the Corps district for further instruction. Also you may provide new information for further consideration by the Corps to reevaluate the JD.

SECTION II - REQUEST FOR APPEAL or OBJECTIONS TO AN INITIAL PROFFERED PERMIT

REASONS FOR APPEAL OR OBJECTIONS: (Describe your reasons for appealing the decision or your objections to an initial proffered permit in clear concise statements. You may attach additional information to this form to clarify where your reasons or objections are addressed in the administrative record.)

ADDITIONAL INFORMATION: The appeal is limited to a review of the administrative record, the Corps memorandum for the record of the appeal conference or meeting, and any supplemental information that the review officer has determined is needed to clarify the administrative record. Neither the appellant nor the Corps may add new information or analyses to the record. However, you may provide additional information to clarify the location of information that is already in the administrative record.

POINT OF CONTACT FOR QUESTIONS OR INFORMATION:

If you have questions regarding this decision and/or the appeal process you may contact:

If you only have questions regarding the appeal process you may also contact:

Mr. James W. Haggerty
Regulatory Program Manager (CENAD-PD-OR)
U.S. Army Corps of Engineers
Fort Hamilton Military Community
301 General Lee Avenue
Brooklyn, New York 11252-6700
Telephone number: 347-370-4650

RIGHT OF ENTRY: Your signature below grants the right of entry to Corps of Engineers personnel, and any government consultants, to conduct investigations of the project site during the course of the appeal process. You will be provided a 15 day notice of any site investigation, and will have the opportunity to participate in all site investigations.

Signature of appellant or agent.

Date:

Telephone number:

ATTACHMENT

PRELIMINARY JURISDICTIONAL DETERMINATION FORM

BACKGROUND INFORMATION

A. REPORT COMPLETION DATE FOR PRELIMINARY JURISDICTIONAL DETERMINATION (JD): AUG 10 2016

B. NAME AND ADDRESS OF PERSON REQUESTING PRELIMINARY JD:
Joseph E. Mihm, Brinnier & Larios PC, 67 Maiden Lane, Kingston, NY 12401

C. DISTRICT OFFICE, FILE NAME, AND NUMBER: New York District,
Village of Saugerties, NAN-2016-00625-WOR

**D. PROJECT LOCATION(S) AND BACKGROUND INFORMATION:
(USE THE ATTACHED TABLE TO DOCUMENT MULTIPLE WATERBODIES
AT DIFFERENT SITES)**

State: New York County/parish/borough: Ulster City: Saugerties

Center coordinates of site (lat/long in degree decimal format):

Lat. 42.0709° N, Long. 73.9517° W.

Universal Transverse Mercator:

Name of nearest waterbody: Esopus Creek

Identify (estimate) amount of waters in the review area:

Non-wetland waters: 400 linear feet: width (ft) and/or acres.

Cowardin Class: Riverine

Stream Flow: Perennial

Wetlands: acres.

Cowardin Class:

Name of any water bodies on the site that have been identified as Section 10 waters:

Tidal:

Non-Tidal:

E. REVIEW PERFORMED FOR SITE EVALUATION (CHECK ALL THAT APPLY):

☒ Office (Desk) Determination. Date: July 6, 2016

☐ Field Determination. Date(s):

1. The Corps of Engineers believes that there may be jurisdictional waters of the United States on the subject site, and the permit applicant or other affected party who requested this preliminary JD is hereby advised of his or her option to request and obtain an approved jurisdictional determination (JD) for that site. Nevertheless, the permit applicant or other person who requested this preliminary JD has declined to exercise the option to obtain an approved JD in this instance and at this time.

2. In any circumstance where a permit applicant obtains an individual permit, or a Nationwide General Permit (NWP) or other general permit verification requiring "pre-construction notification" (PCN), or requests verification for a non-reporting NWP or other general permit, and the permit applicant has not requested an approved JD for the activity, the permit applicant is hereby made aware of the following: (1) the permit applicant has elected to seek a permit authorization based on a preliminary JD, which does not make an official determination of jurisdictional waters; (2) that the applicant has the option to request an approved JD before accepting the terms and conditions of the permit authorization, and that basing a permit authorization on an approved JD could possibly result in less compensatory mitigation being required or different special conditions; (3) that the applicant has the right to request an individual permit rather than accepting the terms and conditions of the NWP or other general permit authorization; (4) that the applicant can accept a permit authorization and thereby agree to comply with all the terms and conditions of that permit, including whatever mitigation requirements the Corps has determined to be necessary; (5) that undertaking any activity in reliance upon the subject permit authorization without requesting an approved JD constitutes the applicant's acceptance of the use of the preliminary JD, but that either form of JD will be processed as soon as is practicable; (6) accepting a permit authorization (e.g., signing a proffered individual permit) or undertaking any activity in reliance on any form of Corps permit authorization based on a preliminary JD constitutes agreement that all wetlands and other water bodies on the site affected in any way by that activity are jurisdictional waters of the United States, and precludes any challenge to such jurisdiction in any administrative or judicial compliance or enforcement action, or in any administrative appeal or in any Federal court; and (7) whether the applicant elects to use either an approved JD or a preliminary JD, that JD will be processed as soon as is practicable. Further, an approved JD, a proffered individual permit (and all terms and conditions contained therein), or individual permit denial can be administratively appealed pursuant to 33 C.F.R. Part 331, and that in any administrative appeal, jurisdictional issues can be raised (see 33 C.F.R. 331.5(a)(2)). If, during that administrative appeal, it becomes necessary to make an official determination whether CWA jurisdiction exists over a site, or to provide an official delineation of jurisdictional waters on the site, the Corps will provide an approved JD to accomplish that result, as soon as is practicable. This preliminary JD finds that there "*may be*" waters of the United States on the subject project site, and identifies all aquatic features on the site that could be affected by the proposed activity, based on the following information:

SUPPORTING DATA. Data reviewed for preliminary JD (check all that apply

- checked items should be included in case file and, where checked and requested, appropriately reference sources below):

☒ Maps, plans, plots or plat submitted by or on behalf of the applicant/consultant:

☐ Data sheets prepared/submitted by or on behalf of the applicant/consultant.

☐ Office concurs with data sheets/delineation report.

☐ Office does not concur with data sheets/delineation report.

☐ Data sheets prepared by the Corps:

☐ Corps navigable waters' study:

☐ U.S. Geological Survey Hydrologic Atlas:

☐ USGS NHD data.

☐ USGS 8 and 12 digit HUC maps.

☒ U.S. Geological Survey map(s). Cite scale & quad name:Saugerties, NY.

☒ USDA Natural Resources Conservation Service Soil Survey.

Citation:Ulster County, NY.

☒ National wetlands inventory map(s). Cite name:Saugerties, NY.

☒ State/Local wetland inventory map(s):Saugerties, NY.

☐ FEMA/FIRM maps:

☐ 100-year Floodplain Elevation is: (National Geodetic Vertical Datum of 1929)

☒ Photographs: ☒ Aerial (Name & Date):

or ☒ Other (Name & Date):

☐ Previous determination(s). File no. and date of response letter:

☐ Other information (please specify):

IMPORTANT NOTE: The information recorded on this form has not necessarily been verified by the Corps and should not be relied upon for later jurisdictional determinations.

 08AUG-16

Signature and date of
Regulatory Project Manager

Signature and date of
person requesting preliminary JD



DEPARTMENT OF THE ARMY
U.S. ARMY CORPS OF ENGINEERS, NEW YORK DISTRICT
JACOB K. JAVITS FEDERAL BUILDING
26 FEDERAL PLAZA
NEW YORK NY 10278-0090

CENAN-OP-R

NATIONWIDE PERMIT COMPLIANCE CERTIFICATION AND REPORT FORM

Permittee: Village of Saugerties

Permit No.: NAN-2016-00625

Date Permit Issued: AUG 10 2016

Location: Village of Saugerties, Ulster County, New York

Within 30 days of the **COMPLETION** of the activity authorized by this permit and any mitigation required by the permit, sign this certification and return it to the address at the bottom of this form.

Please note that your permitted activity is subject to a compliance inspection by a U.S. Army Corps of Engineers representative. If you fail to comply with this permit you are subject to permit suspension, modification or revocation.

I hereby certify that the work authorized by the above referenced permit has been completed in accordance with the terms and conditions of said permit, and required mitigation was completed in accordance with the permit conditions.

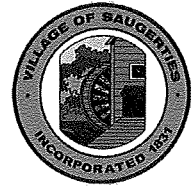
Signature of Permittee

Date

Fold this form into thirds, with the bottom third facing outward. Tape it together and mail to the address below **or FAX to (212) 264-4260.**

Place Stamp Here

Department of the Army
New York District Corps of Engineers
Jacob K. Javits Federal Building
26 Federal Plaza, Room 1937
ATTN: CENAN-OP-R
New York, New York 10278-0090



FLOODPLAIN DEVELOPMENT PERMIT

APPLICATION

According to Village of Saugerties code 103-4.2 "all construction and other development" in areas of special flood hazard as defined by the Federal Emergency Management Agency must be accompanied by a floodplain development permit which ensures that certain design criteria are complied with which will minimize damage in the event of a flood. This permit application must be accompanied by a building permit application. To determine whether your project is in a floodplain and the base flood elevation, please check <https://msc.fema.gov/portal/search>. The fee for this application is included in the Building Permit.

GENERAL INFORMATION

JOB SITE ADDRESS: 61 East Bridge Street

SBL#: 18.70-1-16.200 & 18.70-1-16.120 BUILDING PERMIT APP. NUMBER: n/a

APPLICANT: Village of Saugerties

ADDRESS: 43 Partition Street, Saugerties, NY 12477

EMAIL: esaad@villageofsaugerties.org PHONE: 845-246-2321

PROJECT INFORMATION

PROJECT DESCRIPTION: Tina Chorvas Park Restoration Project includes construction of 248 linear feet of bulkhead along the Esopus Creek, construction of a gravel access road through the two properties and construction of 8 feet high chainlink fence around the perimeter of the 18.70-1-16.120 parcel (Clearwater Inc.)

FLOODPLAIN ZONE: AE BASE FLOOD ELEVATION: 9 feet

TO DETERMINE WHAT FLOODPLAIN ZONE YOUR PROJECT IS IN & THE BASE FLOOD ELEVATION (BFE), PLEASE CHECK [HTTPS://MSC.FEMA.GOV/PORTAL/SEARCH](https://msc.fema.gov/portal/search).

PROPOSED ELEVATION OF THE LOWEST FLOOR (INCLUDING BASEMENT OR CELLAR): n/a FT

THE ELEVATION PROVIDED MUST BE IN RELATION TO THE MEAN SEA LEVEL. UPON COMPLETION OF THE LOWEST FLOOR, THE APPLICANT MUST PROVIDE THE DEPARTMENT WITH AN AS-BUILT ELEVATION CERTIFIED BY AN ENGINEER OR SURVEYOR.

IF NON-RESIDENTIAL, THE PROPOSED ELEVATION TO WHICH THE BUILDING WILL BE FLOOD-PROOFED: n/a FT

WILL ANY WATERCOURSE BE ALTERED OR RELOCATED AS A RESULT OF THIS DEVELOPMENT? YES ☐ NO ☒

IF SO, PLEASE DESCRIBE THIS ALTERATION OR RELOCATION: _____

MARKET VALUE OF THE PROPERTY: \$101,500

IS THIS PROJECT IMPROVING AN "HISTORIC STRUCTURE"? YES ☐ NO ☒

IF SO, WILL THIS PROJECT RESULT IN THE "HISTORIC STRUCTURE" LOSING ITS HISTORIC STATUS? YES ☐ NO ☐

IS THIS PROJECT THE MINIMUM INVESTMENT NEEDED TO CORRECT A CITED LEGAL VIOLATION? YES ☐ NO ☒

Certification: I hereby certify that I have examined this application and know the information contained therein to be correct. I understand that the granting of a permit does not grant authority to violate or ignore any law, that this permit authorizes only the work described herein and will expire, unless otherwise noted, in one year from the date of issuance.

Applicant
Signature: _____

Date: 3/23/17