

WATER RESOURCES

Introduction:

The focus of this chapter is freshwater resources and the importance of managing the quality of these resources. Marine water quality in Dresden, as it relates to the Kennebec and Eastern Rivers that flow through Dresden and Merrymeeting Bay, which is the confluence of these two rivers and four other rivers, is discussed in the Marine Resources Chapter.

Dresden is totally dependent on wells to provide drinking water for its residents and freshwater for its numerous agricultural businesses, many of which are located on the peninsula between the Kennebec and Eastern Rivers. Protection of the Town's freshwater resource is critically important in maintaining the quality of life for its residents and for sustaining wildlife and vegetation.

State Goal

To provide clean, safe water for Dresden residents and businesses, including agricultural enterprises, to protect aquifers and watersheds within the boundaries of Dresden that provide water to neighboring communities and to assure that Dresden does not negatively impact the quality of water within the Kennebec and Eastern Rivers, the Dresden Bog and Bog Brook, the outlet from the Dresden Bog that feeds into the Eastern River.

Citizens View (Survey Response)

A common sentiment of those who responded to the public opinion survey conducted in conjunction with the development of the Comprehensive Plan was that the Town's "country environment" was the number one reason for people moving to Dresden. Such an environment, with widely scattered housing, depends on individual water sources as reflected by the fact that 96% of the responders to the survey have drilled or dug wells. 4% of the responders rely on a spring for water. In terms of water quantity and quality, 95% have not experienced any reduction in water quantity and 88% have not experienced any decrease in water quality. The only survey comment related to water quality was that there was "rust" in the water. One responder suggested the Town purchase land to provide a water supply for future growth.

Overview

A significant portion of the Town of Dresden is located between the Kennebec River, located along the Town's westerly boundary, and the Eastern River which flows south through the Town, terminating at the Kennebec River where the Eastern and four other rivers, the Androscoggin, Cathance, Abbagadasset and Muddy, flow into the Kennebec River to form Merrymeeting Bay.

The importance of the Kennebec River, Eastern River and Merrymeeting Bay to the Town cannot be overstated. The delta formed by the Kennebec and Eastern Rivers is fertile farmland that is of great importance to the Town, providing income for numerous local families, produce for communities throughout the mid-coast region, recreational opportunities including boating and fishing and beautiful scenery to residents and tourists.

Promoting the cleanliness of the Kennebec and Eastern Rivers in order to protect Dresden farmland is critically important. But the need to protect water resources within Dresden for residents of Dresden and for neighboring communities whose water supplies are impacted by surface and sub-surface water within Dresden is equally important. This includes a large sand and gravel aquifer between the Kennebec River and Rt. 128 and just south of Rt. 197. The associated property, which is owned by the

Richmond Utilities District, has two wells that are each capable of producing 200 GPM (gallons per minute).

Within Dresden Mills twelve residences, a convenience store, post office and the Dresden Town office are served by a small water district, consisting of two wells, that were created in 1996 due to the contamination of the individual wells as the result of a leaking underground gasoline tank. Protection of this resource, in terms of quality and quantity, is imperative.

Dresden does not have a public sewer system or wastewater treatment facility. Therefore, local residents, business owners and town officials are responsible for providing and maintaining operable private septic systems that will not negatively impact the water resources.

Due to the lack of major industry in Town there are few known areas of potential groundwater contamination in Town. There are several large gravel pits located north of Rt. 197, along the east side of Rt. 128 and relatively close to the Kennebec River, that could negatively impact an aquifer in the area. The only know buried fuel tanks in Town are associated with the convenience store in Dresden Mills. These were tested in 2010 and again in May 2014 and found to be in good condition.

Analyses and Key Issues

1. *Are there point sources (direct discharges) of pollution in the community?*
(There are two Overboard Discharges (OBD) in Dresden and both are monitored via a permitting process with DEP.
2. *Are there non-point sources of pollution related to development, agriculture, forestry or other uses that are affecting surface water resources and riparian areas? If so, are existing regulations sufficient to protect these resources?*
(None
3. *Are point and/or non-point sources of pollution threatening groundwater supplies?*
(No
4. *Are public groundwater supplies and surface water supplies and their recharge areas adequately protected? Are any public water supply expansions anticipated? If so, have suitable sources been identified and protected?*
(There has been a “well-head” protection study done in the past to identify any wells that may be in danger of damage or pollution. The two wells that supply about 12 homes in Dresden Mills is protected by ordinance requirements as well as gated entrance and locked shelter. The Town of Richmond has two wells on the east side of the Kennebec and in the Town of Dresden that is also protected by ordinance requirements and perimeter fencing.
5. *What non-regulator measures can the community take to protect or enhance water quality? Are there opportunities to partner with local or regional advocacy groups that promote water resource protection?*
(Dresden's Conservation Commission had tested over 40 private wells though-out the town and although some wells tested better the others, there was no glaring issues with any of them. This data currently resides in a database.

6. *Do local road construction and maintenance practices and standards adequately protect water resources? Do public works crews and contractors use best management practices in daily operation (e.g. salt/sand pile maintenance, culvert replacement street sweeping, public works garage operations)?*

(Anytime there is local road construction/maintenance it is always done in accordance with ordinances and the DEP. The salt/sand pile is undercover in the sand shed.

7. *Are floodplains adequately identified and protected? Does the community participate in the National Flood Insurance Program? If not, should it? If so, is the floodplain management ordinance up to date and consistently enforced?*

(The floodplains are identified using online maps from FEMA. The *Floodplain Management Ordinance* is current and used anytime there may be a questionable area.

Action Plan

Policies

1. Protect significant surface and sub-surface water resources from pollution.
2. Protect current and potential drinking water sources, not the least of which is a large aquifer that provides water to the Town of Richmond
3. Protect significant surface water resources from pollution and improve water quality where needed.
4. Cooperate with neighboring communities such as Richmond, Bowdoinham, Pittston, Gardiner and Whitefield and regional and local advocacy groups such as Friends of Merrymeeting Bay to develop policies and strategies for protecting water resources.
5. Protect water resources in potential growth areas while promoting more intensive development in those areas or strive to ensure that growth in those area does not jeopardize water quality

Strategies

Each of the strategies listed below is followed by the names of the parties responsible for implementing the strategy and the year that the strategy is to be implemented.

- Provide farmers, developers and loggers with information related to water quality “best management practices”, including the Maine Forest Service’s Best Management Practices for Forestry: Protecting Maine’s Water Quality.

Select Board

Conservation Commission

On-going

- Amend local land use ordinances as applicable to incorporate storm-water runoff performance standards consistent with:
 - (The Maine Storm-water Management law and Storm-water Rules (Title 38 MRSA Section 420-D and 06-096 CMR 500 and 502)
 - (DEP’s allocations for allowable levels of phosphorus in lake/pond watersheds.
 - (The Maine Pollution Discharge Elimination System Storm-water Program

Planning Board

Year ??

- Follow State guidelines with regard to construction within the flood plain.

Codes Enforcement Officer

- Periodically review the Town's wellhead and aquifer recharge area protection ordinance and update when necessary.

Planning Board Year ??

- Periodically review the Town's Gravel pit ordinance and update when necessary.

Planning Board

On-going

- Continue to require contractors to follow water quality protection practices during the construction and maintenance of public roads and facilities.

Select Board

On-going

- Follow low impact development standards incorporated within existing ordinances and update/improve as necessary.

Codes Enforcement Officer

Planning Board

- Follow State Erosion Control Standards in terms of erosion and sedimentation control measures during the construction of developments.

Codes Enforcement Officer

- Collaborate with abutting towns and regional and local advocacy groups to develop common watershed protection measures.

Planning Board

Conservation Commission

Ongoing

- Collaborate with abutting towns and regional and local advocacy groups to monitor water quality within the Kennebec and Eastern Rivers.

Conservation Commission

Year

- Provide educational materials at appropriate locations regarding invasive species.

Select Board

Conservation Commission

On-going

- Monitoring of water quality in the Dresden Bog is done by the State