

YORK WATER DISTRICT CHASES POND WATERSHED

EXECUTIVE SUMMARY

The York Water District provides drinking water to more than 5,000 residential and commercial customers from Chases Pond, which lies within a 2,031-acre watershed in the west-central part of the Town of York. More than 95 percent of the watershed is currently undeveloped. Approximately 70 percent of the watershed is owned by the Water District. Development of private land within the watershed is controlled by a Watershed Protection District zone that limits development to agriculture, timber harvesting or single-family development on large lots.

The reconnaissance of the watershed and shoreland areas identified one commercial facility that handles petroleum and other materials that could pose a threat to water quality of the pond. Access to Chases Pond is limited to woods trails with locked gates. Motorized ATVs are allowed on the trails in the watershed with a permit. Snowmobiles use land in the watershed in the winter, but a permit access system is planned for the future. The remainder of recreational uses is non-motorized, and the York Water District has a staff member whose job responsibilities include monitoring activities within the watershed.

There is a short section of Chases Pond Road that borders the southeast edge of the pond. This is also the location of the Water District intake. There are several residential dwellings within 1,000 feet of the intake. However, the Water District maintains signs in the area clearly identifying the water supply. The Water District is also working with the town to improve roadway drainage to protect water quality in this location.

Erodible soils have also been mapped along several shoreline sections of Chases Pond, although the Water District has not reported significant incidents of soil erosion in these areas.

There are no permitted recreational uses on Chases Pond. Welch's Pond, at the head of the watershed, is also closed. Recent water quality data collected from Chases Pond in 2000 included phosphorous concentrations that were elevated in comparison to concentrations reported in other ponds in York (i.e., Boulter Pond). The data were not sufficient to assess the trophic state of the pond or its susceptibility should land uses change in the future.

The Chases Pond watershed is sparsely developed and future development is restricted by Water District ownership and zoning. Recreational uses are not permitted on the pond. Based on these factors, the overall susceptibility of Chases Pond is considered to be low, however, concerns associated with increased population pressures suggest some increased vulnerability to the source.

SWAP RANKING AND RECOMMENDATIONS

The SWAP assessment factors indicate that overall susceptibility of the water quality in Chases Pond is low. However, concerns associated with increased population pressures raise the potential for future degradation of the pond. Specific factors considered in assessing the overall risk are summarized below.

CHASES POND SURFACE WATER ASSESSMENT

Zone	Measure	Findings	Risk Level
Watershed	Ambient Water Quality	Class GPA, in full compliance.	Low
	Existing Conditions	More than 95 percent of the watershed is undeveloped.	Low
	Future Development	Development pressure in the region is high; recreational use is increasing. This is offset by 70 percent watershed ownership by YWD and zoning restrictions on development.	Low-Moderate
	Overall		Low
Shoreland	Pond Classification	Unclassified (possibly mesotrophic, based on local setting).	Low-Moderate
	Soils	Erodible soils common along shoreline, no erosion problem reported.	Low-Moderate
	Activities Posing a Threat	Shoreline undeveloped; recreational use is increasing; roadway traffic and unauthorized access are a concern.	Low-Moderate
	Potential for Future Threats	Future shoreline development restricted by ownership and zoning.	Low
	Overall		Low-Moderate
Intake	Raw Water Quality	Recent pond quality data includes elevated phosphorous concentrations.	Low-Moderate
	Ownership/Control	Extensive YWD ownership.	Low
	Activities Posing a Threat	No recreational uses of the pond. Area well marked for public awareness.	Low
	Potential for Future Threats	YWD ownership limits future development.	Low
	Overall		Low
Overall			Low-Moderate

Recommendations

The overall ranking for the susceptibility of Chases Pond is low as a result of the pro-active efforts of the Water District and the Town of York including conservation ownership, lack of development and land use controls. However, the ranking is regarded as moderate based on certain factors that suggest increased vulnerability if left unmitigated in the future. These factors include the lack of water quality data to classify the pond, erodible soils, roadway threat and increased recreational use of the watershed. There are several additional actions that could be considered by the Water District and the Town of York to provide added protection to source water quality.

- The Water District and the Town of York should contact the few commercial establishments in the watershed that handle petroleum and other chemicals and work with them to develop appropriate handling and housekeeping practices.

- The recent water quality data included significantly elevated phosphorous concentrations in the raw water and several tributaries to Chases Pond. Follow-up monitoring should investigate the data quality, phosphorous source and trophic conditions of Chases Pond to determine its sensitivity to nutrient loadings.
- The existence of a rustic camp with no waste handling systems is inconsistent with preserving water quality in the watershed and should be addressed.
- The presence of Scituate Road and Chases Pond roadways adjacent to the shore of the pond with no guardrails poses a threat from vehicular traffic, unauthorized entry to the pond and vandalism. The placement of signs, plantings, guardrails and other improvements should be considered to mitigate the roadway threat.
- Elimination of ice fishing and other winter activities on Welchs Pond would be consistent with the protective practices enforced by the Water District on Chases Pond.
- Additional signs might be erected along Mountain and Groundnut Hill Roads for public education to alert motorists when they enter and leave the watershed. A sign at the base of the Mt. Agamenticus access road would also increase the awareness of visitors using the recreational facilities at the mountain.
- The Water District should continue to implement the recommendations of its *Watershed Management Plan*. With increasing recreational use in the watershed, the Water District should also modify and update its watershed management activities as it gains more experience in observing and monitoring activities in the watershed.

**MAINE PUBLIC DRINKING WATER
SOURCE WATER ASSESSMENT PROGRAM
YORK WATER DISTRICT
CHASES POND WATERSHED**

Revised APRIL 2003

prepared for

Source Water Assessment Program
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