

WILTON WATER DEPARTMENT VARNUM POND WATERSHED

EXECUTIVE SUMMARY

The Wilton Water Department serves approximately 2,400 people from Varnum Pond. The 2,650-acre watershed of Varnum Pond is located in Wilton and Temple. There are no significant streams that discharge into the pond. The pond is small but is relatively deep and therefore is considered to be a spring fed supply. Approximately 95 percent of the watershed exists as forest growth. The northern and eastern shoreland areas are developed with a limited number of camps or seasonal homes. The southern shore, including the intake, and western shore are owned by the Wilton Water Department. The North Pond Road access to the intake area is unrestricted although the road conditions are difficult to traverse with a vehicle. Additional safeguards for land use in Wilton are provided through a 250-foot Resource Protection Zone established around the pond and the Watershed Overlay Zone.

No significant land use threats were identified during the reconnaissance of the watershed. The principal activities to monitor in the watershed include recreational use, timber harvesting and camp road development/maintenance. The Water Department is currently in the process of posting water supply signs around the pond and along the intake pipeline to keep a public awareness for protecting the pond.

The Water Company intake, located in the reservoir in approximately 18 feet of water at a distance of 300 feet from shore, delivers water by gravity through a pipeline to the sand filter treatment plant located about a mile to the south along the Water Department access road. Raw water monitoring for routine parameters, and testing for TE2, TE3 and other parameters have indicated good water quality from this source, i.e., showing all test parameters reported below public drinking water standards.

Based on the largely undeveloped nature of the watershed, rural setting, existing protection strategies and ongoing public awareness program of the Water Department, the overall susceptibility of the Varnum Pond water supply is considered to be low.

SWAP RANKING AND RECOMMENDATIONS

The SWAP assessment factors indicate that overall susceptibility of the water quality in Varnum Pond is low. This conclusion is based on the general conditions observed, including the lack of development in the watershed, the predominantly rural, forested land use and the absence of potential threats from land use activities. Specific factors considered in assessing the overall risk are summarized below.

VARNUM POND SURFACE WATER ASSESSMENT

Zone	Measure	Findings	Risk Level
Watershed	Ambient Water Quality	Class GPA, in full compliance.	Low
	Existing Conditions	Land use characteristics present a low threat to water quality; timber harvesting & RV use managed through permits and public awareness.	Low
	Future Development	Future development is controlled in part by zoning in Wilton although no watershed zoning exists in Temple; pressure for future development is low.	Low
	Overall		Low
Shoreland	Pond Classification	Mesotrophic (sustaining conditions)	Low
	Soils	Some potentially erodible soils along camp roads, (Daigle (8-15%), Marlow (8-25%).	Low
	Activities Posing a Threat	Vehicular travel near the shoreline.	Low-Moderate
	Potential for Future Threats	Development of private shoreland; limited protection for Temple shoreland.	Low-Moderate
	Overall		Low
Intake	Raw Water Quality	TE2 & TE3 testing shows good quality.	Low
	Ownership/Control	Ownership protection for intake area and western shoreland.	Low
	Activities Posing a Threat	Public access to intake area unrestricted.	Low
	Potential for Future Threats	None identified.	Low
	Overall		Low
Overall			Low

Recommendations

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

- The access road into the intake area is difficult to traverse with a vehicle. However, the Water Department may want to consider installing a locking gate in order to discourage use of the road by the public to access the pond. The posting of water supply signs is a good strategy to provide public awareness in any event.
- Maintain a good working relationship with the large landowners in the watershed that are managing the forest for wood production in order to encourage forest cutting practices that are protective of the water resource and avoid the use of pesticides.

- Shoreland and watershed areas currently have some protection under existing zoning and ownership. Further enhancement of this protection should be pursued through additional land purchases, conservation easements, etc., and by establishing a partnership program with Temple to encourage similar protective strategies in the northern half of the watershed.

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