

GROUNDWATER AND DRINKING WATER RESOURCES FOR VERMONT PLANNERS – 6/9/2017 DRAFT

QUESTION	ONLINE RESOURCE
What groundwater resources and maps are available for our town? How can I find out if we have arsenic, uranium, or other naturally occurring contaminants?	http://dec.vermont.gov/geological-survey/groundwater/town-gw Local Groundwater Resource Studies – Vermont Geological Survey http://dec.vermont.gov/geological-survey/geology-and-health Geology and Health - Vermont Geological Survey http://www.healthvermont.gov/tracking - Health Department Tracking Data
Is our groundwater use proposed to increase in the future? If so, in which part(s) of town?	https://pubs.usgs.gov/sir/2010/5053/ - USGS Study - Estimated Water Withdrawals and Return Flows in Vermont in 2005 and 2020 http://anrmaps.vermont.gov/websites/anra5/ Click on Drinking Water and Groundwater; layer is called “Groundwater Withdrawals – Projected 2020” and data is displayed by census block
How can groundwater resource maps be used in the planning process?	http://www.mngs.umn.edu/user_guide_v1.pdf - Geologic Atlas User’s Guide: Using Geologic Maps and Databases for Resource Management and Planning
Are there any public water systems in my town?	https://anrnode.anr.state.vt.us/DWW/ Vermont Drinking Water Watch (searchable by county or system name) http://anrmaps.vermont.gov/websites/anra5/ Click on Drinking Water and Groundwater: Layer is called “Public Water Sources”
Are there any source protection areas in my town?	http://anrmaps.vermont.gov/websites/anra5/ Click on Drinking Water and Groundwater: Layers are called “Surface Water SPA” and “Groundwater SPA” (these terms replace the older “Aquifer Protection Area” and “Wellhead Area”)
Is there anything more we can do protect the groundwater in our town?	http://dec.vermont.gov/water/groundwater-reclassification Petition for Vermont’s Class II Groundwater Designation https://www3.epa.gov/region1/eco/drinkwater/pc_solesource_aquifer.html Petition for Sole Source Aquifer status from US EPA Region 1
Is there a factsheet or more information for groundwater reclassification?	http://dec.vermont.gov/sites/dec/files/dwgwp/gwreclass/pdf/classiandiiprocedure2008.pdf Class II Groundwater (uniformly excellent character) http://dec.vermont.gov/sites/dec/files/dwgwp/gwreclass/pdf/gwreclassivfactsheet.pdf Class IV Groundwater (non potable)
What should we be thinking about if we might want to develop a small water system for our village in 5 years? 20 years?	http://accd.vermont.gov/community-development/funding-incentives/municipal-planning-grant - Vermont ACCD Municipal Planning Grants http://dec.vermont.gov/grant-loan-programs - Vermont DEC Grant and Loan Programs
What do we do if water sources (private wells, village springs, etc.) in our town run dry?	http://dec.vermont.gov/facilities-engineering/water-financing/on-site-loan - On Site Loan http://dec.vermont.gov/grant-loan-programs - Vermont DEC Grant and Loan Programs

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<p>How do I include drinking water concerns in our local hazard mitigation plan? Local emergency operations plan?</p>	<p>http://demhs.vermont.gov/plans/local-hazard Vermont Emergency Management – local hazard mitigation & emergency operations https://www.epa.gov/sites/production/files/2016-08/documents/160815-hazardmitigationfornaturaldisasters.pdf EPA Guide for Water Utilities – Hazard Mitigation for Natural Disasters</p>
<p>Do I need to be concerned about lead in our school’s drinking water?</p>	<p>https://anrnode.anr.state.vt.us/DWW/ Enter the school name in Vermont Drinking Water Watch Click on Lead and Copper Sample Summary Results http://dec.vermont.gov/water/drinking-water/water-quality-monitoring/lead-copper-rule-resources Vermont DEC - Lead and Copper Rule Resources</p>
<p>How do I find out how much water our municipal system has left to allocate for development?</p>	<p>https://anrnode.anr.state.vt.us/DWW/ Vermont Drinking Water Watch – use this tool to search for your municipal system and contact the operator (DO) or administrative contact (AC)</p>
<p>Is there a national guide for planners?</p>	<p>http://sourcewatercollaborative.org/guide-for-land-use-planners/ National Source Water Collaborative – Guide for Land Use Planners</p>
<p>Are there any resources that could help us show the benefits of source protection?</p>	<p>http://www.nature.org/beyondthesource Beyond the Source: The environmental, economic and community benefits of source water protection – 2017 Report from The Nature Conservancy http://www.swptool.org/index.cfm Source Water Protection Cost/Benefit Tool https://www.awwa.org/resources-tools/water-knowledge/source-water-protection.aspx Source Water Protection Resource Community from AWWA – including link to report - Effect of Forest Cover on Drinking Water Treatment Costs</p>
<p>Where can I find information about Vermont’s source protection regulations?</p>	<p>http://dec.vermont.gov/water/drinking-water/public-drinking-water-systems/source-water-protection Source Water Protection Program - Drinking Water and Groundwater Protection Division http://dec.vermont.gov/sites/dec/files/dwgwp/dwrules/pdf/vtwsr2010.pdf 2010 Vermont Water Supply Rule *There are also references to source water protection areas and water supplies in many other state regulations such as the AST and UST Rules, Stormwater Management Manual, Required Agricultural Practices, and Solid Waste Management Rules</p>
<p>What does it mean when a public water source or source protection area is grandfathered?</p>	<p>http://dec.vermont.gov/sites/dec/files/documents/dec-water-supply-rule-2010-12-01.pdf While there are prohibited land uses for a 200’ radius for a public water source in the Water Supply Rule (App Pg 23), these restrictions are only considered during source permitting.</p>

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PRESENTER	ONLINE RESOURCE REFERENCED IN PRESENTATION
Marjorie Gale	http://dec.vermont.gov/geological-survey/groundwater/statewide-gw Statewide Groundwater Resource Maps - VGS Water Well Data, Bedrock Type and IDW
Liz Royer	http://dec.vermont.gov/sites/dec/files/dwgwp/sourceprot/pdf/ounceofprevention.pdf Ounce of Prevention – A Groundwater Protection Handbook for Municipal Officials (Vermont DEC) - Model Groundwater Protection Ordinance found in Appendix A – Page 59 http://www.neiwpsc.org/sourcewateroutreach/ Protecting Drinking Water Sources in Your Community, A New Source Water Protection Tool for Municipal Officials (from NEIWPC)
Josh Cox and Lauren Oates	http://floodready.vermont.gov/find_funding/hazard_mitigation_assistance Hazard Mitigation Assistance – Vermont DEMHS
Rick Kiah	https://groundwaterwatch.usgs.gov/netmapT2L1.asp?ncd=NHV NH&VT Groundwater Level Network https://webdmamrl.er.usgs.gov/g1/ggranato/Software/HydroDSS.html Hydrologic Drought Decision Support System https://pubs.usgs.gov/sir/2009/5227/ Sustainable Yield Estimator https://pubs.er.usgs.gov/publication/sir20155047 Simulating hydrologic response to climate change scenarios
Chi Ho Sham	http://sourcewatercollaborative.org/guide-for-land-use-planners/ Advice Worth Drinking: How today’s land use decisions can protect tomorrow’s water supply
Hard Copy Handouts at Workshops	https://www.tpl.org/sites/default/files/cloud.tpl.org/pubs/water-protecting_the_source_final.pdf Protecting the Source – Land Conservation and the Future of America’s Drinking Water (TPL)