DRAFT RESTORATION PLAN AND ENVIRONMENTAL ASSESSMENT:

Burgess Brothers, Inc. Superfund Site
Bennington and Woodford, Vermont
and
Tansitor Electronics, Inc. Superfund Site
Bennington, Vermont

Prepared by

Lead Administrative Trustee: U.S. Department of the Interior, U.S. Fish and Wildlife Service

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A. Introduction and Authority / Purpose and Need for Action

This Draft Restoration Plan and Environmental Assessment (RP/EA) has been developed by the Natural Resource Trustees to identify and evaluate alternatives to restore natural resources injured at the Burgess Brothers, Inc. Superfund Site and the Tansitor Electronics, Inc. Superfund Site (Sites). Both of these Sites are located in Bennington, Vermont in the Hoosic River drainage (Figure 1). Therefore, a combined restoration initiative is proposed. This will combine restoration settlement funds from both Sites and allow for a larger, more effective and meaningful resource restoration. This document describes proposed restoration actions and provides the public with an opportunity to give input to the restoration planning process.

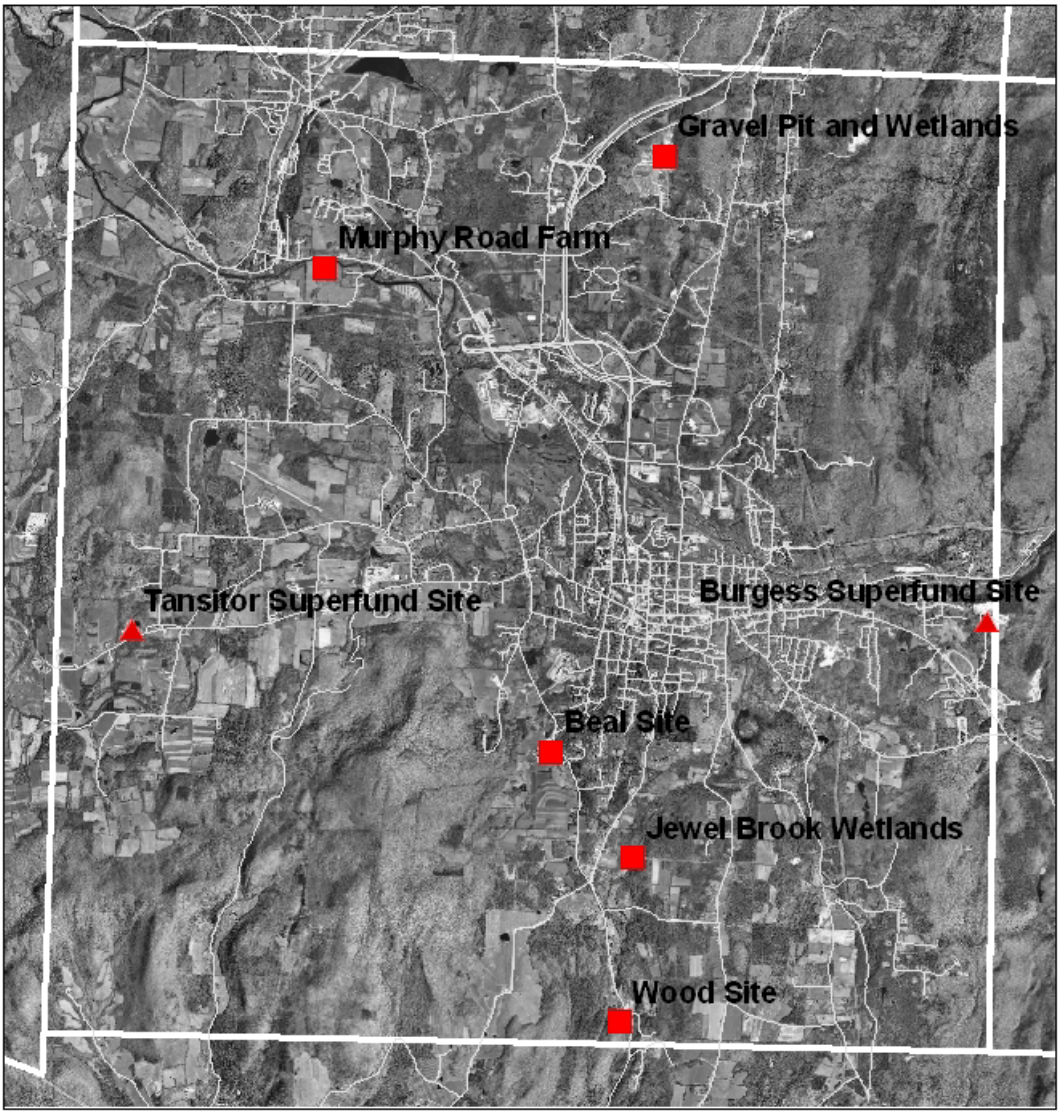
Natural resource trustees representing the U.S. Fish and Wildlife Service (USFWS), an agency within the Department of the Interior (DOI), and the State of Vermont have prepared this Draft Restoration Plan and Environmental Assessment (RP/EA). Executive Order 12580 designates federal and state trustees for natural resources, as described in Subpart G of the National Contingency Plan, 40 C.F.R. Section 300.600. The Secretary of the Department of the Interior is a designated federal trustee for natural resources including migratory birds, some marine mammals, anadromous fish, endangered species and their respective habitats, and federal lands managed by the Department. The Northeast Regional Director of the USFWS has been designated as the Authorized Official to act on behalf of the Secretary as trustee for these Superfund Sites. The states are designated trustees for all natural resources within their jurisdiction. The Secretary of the Vermont Agency of Natural Resources is the State's designated trustee.

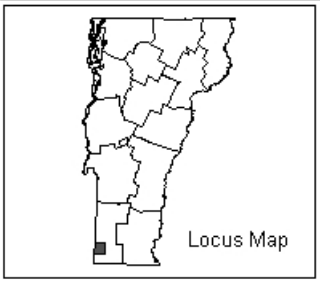
Under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) of 1980, as amended, natural resource trustees are authorized to assess and determine the extent of injuries to natural resources that have resulted from a release of a hazardous substance. The trustees recover compensation for injury to or loss of natural resources and plan and carry out natural resource restoration activities.

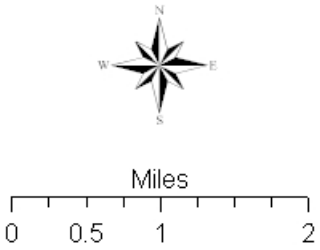
At the Burgess Brothers, Inc. Superfund Site (Burgess Site) the USFWS determined that erosion and remedial activities resulted in the permanent destruction of approximately 0.6 acres of palustrine emergent and forested wetland habitat. In turn, the loss of this wetland habitat adversely affected wetland-dependent wildlife, primarily migratory birds, utilizing these wetlands. In a 1999 settlement with the Responsible Party, the DOI received $100,000 to implement wetland habitat restoration, including all costs associated with planning, restoration, and monitoring.

At the Tansitor Electronics, Inc. Superfund Site (Tansitor Site), the USFWS determined that approximately 1,100 feet of stream were contaminated with silver and other metals, resulting in impacts to migratory birds. In a 1998 settlement with the Responsible Party, the DOI received $15,000 of an estimated $46,000 needed to implement stream restoration, including all costs associated with planning, restoration, and monitoring.

Figure 1. Bennington VT:
Superfund Sites and Potential Restoration Locations







Legend

- Restoration
- Superfund

Prior to expending funds for restoration, CERCLA requires the Trustees to develop a publicly reviewed restoration plan (42 U.S.C. Section 9611(I)). The DOI Natural Resource Damage Assessment Regulations require that the plan assess a reasonable number of possible alternatives for restoring, rehabilitating, replacing, and/or acquiring the equivalent of natural resources and the services lost as a result of the release of hazardous materials (43 CFR, Sections 11.93 and 11.81, DOI Natural Resource Damage Assessment Regulations). In addition, this document constitutes the environmental assessment as defined under the National Environmental Policy Act (NEPA) (40 CFR Part 1502.10), and addresses the potential impact of proposed restoration actions on the quality of the physical, biological, and cultural environment. This Draft RP/EA is intended to inform the public of potential restoration actions and to solicit their comments and ideas.

B. Background

1. Burgess Brothers, Inc. Superfund Site

The Burgess Site is situated in southwestern Vermont in the towns of Bennington and Woodford. The Burgess Site encompasses approximately 2-3 acres in a 60-acre parcel owned by the Burgess Brothers Construction Company. The Burgess Site contains a landfill and wetlands and is surrounded by hardwood forest. A small brook which drains the Burgess Site flows into Barney Brook which flows into the Walloomsac River approximately three miles from the Burgess Site. The Walloomsac River flows downstream to the Hoosic River. Wetlands and undisturbed portions of the Burgess Site provide important habitat for numerous migratory bird species, including thrushes, warblers, assorted passerines and several species of raptors.

From 1967 to 1976, waste products from the manufacture of batteries, primarily lead sludge, were disposed in small lagoons and municipal refuse was disposed in the landfill. In 1976, the State of Vermont shut down disposal operations at the Burgess Site and in 1989 the U.S. Environmental Protection Agency (EPA) listed the Burgess Site on the Superfund National Priorities List (NPL).

Beginning in the 1970's, wetlands adjacent to the landfill were impacted from the toxicity of hazardous waste migrating out of the Burgess Site. In the 1990's, containment and isolation actions were conducted to remediate the Burgess Site and prevent future impacts. However, these remedial actions also resulted in further injuries to wetlands due to erosion and other physical disturbance in wetland habitat. Specifically, 0.6 acres of palustrine emergent and forested wetland habitat were destroyed in perpetuity due to erosion/accretion, re-grading and capping of the landfill. A habitat equivalency analysis was utilized to calculate the amount of wetlands restoration needed to offset past and future wetland loss. Through this approach it was determined that approximately 2 acres of wetland restoration would compensate for wetlands impaired in the past and lost in perpetuity at the Burgess Site.

2. Tansitor Electronics, Inc. Superfund Site

The 44-acre Tansitor Site is located approximately three miles west of the City of Bennington,

Vermont. The Tansitor Site consists of a manufacturing facility, a chemical storage shed, several waste disposal areas, a fire pond, and considerable undeveloped open or wooded land. The Tansitor Site is bordered by agricultural land, woodlands, wetlands, and residential and commercial property. An intermittent, or seasonal stream originates to the north of the main facility, flows along the western edge of the property, and eventually discharges to a perennial stream. The stream flows into Brown's Brook which discharges to the Hoosic River approximately five miles downstream. Numerous migratory birds use habitats associated with the Tansitor Site for feeding, breeding, and/or cover. These include several species of ducks, raptors, thrushes, wood warblers, blackbirds, woodpeckers, and assorted finches.

Tansitor Electronics, Inc., a manufacturer of electronic capacitors, has been in operation at the Tansitor Site since 1956. Some of the wastes generated during Tansitor's manufacturing process were disposed on the Tansitor Site between 1956 and 1979. Contamination resulting from metals, including silver, mercury, copper, zinc and lead has also occurred due to Site activities. In October, 1989 the Tansitor Site was officially listed on the Superfund NPL.

Injury to Trust Resources, specifically migratory birds, occurred at the Tansitor Site due to indirect and direct effects from metals contamination in the perennial stream since at least 1980. The USFWS determined that approximately 1,100 feet of stream were contaminated, primarily with silver and other metals.

EPA's remedy for contamination in the perennial stream was natural recovery. Based on this approach to reducing toxicity, the USFWS determined that impairment of the stream would continue in the future until the silver and other metals are naturally bound or buried in sediments. To offset past and future impacts to the perennial stream, a habitat equivalency analysis was again utilized to calculate restoration needs. Approximately 1,100 feet of stream or streamside habitat restoration is needed to compensate for injuries to the perennial stream until natural recovery is complete.

C. Public Notification and Review

CERCLA requires the Trustees to notify the public and any federal, state, or local agencies with special interests or expertise relating to the RP/EA. In partial fulfillment of this requirement, the Trustees have published a public notice of the availability of the RP/EA in the Federal Register and The Bennington Banner. The document is available for review at the Bennington Public Library, 101 Silver Street, Bennington, VT 05201.

In addition, copies of the RP/EA may be obtained from the USFWS at the following address:

U.S. Fish and Wildlife Service
70 Commercial Street, Suite 300
Concord, New Hampshire 03301
Contacts: Kenneth Munney or Molly Sperduto
Phone: 603-223-2541, Fax: 603-223-0104

Interested parties who wish to comment on the RP/EA should do so in writing by July 30, 2004. Whenever possible, comments should reference specific pages in the RP/EA. Requests or suggestions relating to the RP/EA should be as specific as possible. For instance, a comment suggesting an additional alternative should spell out the alternative in detail. Comments should be sent to the USFWS office in Concord, New Hampshire.

After the 30-day comment period for the Draft RP/EA ends, the Trustees will publish a Final RP/EA to incorporate clarifications and revisions and to respond to comments.

D. Proposed Restoration

The Trustees' primary goal is to implement a restoration project that compensates for impacts to wetland and stream habitats. The concept of restoration in this context may include returning a resource to its prior condition, rehabilitating or replacing a resource, and acquiring other resources to compensate for those which were lost.

1. Specific Restoration Projects Considered

The Trustees must consider a "reasonable number" of possible restoration alternatives in developing their Restoration Plan (43 CFR, Section 11.81, DOI Natural Resource Damage Assessment Regulations). Potential projects should meet the following criteria: the restored habitat should be similar in type to the habitats impacted to provide similar ecological services; the project should be in the same watershed as the impacted wetlands; and the project should provide long-term or perpetual benefits to fish and wildlife resources. Based on these characteristics and National Environmental Policy Act guidance, the following specific potential projects were identified:

a. Alternative A: No Action Alternative

Federal regulations require the consideration of this option. Under the No Action Alternative, no restoration, rehabilitation, replacement, or acquisition actions would occur to compensate for resources injured due to remediation or contamination at the Burgess or Tansitor Sites.

b. Alternative B: On-Site Wetland/Stream Restoration

Wetlands impacted as a result of remediation or contamination at the Sites were investigated for potential restoration opportunities. At the Burgess Site, 0.6 acres of wetland habitat was destroyed in perpetuity as a result of remedial activities. Restoration of this wetland would not be possible because the area was utilized to extend the cap over the landfill and maintain appropriate grades. Restoration opportunities along a stream which runs adjacent to the landfill cap are also very restricted because of space and grade limitations. There is no additional wetland acreage present outside of this narrow corridor.

At the Tansitor Site, approximately 1,100 feet of stream were contaminated with silver

and other metals. Excavation of contaminated soil and sediments and stream bank restoration and re-vegetation would restore the site.

c. Alternative C: Wetland/Stream Restoration in the Vicinity of the Site
Off-site wetland and stream restoration projects were sought in the Town of Bennington. As a basis for the RP/EA, several sites that had been identified as potential mitigation sites for the Bennington Bypass and for the Bennington Landfill Superfund Site Restoration were reviewed for appropriateness and visited for assessment of current conditions. While both of these projects spent considerable effort attempting to locate suitable wetland restoration sites, only a few possibilities were located within the Town of Bennington. Natural resource professionals familiar with the watershed were also consulted to identify other potential restoration sites.

I. Beal Site
This site is located on Monument Avenue Extension, southwest of the city proper. The site consists of two areas of wet pasture totaling about 13 acres and situated on northeast facing slopes at the base of Mount Anthony. Cows graze in the pasture and utilize a small stream which drains into a small pond before draining to the Walloomsac River, approximately one mile downstream (Figure 2).

Restoration options at the site include excavating and expanding the existing wetland areas, including eliminating grazing and replanting with wetland-specific woody and herbaceous vegetation. Ditches that presently drain the site could be filled to restore a more permanent water regime.

Figure 2. Beal Site.

II. Wood Site

This site straddles Route 7 south of Bennington village. The site, which is about four acres in size, is currently being used as a hayfield (Figure 3). A drainage ditch/stream crosses the western section of the site, flows under the road and then crosses the eastern portion of the site. Discontinuation of mowing would allow natural succession and possibly restore scrub-shrub wetland habitat adjacent to the stream. Excavation of the hayfield adjacent to the stream on the eastern side of Route 7 could create additional wetland habitat. Opportunities for excavation are limited and unlikely to create more than 0.5 acres of habitat.

Figure 3. Wood Site.

III. Gravel Pit and Wetlands north and east of Bennington Landfill Site

This site is located in northeast Bennington, north of the Bennington Landfill Superfund Site on Houghton Lane and south of the Shaftsbury town line. There are approximately 13 acres of abandoned gravel pit land which grade downwards to a mostly forested and scrub-shrub wetland that forms the headwaters of Hewitt Brook (Figure 4). Unknown parties deposited clean, coarse fill in various locations throughout the wetland. There are scattered piles of rock and loose boulders as well as larger areas of finer materials (Figure 5). A breached berm at the base of the gravel pit and erosional processes during periods of high precipitation and spring snowmelt are responsible for the majority of finer fill material in the wetland.

During the spring of 2003, the Natural Resources Conservation Service (NRCS), an agency within the United States Department of Agriculture, began restoration of the gravel pit in cooperation with the Town of Bennington and a private landowner. The group succeeded in grading and seeding approximately six acres of the former gravel pit. Funds for the initial restoration effort have been exhausted, but a number of additional restoration activities are possible at the site. These include: 1) removing fill

from the wetland area and using it to grade slopes in the adjacent gravel pit, 2) restoring wetland grades and hydrologic regimes in the area of removed fill, 3) seeding the remainder of the gravel pit to reduce erosion and transfer of fill to the wetlands and to create nesting/foraging habitat for passerine species, 4) repairing the breached berm and constructing a water control outlet for surface water flowing from the gravel pit, and 5) expanding existing areas of wetland habitat. The focus of this project would be to restore approximately two acres of wetlands degraded with fill material and to restore grassland habitat to approximately seven acres of gravel pit to prevent additional degradation of downslope wetlands.

Figure 4. Gravel pit.

Figure 5. Gravel fill in wetland.

d. Alternative D: Acquisition of Equivalent Resources

Acquisition of equivalent resources entails the purchase and protection in perpetuity of

wetland, aquatic or upland habitats that provide resources similar to those injured by the contamination. Potential protection areas include lands which provide habitat for endangered, threatened or rare species, migratory birds or other important natural resources. Upland areas that may be threatened by development, and that help maintain the integrity of existing wetland or aquatic areas would be considered a priority.

I. Murphy Road Farm

The Murphy Road Farm parcel is approximately 60 acres in size. It is located south of Route 67 and north and west of Murphy Farm Road in North Bennington. The parcel has approximately 1,500 feet of frontage along the Walloomsac River. Much of the land is designated as prime agricultural land and the majority of the parcel was used to grow corn in 2003 (Figure 5). Scattered trees in the interior of the parcel provide some shelter and habitat for wildlife. Development projects have sought the parcel in the recent past. Protection of wetland and wildlife habitat along the Walloomsac River would be the focus of this acquisition.

Figure 5. Murphy Road Farm.

II. Jewitt Brook Wetlands

Jewitt Brook flows north along Route 7 in Pownal and Bennington, Vermont. Various opportunities for wetland and adjacent upland protection lie along the Route 7 corridor, particularly as development expands along the corridor following the construction of the eastern portion of the Bennington Bypass. Specific land protection parcels have not yet been identified; however, numerous opportunities for upland and wetland habitat protection are likely.

2. Evaluation of Impacts and Comparison of Projects

Both CERCLA and NEPA require the trustees to assess and disclose the potential effects of

restoration alternatives. This section discusses the potential benefits and consequences of each alternative.

Criteria considered in evaluating each of the possible restoration projects included the following: similarity of the restored habitat to the injured resources; technical feasibility; cost; potential for additional injury resulting from the proposed actions, including long-term and indirect impacts; 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, State, and tribal policies; and compliance with applicable Federal, State, and tribal laws.

a. Alternative A: No Action Alternative

Under the no action alternative, injuries to migratory birds and their habitats would be uncompensated. Wetland habitat lost during construction of the landfill cap at the Burgess Site or stream habitat impacted as a result of contamination at the Tansitor Site would not be restored and associated services lost to the public in the past and future would not be compensated. Further, no benefits would be realized from the settlement with the responsible parties at the Burgess and Tansitor Sites. Finally, the obligations of the settlements would not be met.

b. Alternative B: On-Site Wetland Restoration

Restoration of on-site wetlands and streams at the Burgess and Tansitor Sites was considered; however, it was impractical and undesirable for the following reasons. At the Burgess Site, wetlands were filled during remediation of the landfill to achieve appropriate slopes. These wetlands were lost in perpetuity and provide no restoration opportunity. Additional wetland restoration along the stream which drains the site is restricted by space and grade limitations imposed by the landfill. No additional wetland habitat suitable for enhancement, restoration or protection occurs on the Burgess Site.

At the Tansitor Site, silver and other heavy metals have contaminated approximately 1,100 feet of a nearby perennial stream and degraded the associated habitat quality. Remediation through sediment removal would be the most effective method to eliminate contaminant impacts and allow for restoration of the stream habitat. However, this option was not preferred because sediment removal would cause further ecological harm due to the elimination of the existing benthic and aquatic community. Furthermore, sediment removal would, by necessity, result in removal of associated structural habitat components, such as rocks, trees, shrubs and herbaceous cover within the streambed and along the streambanks. Dredged material would need to be disposed of, potentially as hazardous waste, which would incur significant expenditure of funds. Dredging activities associated with sediment removal would also potentially re-suspend contaminants and possibly increase contaminant loads in currently less contaminated, downstream portions of the stream. Following sediment removal, streambed characteristics would need to be re-established and extensive re-vegetation of the streambed and access areas would need to be performed. EPA determined that natural attenuation would eventually mitigate contaminant impacts in the future and was the

most effective, least-destructive remedial alternative. For all of the above reasons, on-site stream restoration was considered unfavorable.

c. Alternative C: Wetland Restoration in the Vicinity of the Site

Three potential wetland restoration projects were identified in the vicinity of the Site. An evaluation of each of these follows.

I. Beal Site

The Beal Site offers opportunities to excavate and expand existing wetlands as well as to re-engineer drainage ditches to restore wetlands. One area of approximately four acres could be expanded to about six acres through excavation and re-engineering. Another area of approximately nine acres runs parallel to Monument Avenue Extension. This area could also be excavated, expanded and planted with wetland woody and herbaceous vegetation to improve wildlife habitat. The two areas are somewhat separated by the road which traverses the property. The largest drawback associated with the Beal Site is that the habitat on the property is mostly wet meadow and this differs from the forested and scrub-shrub wetlands and stream habitats impacted at the Burgess and Tansitor Sites.

II. Wood Site

Totaling approximately four acres in size, this site offers limited restoration opportunity. Simple measures such as discontinuing haying of the property could enhance wildlife habitat; however, more extensive wetland expansion would be infeasible due to the limited size of the area and its proximity to Route 7. The existing wetland, which drains in a northerly direction towards Jewett Brook, is also fairly isolated from other wetlands and the quality of the wetland is diminished due to the proximity of Route 7. The Wood Site is also primarily wet meadow which differs from the impacted habitats at the Burgess and Tansitor Sites.

III. Gravel Pit and Wetlands north and east of Bennington Landfill Site

This site offers several good opportunities for restoration. Removing fill from the wetland down-gradient of the gravel pit would restore at least two acres of wetland. Adjacent degraded wetland acreage could also be restored by excavating additional fill. Restoration of the adjacent upland gravel pit and berm would create approximately seven acres of grassland migratory bird habitat and prevent future degradation of the downslope wetland. Over the long term, unchecked erosion and sedimentation from the gravel pit will continue to degrade the downslope wetland.

Restoration of this forested and scrub-shrub headwaters wetland is particularly preferred because it has similar functions and values to the Burgess Site wetland and because it would benefit downgradient Hewitt Brook, a stream similar to that impacted at the Tansitor Site. The restoration of the headwaters wetland would also benefit migratory birds and other wildlife utilizing the surrounding wetlands and uplands.

The breadth of restoration activities conducted would depend on the cleanliness of groundwater. Currently, a contaminated groundwater plume flows from the Bennington Landfill in the direction of the ponds adjacent to the proposed wetland restoration area. The most recent groundwater monitoring well data (Spring 2003, EPA), show concentrations of volatile organic compounds (VOCs) below drinking water standards. Additionally, very low parts per billion (ppb) concentrations of polychlorinated biphenyls (PCBs) and moderate levels of heavy metals, principally iron and manganese, are also present. EPA will be conducting field studies during Summer 2004, as part of a 5-year NPL Bennington Landfill Site Review. This will provide a status update on groundwater, surface water and sediment concentrations in wetlands adjacent to the proposed restoration area.

Wetland restoration alternatives would be adapted to the prevailing site conditions, based on study findings. Restoration actions aimed at preventing future transportation of fill into the wetlands would be conducted first, followed by removal of past fill from the wetland. Further excavation and expansion of the wetland below current grades would only be conducted if contaminant levels are low and future risk of contamination is not anticipated. A step-wise approach would allow for maximum habitat restoration and minimal site-associated contaminant risk to natural resources.

d. Alternative D: Acquisition of Equivalent Resources

The Murphy Road Farm was considered as a candidate for habitat protection because it provides wildlife habitat, abuts adjacent wetland and riverine habitat, and it is highly developable. Protection of this property would promote the long term viability of the adjacent Walloomsac River.

In addition, the Jewett Brook/Route 7 corridor was identified as a possible area to seek upland and associated wetland protection. Permanent protection would prevent development and related threats to associated wetlands, including erosion, physical disturbance, contaminant runoff, and septic leachate.

While land protection may be pursued if restoration options are not feasible, restoration options better meet the goal of the settlement: to create or restore wetland and stream habitat similar to that which was impacted at the Burgess and Tansitor Sites.

3. Project Proposed for Implementation

Based on an evaluation of the potential benefits and impacts of the various restoration alternatives, restoration of the Gravel Pit and Wetlands north and east of Bennington Landfill is proposed. This alternative would meet our restoration goal of restoring at least two acres of forested and scrub-shrub wetlands and associated downstream habitat, with the additional benefit of creating grassland habitat on a denuded gravel pit while preventing future sedimentation to adjacent wetlands. Additional wetland enhancement and restoration may be possible depending on the quality of groundwater on the site. While several other options provide for restoration of wetlands, they involve smaller, isolated wetlands or wetlands with

different functions and values than the wetlands impacted at the Burgess and Tansitor Sites. Local support and interest in the restoration of the Gravel Pit and Wetlands north and east of Bennington Landfill is demonstrated by the existing cooperative efforts of the Town of Bennington and the NRCS. Their efforts bring additional funds, support and expertise which can be used to ensure a successful habitat restoration project. For all of these reasons, we believe that the Gravel Pit and Wetlands north and east of Bennington Landfill provide the best opportunity to restore services lost to the environment and to the public as a result of activities at the Burgess and Tansitor Sites.

4.0 Monitoring Plan

Baseline conditions for restoration at the site should be established before restoration activities are initiated. Monitoring of post restoration conditions should occur for at least five years after completion. A monitoring plan will be issued with the project design plan and prior to restoration activities beginning.

E. List of Agencies, Organizations, and Parties Consulted for Information

Joan Allen, The Nature Conservancy
Mark Barash, Office of the Solicitor, Department of the Interior
Don Campbell, Vermont Land Trust, southwest office
Eric Derleth, U.S. Fish and Wildlife Service
George Desch, Vermont Agency of Natural Resources
Hoosic River Watershed Association
Ron Jennings, U.S. Environmental Protection Agency
Jenny Kimberly, Natural Resources Conservation Service
Stuart Hurd, Town of Bennington
Martha A Lefebve, U.S. Army Corps of Engineers
Sandy Levine, Conservation Law Foundation
Bob Popp, Vermont, Vermont Natural Heritage Program
Allan Quackenbush, Vermont Agency of Natural Resources
Shelly Stiles, Bennington County Conservation District
Vermont Audubon