

NORTH HAVEN WATER DEPARTMENT FRESH POND WATERSHED

EXECUTIVE SUMMARY

The North Haven Water Department serves approximately 300 people from Fresh Pond and more than 1,000 in the summer with the influx of seasonal residents and visitors. The water supply operated under a filtration waiver until 1996 when the waiver was revoked due to water quality concerns. The Water Department is now working on plans to build a new water filtration plant.

The 1,072-acre watershed of Fresh Pond is located in the center of the island of North Haven. There are no significant stream drainages that discharge into the pond. The pond is relatively small and shallow. Approximately 85 percent of the watershed is in forest growth. Large wetland areas are located at the north and south ends of the pond. The decay of wetland vegetation affects the color of water in the pond.

The shoreland is undeveloped and protected by local zoning. A camp and a few residential homes are the only existing development near the pond. The upland watershed is mostly in natural growth with limited low-density development located along the roadways, and is also protected by local zoning. Access is provided to the pond by the Water Department's service road to the intake and pump station. A second access point from Middle Road is used for recreation activities on the pond.

No significant land use threats were identified from existing databases or during the reconnaissance of the watershed. A fuel storage tank located at the pump station is contained although contingency measures for spill prevention are needed. The principal activities to monitor in the watershed include recreational use and the potential for future residential development. The pond is eutrophic and thus is sensitive to further degradation from runoff.

The overall susceptibility of the Fresh Pond water supply is ranked as low to moderate. Low susceptibility is based on the low density of development in the watershed, zoning controls, the predominantly forested cover and the lack of potential threats from land use activities. The moderate susceptibility ranking is based on the absence of ownership control, the presence of the AST fuel storage tank and the natural state of the pond (i.e., eutrophic state, high color and limited buffering capacity).

SWAP RANKING AND RECOMMENDATIONS

The SWAP assessment factors indicate that overall susceptibility of the water quality in Fresh Pond is low to moderate with respect to potential impacts from man-made land uses and activities. Low susceptibility is based on the general conditions observed, including the low density of development in the watershed, zoning controls, the predominantly forested cover and the lack of potential threats from land use activities. The moderate susceptibility ranking is based on the absence of ownership control, the presence of the AST fuel storage tank and the natural state of the pond. These natural conditions include its eutrophic state, the decay of organic matter causing high color, the shallow depths which limit the amount of water available

to buffer high color concentrations; and, the lack of any significant streamflow for flushing organic matter and color out of the pond.

Specific factors considered in assessing the overall risk are summarized below.

FRESH POND SURFACE WATER ASSESSMENT

Zone	Measure	Findings	Risk Level
Watershed	Ambient Water Quality Existing Conditions	Class GPA, in full compliance. Land use characteristics present a low threat to water quality; public awareness for protecting the resource is high.	Low Low
	Future Development	Future development is controlled by various zoning ordinances; pressure for future development is low.	Low
	Overall		Low
Shoreland	Pond Classification	Eutrophic-pond is more sensitive to the quality of near-shore runoff.	High
	Soils	Potentially erodible soils on steep slopes; Lyman (15-45%), Boothbay (15-25%).	Low-Moderate
	Activities Posing a Threat	Limited access and public use for recreation (e.g., canoeing and fishing).	Low
	Potential for Future Threats	Protection relies primarily on zoning controls for privately owned land; direct ownership and access control by Water Department is minimal.	Low-Moderate
	Overall		Low-Moderate
Intake	Raw Water Quality	TE2 & TE3 testing shows good quality; filtration waiver lost due to bacteria and high color concentrations.	Low-Moderate
	Ownership/Control	Water Department ownership protection of intake area is minimal.	Low-Moderate
	Activities Posing a Threat	Public access to intake area is unrestricted; AST fuel storage at pump station.	Low-Moderate
	Potential for Future Threats	Increased public use on pond.	Low
	Overall		Low
Overall			Low-Moderate

Recommendations

The overall ranking for the pond susceptibility to threats of contamination is low to moderate. Several additional actions could be considered by the Water Department and the town to provide added protection to the quality of the water supply.

- A spill contingency plan should be developed to address the threat of an oil spill when fuel is delivered to the storage tank located in the pump station. The plan should address

precautions to be taken during fuel deliveries and identify the equipment and procedures to be used in the event of a spill. The future need and provisions of the contingency plan may change with the construction of the new water filtration plant.

- Zoning controls enhance the protection of the shoreland and watershed areas. However, ownership and conservation easements under the control of the Water Department provide the greatest protection strategy for long-term conservation of the water resource. The Water Department should pursue a long-term plan to work with local landowners to develop and implement opportunities for gifts or purchase of land and easements.
- The pond can be accessed from Middle Road for recreational activities. The Water Department should work with the landowner to inform the public about the water supply and activities allowed on the pond (e.g., through signs, pamphlets or other means).

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