

1 These properties are identified as properties 53-0-7-0, 52-0-1-0, 52-04-0, 52-0-5-0, 52-0-6-0, 52-0-8-0, 52-0-9-0, 52-0-10-0, 56-0-6-0, 56-0-7-0, and 56-0-9-0 on the City of Burlington tax assessor's map.

F. Wetlands Restoration

The selected remedy will result in some immediate adverse impacts to wetlands at the site, which will be mitigated. Significant wetlands restoration activities will be conducted with this alternative to restore the functions and values of the various wetlands habitats affected by remediation. The specific goals and objectives of the wetlands restoration/mitigation program will be refined during design, in meetings of an ecological advisory group that the EPA intends to reconvene. No restoration/mitigation activities will be allowed that could change hydrogeologic conditions, and cause erosion and migration of contaminated sediments to Lake Champlain or the canal.

The current mix of open water, emergent, scrub/shrub and forested wetlands on the Site will be preserved. This will also provide sediment trapping and flood storage functions. The restored bottom contours will permit emergent vegetation (such as cattail) surrounding the restored area to colonize the clean sediments. The spring flooding of Lake Champlain and the flow from the south at other times of the year will also introduce the native benthic species to the restored areas in the canal and turning, basin. This water movement will also bring in silt to add to the sediments. Silt will be included in the final layers of the sand cap to encourage recolonization by benthic organisms, but is not essential to the long-term recovery of the community. The final mix of sand and silt in the sediments will be strongly influenced by the depositional processes that occur naturally, which in turn will determine the characteristics of the benthic community.

In Subareas 3 and 7, wetland soils or top soil will be placed over the sand cap. In Subarea 3, young shrubs will be planted along the northern boundary of the General Dynamics property and the edge of the cap to accelerate the development of scrub/shrub vegetation. The combination of the placement of the cap and the raising of the water level will likely increase the amount of scrub/shrub wetland and decrease the amount of emergent wetland in Subarea 3. In Subarea 7, a wetlands diversity seed mix, including rushes, sedges, grasses and other fauna, will be applied if necessary to restore the functions and value of the wetlands there. Measures (such as a weir) at the culvert under North Street may be taken to control the water levels in Subarea 7.

G. Cost

The capital cost for Alternative 3a is estimated as \$2,543,762. The annual operating cost for the alternative is \$147,895 with a present worth value for 30 years of \$1,835,235. The total present worth cost of the remedy is estimated at \$4,378,997. Details of this estimate are presented in Table C-6B of the AFS.

XI. STATUTORY DETERMINATIONS

The remedial action selected for implementation at the Pine Street Canal Superfund Site is consistent with CERCLA and, to the extent practicable, the NCP. The selected remedy is protective of human health and the environment, attains ARARs and is cost effective. The selected remedy does not satisfy the statutory preference for treatment that permanently and significantly reduces the mobility, toxicity or volume of hazardous substances as a principal element. The remedy does significantly reduce mobility through use of containment techniques. The selected remedy utilizes alternate treatment technologies or resource recovery technologies to the maximum extent practicable.

A. The Selected Remedy is Protective of Human Health and the Environment

The remedy at this Site will permanently reduce the risks posed to human health and the environment by eliminating, reducing or controlling exposures to human and environmental receptors through containment, engineering controls, and institutional controls. Capping will also prevent further transport of contaminants into the surface water. Institutional controls will be implemented to prevent the use of contaminated groundwater. Legal mechanisms, such as deed restrictions, will restrict future land uses that could result in unacceptable risks to human health and the environment. Long-term monitoring will insure that the remedy remains protective in the future.

B. The Selected Remedy Attains ARARs

This remedy will meet or attain all applicable or relevant and appropriate federal and state requirements that apply to the Site. A detailed listing of environmental laws from which ARARs for the selected remedial action are derived, and the specific ARARs can be found in Appendix B of this Record of Decision. These tables give a brief synopsis of the ARARs and an explanation of the actions necessary to meet the ARARs. These tables also indicate whether the ARARs are applicable or relevant and appropriate to actions at the Site. In addition to ARARs, the tables describe standards that are To-Be-Considered (TBC) with respect to remedial actions.

The more significant ARARs are discussed in detail below.

1. Principal ARARs for Groundwater Protection

**EPA Superfund
Record of Decision:**

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