# FINAL RESTORATION PLAN AND ENVIRONMENTAL ASSESSMENT:

Yaworski Lagoon Superfund Site Canterbury, Connecticut .

Prepared by

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

Issued: February 2009

Contact: Molly B. Sperduto U.S. Fish and Wildlife Service 70 Commercial Street, Suite 300 Concord, NH 03301 (603) 223-2541

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# A. Introduction and Authority/Purpose and Need for Action

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This Final Restoration Plan and Environmental Assessment (RP/EA) has been developed by the U.S. Fish and Wildlife Service (Service) to identify and evaluate alternatives to restore natural resources injured at or as a result of the discharge of hazardous substance(s) from the Yaworski Lagoon Superfund Site (Site) located in Canterbury Township, Windham County, Connecticut. This document describes proposed restoration actions and incorporates public input received during the restoration planning process.

Executive Order 12580 and 40 CFR § 300.600 designate the federal and state trustees for natural resources. The Secretary of the Department of the Interior (DOI) is the designated federal trustee for certain natural resources including, but not limited to, migratory birds, some marine mammals, anadromous fish, federally endangered and threatened species and their respective habitats, and federal lands managed by DOI. The Secretary of the Interior has designated the Northeast Regional Director, Region 5 of the Service to act as the Authorized Official on behalf of DOI for the Yaworski Lagoon Superfund Site. The Executive Order and Federal Regulation provide that each state is the designated trustee for all natural resources within its boundaries. The governor of each state designates the state agency or agencies that will act as the natural resource trustee(s) for his/her state. The Governor of Connecticut has designated the Connecticut Department of Environmental Protection (CTDEP) as the state's natural resource trustee. Thus, the Service and CTDEP are the natural resource trustees (Trustees) for the Site.

Under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) of 1980, as amended, natural resource trustees are authorized to assess and recover compensation for injury to and/or loss of natural resources resulting from a release of a hazardous substance(s).

In May 2000, DOI determined that hazardous substances released at the Site adversely affected migratory birds and their habitats, particularly wetlands adjacent to the Quinebaug River. DOI sought compensation for these adverse impacts through creation of wetland habitat similar to that which was lost. In consideration of issues related to, among other factors, the settling parties liability at the Site, DOI ultimately agreed to a monetary settlement of \$40,000. DOI deposited the settlement funds in an interest-bearing account managed by DOI; the total amount of available funds (initial deposit plus accrued interest minus \$7,000 withdrawn for restoration planning) is currently approximately \$36,000. Since the Trustees do not anticipate recovering additional settlement funds, they are seeking to maximize wetland restoration with the funds that are currently available.

Prior to expending funds for restoration, CERCLA requires the Trustees to develop a publicly reviewed restoration plan [(42 U.S.C. § 9611(i)]. DOI Natural Resource Damage Assessment Regulations (43 CFR Part 11) require that the restoration plan list a reasonable number of possible alternatives for restoration, rehabilitation, replacement, and/or acquisition of equivalent resources and the services lost to the public associated with each injured resource

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(43 CFR §§11.93 and 11.81). 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.

# **B. Background**

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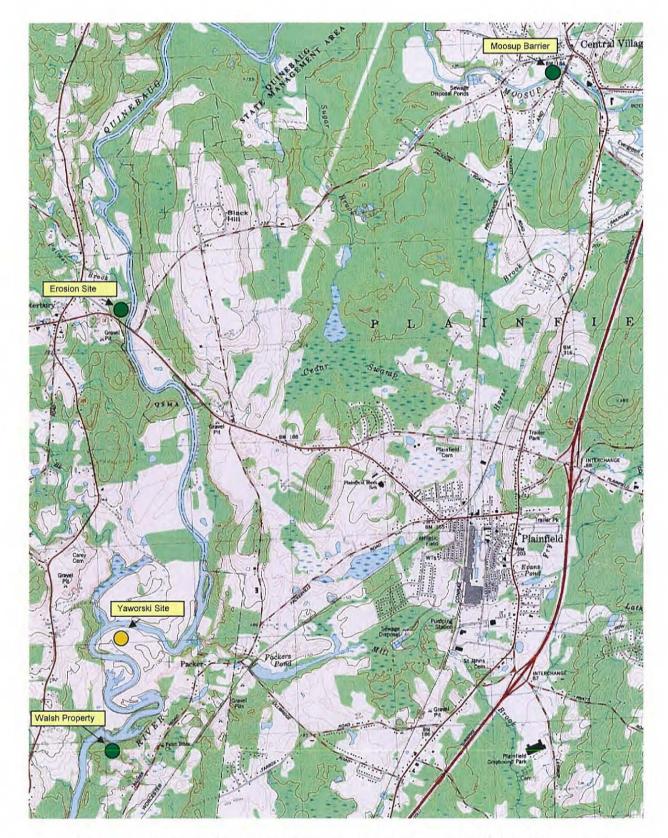
The Site is located in the Quinebaug River Watershed on approximately five acres of land in Canterbury, Connecticut (Figure 1). The Site is west of the Packer Road (Yaworski) Landfill which is regulated under state authority. The Site lies within the 100-year floodplain along a meander bend of the Quinebaug River. From 1950 to 1973, industrial wastes, including solvents, paints, textile dyes, acids, resins and various other debris, were disposed of in an on-site lagoon. After groundwater wells revealed contamination from volatile organic compounds (VOCs) and metals, the CTDEP ordered that the lagoon be closed and capped in 1982. The Site was added to the Superfund National Priorities List (NPL) in 1984.

Remedial investigations revealed VOC and metal contamination of groundwater, soils, surface water, and sediment in the lagoon and surrounding vicinity. Specifically, sediments and surface waters in wetlands south of the lagoon and the Quinebaug River were contaminated with metals, including copper, lead, zinc, cadmium and chromium. In 1988, the U.S. Environmental Protection Agency (USEPA) released a Record of Decision (ROD) for the Site. Remedial activities contained in the ROD included capping the lagoon, reinforcing the dike between the lagoon and the Quinebaug River, and monitoring groundwater contamination.

A variety of fish and wildlife utilize habitat in the vicinity of the Site. Fish species in the Quinebaug River include white sucker, common shiner, fallfish, red-breasted sunfish, and longnose dace (Parasiewicz 2004). Anadromous fish that utilized the river in the vicinity of the Site prior to the installation of dams in the 1800s include blueback herring, American shad, sea lamprey, and Atlantic salmon.

A number of bird species were observed or expected to utilize habitats in the vicinity of the Site (ENSR 1993). These include waterfowl (American black duck, Canada goose, mallard), wading birds (great blue heron, green-backed heron), raptors (American kestrel, red-shouldered hawk) and passerines (blue jay, blue bird, American robin, wood thrush, northern mockingbird, song sparrow, common yellowthroat, yellow warbler).

In DOI's May 2000 natural resource damages settlement, the Department concluded that 5.7 acres of freshwater wetlands were impacted as a result of contamination from the Site. Contaminated surface water and sediments likely resulted in adverse impacts to aquatic organisms (i.e., reduced diversity and/or abundance). As a result, the quality of the foraging



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Figure 1. Location of Yaworski Site (yellow) and Restoration Opportunities (green).

habitat for birds, fish and other wetland-dependant species was reduced. In addition, these species likely were directly impacted by ingesting contaminated surface water, sediment and food sources.

#### 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 published a public notice of the availability of the Draft RP/EA in <u>The Chronicle</u>. The document was available for review at the Canterbury Public Library, 1 Municipal Drive, Canterbury, Connecticut 06331.

In addition, copies of the Draft RP/EA were available from the U.S. Fish and Wildlife Service at the following address:

U.S. Fish and Wildlife Service 70 Commercial Street, Suite 300 Concord, New Hampshire 03301 Contact: Molly Sperduto Phone: 603-223-2541, Fax: 603-223-0104 email: molly\_sperduto@fws.gov

The document was also available online at:

http://www.fws.gov/northeast/newenglandfieldoffice/Contaminants-NRDAR-restoration\_projects-yaworski.htm

Interested parties were asked to comment on the Draft RP/EA by December 31, 2008. Fifteen comments were received and they are attached as Appendix A

#### **D.** Proposed Restoration

The Trustees' primary goal is to implement a restoration project that compensates for adverse impacts to habitat for migratory birds, fish and other wetland-dependent wildlife caused by the release(s) at or from the Site. The concept of restoration in this context may include returning a resource to its prior condition, rehabilitating or replacing a resource, and/or acquiring other resources to compensate for those which were lost as a result of the release of hazardous substances.

#### 1. Specific Restoration Projects Considered

The Trustees are required to consider a reasonable number of possible restoration alternatives (43 CFR §11.81). In their initial review, the Trustees identified the following as desirable characteristics for potential projects: the restored habitat should be similar in type to the habitat impacted to provide similar services; the project should be in the same watershed as the impacted wetland; and the project should provide long-term or perpetual

benefits to fish and wildlife resources. Based on these criteria and on NEPA guidance, the Trustees identified the following specific potential projects:

# a. Alternative A: No Action Alternative

Federal regulations require the consideration of this option. Under this Alternative, no restoration, rehabilitation, replacement, or acquisition actions would occur to compensate for resources injured due to contamination or remediation of contamination from the Site. There is no cost to the no action alternative.

# b. Alternative B: On-Site Wetland/Riverine Restoration

On-site wetlands are frequently considered for restoration. In this case, the on-site wetland area was contaminated with concentrations of cadmium, chromium, copper, lead and zinc that exceeded ambient water quality and ecotoxicity criteria (USEPA 1988). Erosion from the lagoon also increased sedimentation in the wetland, decreasing its flood storage capacity and its value as wetland habitat. Restoration of the on-site wetland could include removal of contaminated sediments, grading and revegetation with native wetland species. Removal and disposal of contaminated sediments is estimated to cost at least \$128,000/acre (ERM 1994).

c. Alternative C: Wetland/Riverine Restoration in the Vicinity of the Site Canterbury officials and federal, state and private natural resource agency professionals suggested the following off-site wetland restoration projects:

#### (1) Quinebaug River Bank Stabilization/Boat Access Location

Approximately 2 river-miles upstream of the Site, where Route 14 crosses the Quinebaug River, the west bank of the river is eroding. Located on Quinebaug State Management Area land (Figure 1), the shoreline is used by recreational fishermen, as well as by people seeking access to the river for canoes, kayaks and other car-top boats. Due to this recreational traffic, a path has eroded causing sedimentation into the river (Figure 2).

A defined river access path could be constructed to prevent erosion and sediment transfer to the river. Any new access on state land must comply with the Americans with Disabilities Act, therefore ramps must be hard surface and constructed with slopes less than 5%. Shoreline structures or docks must also be provided to allow transfer from shore to boats. Parking for the access area could also be redesigned and upgraded to minimize runoff. Depending on the extent of improvements at the boat access location, the cost of this type of project would likely be more than \$100,000.



Figure 2. Erosion on boat launch path to Quinebaug River

# (2) Moosup River Fish Barrier Removal

The Moosup River originates in Rhode Island and flows through Sterling and Plainfield, Connecticut before flowing into the Quinebaug River in Plainfield, approximately 6 miles upstream from the Site. The 16-mile Moosup River is one of five main tributaries to the Quinebaug River and it currently supports one of the most important cold water fisheries in the state. Historically, the Moosup River also provided spawning habitat for anadromous fish such as river herring and shad. Currently, dams lower in the watershed prevent upstream fish migration; however, recent efforts to provide fish passage have resulted in anadromous fish returning to the Quinebaug River as far north as the Aspinook Pond Dam (approximately 6 miles below the Site). Passage at the Aspinook Pond Dam would open the Quinebaug River and tributaries, including the Moosup River, to anadromous fish.

Approximately 2 miles up the Moosup River, there is a partially embedded cast iron pipe that acts as a barrier to fish and other aquatic organisms, particularly under low flow conditions (Figure 3). The pipe was likely used as a water main in the early 1900s. This barrier could be removed to improve habitat connectivity, water flow and water quality in the river. According to The Nature Conservancy, "the removal of the barrier will add approximately 5,000 ft of reconnected riverine habitat on the Moosup River and more than 4 miles of habitat on two important tributaries: Angell Brook (1.62 miles) and Apple Tree brook (2.43 miles)." The project would benefit instream migrations of fish such as white sucker, white perch, walleye and trout species. Furthermore, if American eel or anadromous fish passage is installed at the Aspinook Pond Dam, the barrier removal will expand access to more than 5 miles of additional

# habitat.

Estimates to remove the pipe range from \$20,000 to \$50,000, depending on whether all engineering, permitting and contractor costs are included. Should some design and permitting be handled in-house the lower estimate may be more accurate.



Figure 3. Abandoned water main across the Quinebaug River limits instream migration of fish and other aquatic organisms.

# d. Alternative D: Acquisition of Equivalent Resources

Acquisition of equivalent resources entails the purchase and protection in perpetuity of wetland and/or upland habitats that provide resources similar to those injured by the contamination. Potential protection areas include those lands which provide habitat for migratory birds or other important natural resources such as endangered, threatened or rare species. Upland areas that help maintain the integrity of aquatic areas and are at risk of being lost due to threatened imminent development will be considered a priority.

Acquisition of equivalent resources is frequently considered the least-preferred alternative because it results in preservation of existing resource values rather than replacement of lost resource values. However, in areas under imminent threat of development, protection can be a critical mechanism to secure and promote resource viability by preventing future direct and indirect impacts of such development.

Approximately one-half mile to the south of the Site, there is an 11-acre parcel which is currently for sale (the Walsh property). The property borders the Quinebaug River for approximately 1,000 feet (Figure 2). The parcel is approximately 2,000 feet long and 200 feet wide with frontage on Packer Road. It is considered to be a buildable lot;

however, due to limited road frontage, building will be restricted to the interior of the parcel (closer to the river).

The property is comprised of forested upland and wetland habitat, as well as several acres of open meadow adjacent to the road. Approximately two-thirds of the property is forested upland, with a mix of hardwood and coniferous species, including red maple, birch, white pine, and hemlock. The understory is fairly sparse with mountain laurel, sassafras and blueberry growing along the river's edge (Figure 5) and in the wetter areas of the property. There are two linear depressional wetlands that comprise approximately 2 acres of the property (Figure 6). These are dominated by shrubs with some areas of open water suitable for obligate vernal pool species.





Figure 5. Looking downstream on the Quinebaug River along the shore of the Walsh property.

Figure 6. Depressional wetland.

The property provides habitat for a variety of species due to its setting adjacent to the river and its mix of upland and wetland habitats. Numerous bird species observed or expected to inhabit the property include thrushes (Eastern bluebird, wood thrush, American robin), warblers (common yellowthroat, yellow warbler, ovenbird), vireos (red-eyed), blackbirds (red-winged blackbird, common grackle), titmice (black-capped chickadee, tufted titmouse), flycatchers (eastern phoebe, eastern kingbird, eastern wood-pewee) and woodpeckers (downy woodpecker, hairy woodpecker, northern flicker). Raptors (hawks), wading birds (herons) and waterfowl (ducks) also use the adjacent river. Mammals, including white-tailed deer, fisher, black bear, and a variety of small rodents also use the Site. The river shoreline and interior of the parcel provide good nesting habitat for turtles (snapping and painted) and the depressional wetlands provide habitat for amphibians such as wood frogs and salamanders (yellow-spotted and marbled). The Connecticut endangered eastern spadefoot toad is also known to breed along the river in Canterbury and Plainfield.

The property is bound to the south by an on-going mining operation and to the north by residential development and a recycling facility. Another similarly-shaped parcel, located immediately south of the southern abutter, has been protected by the Wyndham

Land Trust. Also, approximately 2 miles to the north, the state-owned Quinebaug River Wildlife Management Area protects a number of miles of river shoreline.

The full transaction cost to purchase the property is not known; however it is currently listed for sale for \$130,000.

#### e. Alternative E: Educational Opportunities

Through a grant from the state library, the Town of Canterbury and the Connecticut Audubon Society began a citizen science volunteer program in 2008 to enlist the help of volunteers, to inventory vernal pools in the town. Using a program developed by the Connecticut Audubon Society, the objective is to educate people about the town's natural resources and, specifically, to promote the stewardship of vernal pools. By surveying the fauna at selected vernal pools, the volunteers were able to learn about these unique habitats, as well as to better characterize local amphibian populations. The data also provides information on the town's natural resources that can be used in the development of the town master plan.

In 2009, the town would like to repeat the program to reach more local citizens and to expand the number of pools that are surveyed. Funds would be utilized to train volunteers to identify and survey vernal pools, and the data would be tabulated and mapped for use with the town's natural resource planning efforts. Training programs would be held at the library to increase the local citizens' knowledge and appreciation of vernal pools.

In addition to surveying vernal pools, a more comprehensive natural resource inventory could be undertaken where different natural resources are evaluated throughout the year. For example, a mammal tracking program could be initiated in winter, grassland birds could be monitored in summer, and water quality could be evaluated in fall. In addition to better characterizing important natural resources, a year-long effort would more broadly educate townspeople.

A year-long program comprised of three to four training/information sessions and three to four field training sessions, plus a compilation of data collected and sites visited, could be achieved for \$12,000.

# 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 of the alternatives identified above.

Criteria considered in evaluating each of the possible restoration projects include 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 and upland habitat impacted by contamination would not be restored, and associated services lost to the public in the past and future would not be compensated. No benefits would be realized from the settlement with the responsible parties at the Yaworski Lagoon Superfund Site and the Trustees' obligations under the Consent Decree would not be met. Therefore, this is not the preferred alternative.

# b. Alternative B: On-site Wetland Restoration

Removal of contaminated sediments from the on-site wetland was considered; however, it is not preferred for a number of reasons. First, under the remedial process, EPA chose not to conduct any removal activities at the on-site wetland. Part of EPA's rationale was that excavating in a floodplain presented logistical difficulties and increased the potential for re-suspension and downstream migration of contaminants. Additionally, levels of contaminants in the wetlands did not justify the high cost of sediment removal. Rather than remove contaminants by closing, capping and diking the lagoon, allowing natural attenuation to lower contaminant levels over time and periodically monitoring contaminant levels.

In addition to EPA's concerns, there are several other factors which limit the feasibility of restoration at the on-site wetland. The potential for future contamination from groundwater plumes below or in the vicinity of the wetland might jeopardize the future integrity of the wetland. Also, the property continues to be privately owned, therefore the long-term stability of a restoration project cannot be guaranteed. Finally, at an estimated cost of more than \$128,000/acre (ERM 1994), remediation of the contaminated sediments would exceed the amount of restoration funds available. For all of these reasons, restoration of the on-site wetland is not preferred.

c. Alternative C: Wetland/Riverine Restoration in the Vicinity of the Site Two potential wetland/riverine restoration projects were identified in the vicinity of the Site.

# (1) Quinebaug River Bank Stabilization/Boat Access Location

Improving access to the Quinebaug River at Route 14 in Canterbury would benefit recreational boaters and fishermen and reduce sedimentation into the Quinebaug River. However, based on visual surveys of the extent of current sedimentation, the area of river to benefit from the improvements would be limited to less than one-quarter of an acre. Additionally, the cost to create a single-lane paved access to the river and parking with appropriate drainage that meets the guidelines of the Americans with Disabilities Act would cost significantly more than the \$35,000 which is available. For example, a recent ramp replacement project on the Thames River cost \$200,000, and a project in the Town of Washington which consisted of a ramp and 11 parking spaces cost \$340,000. Due to the high cost, funds to construct a ramp and parking area in Canterbury may be more appropriately obtained through other sources, such as the Connecticut Department of Environmental Protection Boating Division.

#### (2) Moosup River Fish Barrier Removal

Removal of the first barrier on the Moosup River would improve habitat on over 5 miles of river by providing free-flowing river conditions and instream migration for fish and other aquatic organisms. As one of the most important cold water fisheries within the state, and as a river with the potential to provide spawning habitat for migratory fish moving up the Quinebaug River Basin, numerous organizations and state and federal agencies are interested in the restoration and enhancement of the Moosup River. Due to the high level of interest in the Moosup River, removal of the first barrier also has the potential to catalyze dam removal efforts further upstream and to further enhance the quality of the Quinebaug River watershed. Additional funds may also be available through the Service's Partners for Fish and Wildlife Program, through the Millennium Project Settlement, or through a grant from the National Oceanic and Atmospheric Administration.

Removal of the first barrier on the Moosup River would achieve direct natural resource restoration to aquatic species similar to those impacted adjacent to the Site. The effort would also improve water quality and water flow to one of the upstream tributaries of the Quinebaug River, benefitting the downstream portions of the watershed as well. Additionally, removal of the pipe would benefit recreational boaters since the pipe currently poses a safety hazard at certain flow conditions.

Depending on the method of removing the pipe, short-term negative impacts may result to the shoreline or the river bottom. These impacts are expected to be minor and could be mitigated for by revegetation.

Due to this project's potential to actively restore aquatic resources in the Quinebaug River Watershed and its relatively minor negative impacts, it is our preferred alternative. Depending on the cost of permitting and design and assuming some cost savings if the work is performed in-house, it is anticipated that most, if not all of the project's cost could be covered by the settlement funds. Additional monies, if needed, are likely to be available through project partners.

# d. Alternative D: Acquisition of Equivalent Resources

Due to the close proximity of the Walsh property to the Yaworski Site and its similar topographic position adjacent to the river, the property contains some of the same habitat types as the Site. Protection of the Walsh Property would therefore benefit many of the same species that were impacted on the nearby Site. Furthermore, due to the shape of the parcel and the requirement that building be set back from Packer Road, protection would eliminate threats to sensitive wetland areas located farther from the road.

However, the narrow shape of the parcel also limits the extent of protection afforded. As there is a large amount of edge or perimeter habitat on the property, it is likely to be influenced by activities on adjacent properties. Currently, there is an active sand and gravel operation on the property to the south and the properties on the northern border are developed. In addition, the property is fairly isolated from other protected lands and it would be difficult to construct a larger corridor of protected habitat with adjacent parcels.

The \$135,000 listing price for the property is also substantially greater than the funds currently available to the Trustees. It is likely that additional monies could be raised through partnerships with local and state organizations; however, additional effort would be needed to raise the funds, at which time the parcel may no longer be available.

Due to the limited nature of the protection effort (narrow parcel, isolated from other protected areas) and the high cost relative to available funds, protection of the Walsh property is not preferred.

#### e. Alternative E: Educational Opportunities

The Town of Canterbury's efforts to work with the Connecticut Audubon Society to engage townspeople in surveying vernal pools and other natural resources would provide important baseline data on amphibian and bird resources and important wetland habitats in the town. The Society has an established protocol which has been successfully utilized for a number of years to assess seasonal data from various locations. This data could be used to help shape the town's future planning efforts and this would hopefully result in better wetland protection. Additionally, as volunteers learn more about the town's natural resources, they may continue to work toward protecting these natural resources and educating others in their value to the town. For a limited amount of funds, the proposed citizen science program would directly and indirectly benefit migratory birds, amphibians and wetland habitats in the Town of Canterbury. Due to the many benefits that this project offers and its focus on Canterbury, the impacted town, it is also a preferred alternative.

#### 3. Comments Regarding the Restoration Plan

Tremendous support for Alternative E, Educational Opportunities, was received during the public comment period. Fifteen people described potential benefits of a citizen-based monitoring program to the community and to the long-term stewardship of Canterbury's wetland habitats and associated wildlife. Many, through personal experience, relayed the knowledge and interest that they had gained from similar programs in other communities. The letters directly support the notion that as people become more aware and knowledgeable about the natural world, they often become more engaged in the restoration and protection of the environment. Additionally, many of the people indicated a willingness to assist with a program in Canterbury. The existence of interested, motivated volunteers helps assure the likelihood that an educational program such as the one proposed will succeed. Several of the authors also commented that the Town of Canterbury held a public forum on November 12, 2008 to discuss town priorities for their Plan of Conservation and Development. According to several authors, residents chose the preservation of natural resources as their top priority. The town's recent planning initiative and interest in protecting natural resources coincide well with the initiation of a citizen science program which will help identify important natural resources in the area.

#### 4. Proposed Restoration Action

Based on the outpouring of support for Alternative E and its potential for success at relatively low cost, as stated in the Draft RP/EA, we will commit \$12,000 to the program. If any additional funds become available due to interest or because they are not needed for the Moosup River fish barrier removal project, we will strongly consider using them to further fund Alternative E.

We will also fund Alternative C2, Moosup River Fish Barrier Removal, up to \$24,000. This project provides the best opportunity to directly restore aquatic resources by removing a barrier and expanding more than five miles of migratory fish habitat on the Moosup River. It also benefits fish and other aquatic resources farther downstream in the Quinebaug River. During the restoration planning phase, a number of organizations expressed interest in the project. They may be able to assist with funding, should the cost exceed \$24,000. Furthermore, this project has the potential to generate enthusiasm for initiating other restoration projects in the Moosup River Watershed.

Funding both Alternatives E and C2 achieves a greater and more diverse benefit than simply directing all of the funds to one project. The Moosup River fish barrier removal project will result in riverine and aquatic species restoration and the educational effort will assist with the protection of wetland habitats and associated wildlife in Canterbury. Through the implementation of both projects, benefits will result for the larger Quinebaug watershed, as well as for the Town of Canterbury and areas closer to the Yaworski Site. In addition, benefits are anticipated to result for more species, resulting in a more comprehensive restoration effort.

The other alternatives evaluated for restoration exceed the funds available and may be better accomplished through other funding mechanisms.

For all of these reasons, the Trustees believe that restoration of the Moosup River and implementation of an educational program to identify and evaluate natural resources in the Town of Canterbury are the best options to restore resources and services lost to the environment and to the public as a result of activities at the Yaworski Lagoon Superfund Site.

# 5. Monitoring Plan

Baseline conditions for the river restoration project 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 prior to the onset of restoration activities.

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

Paula Coughlin, Connecticut Audubon Society Vaughn Douglas, USFWS Holly Drinkuth, The Nature Conservancy Richard Dxiadus, Town of Canterbury Steve Gephard, Connecticut DEP, Inland Fisheries Division Melissa Grader, USFWS Kathleen Hart, Town of Canterbury, Public Library Sarah Hemenway, Connecticut Audubon Society Mark Lewis, Connecticut DEP, Waste Division Anni Loughlin, U.S. Environmental Protection Agency Ken Munney, USFWS Brian Murphy, Connecticut DEP Mike Peyton, Connecticut DEP, Boating Division Steven Sadlowski, Town of Canterbury Eric Thomas, Connecticut DEP, Thames River Coordinator Jim Turek, NOAA Julie Victoria, Connecticut DEP, Wildlife Division Adam Welchel, The Nature Conservancy, Connecticut

# References

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- Parasiewicz, P. and the New York Cooperative Fish and Wildlife Research Unit. 2004. Ecohydrology Study of the Quinebaug River. A Research Project on River Restoration. Final Report. Published for New England Interstate Water Pollution Control commission. Lowell, MA.
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# FINAL RESTORATION PLAN AND ENVIRONMENTAL ASSESSMENT:

# Yaworski Lagoon Superfund Site

Canterbury, Connecticut

This Final Restoration Plan and Environmental Assessment is approved for implementation.

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Acting Marvin E. Moriarty Regional Director/DOI Designated Authorized Official

2-24-09 Date

Appendix A Public Comments

12/31/08 U.S. Fish and Wildlife Service Attn: Molly Sperduto

Dear Molly, This letter is in support of the proposed Vernal Pool Project in Canterbury which was piloted in Spring 2008. I personally have taken part in these surveys in Pomfret and in Woodstock and have joined the Woodstock Conservation Commission which has been a wonderful experience and the knowledge I have gotten from proforming Vernal Pool Surveys has been especially helpful in understanding the goals of the Commission and making it easier to understand how important, educational and useful Citizen Science projects can be in one's town. These projects which also include Mammal Tracking, Rapid Bio Assessment of waterways, and tracking of grassland birds as well as the Vernal Pool assessments, encourage townspeople to get involved and appreciate and understand the importance of preserving the wonders of our towns and I believe that educating people about the outdoors and the wonders of their surroundings help to get people interested in going outdoors if they have a program to instruct them how to do so in a safe manner and knowing that this information will help make a difference in their town. "People don't become passionate about saving or preserving what they can't see or understand themselves" and financially supporting this project that is already well on it's way to this end seems to be a win-win situation. Grace Jacobson 170 Smith Road Woodstock, CT 06281 gracej@rcn.com

gracej@imap.mail.rcn.net

12/31/08 U.S. Fish and Wildlife Service 70 Commercial Street, Suite 300 Concord, New Hampshire 03301 Attention: Molly Sperduto

(603-223-2541) (fax: 603-223-0104) Molly\_sperduto@fws.gov

I am writing to support the use of the Yaworski Superfund site funding for providing citizen science volunteer training and data collection in the town of Canterbury, Connecticut as outlined by the CT Audubon Society Center at Pomfret. Through participation in several of the Citizen Science projects at CT Audubon, my knowledge about and commitment to the preservation of the natural resources in our community have been greatly enhanced.

At a recent forum, November 12, 2008, Canterbury residents voiced their concern for the preservation of natural resources in their town as well as maintaining the community character. Citizen Science projects would help raise awareness of the participants and might result in energizing them to become involved in conservation efforts in their town.

Canterbury does not have a town Conservation Commission. Participation in the Citizen Science projects could stimulate volunteers to serve on town agencies that help preserve natural resources. (pg.14 Sec E)

Canterbury is just beginning to discuss (see above) a town Plan of Conservation and Development – Citizen Science volunteers collect valuable natural resource data needed to write a comprehensive plan. Land use decisions using this data would help to compensate for adverse impacts of the Yaworski Superfund Site.

Spending time outdoors learning about their environment helps community members develop stronger connections to their community and encourages stewardship. (pg. 14 Sec E) Through the 2008 pilot vernal pool project, there is now a core group of individuals who have expressed interest in continuing the vernal pool work. The citizen science projects on grassland birds (pg. 3 Sec B), mammals, and water quality would involve people with other interests (in addition to vernal pools) while collecting natural resource information covering a broader spectrum of natural resources.

The Connecticut Audubon Society Citizen Science Volunteer Monitoring Program is well organized and educational. The use of community volunteers makes this an economical as well as positive way to involve community members in town-wide local conservation efforts.

The Rapid Bioassessment for Volunteers which monitors macroinvertebrates provides valuable data to the CT DEP. Such data is important to maintenance of fish habitat (pg. 3 Sec B).

Citizen Science projects would definitely be a valuable use of the Yaworski funds, providing educational experiences that would greatly benefit the town of Canterbury.

Sincerely,

Sandy Tosi Box 335 Pomfret Center, CT 06259 gaptosi17@verizon.net 12/31/08

To: U.S. Fish and Wildlife Service Concord, New Hampshire

Attn: Molly Sperduto

Re: Yaworski Lagoon Superfund site, Canterbury CT Audubon Citizen Science Program

As an Audubon citizen science volunteer myself, I know the value of this important program, and how much it can contribute to conservation efforts in local communities. The best part of all is most of the labor is free because of dedicated volunteers.

Citizens in Canterbury have stated at public meetings that they value preserving natural, and especially, water resources. This will be a growing challenge in coming years. A citizen science program funded in Canterbury by funds from the Yaworski Lagoon superfund settlement can help meet this challenge.

Audubon citizen science programs also provide invaluable data to government agencies like the CT Department of Environmental Protection, data they would not otherwise be able to obtain themselves because of limited resources and budgetary constraints.

The Audubon Citizen Science program is a win--win situation for both the volunteers-- who gain training, knowledge and a greater appreciation for our natural resources; and for the community--who gains the benefit greater citizen participation, input and data to aid important conservation efforts.

I urge you to fund the Audubon Citizen Science program in Canterbury CT with funds from the Yaworski Lagoon Superfund settlement.

sincerely,

Marleen Dutra P.O. Box 11 Storrs, CT 06268 yukondutra@yahoo.com

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#### 12/30/08

This letter is to show my support for the proposal to use \$12000 in funds from the Yaworski Settlement to fund Citizen Science Projects in Canterbury Connecticut.

I have lived in Canterbury for 30 years and became involved in the Citizen Science projects at the Audubon Society Center in Pomfret, CT in April 2006. Since that time, I have had the opportunity to volunteer in all four of their seasonal Citizen Science data collection projects. I have found these experiences valuable in adding not only to my personal knowledge and appreciation for our natural resources, but also to the database of information available to state and local agencies.

At the town planning meeting I attended in November 2008, it was clear that preserving the natural resources of our town is a high priority for residents. I believe that the best use for these funds is to invest in the hands-on education of our residents and land stewards. Allowing residents to become actively involved in the collection of data on local water quality, vernal pools and other indicators of environmental health will strengthen their connection to the natural resources of our community. This knowledge will lead to better informed decisions and improved stewardship.

I look forward to being involved in this collaborative effort. Anne Picard PO Box 86 Canterbury, CT 06331 anne picard@sbcglobal.net 12/30/08 Dear Ms. Sperduto,

Please consider my letter of support for the Citizen Science Educational Opportunities Alternative as outlined in the Yaworski Lagoon Superfund Site RP/EA. Based on my experience as a Citizen Science Volunteer, this particular alternative will provide perpetual benefits to the fish and wildlife resources of the Quinebaug River Watershed.

I personally, have been actively involved in both the mammal monitoring and stream water quality programs, both of which are under the dedicated guidance of Paula Coughlin. The thorough training I received transformed my passive enjoyment of the natural world to proactive participation in data collection following sound, scientific protocol. Although my science background is limited, the blended, classroom and hands-on training allowed me to gain an understanding of a multitude of species, habitat and environmental issues. I gained an understanding and respect for obtaining objective scientific data and developing meaningful assessments based on that data. Adding to the richness of this program, I worked alongside individuals from various professional backgrounds and age groups.

The Citizen Science Educational Alternative is a proactive, long-term solution that will ensure that a Superfund level of contamination is not repeated. The damage incurred is irreparable in my estimation; it is hard to imagine that any amount of remediation could replace the biodiversity of animal and plant life lost. Empowering cadres of citizen scientists to closely monitor the ecological diversity in their own local jurisdictions has, and will continue to foster civic mindedness and an interest in sustainable land use planning. Water resources as an economic and social issue continues to grow in importance; an educated and trained citizenry is essential.

Thank you for allowing me to offer my views on this very important project. I hope that the Trustees will seriously consider the tremendous benefits that the CT Audubon's Citizen Science Program can bring to this naturally rich region of the state.

Thank you,

Corinne Rueb corinne.rueb@att.net I am writing to express my support of a funding request for Canterbury Connecticut and the CT Audubon Society Center at Pomfret's Citizen Science Volunteer Monitoring Program.

I have participated in two of the Citizen Science monitoring programs, vernal pool monitoring and the stream rapid bioassessment. Both of these programs, as well as the wildlife monitoring and the grassland bird monitoring, give a good indication of the health of a region.

As a volunteer, I am involved in documenting and keeping track of early indicators of pollution and over development of areas that impact sensitive life forms. Vernal Pools and the specific amphibians using them are sensitive to environmental changes earlier than other life forms. Likewise, the stream rapid bioassesment will document the insect life able to live in the streams and is an early indicator of pollution levels and water health in a region.

These types of programs and the information they gather allow for communities like Canterbury to reassess the direction their town chooses for development.

Using a program like Citizen Science is to me the least costly method of gathering this type and amount of information. Volunteers put in their time and effort and some of the cost of training to perform the data gathering. We follow very specific guidelines for data gathering based on developed programs. The data is then pooled and available for evaluation by more knowledgeable personnel.

This is a Win, Win, Win.

It allows for volunteer opportunities in areas of interest to nature lovers.

It is a wonderful training tool in a community for how your choices affect not only wildlife but also your life needs like water quality.

It is a very cost affective way to gather tremendous amounts of information.

Thank you for your consideration.

Regards, Barbara Beeckman

Barbara Beeckman | Senior Product Support Analyst | Infor | Support: call 877 772 4111 | barbara.beeckman@infor.com Kathleen and Christopher Demers 48 Mason Road. Willington, CT 06279

December 29, 2008

Molly B. Sperduto U.S. Fish and Wildlife Service 70 Commercial Street, Suite 300 Concord, NH 03301

Dear Ms. Sperduto,

We appreciate the opportunity to provide a letter of support for the CT Audubon Society Center at Pomfret's (CASCAP) Citizen Science Volunteer Monitoring Program's proposal for alternative education opportunities for the Yaworski Lagoon Restoration Plan and Environmental Assessment. We can personally attest to quality and the long term value of the CASCAP's Citizen Science educational programs as both of us are products of these programs. Over the past eight years we have served as volunteers in the CASCAP's Mammal Monitoring program, collecting natural resource data in our region which can be used to support the goal of preserving open space and connecting wildlife corridors. Our Citizen Science training sparked our concern for environmental issues and has lead us to active participation in many local and regional conservation efforts and initiatives, which include our involvement in the Town of Willington's Conservation Commission, working on the Town's Natural Resource Inventory and Open Space Plan, membership on the Town's Plan of Conservation and Development Committee, volunteering for various Connecticut DEP Wildlife Division programs (i.e., Migratory Bird Stopover Habitat Surveys, Canada Goose Banding, Woodcock Banding and Monitoring Surveys), certification and active participation in the Connecticut Master Wildlife Program, and development and operation of conservation-related educational programs and activities for local residents.

CASCAP's Citizen Science Monitoring programs not only provide data that can be used for local and regional conservation efforts, but also provide volunteers with new knowledge and contacts, encouraging them to find ongoing opportunities to promote awareness of environmental issues, as well as to become more active in municipal efforts and other organizations, particularly on issues in which wildlife and wildlife habitat is a concern. We are living testament to the value of supporting the CASCAP's Citizen Science Volunteer

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Monitoring Program's proposal for alternative education opportunities. We are confident that others who attend CASCAP's Citizen Science Monitoring programs will also be inspired to make a real difference on local, state and national environmental issues.

Sincerely, Christopher Demers Demers

Kathleen

December 28, 2008

U.S. Fish and Wildlife Service 70 Commercial Street, Suite 300 Concord, New Hampshire 03301 Attention: Molly Sperduto

RE: Public comment on RP/EA for the Yaworski Lagoon Superfund Site

Dear Ms. Sperduto,

I am writing to express my support for funding a Citizen Science Program in Canterbury, Connecticut. The Connecticut Audubon Society, under the direction of Paula Coughlin, piloted a vernal pool project in Canterbury in 2008. The successful pilot established a core group of trained community volunteers. The Connecticut Audubon Society's Citizen Science programs have established protocols that are taught to the participants insuring knowledgeable volunteers. I have participated for four years in the Citizen Science Program, specifically the vernal pool program, at the Audubon Center in Pomfret, Connecticut. It has been an educational and fascinating program that allows me to track natural resources in my town. I have a much greater understanding of the importance that vernal pools play in providing essential habitat to many obligate species. The program encourages townspeople to learn about the natural resources in their community; such awareness leads to a greater understanding of the need for conservation and a sense of stewardship toward the environment.

I am also a member of the Pomfret Conservation Commission and participated in a revision of our town's Plan of Conservation last year. The commission incorporated the vernal pools identified through the Citizen Science Project in our plan and maps identifying important areas for conservation. Consequently, I can say from personal experience that programs like the Connecticut Audubon Society's Citizen Science Program make an important contribution to a community and to conservation of our natural resources.

I heartily recommend that the U.S. Fish and Wildlife Service fund the Citizen Science Projects in Canterbury, Connecticut.

Sincerely, Pamela J. Cartledge 92 Chase Hill Road Pomfret Center, CT 06259 pjcartledge@sbcglobal.net

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Attention: Molly Sperduto U.S. Fish and Wildlife Service Concord, New Hampshire

Please support educational opportunities for (CT Audubon Society Center at Pomfret's Citizen Science Volunteer Monitoring Program) to collect natural resource data in Caterbury.

#### Hi Molly,

I have been a resident of Pomfret, CT for more than twenty years. I believe in the Pomfret Audubon Society and the wonderfull services that they provide for the town of Pomfret and also there involvement in some of the surounding towns. I recently joined the Citizen Science program and have participated in some of the River monitoring projects. I can't begin to tell you how good it makes me feel to be able to contribute back to our town and community. I also have learned from personal experience how powerfull it is to become involved in the preservation of nature and wildlife in our amazing little town. I believe that if more projects like the ones in our town of Pomfret were organized in more areas we could really make a difference. I think that the most important part of all of this is the involvement and education of local people who will then become our future planners and protectors of the "World" that we all inhabit. I have also included some inportant points below.

Sincerely, Heather Grist Pomfret, CT <u>Heynow 74@yahoo.com</u>

Residents in attendance overwhelmingly chose the "Preservation of our Natural Resources" as their number one concern, followed by preservation of our "Community Character."

Most attendees were concerned about protecting water resources, (especially near the Quinebaug River) including: streams, rivers, ponds, wetlands, vernal pools, aquifers

# Other points: (proposal reference indicated in parentheses)

Canterbury does not have a town Conservation Commission. Participation in the Citizen Science projects could stimulate volunteers to serve on town agencies that help preserve natural resources. (pg.14 Sec E)

Spending time outdoors learning about their environment helps community members develop stronger connections to their

community and encourages stewardship. (pg. 14 Sec E)

Through the 2008 pilot vernal pool project, there is now a core group of individuals who have expressed interest in continuing the vernal pool work.

The citizen science projects on grassland birds (pg. 3 Sec B), mammals, and water quality would involve people with other interests (in addition to vernal pools) while collecting natural resource information covering a broader spectrum of natural resources.

The Connecticut Audubon Society Citizen Science Volunteer Monitoring Program is well organized and educational. The use of community volunteers makes this an economical as well as positive way to involve community members in town-wide local conservation efforts.

The Rapid Bioassessment for Volunteers which monitors macroinvertebrates provides valuable data to the CT DEP. Such data is important to maintenance of fish habitat (pg. 3 Sec B).

Through a grant from the state library, the Town of Canterbury and the Connecticut Audubon Society began a citizen science volunteer program in 2008 to enlist the help of volunteers, to inventory vernal pools in the town. Using a program developed by the Connecticut Audubon Society, the objective is to educate people about the town's natural resources and, specifically, to promote the stewardship of vernal pools. By surveying the fauna at selected vernal pools, the volunteers were able to learn about these unique habitats, as well as to better characterize local amphibian populations. The data also provides information on the town's natural resources that can be used in the development of the town master plan.

In 2009, the town would like to repeat the program to reach more local citizens and to expand the number of pools that are surveyed. Funds would be utilized to train volunteers to identify' and survey vernal pools, and the data would be tabulated and mapped for use with the town's natural resource planning efforts. Training programs would be held at the library to increase the local citizens' knowledge and appreciation of vernal pools.

In addition to surveying vernal pools, a more comprehensive natural resource inventory could be undertaken where different natural resources are evaluated throughout the year. For example, a mammal tracking program could be initiated in winter, grassland birds could be monitored in summer, and water quality could be evaluated in fall. In addition to better characterizing important natural resources, a year-long effort would more broadly educate townspeople.

# e. Alternative E: Educational Opportunities

The Town of Canterbury's efforts to work with the Connecticut Audubon Society to engage townspeople in surveying vernal pools and other natural resources would provide important baseline data on amphibian and bird resources and important wetland habitats in the town. The Society has an established protocol which has been successfully utilized for a number of years to assess seasonal data from various 13 locations. This data could be used to help shape the town's future planning efforts and this would hopefully result in better wetland protection. Additionally, as volunteers learn more about the town's natural resources, they may continue to work toward protecting these natural resources and educating others in their value to the town. For a limited amount of funds, the proposed citizen science program would directly and indirectly benefit migratory birds, amphibians and wetland habitats in the Town of Canterbury. Due to the many benefits that this project offers and its focus on Canterbury, the impacted town, **it is also a preferred alternative**. From: Nickelrp To: sperduto@fws.gov CC: paulacoughlin@charter.net Sent: 12/20/2008 4:33:19 P.M. Eastern Standard Time Subj: (no subject)

TO; U.S. FISH AND WILDLIFE SERVICE CONCORD, NEW HAMPSHIRE ATTENTION: MOLLY SPERDUTO

I WOULD LIKE TO STATE MY SUPPORT OF THE YAWORSKI LAGOON SUPERFUND SITE FUNDING FOR THE BENEFIT OF CANTERBURY, CT AREA.

AS A CITIZEN SCIENCE VOLUNTEER I HAVE WITNESSED THE BENEFITS TO OURSELVES AS WELL AS OUR ENVIRONMENT FROM GUIDED ACTIVE STUDY OF OUR IMMEDIATE ENVIRONMENT. THE QUESTION, OF COURSE, IS NOT WHETHER WE NEED TO BE CAREFULL STEWARDS OF OUR ENVIRONMENT BUT HOW BEST TO DO IT EFFICIENTLY. SINCE WE NEED TO KNOW HOW HEALTHY OUR ENVIRONMENT IS ON A CONTINUUM, ONGOING MONITORING IS NEEDED. TOO OFTEN HINDSITE HAS TOLD US WE HAVE CAUSED DAMAGE TO OUR SURROUNDINGS - SOMETIMES IRREPARABLE.

IF SMALL ORGANISM IN STEAMS FAIL TO THRIVE SO DO FISH AND SO WILL WE. IF MAMMALS FAIL TO THRIVE THERE IS SOMETHING OUT OF BALANCE IN THEIR AND OUR ENVIRONMENT. IF CROWS FALL OUT OF THE SKY WHAT KILLS THEM COULD KILL US. MONITORING OUR ENVIRONMENT SEEMS OBVIOUSLY ESSENTIAL. AN APPROACH THAT BRINGS VOLUTEERS UNDER THE GUIDENCE OF SKILLED, KNOWLEDGEABLE PROFESSIONALS WOULD PROVIDE MUCH NEEDED INFORMATION AT A REASONABLE COST. ROBERT NICKELS Our library sponsored the Citizens Science Vernal Pool project in Canterbury this past Spring. The program sparked much interest in the citizens of the town and a few surrounding towns. I was even more surprised to find that there were more than a few teens interested in this project. My seventeen year old son participated in this program and was able to use it to assist him in completing his Eagle Scout required merit badge in Environmental Science for Boy Scouts.

I cannot think of a better way to spend the funds from the Yaworski Lagoon Superfund Site than to encourage residents from Canterbury and the surrounding towns to participate in the Citizen Science Program including the education work on streams, vernal pools, bird and mammal monitoring. The benefits of teaching people about the ecosystems that surround them is immeasurable for the health of the Town and the people who live there. Future generations will see direct benefits from these projects.

The Canterbury Public Library is very exciting about working with the CT Audubon Society Pomfret's Citizen Science Volunteer Monitoring Program to help promote and implement these valuable educational programs.

Marion Sheehan-Director Canterbury Public Library 1 Municipal Drive Canterbury, CT 06331-1453 860-546-9022 Fax: 860-546-1142 canterburylibrary.org

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#### Dear Ms. Sperduto

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I am writing to comment on the RP/EA for the Yaworski Lagoon Superfund Site and in particular the possible Superfund funding of the Connecticut Audubon Society proposal to carry out Citizen Science education work on streams, vernal pools, birds and mammal monitoring working with the Town of Canterbury.

My children and I have been involved in local Connecticut Audubon Citizen Science projects over the last 4 to 5 years. In particular, we have regularly taken part in bird surveys and mammal monitoring projects. I can certainly attest to the fact that taking part in these community initiatives has increased our appreciation for our natural environment and the diversity of our local natural resources. By assessing these resources from a scientific standpoint, the Citizen Science work seeks to provide valuable scientific input into land use decisions by identifying the wildlife that exists in an area. By using this data, land use decisions can be made that balance the demands of people with the needs of wildlife.

The Canterbury public forum held on November 12, 2008 identified the following priorities for the Town as part of their Plan of Conservation and Development:

Residents in attendance overwhelmingly chose the "Preservation of our Natural Resources" as their number one concern. (The second priority was preservation of the Town's "Community Character").

Protecting water resources, (especially near the Quinebaug River) including: streams, rivers, ponds, wetlands, vernal pools, aquifers

The best starting point for preserving natural resources and protecting water resources is to create a detailed picture of what those resources currently are, both as to extent and quality. The Connecticut Audubon initiative with the Town of Canterbury will focus on four projects (vernal pools, mammal monitoring, stream water quality, and grassland bird surveys) which will provide an excellent starting point for the creation of a comprehensive natural resource database for the Town. This natural resource database would be an important reference point for the Town when making land use decisions particularly in light of the adverse environmental impact of the Yaworski Superfund Site. In addition, the data would be available for use by state agencies such as CT DEP when assessing the maintenance of fish habitat.

Through a grant from the state library, the Town of Canterbury and Connecticut Audubon began a Citizen Science volunteer program in 2008 to enlist the help of volunteers to inventory vernal pools in the Town. Using a program developed by Connecticut Audubon, the objective is to educate people about the Town's natural resources and, specifically, to promote the stewardship of vernal pools. By surveying the fauna at selected vernal pools, the volunteers were able to learn about these unique habitats, as well as to better characterize local amphibian populations. The data also provides information on the Town's natural resources that can be used in the development of the Town master plan. As you will appreciate, creating an inventory of vernal pools is a multi-year research project.

In 2009, the Town would like to repeat the program to reach more local citizens and to expand the number of pools that are surveyed. Superfund funding would be used to train volunteers to identify

and survey vernal pools, and the data would be tabulated and mapped for use with the Town's natural resource planning efforts. Training programs would be held at the library to increase local citizens' knowledge and appreciation of vernal pools. In addition to surveying vernal pools, Superfund funding would allow a more comprehensive natural resource inventory to be undertaken whereby different natural resources will be evaluated throughout the year. For example, a mammal tracking program could be initiated in Winter, grassland birds could be monitored in Summer, and water quality could be evaluated in Fall. The program would also include a year-long effort to more broadly educate townspeople about the Town's natural resources and how they can be "preserved and protected." By working with Connecticut Audubon, the Town will be able to take advantage of a well established local monitoring program that is not only well organized but also very educational in its focus.

Through the 2008 pilot vernal pool project, there is now a core group of individuals who have expressed interest in continuing the vernal pool work. As people participate in the Connecticut Audubon project and the work is publicized locally, more Town people will come forward to volunteer their time which in turn will stimulate volunteers to serve on Town agencies that help preserve natural resources. By participating in the Town's Connecticut Audubon Citizen Science projects, Canterbury residents will learn about their local environment which will not only help community members develop stronger connections to their community but it will also encourage stewardship of the Town's natural resources. The use of community volunteers therefore makes this an economical as well as a positive way to involve community members in Town-wide local conservation efforts.

Please support this important work by providing the maximum funding that is available.

Thank you.

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Richard Hargrave 264 Fox Road Putnam CT 06260

December 15, 2008

U.S. Fish and Wildlife Service 20 Commercial Street, Suite 300 Concord, New Hampshire 03301 Attn: Molly Sperduto

Dear Ms. Sperduto,

I am a volunteer in Connecticut Audubon's citizen Science Program and write in support of the Town of Canterbury's interest in developing a comprehensive natural resource database which would focus on vernal pools, water quality, mammal tracking, and grassland birds. The Connecticut Audubon Program is well established, it is economical and it has resulted in the acquisition of information which is essential to making sound, science based decisions upgrading natural resource management.

My own personal experience, and I know I speak for many, is that the more knowledgeable the citizen becomes the more they come to appreciate the benefits of a healthy ecosystem and the more effective they are as advocates.

The residents of Canterbury have already declared that the preservation of natural resources is their number one concern followed by the preservation of their "community character". Participation in Connecticut Audubon's Citizen Science Program is the very best way I can think of to achieve those worthy objectives.

Respectfully submitted,

Seeepacein D. Willi-Benjamin Williams

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To Whom it may concern,

My name is Mary Haggett and I am a Citizen Science Volunteer with the Ct. Audubon Society Center in Pomfret Ct. I have worked with Paula Coughlin and have learned first hand how important it is to collect natural resource data in the local areas.

I am writing this letter in hopes that the Town of Canterbury could have the opportunity to start a comprehensive resource data program.

Canterbury is in the beginning stages of a Town Plan of Conservation and Development and a Citizen Science program could provide valuable data to the DEP

In November at the public forum in Canterbury, residents expressed a strong interest (#1 concern) in preserving the natural resources in our areas, especially the rivers, streams and ponds.

Also at this early stage of development a Citizen Science Volunteer monitoring program could be an educational asset to the community in reference to better wetland protection with the monitoring of vernal pools, grassland bird surveys, mammal monitoring and stream water quality assessments.

The Town of Canterbury could work with the Connecticut Audubon Society to engage townspeople in surveying vernal pools and other natural resources that would provide important baseline data on amphibian and bird resources and important wetland habitats in the town. The Society has an established protocol which has been successfully utilized for a number of years. As volunteers learn more about the town's natural resources, they may continue to work toward protecting these natural resources and educating others in their value to the town. For a limited amount of funds, the proposed citizen science program would directly and indirectly benefit migratory birds, amphibians and wetland habitats in the Town of Canterbury.

229 Oakwood Drive Windham, CT 06280 December 16, 2008

U.S. Fish and Wildlife Service 70 Commercial St., Suite 300 Concord, New Hampshire 03301 Attention: Molly Sperduto

Dear Ms. Sperduto:

I have participated in and am quite familiar with the Citizen Science Programs offered by the CT Audubon Society in Pomfret, Connecticut. These programs are very valuable in that they help train volunteers to monitor vernal pools, local mammals, stream water quality and grassland birds. Volunteers then continue to participate in programs that create helpful, comprehensive natural resource data for local towns. These programs help partipants develop strong ties to their communities and encourage stewardship.

I strongly urge that the Town of Canterbury and Connecticut Audubon's Citizen Science Programs be considered for funds being offered by the U.S. Department of Fish and Wildlife as part of the settlement of the Yaworski Lagoon Superfund Site in the Town of Canterbury, Connecticut along the Quinebaug River. Funds would allow the Town of Canterbury to work with The Connecticut Audubon Society in Pomfret in offering year-round programs to better educate people about local natural resources and their conservation.

Thank you for your consideration in this matter.

Sincerely, Theresa J. La Voie Theresa J. La Voie

# FINDING OF NO SIGNIFICANT IMPACT

# FINAL RESTORATION PLAN AND ENVIRONMENTAL ASSESSMENT: YAWORSKI LAGOON SUPERFUND SITE

The U.S. Department of the Interior has completed a Final Restoration Plan and Environmental Assessment (RP/EA, cited below) that will restore, replace, and/or acquire the equivalent of the natural resources injured, destroyed or lost as a result of contamination from the Yaworski Lagoon Superfund Site in Canterbury, Connecticut. Plan activities include removal of an antiquated water pipe from the Moosup River to restore free-flowing river conditions to approximately five river-miles. Removal of the pipe will improve habitat connectivity, water flow and water quality in the river. In addition, a citizen's science program will be funded to educate and train local citizens to identify important natural resources, including amphibians and grassland birds in Canterbury.

The public was notified of the availability of the draft RP/EA for review and comment on December 1, 2008, by publication in The Chronicle. After a public comment period of 30 days, fifteen comments in support of the educational program were received. These comments have been included in the Final RP/EA.

Based on a review and evaluation of the information contained in the Final RP/EA, I have determined that the proposed actions do not constitute a major federal action which would significantly affect the quality of the human environment within the meaning of Section 102(2)(c) of the National Environmental Policy Act of 1969. Accordingly, the preparation of an environmental impact statement on the proposed action is not required.

Acting Regional Director

-24-09 Date

Supporting Reference:

1. 1. 2

Final Restoration Plan and Environmental Assessment: Yaworski Lagoon Superfund Site. January, 2009. U.S. Fish and Wildlife Service.

# UNITED STATES FISH & WILDLIFE SERVICE

#### ENVIRONMENTAL ACTION STATEMENT

Within the spirit and intent of the Council of Environmental Quality's regulations for implementing the National Environmental Policy Act (NEPA) and other statutes, orders, and policies that protect fish and wildlife resources, I have established the following administrative record and have determined that the action of the Final Restoration Plan and Environmental Assessment for the Yaworski Lagoon Superfund Site:

- \_\_\_\_\_ is a categorical exclusion as provided by 516 DM 6 Appendix 1 and 516 DM 6, Appendix 1. No further documentation will therefore be made.
- X is found not to have significant environmental effects as determined by the attached Environmental Assessment and Finding 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 <u>Federal Register</u> announcing the decision to prepare an EIS.
- is not approved because of unacceptable environmental damage, or violation of Fish and Wildlife Service mandates, policy, 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 (list):

1. 1. 1

X Final Restoration Plan and Environmental Assessment

X FONSI

1-24-Marvin E. Moriarty Date ActingRegional Director