

Source Water Protection Plan (SWPP) for Town of Bow Drinking Water Systems

Activities 2020

Objective	Action	Partners	Progress	Status
1. Implement the December 2005 Source Water Protection Plan for the Town of Bow.	The Bow Drinking Water Protection Committee (BDWPC) was created by the Board of Selectman (BOS) in 2005 to shepherd the implementation of the Source Water Protection Plan (SWPP) and other activities related to the protection of existing and future drinking water supplies in Town.	BOS Planning Board Community Development Director and Assistant	All activities by the BDWPC are intended to educate and preserve town resources for protection of existing and future drinking water supplies. <i>Annual updates of these activities are summarized in this table.</i>	Annual
2. Wellhead protection plans for Municipally-Owned and School-Managed Water Systems.	a. Prepare individual wellhead protection plans (WHPP) for the Municipal Building, Community Building/Fire Dept, Public Works Dept/Police Building, Old Town Hall, Baker Free Library, Bow Memorial School, Bow Elementary School, and Bow High School. Review and update every 3 years as necessary.	Town of Bow Bow Schools Granite State Rural Water Association	Completed 8 SWPPs dated December 2005 for each public water system. <i>Plans will be reviewed and updated as needed.</i>	Open
	b. In April 2010, the NHDES issued a Large Groundwater Withdrawal Permit (LGWP) for the Bow Municipal Water System to serve the Route 3A corridor. The BDWPC developed the WHPP Implementation Plan for the new water supply. The plan was adopted by the BOS in Sep 2011.	Town of Bow Water System Operator BOS	The Municipal Water System began serving water to the public in July 2012. The WHPP-IP latest revision (Revision 2) is dated June 2014. <i>Activities Tables 4-1 and 4-2 were reviewed and updated in 2019.</i>	Annual
	c. For decades, the Town has sought a permanent solution to groundwater contamination affecting water quality for businesses in the Bow Junction area. The most feasible solution is to extend the Concord Municipal Water System. Concord water main extension to South Street area is also desirable.	Town of Bow City of Concord BDWPC Business Development Commission (BDC)	<i>In 2019 a Feasibility Study was completed on water supply options including a water main extension from Concord, from the Bow Municipal System, or the development of a new community well for this area. Bow Development Commission (BDC) is assisting by convening key parties to discuss these options.</i>	Open
3. Septic Systems and Wastewater Management	a. Hold a community workshop and/or perform outreach regarding septic system maintenance and operation for residents and business owners. Review the Town's Septic System Ordinance (under RSA 485-A:32) and identify items as needed.	BDWPC NHDES	<i>Outreach materials available on BDWPC webpage including a NHDES video "Septic System Management for Homeowners". Continue outreach on septic maintenance through annual community events such as voting day and Test Your Well Water event.</i>	Annual
	b. Replace the sewage pump station at Bow Junction & extend sewer service in the Route 3A Business Development Area south of River Road, a portion of which lies over Bow's largest aquifer. Adopt an ordinance that requires that developed properties connect to the sewer system.	Selectboard BDWPC Business Development Commission	<i>In 2012, the Town replaced the Hall Street pump station in Bow Junction and installed dry sewers at key intersections in the Rte 3A business development area. The remaining sewers and force main for the area await additional development and funding.</i>	Closed

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4. Lawn Care	Educate residents and businesses about the proper use of lawn care chemicals and fertilizers and methods to minimize water use especially for landscaping purposes.	Conservation Commission BDWPC	The BDWPC webpage contains links and information on natural lawn care and outdoor water conservation. <i>The BDWPC provides educational materials to the public on Voting Day each year. The Conservation Commission partnered with the Merrimack County Conservation District to install a Rain Garden at the Baker Free Library to promote capturing and treating stormwater runoff.</i>	Annual
5. Residential Fuel Storage	Collaborate with fuel oil distributors and oil burner service companies to promote better residential fuel storage and maintenance of tanks. Activities could include education and outreach to consumers and development of a free inspection program.	BDWPC Fuel Distributors Town of Bow Assessor's ofc Fire Dept	<i>The BDWPC webpage provides a link to NHDES Factsheet REM-6 "Self-Inspection Checklist for Basement and Outdoor Home Heating Oil Tanks"</i>	Closed
6. Protection from salt contamination and Transportation Corridors	a. Investigate 2013 salt complaints from Brown Hill Road Area.	Selectboard BDWPC	The BDWPC performed a survey of 158 homes in the Brown Hill Road Area and sampled 79 wells, to evaluate this ongoing issue. A report was prepared and presented to the Town and area residents in 2016. Copies of the report and public presentation are posted on the BDWPC webpage.	Closed
	b. Educate residents regarding the link between salt contamination and corrosion in private wells, especially as related to lead exposure.	BDWPC NHDES	<i>Perform outreach on well testing and treatment options for lead and copper corrosion in addition to common contaminants arsenic, radon and uranium at annual Test Your Water Event.</i>	Annual
	c. Continue to implement a reduced salt application program for Bow roads that promotes minimal use of deicing materials while maintaining public safety.	Public Works Dept	The latest version of the Town of Bow Winter Maintenance Policy was adopted by the Select Board on October 27, 2015. <i>DPW staff are trained on salt application techniques using the NHDES Green SnowPro Guidelines.</i>	Annual
7. Best Management Practices by Commercial and Industrial Land Uses	Facilitate protection of water quality with commercial and industrial businesses in the Town of Bow by implementing a best management practices survey program. The Town is required to conduct BMP inspections of businesses that handle hazardous or toxic materials in the municipal water system WHPA.	Planning Dept Fire Dept NHDES Water Operator BDWPC	NHDES has a database of registered hazardous / toxic materials facilities. The Fire Dept performs-site visits to Town businesses to ensure that best management practices are being used and to provide information and education about source water protection. NHDES provides BMP training to Town representatives, as needed. <i>In 2017 and 2019, Town employees and Water Operator Whitewater Inc. attended and became certified</i>	Triennial - next BMP inspections due Oct 2020

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			<i>by the NHDES BMP Inspection training to perform triennial inspections of all Potential Contamination Sources in the municipal wellhead protection area.</i>	
8. Aquifer Protection Ordinance and Land Criteria	a. Protect the stratified drift aquifer located in the vicinity of Bow Bog and Allen Roads as a future source of supply. Identify and rank key land parcels in Town to protect current and future water supplies.	Selectboard Conservation Commission Bow Open Spaces BDWPC	<i>Protection of the stratified drift aquifer was completed with adoption of the Aquifer Protection Ordinance in 2009. In 2016-2017, the BDWPC developed criteria for ranking specific land parcels with respect to their value for drinking water protection. The ranking matrix was finalized in 2018 and submitted to the Town Manager.</i>	Closed
	b. Strengthen provisions of the current Aquifer Overlay District by, for example, prohibiting high-risk land uses, limiting the amount of impervious cover in the District, and limiting large groundwater withdrawals.	Planning Board Selectboard Local Businesses BDWPC	In 2008, the BDWPC worked with affected businesses and landowners to develop a new Aquifer Protection (AP) ordinance which was adopted at the May 12, 2009 Town Meeting. At the March 13, 2012 Town Meeting voters approved expanding the AP District to include the Wellhead Protection Area for the Municipal Water System.	Closed
9. Stormwater Management	a. Map the location of stormwater management structures (e.g. catch basins, cross culverts, treatment and detention facilities, and outlets).	Planning Board Public Works NHDES	<i>The BDWPC prepared a map of stormwater structures based on field efforts by Bow DPW and the NH Geological Survey.</i>	Closed
	b. Using the information from the aforementioned mapping project, develop and implement a comprehensive stormwater management program which prevents harmful and destructive effects of stormwater runoff.	Public Works, Conservation Commission	<i>The Town DPW maintains the inventory of stormwater structures and has implemented a comprehensive maintenance plan. A database of all maintenance activities is also maintained by the DPW.</i>	Annual
10. Water Conservation	a. Develop regulations and a rate structure for the new municipal system that promotes water conservation.	Selectboard BDWPC Planning Board Public Works	The LGWP permit requires that the Planning Board incorporate specific water conservation requirements into the Subdivision and Site Plan Regulations. <i>In 2016, a leak detection survey was completed for the municipal system as part of the Water Conservation Plan. Annual water balances are submitted to NHDES.</i>	Open
	b. Consider implementation of a town-wide water conservation ordinance that applies to public water systems and can be invoked during times of drought.	BDWPC, Conservation Commission Selectboard Planning Board	<i>In 2020, the BDWPC will research the possibility of adopting a conservation ordinance that can be used in the event of a drought.</i>	Open

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	c. Other – outreach on low water use landscaping.	BDWPC	SEE ITEM 4	Annual
11. Future Drinking Water Supplies and Services	a. Assess and plan for future drinking water needs.	Planning Board	<i>All activities by the BDWPC are intended to educate and preserve town resources for protection of existing and future drinking water supplies. COMBINED W/ITEM 1.</i>	Closed
	b. After the municipal water supply comes on line, extend water service to areas where groundwater contamination is present or where protection of source water is not practical (e.g. South Street and Bow Junction).	Selectboard Business Development Commission Planning Board	<i>See Item 2C. Added South Street.</i>	Open as Item 2C
	c. Adopt specifications for small public water systems to facilitate eventual connection to the municipal water system.	Selectboard Planning Board BDWPC	<i>Not needed, state regulations dictate system specifications.</i>	Closed
	d. Protect the stratified drift aquifer located in the vicinity of Bow Bog and Allen Roads as a future source of supply.	Conservation Commission Planning Board	<i>Completed with adoption of the Aquifer Protection Ordinance adopted in 2009. See Item 8.</i>	Closed