# FINAL RESTORATION PLAN AND ENVIRONMENTAL ASSESSMENT:

# PSC RESOURCES SUPERFUND SITE

Palmer, Massachusetts

Prepared by:

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

**Cooperating Trustee: Commonwealth of Massachusetts Executive Office of Energy and Environmental Affairs**

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**Contact:** Andrew Major
U.S. Fish and Wildlife Service
New England Field Office
70 Commercial Street, Suite 300
Concord, NH 03301
(603) 223-2541

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

This Final Restoration Plan and Environmental Assessment (RP/EA) was prepared by the Department of Interior, U.S. Fish and Wildlife Service, New England Field Office, with support from the Massachusetts Executive Office of Energy and Environmental Affairs, acting as natural resource trustees. This document describes the injuries that occurred to natural resources as a result of contamination at the PSC Resources Superfund Site, and identifies alternatives for restoration of injured resources and the services these resources provide. This document identifies potential restoration actions, describes the preferred restoration alternative, 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 Commonwealth of Massachusetts 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 Massachusetts Executive Office of Energy and Environmental Affairs is the State's designated trustee. Massachusetts General Laws (Chapter 21 E, s.5) states that persons responsible for oil and hazardous materials will be liable to the Commonwealth for all damages for injury to and for destruction or loss of natural resources.

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.

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 C.F R., Sections 11.93 and 11.81, DOI Natural Resource Damage Assessment Regulations). In addition, this document constitutes the environmental assessment for the proposed restoration of natural resources as defined under the National Environmental Policy Act (NEPA)(40 CFR Part 1502.10) and the Massachusetts Environmental Policy Act (MEPA) (M.G.L. c.30, §§ 61-62H, and 301 CMR 11.00), 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.

The underlying purpose of the proposed action is to restore, replace, or acquire the equivalent of natural resources injured or destroyed as a result of contamination from the Site, pursuant to applicable state and federal laws and regulations. The underlying need for the action is to ensure the recovery of, and provide compensation for natural resources injured as a result of contamination from the PSC site. The primary injuries resulting from contamination at the Site involve the impairment of wetlands and migratory birds which use wetlands for at least part of their life cycle.

**B. Background**

The PSC Resources Superfund Site is situated in south-central Massachusetts in the town of Palmer, approximately 15 miles east of Springfield, Massachusetts (Figure 1). The Site is three acres in size and is located in the 100-year floodplain of the Quaboag River. The developed portion of the Site consists of abandoned buildings, concrete-paved areas, and poorly vegetated, gravelly “yard” areas. Outside of the developed area, but within the impacted area of the Site, is a mix of emergent, scrub-shrub and forested wetlands. On the shore of the river where the Site is located, the site is surrounded by industry, residences, and commercial development. The opposite shore of the river is forested and relatively undeveloped.

The Site was originally owned by Mobil Oil Corporation in the 1930's and 1940's and was utilized for bulk oil storage. PSC Resources purchased the property in the early 1970's to store and process oil and began operations in 1974. Contamination of the site occurred due to improper containment of solvents and oils, spills, and poor maintenance activities resulting in the contamination of soil, groundwater and adjacent wetlands by PCBs, volatile organic compounds and heavy metals. A major release of hazardous materials to the wetlands associated with the Site apparently occurred in 1978 during a 4,000-gallon spill from the Site’s containment lagoon. The evidence suggests that additional releases of hazardous materials to on-Site soils and buildings occurred frequently throughout the period of operation of the facility. Millions of gallons of waste were left behind in tanks and lagoons when the current owner abandoned the plant in 1978.

The specific contaminants of concern at the Site include volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), PCBs, lead and zinc. Ground water was contaminated with volatile organic compounds (VOCs) and SVOCs. Soils were contaminated with elevated levels of SVOCs, VOCs, metals, and PCBs (in a limited area adjacent to a former tank storage area). Wetland sediments were contaminated with PAHs, lead and zinc. Quaboag River water and sediments contained relatively low levels of SVOCs, PCBs, and metals. Quaboag River fish (forage species) did not contain notable levels of contaminants.

In 1979, a Remedial Plan was submitted to the Massachusetts Department of Environmental Protection (DEP). In 1982, the State requested assistance from the federal Superfund program. At that time, an estimated 500,000 gallons of waste materials remained on the property in storage tanks. State site inspections revealed evidence of oil discharge to the adjoining wetlands, as well as leakage of waste materials from the dikes on the property. In September 1983, the PSC site was assigned a final listing on the EPA National Priorities List and became eligible for EPA funding. In 1986, Interim Remedial Measures were implemented, including construction of fencing around the site, demolition and disposal of 19 storage tanks, bulk disposal of oil and water, and disposal of drums containing sludges. The remedy, selected in 1992, called for the stabilization of the on-site contaminated soils and sediments, followed by capping. The engineering design of the remedy began in late 1994 and was completed in March 1997. Cleanup activities took place in 1997. Stabilization and capping of contaminated material was completed in November 1997. Initial wetland restoration activities were completed in 1997. In 2000 and 2001, additional on-site wetland or upland acreage was identified and underwent restoration or enhancement. Maintenance of the cap, monitoring of groundwater and surface water and the restored wetlands commenced in 1998. Cleanup levels for groundwater have been met for all but two contaminants. An inspection of the restored wetlands was conducted in 2004 and 2005. The results of the inspections indicate that wetland restoration performance standards have been met at the restored wetland areas.

DOI's natural resource damages concerns focused on the effects of PAHs, lead, and zinc on wetland dependant migratory birds such as red-winged blackbird, common yellowthroat, yellow warbler, and swamp sparrow. Wetland sediments had PAH levels well above the Probable Effect Concentration of 22.8 mg/kg. The highest concentration found was within an area known as the "Spill Area" at 273.0 mg/kg. Wetland sediments also had lead and zinc levels well above the Probable Effect Concentrations of 128 mg/kg and 458 mg/kg respectfully. The highest concentrations detected for these elements were 7,970.0 mg/kg for lead and 2,290.0 mg/kg for zinc. In 1995, DOI settled natural resource damage claims with the Potentially Responsible Parties (PRPs) and recovered $157,256.00 for site restoration, site assessment, and future oversight expenses, which was to be expended jointly with the Commonwealth of Massachusetts for wetland creation/ enhancement activities and performance monitoring of the sites to assure success. This amount covers claims for past, interim, and residual damages for injury to the wetland migratory bird habitat. This settlement has grown to $239,529.92 as of September 30, 2008 due to the account accruing interest from 1995 to the present.

**C. Public Notification and Review**

Prior to using funds for restoration, CERCLA requires that (1) a plan for use of such funds be developed and adopted by the Trustees, and (2) adequate public notice and opportunity for hearing and consideration of all public comments be granted. In addition, the DOI Natural Resource Damage Assessment Regulations (43 C.F.R., Part 11) provide for: (1) the development of a "Restoration and Compensation Determination Plan that lists a reasonable number of possible alternatives for restoration, rehabilitation,

replacement, and/or acquisition of equivalent resources and the related services lost to the public associated with each". 11.81]; and (2) upon determination of the award of a Natural Resource Damage claim the Trustees shall prepare a Restoration Plan to describe how the monies will be used. Such Restoration Plan shall be made available for public review for a period of at least 30 days. 11.93].

Under NEPA and MEPA the Trustees must also assess the potential environmental impacts associated with each of the proposed restoration actions. This Draft RP/EA integrates NEPA and MEPA requirements by summarizing the affected environment, describing the purpose and need for action, identifying alternative actions and assessing their applicability and environmental consequences, and summarizing opportunities for public participation in the decision process. The Trustees believe the Draft RP/EA indicates that the proposed actions will not have significant impacts on the quality of the human environment.

In partial fulfillment of this requirement, the Trustees published a public notice of the availability of the Draft RP/EA in the Springfield Republican. Two copies of the document were available for review at the Palmer Public Library, 455 North Main Street, Palmer, Massachusetts 01069. A press release was mailed to numerous newspapers in the area announcing the availability of the draft plan. On April 13, 2008, the Springfield Republican published an article describing the proposed plan and informed readers on how to obtain copies for review.

In addition, copies of the Draft RP/EA were available from the USFWS at the following address:

U.S. Fish and Wildlife Service
70 Commercial Street, Suite 300
Concord, New Hampshire 03301
Contact: Andrew Major
Phone: 603-223-2541, Fax: 603-223-0104
email: andrew_major@fws.gov

The document was also available online at:
http://www.fws.gov/northeast/newenglandfieldoffice/contaminants-NRDAR-restoration_projects-PSC.htm

Interested parties were asked to comment on the Draft RP/EA by May 5, 2008. No comments were received.

**D. Proposed Restoration**

The Trustees primary goal is to implement a restoration project that compensates for impacts to wetland habitats 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 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 C.F.R., 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:

**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 PSC Superfund Site.

**Alternative B: On-Site Wetland Restoration**

The First Five-Year Review documented an access issue with an adjacent private property on which wetland restoration activities had taken place. The Responsible Party (RP) was unable to perform wetland inspection and maintenance activities on this property as required in the O&M Plan. The access issue affected 0.32 acres of restored wetlands. In 2000 and 2001, additional on-site wetland or upland acreage was identified and underwent restoration or enhancement (primarily eradication of invasive species and planting of desirable shrubs and groundcover). The restoration/enhancement acreage at PSC Resources now totals 0.97 acres. The only remaining restoration opportunity on-site lies along a stream which runs adjacent to the landfill cap. The area is very restricted because of space and grade limitations. There is no additional wetland acreage present outside of this narrow corridor.

**Alternative C: Wetland Restoration in the Vicinity of the Site**

Federal and state natural resource professionals, town officials, and local land trusts were consulted and they suggested the following off-site restoration projects:

**(1) Riparian Restoration along Chicopee Brook, Monson, MA**

Chicopee Brook, a tributary of the Quaboag River, is a high gradient stream with boulders and pools that provides high quality brook trout habitat. The Monson Conservation Commission has proposed garbage cleanup, control of invasive species, and replanting of native vegetation along an approximately one mile section of the brook. The estimated cost for this project is approximately $41,000.00.

**(2) Silver Street Wetland, Monson, MA**
The wetland and two abutting lots (approximately 40 acres) were purchased by the town of Monson. The wetland provides excellent waterfowl habitat and there is a heron rookery on-site. At least two acres of the wetland have been invaded by Phragmites. The town of Monson has requested assistance in eradicating this invasive species from the site. The estimated cost for this project is $4,000.00.

**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 decreasing future direct and indirect impacts of such development. Federal and state natural resource professionals, town officials, and local land trusts were consulted and suggested the following land protection projects:

**(1) Liesl Donaldson Property, Palmer, Massachusetts**
This 117 acre property (209 Summer Street, Palmer, MA) is predominantly second growth forest comprised of hardwoods with white pine understory. The property also includes a house, horse barn and horse pasture, as well as two small manmade ponds (Figure 2). The property abuts the Ware River for approximately 1,800 linear feet. Ms. Donaldson wishes to sell a conservation easement for the entire site with the Opacum Land Trust responsible for holding the conservation easement. The easement will allow passive public recreation on the property. The Palmer Conservation Commission supports the acquisition of this conservation easement. The estimated cost for this project is $220,000.00.

**(2) Hulse Property, Monson, Massachusetts**
The Hulse property (84 May Hill Road, Monson, MA) is a 200 acre former dairy farm (Figure 3). The owner has recently divested himself of his livestock and is looking to sell the entire property. The farm abuts the Peaked Mountain Reservation (a Trustees of Reservations property). The Trustees of Reservations, Norcross Wildlife Foundation, Opacum Land Trust, and the town of Monson strongly support the acquisition of this property. The estimated cost of this project is between $600,000.00 - $1,000,000.00.

**2. Evaluation of Impacts and Comparison of Projects**
CERCLA, NEPA, and MEPA 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 direct 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.

**Alternative A: No Action Alternative**
Under the no action alternative, injuries to migratory birds would be uncompensated. Wetland 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 PSC Superfund Site and the Trustees' obligations under the Consent Decree would not be met.

**Alternative B: On-Site Wetland Restoration**
Restoration of on-site wetlands was considered; however, little or no on-site restoration opportunities exist. The total restoration/enhancement acreage at PSC completed to date totals 0.97 acres. The only remaining restoration opportunity lies along a stream which runs adjacent to the landfill cap. The area is very restricted because of space and grade limitations and would provide little additional wetland habitat.

**Alternative C: Wetland Restoration in the Vicinity of the Site**
Two potential wetland restoration projects were identified in the vicinity of the Site.

**(1) Riparian Restoration along Chicopee Brook, Monson, MA**
The Chicopee Brook Restoration Site contains several riparian wetland restoration and enhancement opportunities, including trash removal, invasive species control, and replanting of native vegetation. Conducting these activities would enhance approximately one mile of riparian habitat, providing improved migratory bird wildlife habitat. Removal and control of several invasive species, including honeysuckle, multiflora rose, Japanese barberry, Japanese knotweed, and Asiatic bittersweet combined with planting of native vegetation would improve floral species diversity and benefit wildlife. Additionally, walking trails are proposed for the Site, increasing opportunities for public recreation and wetland education. Required permits would be obtained prior to construction to comply with federal, state and local laws and regulations. It has been proposed that the

project be undertaken in phases to accommodate the limitations imposed by currently available funds. Additional funds could potentially be raised through partnerships with other organizations. The project has considerable public support and this may also increase the potential for raising additional funds.

**(2) Silver Street Wetland, Monson, MA**

Two acres of this town-owned site have been invaded with the invasive species Phragmites. Volunteer crews have been hand-clipping the Phragmites and hand-spraying each plant with glyphosate. The restoration proposal involves machine removal of the Phragmites and treatment with herbicides (glyphosate) at least twice in a 10 year period. This activity would increase the habitat value of this site for waterfowl.

**Alternative D: Acquisition of Equivalent Resources**

Both land protection projects (the Donaldson property and the Hulse property) are strongly supported by local government officials and land trusts. Each offers a significant opportunity to protect these parcels from future development. The properties' relatively close proximity to Springfield and abundance of uplands contribute to their vulnerability for subdivision. Protection of either parcel would prevent development and related threats to associated wetlands such as erosion, physical disturbance, contaminant runoff, and septic leachate. Protection would also prevent construction of roads and associated disturbance and fragmentation of wildlife habitat.

In comparing the two land protection opportunities, the Trustees believe that the Donaldson property provides the most cost effective and appropriate project to pursue. The Donaldson property is located in the same town as the PSC site (Palmer) thus linking the restoration site more closely geographically to the site of the injury. The Donaldson property provides the opportunity to protect 1,800 feet of riparian wetland habitat along the Ware River while the Hulse property is predominantly an upland site. Finally, the Trustees have enough funds from the settlement to purchase a conservation easement on the Donaldson property whereas it is uncertain where additional funds would be procured if the Trustees pursued a multi-organization purchase of the Hulse property.

## E. Trustee Proposed Projects for Implementation

Based on an evaluation of the potential benefits and impacts of the various restoration alternatives, the Trustees propose acquisition of a conservation easement on the Donaldson property with the remaining funds supporting the riparian restoration project along Chicopee Brook. Of the different alternatives, this alternative most closely compensates for the impact to wetland habitats at the PSC Superfund Site. With limited resources, this alternative provides an opportunity for both habitat protection (including riparian areas along Ware Brook) and the ability to restore riparian habitat along Chicopee Brook. Furthermore, both projects provide opportunities for passive recreation

and wetland education. While the Trustees acknowledge that they cannot fund the Chicopee River Project in total with the funds remaining after acquisition of the conservation easement on the Donaldson property, the Trustees will be working to assist local partners in identifying additional funding sources to complete the project. For these reasons, the Trustees believe that acquisition of a conservation easement on the Donaldson property and support of the riparian restoration along Chicopee Brook provides the best opportunity to restore resources and services lost to the environment and to the public as a result of activities at the PSC Superfund Site.

**F. Compliance With The National Environmental Policy Act (NEPA)**

The Final Revised Procedures for the USFWS for implementing NEPA, published in the Federal Register on January 16, 1997, provide a categorical exclusion for natural resource damage assessment restoration plans prepared under CERCLA when only minor or negligible change in the use of the affected areas is planned. An additional categorical exclusion exists for improvements for the restoration of wetland, riparian, instream or native habitats which result in no or only minor changes in the use of the local affected area. Categorical exclusions are classes of actions which do not individually or cumulatively have a significant effect on the human environment.

The projects described above will result in only a minor change in the use of the affected area. Accordingly, this Restoration Plan qualifies for a categorical exclusion under NEPA.

**G. List of Agencies, Organizations, and Parties Consulted for Information**

Carol Childress, Opacum Land Trust
Leslie Duthie, Monson Conservation Commission
Laura Eaton, USFWS
Pat Huckery, MA DFW
Dave Johnson, Palmer Conservation Commission
David McGowan, MA Department of Conservation & Recreation
Jono Niger, Living Landscapes
Kate Parsons, USDA-NRCS
Chris Rodstrom, The Trustees of Reservations
Molly Sperduto, USFWS
Dale Young, Massachusetts Executive Office of Energy and Environmental Affairs

# FINAL RESTORATION PLAN AND ENVIRONMENTAL ASSESSMENT:

**PSC Superfund Site**
Palmer, Massachusetts

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

_____ _____

Regional Director/DOI Designated Authorized Official Date

## APPENDIX A

### UNITED STATES FISH & WILDLIFE SERVICE
### ENVIRONMENTAL ACTION STATEMENT
### Restoration Plan and Environmental Assessment for the PSC RESOURCES SUPERFUND SITE

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

_XX_ is a categorical exclusion as provided by 516 DM 6 Appendix 1 Section 1.4 B(3) and 516 DM 6, Appendix 1 Section 1.4 B(11). No further documentation will therefore be made.

____ 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 Federal Register 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):

Final Restoration Plan and Environmental Assessment including public comments.

_____ _____
Region 5 NRDAR Coordinator Date

_____ _____
Region 5 NEPA Coordinator Date

_____ _____
Regional Director / DOI designated Authorized Official Date

Figure 1. Location of PSC Superfund Site, Palmer, Massachusetts

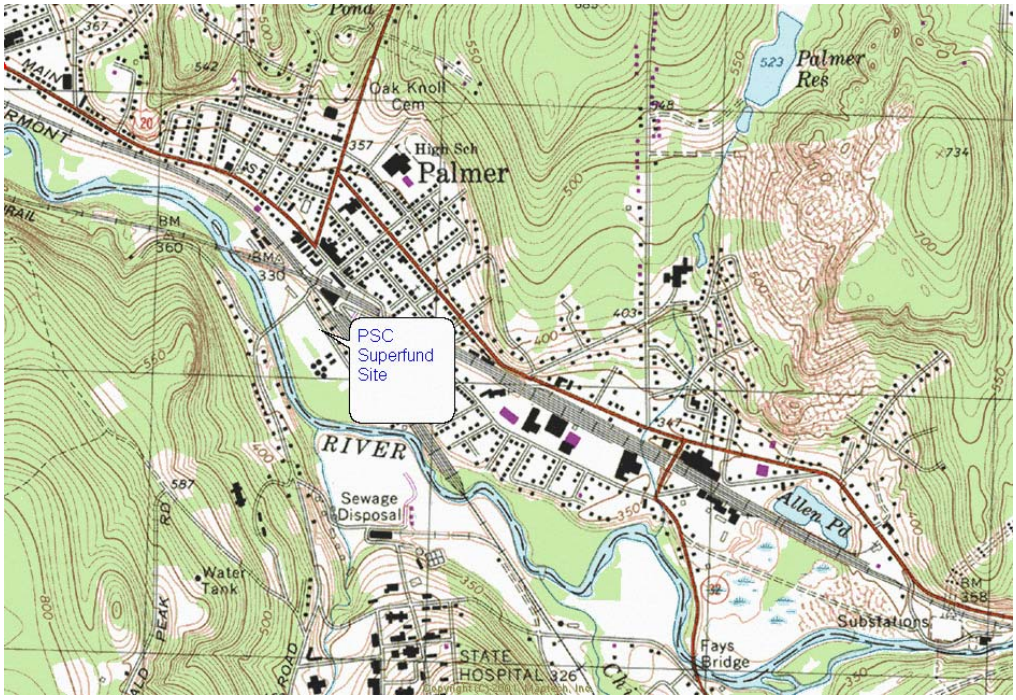


Figure 2. Donaldson Property, Palmer, Massachusetts

Figure 3. Hulse Property, Monson, Massachusetts.