

SOURCE PROTECTION PLAN REQUIRED INFORMATION

I. Maps

- A. An orthophoto or USGS topographic map showing the location of the water supply(s) and the delineated Source Protection Area (SPA). A SPA is the surface and subsurface area from or through which contaminants are reasonably likely to reach a water system source. A SPA is described further in the Source Protection Plan (SPP) guidance document *Protecting Public Water Sources in Vermont*, see link below:
<http://drinkingwater.vt.gov/sourceprot/pdf/protectingpublicwatersourcesvt.pdf>
To find the location of the SPA for your water system, please use the Agency Atlas at the link below:
<http://www.anr.state.vt.us/site/html/maps.htm>
- B. A map showing locations of water system's groundwater sources and/or surface water intakes, the landowners within the SPA, and Potential Sources of Contamination (PSOCs) within the SPA. A tax parcel map with the SPA overlay may be most helpful to locate PSOCs and to identify the responsible parcel owner. Include on all maps the WSID # and name of the water system

II. Inventory and Assessment of Potential Sources of Contamination (PSOCs)

- A. Include an inventory and description of the PSOCs that occur within the SPA (i.e., septic system/leachfields, underground storage tanks, above ground storage tanks, agricultural and forestry activities, businesses, high traffic areas, hazardous sites, etc.).
- B. Include a cross indexed list of the PSOC with the landowner/responsible person's contact information.
- C. Provide a risk ranking of high, medium, or low for each PSOC with an explanation of the reasons for the ranking.

III. Management Plans

The SPP identifies how the water system will manage the identified risks in conjunction with the PSOC's responsible parties. These plans shall be directed toward controlling risks from existing potential sources of contamination, where possible, and reducing risks of potential contamination.

- A. The management plans shall include one or more actionable items from the source protection list (below), or other appropriate actionable activity.
1. The water system will provide educational opportunities and activities to improve source protection understanding (for example: school presentations, meetings for residents to raise their source protection awareness, the state is invited to explain the utility of a SPA is to the planning commissions).
 2. The town will make zoning district changes to decrease risks in their Source Protection Area (for example: change development density in SPA, locate industrial/commercial development zones outside of SPA, place septic treatment facilities outside of a prime groundwater aquifer).
 3. The town will incorporate zoning overlays for source protection areas (for example: prohibit certain activities within a SPA Zone 2 and/or Zone 3).
 4. The town will reclassify Source Protection Areas to Class II Groundwater areas (this pertains to municipal water systems primarily and is for both existing SPA and likely proposed new SPA). Other Agency programs restrict or prohibit certain activities in Class I and Class II groundwater areas. It also raises public awareness of the groundwater resource and groundwater protection by recognizing its importance at an elevated level.
 5. The water system will draft specific letters targeting the identified potential contaminants and send them to those land owners in the Source Protection Area (for

example: targeted letters to specific land uses, provide more explanation regarding the relationship of land use activity and groundwater flow/recharge to the water supply).

6. Describe in detail the enhanced surveillance activities the water system will take, including frequency (for example: visiting with the owner/manager of high and moderate risk activities bi-yearly, walk or drive the SPA to observe what is happening every other week), and incorporate changes found into the SPP.
 7. Purchase land or land use easements (i.e. development rights) within the Source Protection Area to have control over land use activities in sensitive areas. (for example: use the DWSRF loan set-asides for land purchase, fund a targeted land purchase/development rights acquisition account).
 8. Incorporate and discuss how the bedrock and surficial materials base maps derived from the new State Geologic Maps, specific to the SPA, relate to specific source protection activities. This can be the basis for reevaluating risk assessments and determining more effective protection activities, or assigning zoning districts.
 9. Coordinate with DWGPD staff, depending on their workload, to accompany water system personnel on a “windshield survey” or walk through the SPA to help identify unrecognized Potential Sources of Contamination (PSOC) or reevaluate existing ones, and understand their significance if released into the recharge area.
 10. Coordinate with DWGPD staff, depending on their workload, to assist in priority ranking the identified risks in the SPA (as High, Medium, or Low) to improve targeting the water system’s protection activities. This could be done in conjunction with discussing the geologic surficial materials/bedrock type maps, the topography, the concentration/volume of contaminant, etc.).
 11. Attend specific source protection training opportunities that are presented at various trainings and meetings (for example: Vermont Rural Water Association (VRWA) annual meeting, as a component of Operator Training. (VRWA is a partner with the Division in Operator Training and Source Protection).
 12. Discuss other deterrent measures to contamination or vandalism that will be installed or implemented (for example: signage, fencing, volunteer activities for education, surveillance).
 13. Other actionable activities.
- B. Specifically address the water system’s control of 200 foot isolation zone 1, and if not owned or controlled by the system, the water system’s plan to manage it.
- C. Commitment to update the SPP every year for changes/additions of PSOCs and land owners, and every three years to submit an updated SPP to the Division for review and approval.
- D. Include copies of educational letters to be mailed to Town officials, and landowners and businesses within the SPA. These letters can involve education about proper septic tank use and cleaning, requests to reduce pesticide/herbicide/fertilizer use, reduce salting of roads, and other educational efforts specific to the PSOC, such as health effects or consequences of contamination of the source.

IV. Contingency Plan

- A. Identify alternate drinking water supplies in the event of source contamination or disruption. Contingency plans address both short and long term needs, i.e., bottled water, hauled water, boiling water, drilling a new well, purchasing water from another water system, etc.
- B. Emergency procedures for non-scheduled sequenced system shutdown and start-up. This information may be found in the Operation and Maintenance Manual for the water system.
- C. List name and telephone numbers of people to contact in case of emergencies, spills, discharges, etc. (i.e. Fire Department, Police Department, Drinking Water & Groundwater Protection Division, Hazardous Material Spills (1-800-641-5005), etc.).

WSID # _____

Water System Name _____

Date _____

Reviewer _____

SOURCE PROTECTION PLAN CHECKLIST

Note: Not all sections may be applicable to all water systems.

YES NO

IA. Orthophoto or USGS topographical maps with Source Protection Area delineation showing Source Location and:

- ____ 1. Zone I, 200 foot radius isolation zone
- ____ 2. Zone II
- ____ 3. Zone III
- ____ 4. two year time of travel delineation

IB. Tax maps with the following information identified and labeled:

- ____ 1. Name of water system and WSID #.
- ____ 2. Town name, scale, legend.
- ____ 3. Groundwater sources (wells, springs)
- ____ 4. Surface water inlets
- ____ 5. Source Protection Area delineation
- ____ 6. Potential Sources of Contamination (septic systems/leach fields, businesses, agriculture, forestry, USTs, ASTs, etc.) within the SPA
- ____ 7. Landowner parcels and buildings within the SPA

II. Inventory of PSOCs and Assessment

- ____ A. Inventory and description of PSOCs (septic systems/leach fields, businesses, agriculture, forestry, USTs, ASTs, etc.) present and past.
- ____ B. A list of the land parcels within the SPA cross-indexed with the landowner and the PSOCs.
- ____ C. Assessment and ranking (whether PSOCs are high, moderate, or low risk)

III. Management Plan

- ____ A1. Educational activities to be performed.
- ____ 2. Zoning changes to be enacted.
- ____ 3. Zoning overlays to be incorporated.
- ____ 4. Groundwater reclassification to Class II petition to be submitted.
- ____ 5. Targeted PSOC letters to be developed and sent.
- ____ 6. Enhanced surveillance activities to be implemented.
- ____ 7. Land or easements to be purchased.
- ____ 8. Enhance geologic understanding of aquifer.
- ____ 9. Enhance PSOC identification.
- ____ 10. Enhance PSOC ranking.
- ____ 11. Attend source protection training.
- ____ 12. Enhance Deterrent measures to contamination or vandalism.
- ____ 13. Other, describe _____
- ____ B. Zone 1 management: Management techniques to be used, i.e., land purchase within SPA, posting signs, purchase of development rights, local ordinances, public educational efforts, other _____
- ____ C. Commitment to update the SPP every three years
- ____ D. Copy of letter sent to businesses/landowners within SPA and copy of letter sent to town, county, and state officials.

IV. Contingency Plan

- ____ A. Alternate water supply made available, both long and short term solutions, with list of suppliers and phone numbers.
- ____ B. Emergency procedure for non-scheduled sequenced system shut down and startup.
- ____ C. A plan for notifying key contact people, including names, functions, and phone numbers.