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General Electric/Pittsfield, MA - Housatonic River

October 7, 1999

EPA Summary of Agreement

General Electric/Pittsfield - Housatonic River Site

On October 7, 1999, representatives of U.S. Environmental Protection Agency; U.S. Department of Justice; the Commonwealth of Massachusetts Department of Environmental Protection, Office of the Attorney General and Executive Office of Environmental Affairs; the State of Connecticut Department of Environmental Protection and Office of the Attorney General; the U.S. Department of Interior; the National Oceanic and Atmospheric Administration; the City of Pittsfield; the Pittsfield Economic Development Authority and the General Electric Company (GE) reached a comprehensive agreement relating to the cleanup of GE's Pittsfield facility, certain off-site properties and the Housatonic River.

The detailed terms of this agreement are incorporated in a Consent Decree which was lodged on October 7, 1999, with the United States District Court of Massachusetts, Western Division, located in Springfield, Massachusetts.

The Consent Decree provides for cleanup of the Housatonic River and associated areas, cleanup of the General Electric Plant facility, environmental restoration of the Housatonic River, compensation for natural resource damages, and government recovery of past and future response costs. In addition, a Definitive Economic Development Agreement among GE, the City of Pittsfield, and the Pittsfield Economic Development Authority (PEDA) provides for economic redevelopment of the GE Plant facility. That agreement will become effective upon entry of the Consent Decree.

The major components of the combined agreements are:

- I Cleanup of Contaminated Areas
- II Restoration of Natural Resources
- III Recovery of Government Costs
- IV Effect and Form of the Consent Decree

Additional important actions include:

- Enhanced Public Participation
- Brownfields Redevelopment and Economic Aid

Below is EPA's summary of the Consent Decree. It should be noted that this is EPA's summary and has not been approved by the other parties to the agreement. In addition, this summary is not intended to be all-inclusive or binding in any respect, and is being provided for public informational purposes only. The Consent Decree and other ancillary documents represent the final, binding agreement between the parties and are being made available to the public at the following locations:

Lenox Public Library
18 Main Street
Lenox MA 01240
413-637-0197

Berkshire Athenaeum Public Library
Reference Department
1 Wendell Avenue
Pittsfield MA 01201
413-499-9488
Simon's Rock College of Bard
84 Alford Rd.
Great Barrington MA 01230
413-528-7274
Berkshire County Regional Planning Commission
10 Fenn Street
Pittsfield MA 01201
413-442-1521.

A public comment period of 60 days will begin when the notice is published in the federal register.

I. Cleanup of Contaminated Areas

A. Scope of the Consent Decree

This agreement covers the GE Plant Site, including Silver Lake and Unkamet Brook, the former oxbows (including Newell Street commercial properties), the Housatonic River sediments, banks, and floodplain properties downstream of the GE Plant Site, and the Allendale School. With the exception of the residential properties within the former oxbows, this agreement does not cover cleanup of residential properties in Pittsfield or elsewhere that received GE wastes for use as fill. These properties are covered by a separate Administrative Consent Order between Massachusetts and GE. More than 100 residential fill properties will have been cleaned up by the end of the 1999 construction season. Residential fill properties remain a high priority and will continue on an expedited sampling and cleanup schedule.

B. Overall Principles for Management of the Cleanup

- 1 Extensive sampling on GE and non-GE owned properties. Agencies to oversee all GE work and reserve the right to conduct additional sampling if necessary.
- 2 GE to perform cleanups except on 1 ½ Mile Reach of Housatonic River. (See section C.8).
- 3 Material and debris excavated from areas subject to this Consent Decree, excluding the River below two miles, are to be consolidated on the GE facility subject to the following:
 - a No disposal of regulated TSCA waste or RCRA hazardous waste in the Hill 78 Consolidation Area.
 - b No on-site disposal of drums, capacitors, equipment, free product or asbestos required to be removed as part of the building demolition.
 - c Area and height limitations of the consolidation areas as follows:
Hill 78- 5.6 acre footprint and 1,050 foot maximum elevation, Building 71- 4.4 acre footprint and 1,048 foot maximum elevation, Merrill Road/New York Ave- 1.6 acre footprint and 1,027 foot maximum elevation. Elevation is based on National Geodetic Vertical Datum (NGVD). For reference purposes, current elevation of the top of Hill 78 (including the material from the Allendale School, as described in Item I.C.3) is 1049 feet.
 - d Capping and long-term monitoring of consolidation units.
 - e Building demolition debris, following the removal of asbestos, may also be consolidated within the existing foundations of certain buildings.

- 4 Environmental Restrictions and Easements (EREs) are to be placed on all GE-owned properties to ensure that current uses will not change (i.e., commercial/industrial properties will continue to be used as commercial/industrial properties and recreational properties will continue to be used as recreational properties) and to protect the integrity of the cleanup.
- 5 Two options for non-GE owned properties: a) cleanup that is protective of current use with Environmental Restrictions and Easements (EREs) utilized, with consent of the owner, to maintain current use, or b) a conditional solution which also provides a cleanup that is protective of current use but, instead of EREs, requires additional cleanup if the use of the property changes (see also C. 2.b).
- 6 Fully cooperative approach to management of cleanup activities.
- 7 The parties have established a management architecture for project implementation involving EPA, state regulatory agencies, GE, and, as appropriate, PEDDA, the City and the Trustees to ensure that all aspects of the project are managed in a fully collaborative and cooperative manner, to plan work and to cooperatively head off problems and disputes before they arise.
- 8 Public to provide input throughout implementation of the work.

C. Specific Areas for Cleanup

1 **GE Plant Site**

GE will undertake the following:

a Soil Remediation

Objective: to remediate surface soils to levels that allow for commercial/industrial or recreational use, and to minimize exposure to contaminants in deeper soils.

- Remediation required for PCBs greater than 25 parts per million (ppm) average in surficial soils (0-1 foot).
- An engineered barrier to minimize infiltration and prevent exposure will be implemented in areas where PCBs greater than 100 ppm average are within the top 15 feet.
- Remediation required for PCBs greater than 200 ppm average from 1-6 feet.
- New or repaired utility corridors will be backfilled with soils that contain no more than 25 ppm PCBs.
- No capping of unpaved soils in floodplain. Soil removal and replacement required instead in order to avoid loss of flood storage capacity.
- Removal of pavement in 200-foot-wide buffer zone on northern (plant) side of River between the location of the former Thermal Oxidizer and the downstream boundary of the GE facility to provide enhanced habitat resoration and to reduce storm water runoff.
- Future City of Pittsfield ballfield will include a one foot cap in addition to achieving the recreational standard of 15 ppm PCBs average in the next 2 feet.

b Unkamet Brook and Floodplain Remediation

Objective: To provide protection for human recreational users and biological receptors in the portions of the Brook and its floodplain from Dalton Avenue downstream to the Housatonic River.

- Reroute Unkamet Brook to its former channel and cap entire existing industrial landfill.
- Remove Brook sediments and remediate inundated wetland sediments to achieve 1 ppm PCBs average in surface sediments.
- Remove soils in Unkamet Brook recreational floodplain to achieve 10 ppm PCBs average in top foot and 15 ppm in 1-3 foot depth.

c Hill 78 and Building 71 Consolidation Areas

Objective: To eliminate risk of exposure to materials in the consolidation units through a combination of engineering controls and long-term monitoring.

- Install a protective cap over Hill 78 and Building 71 Consolidation Areas.
- Establish an extensive groundwater monitoring system to monitor the groundwater surrounding the landfill.
- Install a liner and leachate collection system for Building 71 Consolidation Area.
- Design both areas with human health and environmental protection, as well as configuration limitations, in mind.
- An additional area at New York Ave/Merrill Road may be utilized and will be designed in a similar manner to the Building 71 Consolidation Area.

d Non-GE Owned Property Within the GE Plant Site

Objective: To make properties safe for current use through a combination of clean-up and deed restrictions (with appropriate compensation to the property owner); and to provide flexibility (in the form of additional cleanup) for future use changes on properties where there is not agreement on deed restrictions. The property owner will decide which option to choose. Both options provide an initial cleanup that is protective of current uses.

- For current commercial/industrial and recreational areas, GE is to make best efforts, as defined in the Consent Decree, to obtain appropriate deed restrictions (i.e., EREs), including offering reasonable monetary compensation, and will clean up property consistent with the following:

either: obtain EREs with owner's consent and clean property as follows:

- i at commercial/industrial properties, clean up consistent with GE Plant Site commercial/industrial standards, including remediation (via soil removal and/or pavement enhancement) for PCBs greater than 25 ppm average in surficial soils, achievement of 200 ppm PCB average for 1-6 foot depth, installation of engineered barrier where PCBs exceed 100 ppm average in top 15 feet, and backfilling in new or repaired utility corridors with soil less than 25 ppm PCB average; and
- ii at recreational properties, achieve 10 ppm PCB average in top foot of soil and 15 ppm at 1-3 feet, install engineered barrier where PCBs exceed 100 ppm average in top 15 feet, and ensure backfill in new or repaired utility corridors is less than 10 ppm PCBs average;

or: if the owner's consent for an ERE is not obtained, GE will implement a conditional solution protective of current use, meeting the following requirements:

- i same soil remediation as at properties with EREs except that GE will remove soils to achieve PCB averages of 25 ppm in the top 3 feet at commercial/industrial properties and 10 ppm in the top 3 feet at recreational properties; and
- ii GE will conduct further remediation that is needed to be protective of any legally permissible future use for which the owner obtains governmental approval (if necessary) and provides appropriate evidence regarding the future use or activity.

e Groundwater Remediation

Objective: to meet appropriate standards for protection of surface waters (i.e., Housatonic River, Silver Lake, Unkamet Brook) and to prevent risks from volatilization of contaminants into occupied buildings. The standards are based on the assumption that there is no current or reasonably foreseeable future use of groundwater for drinking water purposes.

- Install perimeter and sentinel (early warning) groundwater monitoring systems.
- Continue oil recovery and conduct groundwater treatment until groundwater standards are met.

Timetable:

- Active control of potential sources of contamination to the River has been ongoing for many years and is continuing. Upstream source control has been completed and remaining source control will be completed prior to river excavation in the relevant river reach.
- Overall facility cleanup will be coordinated with Brownfields Redevelopment.
- Unkamet Brook investigation process will begin 24 months after entry of the Consent Decree. After completion of the investigation, cleanup work will begin.
- All work in these areas is expected to be completed over a period of about 5 years after entry of the Consent Decree.

2 Former Oxbow Areas

GE will undertake the following:

- a Additional sampling of soils and groundwater

Objective: To identify the nature and extent of soil and groundwater contamination.

- b Soil Remediation

Objective: to achieve appropriate cleanup standards keyed to current uses and expected future uses (i.e., commercial, recreational, or residential standards referenced below) and to allow for changes in property uses.

- For the Lyman Street and Newell Street parking lots, remove surficial soils and replace with vegetative engineered barriers.
- For current commercial/industrial and recreational areas, GE to clean-up in accordance with Item C(1)(d) above.
- For residential properties, achieve 2 ppm PCB average.

- c Continue oil recovery operations and implement groundwater treatment or controls until groundwater standards are met.

Objective: to prevent floating and sinking oils from discharging to the River.

Timetable:

- As the cleanup of the Upper Two Mile Reach progresses from the Newell Street Bridge downstream, oxbow property cleanups will be coordinated with River work to the extent practicable. Cleanup of the River will begin at the Newell Street bridge in the Fall of 1999. GE will submit an investigation plan for the Newell Street commercial properties 5 months from the lodging of the Consent Decree. After entry of the Consent Decree and completion of the investigation, cleanup work will begin.

3 Allendale School

Objective: to remove contaminated fill (which had previously been capped) from the schoolyard and restore the schoolyard.

- GE removed all soils containing PCBs greater than 2 ppm (except in a small area at depth near the foundation of the school building where concerns over foundation stability and safety only allowed for an average of 2 ppm to be met); GE replaced with clean soil and is restoring area.

Timetable:

- Soil remedial work has been completed and restoration work is on-going. The restoration is expected to be completed in the Fall of 1999.

4 Housatonic River Floodplain - Current Residential Properties

Objective: to clean all properties to unrestricted use standards.

GE will implement (or share in funding for 1 ½ Mile Reach Riverbanks) the following:

a Residential properties in 1 ½ Mile Reach

- Remove non-riverbank soils to no more than 2 ppm PCBs average.
- Riverbanks to be addressed by EPA as part of Engineering Evaluation/Cost Analysis (EE/CA) for 1 ½ Mile Reach (Item C.8 below).
- Timetable: Clean-up coordinated with river work to the extent practicable.

Timetable:

- Investigation process to begin 16 months after entry. After completion of the investigation, cleanup work will begin and will be coordinated with the River work to the extent practicable.

b Residential Properties Downstream of 2-Mile Reach

- Remove soils at actual or potential lawn areas to no more than 2 ppm PCBs average.
- Install short term measures (e.g., signs) for riverbanks with contamination levels exceeding state thresholds for short-term measures.
- Remediate riverbank portions as part of Rest of River (Item C.9 below).

Timetable:

- Investigation process to begin 16 months after entry. After completion of the investigation, cleanup work will begin.

5 Housatonic River Floodplain - Non-Residential Areas

Objective: to achieve appropriate cleanup standards keyed to current uses and expected future uses (i.e., commercial, recreational, or residential standards referenced below) and to allow for changes in property uses.

GE will undertake (or share in funding for 1 ½ Mile Reach Riverbanks) the following:

- a In 1 ½ Mile Reach, riverbanks are to be remediated by EPA as part of the 1 ½ Mile Reach Removal Action (Item C.8 below).
- b Recreational and commercial/industrial non-riverbank areas in 1 ½ Mile Reach will be addressed in accordance with Item C.1.d above.
- c In area below 1 ½ Mile Reach, address the non-residential floodplain properties in connection with the cleanup of the Rest of River (Item C.9 below).

Timetable:

- Cleanup of 1 ½ Mile Reach floodplain properties will be performed concurrently with River cleanup to the extent practicable.
- Non-residential floodplain properties below 2 miles will be on a timetable that is dependent on the Rest of River decision.

d Silver Lake

Objective: to provide a clean-up that is protective of human and ecological use of the lake.

- a Remove bank soils at non-residential properties to achieve no more than 10 ppm PCBs average in top foot and 15 ppm PCBs average at 1-3 feet, assuming EREs are executed. If no ERE's, a conditional solution will be implemented for bank soils that will achieve 10 ppm PCBs average in top 3 feet and meet the other requirements for conditional solutions in Item C.1.d.(ii) above. On residential properties, GE will achieve a 2 ppm PCBs average.
- b Remove and replace hot spot sediments near the outfall.
- c Cap the entire 26 acre lake bottom and armor the entire perimeter of lake; specific design plans to be approved in the future by EPA.
- d Perform periodic review of effectiveness of cap. If performance standards for cap are not met, additional actions will be evaluated and implemented.

Timetable:

- Investigation process to begin 18 months from entry of the Consent Decree. After completion of the investigation, cleanup work will begin.

e Housatonic River - Upper ½ Mile Reach

Objective: to achieve a clean-up that is protective of human health and the environment within the Upper ½ Mile Reach and to prevent further downstream migration of contaminants.

GE will undertake the following in the Upper ½ Mile Reach (Newell Street Bridge to the Lyman Street Bridge):

- a Remove and restore sediments per final design work plan already submitted by GE and approved by EPA.

- b Remove and restore bank soils to achieve 10 ppm average in top foot and 15 ppm average at 1-3 feet.

Timetable:

- To begin in the Fall of 1999. To be completed by May, 2001.

f Housatonic River - Next 1 ½ Mile Reach from the Lyman Street Bridge to the Confluence of the East and West Branches (includes sediments and riverbanks)

Objective: to achieve a clean-up that is protective of human health and the environment within the 1 ½ Mile Reach and to prevent downstream migration of contaminants.

- a EPA is currently conducting and GE is funding an Engineering Evaluation/Cost Analysis (EE/CA) of the alternatives for cleanup of the 1 ½ Mile Reach.
- b EPA will select response actions for the 1 ½ Mile Reach after the completion of the EE/CA and after consultation with GE, affected property owners in the 1 ½ Mile Reach floodplain, and the Citizens' Coordinating Council, and review by EPA's National Remedy Review Board.
- c EPA will implement the selected response action. The costs will be shared by GE and EPA with the amount of funding dependent on the overall costs:
 - GE to pay 100% of costs up to \$15 million.
 - For incremental costs between \$15 and \$25 million, GE will pay 70% of costs and EPA will pay 30%.
 - For incremental costs between \$25 and \$32.5 million, GE will pay 60 % of costs and EPA will pay 40%.
 - For incremental costs between \$32.5 and \$40 million, GE and EPA will each pay 50%.
 - For incremental costs between \$40 and \$50 million, GE will pay 40% of costs and EPA will pay 60% of the costs.
 - For incremental costs exceeding \$50 million, GE will pay 30% of the costs and EPA will pay 70% of the costs.
- d Examples of allocations under cost share formula: if cost of response action is \$32.5 million, EPA's cost share will be \$6 million, or approximately 20% and GE's share will be \$26.5 million. If the cost is \$40 million, EPA's share will be \$9.75 million, or approximately 24 %, and GE's share will be \$30.25 million. If the cost is \$50 million, EPA's share will be \$15.75 million, or approximately 31.5%, and GE's share will be \$34.25 million.

Timetable:

- Draft EE/CA to be available to the public in the Fall of the 1999. Work to begin in June 2001 and to be completed in 4 years.

g Housatonic River - 'Rest of River' -- contaminated river sediments, banks and floodplain areas (other than actual or potential lawns, which are covered in Item I.C.4.b) downstream of the confluence with the West Branch

Objective: 1) Implement a process which is designed to result in a remedy decision for the downstream portions of the Housatonic River that is protective of human health and the environment; and 2) Performance by GE of the Rest of River cleanup.

- a EPA to conduct additional sampling, human health and ecological risk assessments and modeling.
- b A Peer Review Panel will review the human health risk assessment, ecological risk assessment and modeling performed by EPA.
- c GE to compile all data into an investigation report and evaluate remedial alternatives under a modified process which limits appeals until after a final remedy has been chosen.
- d At conclusion of studies, EPA will issue a Statement of Basis that selects a river remedy and modify GE's RCRA permit to obligate GE to perform the cleanup.
- e GE agrees to perform the selected cleanup after completion of any dispute resolution under Consent Decree:
 - Dispute resolution may include review by the EPA Environmental Appeals Board and the United States Court of Appeals for the First Circuit.
 - During dispute, all work not subject to the dispute continues, and EPA can proceed with designing aspects of the Rest of River cleanup that GE has disputed, and under certain conditions may proceed with implementation of the work.

Timetable

- Decision on the Rest of River cleanup is expected to be made by EPA in 2002. Based on the assumptions that the clean up of the first two miles of river will not be completed until 2004 or 2005, EPA does not expect any delay in the implementation of the remedy for the Rest of River if GE invokes the dispute resolution referenced above.

II. Restoration of Natural Resources

A. Primary Restoration

Objective: to compensate the public for natural resource damages by cleaning up valuable resource areas to the extent practicable.

Primary restoration will be composed of the response actions agreed upon for the Housatonic River, Silver Lake, Unkamet Brook and associated wetlands and floodplains.

B. Compensatory Restoration

Objective: to compensate the public for natural resource damages that could not be addressed through the clean-up.

Compensatory restoration will be composed of the following elements:

- 1 GE will pay \$15 million, plus interest, to be administered by the natural resource trustees (US Department of Interior, National Oceanic and Atmospheric Administration, Commonwealth of Massachusetts, State of Connecticut), with appropriate public input, for natural resource projects.
- 2 GE will perform or fund the following restoration/enhancement activities in connection with the cleanup:
 - a Habitat enhancements in the first ½ Mile River Reach (enhancement of vegetation on banks) in conjunction with response action performed by GE.
 - b Payment made (as part of cost share) for habitat improvements in the next 1 ½ Mile Reach (pool/riffle structure in riverbed, enhancement of vegetation on banks) in conjunction with response action to be performed by EPA.
 - c Habitat and recreational enhancements at Silver Lake. Additional funding will also be provided for Trustee work on the lake.
 - d Unkamet Brook Area habitat improvement, including rerouting of the brook to its original location and removal of certain nuisance plant species.
 - e At the GE Plant Site south of East Street, in a 200-foot-wide strip along the river between the location of the former Thermal Oxidizer and the downstream boundary of the GE facility, enhance stormwater drainage and create vegetated buffer by removing the pavement and replacing it with clean soil and vegetation.
 - f Herbaceous native grassland communities will be created at certain GE-owned properties along the Housatonic River and on the GE Plant, including the area described in item e above, the Newell Street Parking Lot, the Lyman Street Parking Lot, and the Hill 78 Consolidation Area.
 - g Floodplain forest/wetland community will be created on approximately 12 acres of riparian land, which will be protected through a conservation easement.
 - h Protection of 10 acres of wetland on GE Plant Site east of Unkamet Brook through a conservation easement.
 - i Payment by GE of \$600,000 for wetlands mitigation.
- 3 GE will conduct an assessment of the integrity of Woods Pond Dam and Rising Pond Dam, and implement interim measures needed, if any, to ensure the integrity of these dams.
- 4 GE will coordinate with the Trustees and EPA in the design, implementation and maintenance plans for the restoration/enhancement activities identified in II.B.2.
- 5 The Pittsfield Economic Development Authority (PEDA) will pay up to \$ 4 million dollars based on a revenue-sharing arrangement linking the anticipated success of the economic redevelopment in Pittsfield with the additional natural resource damage compensation. The \$4 million will be administered by the natural resource trustees, with appropriate public input, for natural resource restoration projects.

III. Recovery of Government Costs

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GE and governments have agreed on the amount GE will pay to reimburse response costs previously incurred and to be incurred by the governments in connection with the site. The details regarding the specific reimbursement amounts can found in Section XX of the Consent Decree.

IV. Form And Effect of The Consent Decree

- A. The settlement agreement is in the form of a federal court Consent Decree. The Consent Decree includes, among other provisions:
- 1 EPA review and approval rights on all plans in the Consent Decree.
 - 2 EPA ability to modify the scopes of work being implemented by GE under the Consent Decree; (see Paragraph 39 of the Consent Decree)
 - 3 Periodic review by EPA of the cleanup; (see Section X of the Consent Decree)
 - 4 Emergency response provision; (see Section XIX of the Consent Decree)
 - 5 Dispute resolution processes; (see Section XXIV of the Consent Decree)
 - 6 Stipulated penalties for inadequate or late work by GE; (see Section XXV of the Consent Decree)
 - 7 Agreements by the governments and GE not to sue each other subject to certain reservations; (see Section XXVI and XXVII of the Consent Decree)
 - 8 EPA to have the ability to take over work if GE is not performing adequately, or to order additional work by GE if new information or unknown conditions show the cleanup is not protecting human health or the environment (see Paragraph 178 of the Consent Decree); and
 - 9 Protection for GE from certain 'contribution' claims by other parties (see Section XXIX of the Consent Decree).
- B. EPA agrees to defer final decision making on listing the Site on the CERCLA National Priorities List (NPL) (see Paragraph 200 of the Consent Decree). EPA may finalize listing the Site, under certain conditions, including if EPA concludes that a situation exists where it needs to take over the cleanup work under the Consent Decree due to inadequate performance by GE, subject to GE's right to dispute resolution.

In addition to the provisions of the Consent Decree, the following other important components will be implemented at the Site.

Enhanced Public Participation

Objective: to implement this agreement in a manner that considers and utilizes the ideas of the citizens of Berkshire County.

- A. A Citizen's Coordinating Council has been established to serve as a focal point for community participation in the cleanup. The Council includes leaders from Berkshire County's political, environmental, community, and business sectors. The Council has provided and will continue to provide an important mechanism to ensure that all of the settling parties fully honor their commitment to listen to, learn from, and incorporate the ideas and concerns of the community to the greatest extent possible. The governments intend to submit drafts of major technical documents to the Citizens Coordinating Council for review and discussion.

B. EPA will provide additional outreach to property owners affected by this agreement, including participating in and hosting public meetings, small neighborhood meetings and individual meetings.

Brownfields Redevelopment And Economic Aid

Objective- to utilize the former GE facility for new development thus preserving undisturbed "greenfields".

GE, the City of Pittsfield and the Pittsfield Economic Development Authority (PEDA) have entered into the Definitive Economic Development Agreement. Under this agreement, GE will clean up its Plant Site to agreed upon Consent Decree standards (Item I.C.1) , demolish several buildings, provide some funding for building new buildings and transfer portions of the property to PEDA for economic redevelopment. In addition, GE will provide economic aid to the City of Pittsfield for 10 years and make upgrades to the Plant Site and Silver Lake that will have aesthetic value and enhance local habitat.