

**Final Natural Resources Restoration Plan and Environmental Assessment for  
the Chemical Leaman Tank Lines, Inc., Superfund Site Operable Unit 3,  
Logan Township, Gloucester County, New Jersey**

**December 2007**

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**FINAL NATURAL RESOURCES RESTORATION PLAN  
AND ENVIRONMENTAL ASSESSMENT FOR THE CHEMICAL LEAMAN TANK  
LINES, INC., SUPERFUND SITE OPERABLE UNIT 3,  
LOGAN TOWNSHIP, GLOUCESTER COUNTY, NEW JERSEY**

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**I. INTRODUCTION**

The U.S. Fish & Wildlife Service (Service), acting as the Natural Resource Trustee (Trustee) on behalf of the Department of the Interior (DOI), and the New Jersey Department of Environmental Protection (NJDEP), acting as the Trustee on behalf of the State of New Jersey, have prepared this Final Restoration Plan and Environmental Assessment (RP/EA). The purpose of this RP/EA is to address natural resources, including ecological services, injured, lost or destroyed due to releases of hazardous substances in areas at or adjacent to the Chemical Leaman Tank Lines Inc., (CLTL) Superfund Site (Site) Operable Unit 3 (OU3), located in Bridgeport, Logan Township, Gloucester County, New Jersey.

This Final RP/EA provides a description of the natural resources injured as a result of the origination, existence, and remediation of the CLTL Site. It also identifies and describes alternatives considered by the Trustees to restore resources injured by the CLTL Site, evaluates those alternatives and provides an explanation of the basis for the Trustees' choice of the selected alternative. In addition, it provides an explanation of the methods that will be used to ensure that restoration meets the Trustees' goal and the mandates of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) of 1980, as amended, (42 U.S.C. § 9601 *et seq.*).

The purpose of restoration is to return natural resources (including the services provided by the resources) to the condition they would have been in had the injury not occurred (hereinafter referred to as the "baseline condition"). Restoration actions are often needed because the injured natural resources may not have the capacity to re-establish their functions within an ecosystem in a timely manner without intervention. In addition to the cost of restoring resources to baseline condition, CERCLA authorizes Trustees to recover compensation for losses suffered by the public between the date of injury to the natural resources and the date when restoration has been completed (hereinafter referred to as "interim lost use") and to use those funds for additional restoration actions, including acquisition, rehabilitation, and/or replacement of natural resources (42 U.S.C. § 9607 (f)(1)).

**II. AUTHORITY**

This Final RP/EA was prepared pursuant to the authority and responsibilities of the natural resource Trustees under CERCLA; the Federal Water Pollution Control Act of 1972 as amended by the Clean Water Act of 1977 (33 U.S.C. § 1251 *et seq.*), Subpart G of the National Oil and Hazardous Substances Contingency Plan (NCP) (40 C.F.R. §§ 300.600 - 300.615), DOI's Natural

Resource Damage Assessment regulations (43 C.F.R. Part 11), and other applicable Federal and State laws.

Section 111(i) of CERCLA requires the Trustees to develop a Restoration Plan and to solicit public comment on that plan prior to spending settlement or judgment funds for the implementation of restoration actions. This Final RP/EA describes and analyzes a number of alternatives considered by the Trustees for accomplishing the restoration of injured natural resources, and addresses any public comments received. In addition, it identifies the selected alternative and the Trustees' rationale for its preference.

### **III. NEPA COMPLIANCE**

Actions undertaken by a Federal Trustee to restore natural resources or services under CERCLA and other Federal laws are subject to the National Environmental Policy Act (NEPA) (42 U.S.C. 4321 § *et seq.*). This Final RP/EA has integrated NEPA requirements by describing the affected environment, describing the purpose and need for action, identifying alternative actions, assessing each alternative's applicability and environmental consequences, and summarizing opportunities for public participation in the decision-making process.

The Service's *Final Revised Procedures* for implementing NEPA were published in the Federal Register on January 16, 1997, and provide a categorical exclusion for natural resource damage assessment restoration plans when only minor or negligible change in the use of the affected area(s) (the area[s] undergoing restoration) is planned. Categorical exclusions are classes of actions that do not individually or cumulatively have a significant impact on the human environment. Categorical exclusions are not the equivalent of statutory exemptions.

### **IV. PUBLIC NOTIFICATION AND REVIEW**

Under CERCLA and NEPA, the Trustees, in this case the Service and the State of New Jersey, must notify the public and any Federal, State, or local agencies with special interests or expertise relating to the Final RP/EA. To satisfy this requirement, the Trustees published a Notice of Availability of the draft RP/EA in the Gloucester County Times on August 17, 2007. The draft RP/EA was available for a thirty (30) day public review and comment period ending September 17, 2007. However, hard copies of the draft RP were accidentally not sent to the Logan Township Library or Clerk's Office. Accordingly, copies of the draft RP were sent to the Logan Township Library and Clerk's Office; the Trustees published a second Notice of Availability in the Gloucester County Times on November 1, 2007; and provided a second thirty (30) day public review and comment period ending November 30, 2007.

#### **Public comments on the Draft Restoration Plan / Environmental Assessment**

As of December 7, 2007, the Trustees did not receive any written comments on the draft RP/EA.

## V. BACKGROUND

### Site History

The CLTL Bridgeport Terminal is located in Logan Township, Gloucester County, New Jersey, approximately two miles south of the Delaware River and one mile east of the town of Bridgeport. The CLTL property encompasses approximately 31.4 acres. It includes an active terminal used for the dispatching, storing, maintaining and cleaning tanker trucks and trailers; fallow farmland adjacent to the terminal; and wetlands (Cedar Swamp) bordering the terminal to the east and southeast. Moss Branch Creek drains portions of Cedar Swamp into Cooper Lake, which is located approximately 1,000 feet north of the CLTL terminal. Commercial infrastructure at the CLTL property includes the terminal building, an enclosed wastewater settling tank building, and a concrete wastewater holding tank. Former subsurface structures include several earthen settling and aeration lagoons which have been backfilled and graded.

In operation since the early 1960s, CLTL transports chemical commodities, some of which are classified as hazardous in bulk quantities. Past wastewater handling and disposal practices at the CLTL Site have resulted in organic and inorganic contamination of soil, ground water and the adjacent wetlands. Prior to 1975, wastewater generated by the tanker-truck washing and rinsing operations was impounded in a series of unlined settling and/or aeration lagoons and subsequently discharged to the adjacent wetlands. In 1975, the lagoons were taken out of service when CLTL was required to install a wastewater containment system at the terminal. In 1977, liquid and sludge in the primary settling lagoons were removed and backfilled with fill and construction debris. The aeration and final settling lagoons were drained, but no lagoon materials were removed prior to backfilling. In 1982, CLTL excavated visible sludge and contaminated soil from the former primary settling lagoons to an approximate maximum depth of 12 feet below the surface, and the excavation was backfilled with sand.

In 1985, the U.S. Environmental Protection Agency (EPA) added the CLTL Site to the National Priorities List of Superfund sites. As with many Superfund sites, the environmental cleanup issues at the CLTL Site are complex. Consequently, EPA divided Site remediation into three phases or operable units (OU). OU1 addresses the ground water at the Site; OU2 addresses the former lagoon soils and residual sludge; and OU3 addresses the adjacent wetlands on and around the CLTL property. An Administrative Order on Consent (AOC) (Index No. II CERCLA 50111) between EPA and CLTL was signed in July 1985. Pursuant to the AOC, CLTL agreed to conduct a Remedial Investigation and Feasibility Study (RI/FS) to delineate the nature and extent of Site-related contamination in the ground water, soils, and surface water at the CLTL Site.

The investigation into the nature and extent of contamination in the OU3 wetlands was completed in July 1993. The selected remedy for OU3 outlined by EPA in the October 1993 Record of Decision (ROD) included excavation of approximately 7.3 acres of contaminated wetland sediments and soils. This excavated material was disposed of at an appropriate off-Site facility. The excavation was completed in early 2006. The remedy also included berm construction in July 2006 around the active CLTL facility to protect the remediated wetlands. The remedial design to restore the functional value of the wetlands was completed in May 2003, and the wetlands are currently being restored to their original functional value. The 1993 ROD

also included EPA's selected remedy of natural attenuation for the remaining 7.3 acres of contaminated forested wetlands.

### The Affected Environment

The affected environment is the CLTL Site-related wetlands designated as OU3. These wetlands include surface waters, soils and sediments in Cedar Swamp, including Moss Branch, and Cooper Lake. The wetland complex is bounded by Oak Grove Road to the southwest, the CLTL facility to the west and northwest, Cedar Swamp Road to the north, and undeveloped land to the east and south. Moss Branch and its unnamed tributary flow north through Cedar Swamp to join the Delaware River, south of Chester Island. As part of the OUI Remedial Design ("RD"), the wetland system at the CLTL Site was determined to be an "exceptional value wetland," as classified by the New Jersey Freshwater Wetlands Protection Act (N.J.A.C. 7:7A). N.J.A.C. 7:7A defines "exceptional value wetlands" as:

*"Those which are present habitats for threatened or endangered species, or those which are documented habitats for threatened or endangered species, and which remain suitable for breeding, resting, or feeding by these species during the normal period these species would use the habitat."*

The exceptional value classification was the result of the observation of American Bittern (*Botaurus lentiginos*), a State-listed endangered species, and barred owl (*Strix varia*), a State-listed threatened species in the OU3 wetlands. No other Federal- or State-listed threatened or endangered species are known to occur at the CLTL Site.

The Cedar Swamp wetland south and east of the CLTL facility is topographically the lowest point on the Site and acts as a receiving area for runoff from the higher elevation Site areas. These areas include both the former wastewater lagoons and the current active facility. The overflow from the former lagoons has caused the accumulation of CLTL-related contaminants measured in wetland surface water, sediment, and soil samples.

The Service's National Wetland Inventory (NWI) map classifies the OU3 wetland complex as palustrine. Palustrine wetlands include all non-tidal freshwater wetlands dominated by trees, shrubs, persistent emergents, emergent mosses, or lichens. The OU3 wetlands are primarily palustrine forested broad-leaved deciduous habitat (PFO1) dominated by red maple (*Acer rubrum*). They also include smaller palustrine scrub/shrub broad-leaved deciduous (PSS1) and palustrine persistent emergent (PEM) habitats. A PSS1 community is located on the southerly side of Moss Branch, south of the CLTL terminal. Common buttonbush (*Cephalanthus occidentalis*) and coast pepperbush (*Clethra alnifolia*) are co-dominants in this community. Communities of PEM1 vegetation, dominated by emergent herbaceous species, are present in a few small areas east and south of the Site's drainage swale (hereinafter referred to as the "swale area").

Soil and sediment sampling conducted as part of remedial activities in Cedar Swamp indicate that Site-related contaminants are scattered throughout the wetlands. The majority of contaminants are concentrated down gradient of the CLTL Terminal building in and around the swale area and an area of ponded water (hereinafter referred to as the "ponded area"). These areas received direct discharge of wastewater from the former lagoons. Samples collected in

Cedar Swamp further away from the CLTL Terminal and former lagoons generally showed a decrease in the frequency of detection and concentration of those Site-related contaminants.

Contaminants detected in the Cedar Swamp wetlands include metals, volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), pesticides, and polychlorinated biphenyls (PCBs). Metals, including arsenic, cadmium, chromium and lead, and SVOCs, including phthalates and polycyclic aromatic hydrocarbons (PAHs), are the contaminants present most frequently and in the highest concentrations above background levels in the OU3 wetlands. Pesticides, including *p,p'*-DDE, *p,p'*-DDD, *p,p'*-DDT, and endosulfan sulfate, a metabolite of the insecticide endosulfan, were widespread in both the sediment and surface soil samples in the wetlands of Cedar Swamp adjacent to the CLTL Site and background locations. Low levels of PCBs were detected in several Cedar Swamp soil and sediment samples. Metals, including arsenic, cadmium, chromium and lead, were detected at elevated levels in Cedar Swamp surface waters and were concentrated in the ponded area. Cedar Swamp surface water samples had trace concentrations of SVOCs and pesticides, whereas VOCs and PCBs were below detection limits in Cedar Swamp surface waters.

Cooper Lake surface water samples had metal concentrations at or below background levels. Phthalates were detected at trace concentrations in two surface water samples. The concentrations of pesticides and other organic contaminants were below detection limits in Cooper Lake surface waters. Chromium and nickel concentrations were detected slightly above background levels in one Cooper Lake sediment sample. Four VOCs and one phthalate (at trace concentrations) were also detected in Cooper Lake sediments. Endosulfan sulfate was the only pesticide detected in Cooper Lake sediments. The soils collected on the south shore of Cooper Lake contained metals at or below background levels and trace concentrations of VOCs, SVOCs, and endosulfan sulfate.

Current scientific literature indicates that environmental exposure to the aforementioned contaminants can result in injury to a variety ecological receptors including, but not limited to, migratory birds, reptiles, amphibians, aquatic and terrestrial invertebrates, and fish. These receptors, all of which inhabit the OU3 wetlands, would have been exposed to contaminated soil, sediment and/or surface water via dermal absorption, inhalation of particulate or vapor, and/or ingestion. The following are the conclusions of the OU3 ecological risk assessment.

- Surface water and sediment contamination levels will impact amphibian reproduction.
- Levels of several metals exceeded their respective Lethal Concentration 50 (LC<sub>50</sub>) dose for bluegill and tadpole. The LC<sub>50</sub> represents the concentration that is lethal to 50% of the population acutely exposed.
- Concentrations of DDT and its metabolites were reported within the sediment and surface water at levels that could affect avian reproduction and cause death in invertebrate species.
- Surface soil metal concentrations, specifically chromium, copper, and lead, were found to be above the known toxic effects levels for earthworms.
- The concentrations of several metals in Site surface water exceeded EPA's established Ambient Water Quality Criteria for the protection of aquatic life. The maximum exceedances occurred in the ponded area. Copper, aluminum, and lead concentrations in

this area are expected to significantly impact the reproductive success of amphibians and reptiles.

- The concentration of several metals in the ponded area and in the adjacent impacted area exceeded adverse biological effect levels used by the State of New Jersey in developing sediment quality guidelines.

In addition, the central and eastern portions of the Site, including the swale area, are dominated by the invasive and nuisance plant species common reed (*Phragmites australis*) and purple loosestrife (*Lythrum salicaria*). These species typically occur in areas of disturbed habitat. Their widespread presence in the central portion of the Site, where significant wetland impacts have occurred through intrusive anthropogenic activities, such as the discharge of contaminated wastewater from the CLTL facility, are indicative of wetland disturbance. Common reed and/or purple loosestrife dominate in areas where other species are less tolerant of the intrusive activities, are difficult to eradicate once established, and have low value for wildlife. Most herbaceous species and shrubs are out-competed by common reed and purple loosestrife, leading to a reduction in habitat diversity. The infestation of common reed and purple loosestrife creates a less diverse floral community and a lower quality wetland. The abundance of stressed vegetation and the absence of diverse wetland cover in areas that formerly provided diverse functional value represent significant negative wetland impacts associated with the CLTL Site.

#### Natural Resource Injuries

The natural resources injuries resulting from the release(s) of hazardous substances and subsequent remediation of CLTL Site OU3 involve a reduction in the quality and quantity of resting, nesting, and feeding habitat for migratory birds and other wetland species. The release(s) of hazardous substances (contaminated liquids from the CLTL Site's settling and aeration lagoons) was responsible for the contamination of approximately 14.6 acres of predominantly red maple swamp habitat. Trust resources such as migratory birds, mammals, reptiles and amphibians that utilize this habitat were adversely affected through pathways such as food source contamination and/or reduced abundance and diversity of food supply due to Site-related impacts on the resident prey base. CLTL Site-related hazardous substances were present in surface waters, sediments, and soils at or adjacent to the CLTL Site at, and in excesses of, concentrations correlated with adverse impacts to aquatic or terrestrial organisms. The natural resource injury includes the conversion of approximately 3.8 acres of red maple swamp to a less desirable and dysfunctional habitat primarily dominated by common reed and purple loosestrife. This conversion was attributed to historic anthropogenic Site activities, such as the discharge of contaminated wastewater. Lastly, the selected remedial action was designed to restore higher functional value through revegetation to the most damaged and degraded portions of the wetland adjacent to the CLTL facility while leaving approximately 7 acres of mature forested wetland intact but still contaminated. The perpetual impairment of the ecological functions and services provided by approximately 7 acres of forested wetland is a result of the release(s) of CLTL-related hazardous substances and the subsequent selection of the remedial action (natural attenuation).

## Damages Recovered

Pursuant to the Consent Decree in the case of United States of America and the State of New Jersey, Department of Environmental Protection v. Chemical Leaman Tank Lines Inc., (Civil Action No. 00-CV-5715 and 00-CV-5740), which was entered on March 16, 2001, CLTL paid the following amounts for natural resource damages at the Site: \$500,000.00 to DOI and \$3,652,261 to the State of New Jersey. DOI's \$500,000 settlement was deposited into its interest bearing NRDAR Fund of which \$26,906.83 was to be used to reimburse DOI's past assessment costs and the remaining \$473,093.17 would be used for restoration planning, implementation and monitoring. Forty-five thousand dollars (\$45,000.00) was allocated for restoration planning. As of May 31, 2007, the total amount available for restoration implementation and monitoring, including accrued interest is \$533,007.08.

The Consent Decree provided that: "[t]he jurisdiction, trusteeship, and restoration goals of the DOI and the State of New Jersey as natural resource trustees overlap. Accordingly, ... [the \$500,000.00 payment] shall be held by DOI in the Natural Resource Damage Assessment and Restoration Fund and shall be spent pursuant to a Memorandum of Agreement (MOA) to be entered into between DOI and New Jersey...which MOA...shall identify wetland restoration, creation, and/or enhancement as priority restoration options to be considered." This Final RP/EA addresses only restoration projects to be funded by the settlement funds received by DOI (\$500,000.00, plus accrued interest) and does not pertain to the use of settlement funds received by the State of New Jersey.

## **VI. PROPOSED RESTORATION**

This Final RP/EA explains the Trustees' decision-making process in evaluating proposed restoration alternatives and identifying the selected alternative. Under CERCLA and its implementing regulations, the purpose of restoration is to restore, rehabilitate, replace, or acquire the equivalent of the injured resources. Unless otherwise indicated, the term "restoration" is used to refer generally to any and all of these types of actions (*i.e.*, restore, rehabilitate, enhance, replace, acquire). Each of the possible alternatives consists of actions, individually or in combination, that would achieve those purposes through site-specific projects. The Trustees are not permitted to select any restoration project that would require expenditures in excess of the settlement funds received by DOI.

The Trustees identified the following as primary criteria for evaluating potential projects:

- priority is given to project(s) in New Jersey and preferably within a 25-mile radius of the CLTL Site;
- the restored habitat should be similar in type and provide similar services to the injured habitat at the CLTL Site before it was impacted; and,
- the project(s) should provide long-term or perpetual benefits to the injured natural resources.

In addition, pursuant to 43 CFR §11.82(d), the Trustees considered the following factors in evaluating restoration alternatives:

- technical feasibility;



- relationship of the expected costs of the proposed actions to the expected benefits from the restoration action;
- cost effectiveness;
- potential for additional injury resulting from the proposed actions, including long-term and indirect impacts, to the injured resources or other resources;
- natural recovery period;
- ability of the resources to recover with or without alternative actions;
- potential effects of the action on human health and safety;
- consistency with relevant Federal and State policies; and
- compliance with applicable Federal and State laws.

Based on these parameters and NEPA guidance, the Trustees identified several restoration alternatives.

### **Descriptions of Restoration Alternatives Considered**

The following restoration alternatives were considered: (A) On-Site Restoration; (B) Off-Site Wetland Restoration; (C) Wetland Habitat Acquisition; and (D) No Action. The basic components of each alternative are described below.

#### **Alternative A: On-Site Restoration**

The Trustees considered the alternative of restoring emergent and/or forested wetlands at the same location as the injury. Under Alternative A: On-Site Restoration, the Trustees evaluated possible restoration activities ranging from promotion of vegetative succession to intensive management actions to restore, replace, or enhance on-Site natural resources and the services they provided prior to contamination at the CLTL Site.

#### **Alternative B: Off-Site Wetland Restoration**

The Trustees considered the alternative of restoring emergent and/or forested wetlands at an off-Site location. Under Alternative B: Off-site Wetland Restoration, the Trustees evaluated possible restoration activities ranging from promotion of vegetative succession to intensive management actions to restore, replace, create, or enhance natural resources and the services they provided beyond the boundaries of the CLTL Site on land that could be afforded long-term or permanent protection by a conservation easement or other legally binding agreement.

#### **Alternative C: Wetland Habitat Acquisition**

The Trustees considered the alternative of restoring habitat through the acquisition of land that would be protected in perpetuity. In areas which face the threat of imminent development, legal protection of property interests can secure and promote wetland viability by decreasing future direct and indirect impacts to wetlands. Under Alternative C: Wetland Habitat Acquisition, property containing wetlands similar to those injured at and/or adjacent to the CLTL Site available at fair-market value would be acquired and the title transferred to a state or federal natural resource agency, local municipality or non-government organization to be maintained as

a natural resource conservation area(s). The acquired property(ies) would be protected with a perpetual conservation easement, deed restriction, or other legally binding mechanism, and would be managed to conserve, protect and promote the natural resource values of the property(ies).

#### Alternative D: No action

The Trustees addressed this alternative to fulfill requirements under NEPA and DOI's NRDAR regulations. Under Alternative D, No Action would be taken to restore resources injured due to contamination at the CLTL Site or to compensate the public for the lost use of those resources between the date of the injury and the date when the resources recover – if they do ever recover. Pursuant to this alternative, restoration of the natural resources and their ecological functions would be completely dependent upon natural processes.

### **Evaluation of Restoration Alternatives Considered**

#### Alternative A: On-Site Restoration

The Trustees considered, consistent with NRDAR guidance, On-Site Restoration as a possible alternative. To address this alternative, a discussion of EPA's selected remedial action for the CLTL Site is required. The EPA's selected remedial action (*e.g.*, the cleanup) for OU3 addressed 7.3 acres of contaminated wetlands and consists of the removal of 11,500 cubic yards of contaminated soil and sediment. This contaminated soil and sediment was excavated and disposed of at an approved facility. Although the selected remedial action substantially addressed the ecological risk posed by contamination in the wetlands, it did not address all wetland areas impacted by CLTL-related contamination. The selected cleanup action addressed areas of contamination that pose the greatest risk to ecological receptors. Furthermore, the selected cleanup action was designed to restore higher functional value through revegetation to the most damaged and degraded portions of the wetland adjacent to the CLTL facility while leaving the higher quality wetland intact, but still contaminated in perpetuity. The EPA's estimated capital cost for the selected remedial action was \$6,314,101. EPA determined, and DOI concurs, that the selected cleanup action was cost-effective, both financially and environmentally. Contamination in the unremediated wetlands was left to natural attenuation because cleanup activities would likely have caused more damage to the red maple swamp habitat than could be realized by the subsequent and costly restoration actions.

Given the above circumstances, the Trustees did not identify additional restoration actions that would not deleteriously affect the proper functioning of the remedial action. Therefore, this alternative would do nothing to offset injuries due to the release(s) of hazardous substances at and near the CLTL Site. As such, the On-Site Restoration Alternative is inconsistent with the intent of the Consent Decree and the NRDAR guidance and further evaluation of this alternative is unnecessary.

## Alternative B: Off-site Wetland Restoration

### Option 1: Habitat Restoration on Land Acquired for OU1-Related Ground Water Recharge.

The Trustees considered habitat restoration on land acquired for ground water recharge as part of restoration actions associated with the CLTL Superfund Site OU1. As part of the settlement for natural resources injuries, specifically ground water at the CLTL Site, the State of New Jersey received \$3,652,261 for the purchase of and restoration, restoration planning, implementation, oversight and monitoring of wetlands and associated uplands. The Trustees evaluated an option of combining land acquisition for restoration related to ground water injury(ies) (e.g. OU1) with OU3 wetland restoration funds to facilitate more restoration than could be accomplished using OU1 funds alone. During 2001 and 2002 the Gloucester County Office of Land Preservation provided the Trustees with a list of 11 parcels in Gloucester County that were available for acquisition (Table 1). All parcels presented were undeveloped or previously used for agricultural purposes.

To address injuries at the CLTL Site, the Trustees sought parcel-specific projects that would likely consist of a series of actions, singularly or in combination to restore, create, or enhance habitat similar to that injured at the CLTL Site. Generally, such restoration actions would include:

- modifying site hydrology by removing dikes, levees, and/or tiles; diverting water flow toward or away from the site; and/or regulating the site's hydrologic regime (through flooding and drawdown);
- modifying site pedology (soil morphology) by excavating and grading site topography to a desirable elevation; salvaging and relocating wetland soils; and/or adding organic matter or other soil supplements;
- modifying vegetative cover by allowing natural revegetation; seeding or planting desirable species; removing or controlling invasive plant species; controlling herbivores and disease; and/or installing temporary buffers and protective structures; and
- monitoring the ecological response to restoration actions and making mid-course corrections as warranted.

The parcels presented by the Gloucester County Office of Land Preservation generally contained small, isolated wetlands with limited restoration potential. The parcels generally had geologic and hydrologic characteristics that made them suitable as candidates for OU1-related acquisition and restoration, but of limited restoration scope relative to OU3 injuries.

This alternative would have no effect on human health and safety and would not cause any additional natural resource injuries. Although technically feasible, the costs associated with mobilization/demobilization of earthmoving equipment, obtaining multiple permits, and

<b>Project Site</b>	<b>Township</b>
Daniels	South Harrison
Winarski	Harrison
Pureland	Logan
Brancroft School	Upper Pittsfield
Cramer	Mantua
Lodge/Urban/Zander	West Deptford
Flack/Bowserfield	Mantua
Sorrentino	Greenwich
Warrington Mills	East Greenwich
Block 6, Lot 1 (Liberty)	Woolwich
Block 51.01, Lot 11 (Liberty)	Logan

engineering and logistical support (*i.e.*, construction of access roads) for wetland restoration in this area would be extremely high. Thus, this alternative is not considered to be cost-effective and is not expected to yield substantial restoration benefits.

#### Option 2: Biological Control of Invasive Plant Species

The Trustees evaluated an alternative that involved partnering with the New Jersey Department of Agriculture (NJDA)-Biological Control of Plant Pests Program in the biological control of an invasive plant species in Gloucester and Salem Counties. Under this alternative, the Trustees and NJDA would collaboratively identify suitable project areas to release the propagated Chinese weevil (*Rhyncomimus latipes*) to control the infestation of the mile-a-minute weed (*Polygonum perfoliatum*) and monitor effectiveness using excepted NJDA protocols.

Mile-a-minute, also known as Devil's tearthumb, grows rapidly, reputedly up to six inches per day, sprawling over other vegetation more than 20 feet tall and blocking sunlight. The U.S. Department of Agriculture classifies this species as facultative, or able to thrive in wetland or upland habitat. Thickets of mile-a-minute can reduce plant diversity in natural areas and degrade wildlife habitat. It is particularly aggressive in riparian areas (land adjacent to rivers and streams), a habitat type that many animal species depend upon. Mile-a-minute is a threat to tree regeneration in open meadows and along edge habitat and is most aggressive in areas with ample sunlight and moist soils. Where established, it is often found in edges of woods, stream corridors, riverine islands, fencerows, roadsides, uncultivated fields and other similar areas. Shade appears to be a limiting factor for this species; climbing over other plants is a strategy that helps the mile-a-minute weed reach sunnier areas while out competing other plants. Infestations of mile-a-minute weed currently extend from New York and Connecticut south to Virginia and west to Ohio; there are also reports of mile-a-minute infestations in Oregon. According to the NJDA, Gloucester and Salem Counties, New Jersey are among the worst mile-a-minute infested areas in the State.

A number of potential wetland areas have been identified where mile-a-minute treatment and control are warranted; they include but not limited to Fort Mott State Park, Salem River, Mad Horse Creek, Glassboro, Feather Bed Lane, and Harrisonville Lake Wildlife Management Areas, the Supawna Meadows National Wildlife Refuge, and other open space held by private or municipal entities. Option 2 under Alternative B would restore the lost ecological services and functions disrupted and impaired by common reed and purple loosestrife in the OU3 wetlands. This alternative would address the interim loss (the disruption and impairment) of OU3 wetlands due to the anthropogenic disturbances that resulted in the non-native invasive plant infestation at OU3 and future lost uses due to common reed and purple loosestrife seed dispersal and subsequent off-Site colonization. This alternative is technically feasible, cost-effective, would have no effect on human health and safety, and would not cause any additional natural resource injuries.

It should be noted that biological control of purple loosestrife by the NJDA is already in progress and sustainable within Gloucester and Salem Counties, New Jersey. Currently, there is no accepted biological method for control of common reed. A principal advantage of biological control over mechanical and chemical methods is that once established, the effects of biological

controls (*i.e.*, insects) can expand beyond the initial restoration site, controlling the targeted invasive plant species over a larger area with little or no further management intervention. This represents a value-added benefit as a continual, albeit passive, restoration action.

### Alternative C. Wetland Habitat Acquisition

Development pressures and changing land uses leading to increased urbanization along the Lower Delaware River are adding to the loss of open space and wildlife habitat. Some estimates suggest that New Jersey may reach full build-out in 20 to 40 years. Therefore, acquiring and holding undeveloped land in perpetuity ensures the preservation and conservation of the State's natural resources and is more cost-effective today than it will be in the future. Moreover, the acquisition of land for the purposes of maintaining open space, protecting the environment, and conserving natural resources as public assets is consistent with, and implements the New Jersey State Development and Redevelopment Plan ("Smart Growth"). This alternative provides for the acquisition of natural resources (*i.e.*, wetlands) to replace those injured at the CLTL Site, and the acquisition of additional resources to compensate the public for the lost use of those resources.

Under Alternative C: Wetland Habitat Acquisition, wetlands similar to those at the CLTL Site offered at fair-market value by willing sellers would be acquired and protected in perpetuity. The Trustees would use settlement funds to acquire parcels adjoining lands currently owned and managed by a Federal or State natural resource agency, or local municipality as open space. The Trustees would acquire land containing natural resources similar to those injured at the CLTL Site; the land would be purchased at fair market value from a willing seller. The acquired land would be transferred to the appropriate natural resource agency, municipality or non-government organization as a natural resource conservation area. The acquired property would be managed to prevent future injury or degradation to the resources of concern. This action expedites restoration, replacement and enhancement of lost resources and services associated with the CLTL Site. Such land may have the potential for additional restoration, rehabilitation, or enhancement of functional and sustainable wetlands which could be conducted under the habitat management plans of the land management agency having jurisdiction. This equates to land management in perpetuity, a valued added benefit to protection of the natural resources on the acquired land(s). If settlement funds in excess of the purchase price are available, they may also be applied to implement additional habitat enhancement on the acquired property or to supplement the acquisition of additional parcels. Additionally, land selected for acquisition may contain desirable natural resources possessing the potential for protection, buffering, or otherwise supporting the ecological development, maturation, function, or sustainability of desirable wetlands and the surrounding watershed.

Acquisition also provides habitat for a wide variety of wildlife species, including rare or endangered flora and fauna. By virtue of their inherent privacy and natural settings, parcels suitable for building adjacent to lands held as a natural resource conservation area (*e.g.*, State forests, parks, wildlife management areas; National Wildlife Refuges; preserves; natural areas) are difficult to find and highly sought after for residential development. Acquisition of property under this option can genuinely benefit resources similar to those injured at the CLTL Site by preventing further habitat fragmentation, construction of impervious cover (*i.e.*, pavement, sidewalks, buildings, dwellings), and degradation of water quality associated with suburban and

urban development. Finally, this alternative would facilitate the buffering of environmental impacts associated with rapid urban development (e.g., increased amounts of impervious cover, road run-off, and toxicant deposition; reduced groundwater recharge; loss of wildlife habitat) within the watershed and adjacent to the currently protected and managed lands.

The consequence of implementing this alternative would be the preservation and conservation in perpetuity of open space, a rapidly vanishing, valuable and irreplaceable natural resource in the lower Delaware River watershed. Another consequence of this action would be that acquired land, held in restricted public ownership, will no longer be available for commercial, residential, or economic development (potentially elevating the market value of other properties in the area). The acquired property would almost certainly be exempt from local and State property taxes. Acquisition of property and any associated restoration activities are not expected to create any potential for causing additional injury to natural resources. In addition, acquisition is not expected to have any adverse impact on human health and safety. Finally, given the intensive trend towards urbanization in the lower Delaware River watershed, land acquisition is a cost-effective and beneficial action capable of protecting the public's current use of natural resources (i.e., fish, wildlife, wetlands, surface waters and uplands) and the future stewardship of those resources.

This alternative is intended to maximize the benefits in relation to the cost of acquiring desirable properties through leveraging acquisition funds from other sources (i.e., New Jersey's Green Acres Program and non-governmental organizations). The implementation of Alternative C is commensurate with current real estate market values, locality, availability of willing sellers and parcel size, development potential and availability. Consideration of parcel-specific costs compared to the benefits that may be realized through their acquisition will be made on a parcel-specific basis as properties become available.

The Trustees have identified several potential parcels that meet the acquisition criteria. Implementation of this alternative is targeted to maximize the acreage acquired that compensates the public for interim lost uses in addition to replacing and protecting the natural resources injured at and/or from the CLTL Site in perpetuity. To avoid jeopardizing potential acquisition negotiations with willing sellers, identification of specific parcels under consideration for acquisition will not be disclosed at this time. However, upon selection of specific parcels, the Trustees will provide additional public notice to the extent required by NEPA and/or CERCLA.

#### Alternative D: No Action

This alternative is addressed to fulfill requirements under the NEPA and DOI's natural resource damage regulations, 43 CFR Part 11. Under Alternative D, no action would be taken to restore natural resources injured or destroyed due to contamination at the CLTL Site or to replace or acquire additional natural resources to restore the lost ecological and human services which would have been provided by those injured or destroyed natural resources. Restoration of the resources and their function would be completely dependent upon natural processes. The funds recovered for DOI's natural resource damages claim for the CLTL Site would not be spent. This alternative would result in no benefit from the settlement funds specifically recovered for restoration of resources injured at this Site and would result in the Trustees' failure to meet their

obligations pursuant to the Consent Decree.

This alternative would do nothing to offset injuries resulting from the contamination and results of response actions. No additional natural resource injuries would be caused by this alternative, but injuries resulting from the CLTL Site would go unaddressed. This alternative would have no effect on human health and safety. However, it is inconsistent with both Federal and State policies which promote the restoration of natural resources injured by hazardous substances. The no action alternative is also inconsistent with CERCLA's requirement that funds recovered by Trustees for natural resource injuries be spent on restoration, rehabilitation, replacement or acquisition of the equivalent of those resources. Based on the aforementioned facts, the Trustees propose to reject the No Action alternative.

## **VII. USE OF THE SETTLEMENT FUNDS**

### **The Selected Alternatives**

Pursuant to the Consent Decree, the DOI received \$500,000.00. These funds were deposited into the DOI's interest-bearing Natural Resource Damage Assessment and Restoration (NRDAR) Fund for future restoration of resources and the services they provided which were lost or injured as a result of contamination at the CLTL Site. As of December 12, 2007, the total amount available for restoration implementation and monitoring, including accrued interest is \$544,231.33.

The Trustees have selected a combination of Alternative B – Option 2: Biological Control of Invasive Plant Species and Alternative C: Wetland Habitat Acquisition as the Preferred Alternative for restoring the natural resources and the services they provided which were injured by OU3. To implement and accomplish Alternative B – Option 2: Biological Control of Invasive Plant Species, the Trustees plan to allocate \$20,000 to the invasive species control partnership with the NJDA. To implement and accomplish Alternative C, the Trustees plan to allocate approximately \$460,000 for habitat acquisition which may be augmented by other leveraged funds (*i.e.*, the State's Green Acres Program, non-governmental partners, or other NRDAR-related settlement funds that are otherwise eligible for parcel acquisition). The Trustees will also allocate \$50,000 for operational costs to implement and oversee all restorations taken pursuant to the Consent Decree. These costs include, but are not limited to property surveys, title searches, due-diligence inquiries, property posting, technical assistance, regulatory compliance, contracting and/or application of herbicides, and engineering and logistical services.

If the Trustees obtain new information indicating that any of these projects should not be implemented, that the allocation of funds among these projects should be significantly adjusted, or that another project or projects should be substituted for any of the projects discussed herein, the Trustees may select alternative projects for implementation or significantly modify fund allocations. In that event, they will provide further public notice to the extent required by CERCLA and/or NEPA.

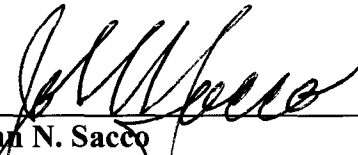
**VII. LIST OF AGENCIES, ORGANIZATIONS, INDIVIDUALS  
CONTACTED FOR INFORMATION**

Cape May National Wildlife Refuge Complex  
Ducks Unlimited  
Gloucester County Office of Land Preservation  
New Jersey Conservation Foundation/South Jersey Land Trust  
New Jersey Department of Agriculture - Biological Control of Plant Pests Program  
New Jersey Department of Environmental Protection - Division of Fish and Wildlife  
New Jersey Department of Environmental Protection - Division of Parks and Forests  
New Jersey Department of Environmental Protection - Green Acres Program  
Supawna Meadows National Wildlife Refuge  
The Conservation Fund  
Township of Logan, New Jersey  
U.S. Environmental Protection Agency – Biological Technical Assistance Group  
U.S. Environmental Protection Agency – CLTL Remedial Project Manager



**IX. SIGNATORY**  
to the

**Final Natural Resources Restoration Plan and Environmental Assessment for the Chemical  
Leaman Tank Lines, Inc., Superfund Site Operable Unit 3, Logan Township, Gloucester  
County, New Jersey, dated October 2007.**

  
\_\_\_\_\_  
**John N. Sacco**  
**Administrator**  
**Office of Natural Resource Restoration**  
**New Jersey Department of Environmental Protection**

  
\_\_\_\_\_  
**Date**

**IX. SIGNATORY**

to the

**Final Natural Resources Restoration Plan and Environmental Assessment for the Chemical  
Leaman Tank Lines, Inc., Superfund Site Operable Unit 3, Logan Township, Gloucester  
County, New Jersey, dated October 2007.**



**Marvin E. Moriarty**

**Regional Director**

**Region 5, U.S. Fish and Wildlife Service**

**/s/Wendi Weber**

11/23/08

**Date**

Acting

**UNITED STATES FISH & WILDLIFE SERVICE**  
**ENVIRONMENTAL ACTION STATEMENT**

Within the spirit and intent of the Council on Environmental Quality's regulations for implementing the National Environmental Policy Act (NEPA), and other statutes, orders, and polices that protect fish and wildlife resources, we have established the following administrative record and determined that the action of the Selected Alternatives, as set forth and to be set forth as described in the *Final Natural Resources Restoration Plan and Environmental Assessment for the Chemical Leaman Tank Lines, Inc., Superfund Site Operable Unit 3, Logan Township, Gloucester County, New Jersey*, dated December 2007.

Check one:

- is a categorical exclusion as provided by 516 DM 2, Appendix 1 and 516 DM 6, Appendix 1. No further NEPA documentation will therefore be made.
- is found not to have significant environmental effects as determined by the attached environmental assessment and findings of no significant impact.
- is found to have significant effects and, therefore, further consideration of this action will require a notice of intent to be published in the Federal Register announcing a decision to prepare an Environmental Impact Statement (EIS).
- is not approved because of unacceptable environmental damage, or violation of U. S. Fish & Wildlife mandates, policies, regulations, or procedures.
- is an emergency action within the context of 40 CFR 1506.11. Only those actions necessary to control the immediate impacts of the emergency will be taken. Other related actions remain subject to NEPA review.


Other supporting documents:

*Final Natural Resources Restoration Plan and Environmental Assessment for the Chemical Leaman Tank Lines, Inc., Superfund Site Operable Unit 3, Logan Township, Gloucester County, New Jersey*, dated December 2007


**Signature Approval:**

  
\_\_\_\_\_  
Supervisor, New Jersey Field Office


27 Dec 07  
Date

  
\_\_\_\_\_  
Region 5 NRDAR Coordinator

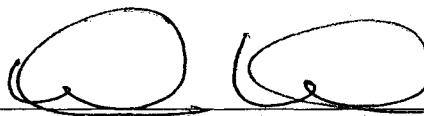
1/11/08  
Date

  
\_\_\_\_\_  
Region 5 NEPA Coordinator

1/24/08  
Date

  
\_\_\_\_\_  
Assistant Regional Director - Ecological Services

1/16/08  
Date

  
\_\_\_\_\_  
Acting Regional Director / DOI designated Authorized Official  
**/s/Wendi Weber**

1/23/08  
Date