

Source Water

Source water is the untreated ground water and surface water used to supply drinking water. Source water assessments (SWA) provide information on the potential contaminant threats and overall susceptibility of public drinking water sources. Each source water assessment involves three primary components:

- Determining the subsurface area or portion of a watershed contributing water to the well, spring or surface water intake (source water delineation)
- Identifying potential sources of contamination within the source water delineation
- Determining the susceptibility of the water supply to potential contaminants



SWA Online

The goal of Idaho's Source Water Program is to develop information that enables public water system (PWS) owners, operators, consumers, local governments, and communities to initiate and promote actions to protect their drinking water sources. Therefore, DEQ has developed an online application for the public to easily access source water assessment information to begin the process of protecting their drinking water sources.

www.deq.idaho.gov/water/swaOnline

Questions?

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Web Resources

Source Water Protection in Idaho

www.deq.idaho.gov/water-quality/source-water/protection

Presents an overview of drinking water protection plans. Communities are encouraged to use this resource to document the management tools they plan to use to protect drinking water sources.

Source Water in Idaho

www.deq.idaho.gov/source-water

Contains information on the purpose and components of source water assessments as well as access to a database housing source water assessment reports for water systems in Idaho.

Emergency Preparedness for Public Water Systems

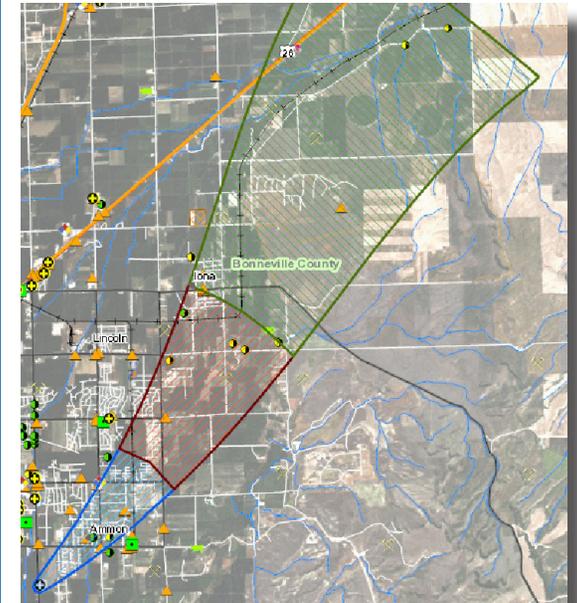
www.deq.idaho.gov/emergency-preparedness-for-public-water-systems

Advises public water systems on when to call and what to do in the event of a contamination emergency.



Printed on recycled paper; DEQ, March 2019, PID 0305, CA 30060. Costs associated with this publication are available from the State of Idaho Department of Environmental Quality in accordance with Section 60-202, Idaho Code.

DEQ Source Water Assessment Online Application



**A map-based tool to help
communities protect their
drinking water sources**



Idaho Department of
Environmental Quality
www.deq.idaho.gov



Getting Started

To access SWA Online, go to:

www.deq.idaho.gov/water/swaOnline

1. Search for public water systems by name, number, source tag number, county, or type of water source.
2. Click on the source water assessment summary report, or view each component of the assessment: delineation (dynamic map), susceptibility summary, and potential contaminant inventory.

Source Water Delineation

Delineations can be viewed as static or dynamic maps. The dynamic mapping application displays the GIS Data and Imagery used by DEQ in the assessment of public water systems. Users can search for, identify, and evaluate potential contaminant sources and source water delineations, compare drinking water sources, and export maps.

IDAHO Department of Environmental Quality
Source Water Assessment and Protection

Search By County: Ada

Select by Public Water System: BLM BURLEY

Search by PWS Name: BLM BURLEY

Search by PWS No:

SWA ONLINE SEARCH PAGE
Restriction of Liability for GIS Data

SRCID: E0007562 PWS NO: 5160004 PWS Name: BLM BURLEY ADMINISTRATION SITE

Source Water Delineations Time of Travel (TOT)

- 3 Year TOT
- 6 Year TOT
- 10 Year TOT
- Surface Water Buffer
- Fixed Radius
- Watershed Boundary

Potential Contaminants Inventory Locations

- Brownfield Site
- CERCLA Site
- Toxics Release Inventory Site
- General Waste Site
- UST/LUST Site
- Dairy
- Feedlot
- Managed Aquifer Recharge Site

Susceptibility Summary

The susceptibility or likelihood that the water supply will become contaminated is ranked as high, moderate, or low. Susceptibility summaries take into account three factors:

1. System Construction
2. Hydrologic Sensitivity (wells only)
3. Potential Contaminant Inventory/Land Use

System Construction	Potential Contaminant Inventory/Land Use				Hydrologic Sensitivity
	IOC	VOC	SOC	Microbials	
M	M	M	M	M	H
H = High Susceptibility, M = Moderate Susceptibility, L = Low Susceptibility					

IOC: inorganic contaminant (e.g., nitrate or arsenic)

VOC: volatile organic contaminant (e.g., gasoline or oil)

SOC: synthetic organic contaminant (e.g., pesticides)

Sources are assessed an auto high when there is a potential source of contamination within 50 feet of a well, 100 feet of a spring, or 1,000 feet upstream of a surface water intake OR a detection of an IOC over the MCL or any detection of an SOC, VOC, or microbe.

Potential Contaminant Examples



Fertilizer



Septic systems



Leaking underground tanks



Confined animal operations

Potential Contaminant Inventory

DEQ identifies the potential contaminants that could impact water quality within each source water delineation using GIS databases.

The table below is an example of the potential contaminant inventory that is generated for each PWS within its source water delineation.

TOT (Years)*	Potential Contaminant Source	Potential Contaminants	Name
0 - 3	Feedlot	IOC, Microbes	Feedlot
3 - 6	Remediation Site	VOC, SOC	Campground
6 - 10	Mine Site	Site Specific	Gravel Pit

* TOT refers to the time-of-travel or the time it takes water in the aquifer to reach the source.

Source Water Protection

The results of source water assessments should not be used as an absolute measure of risk, and do not imply that any regulatory or legal actions will occur. Public water systems and communities are strongly encouraged to use source water assessments, combined with local knowledge, to develop strategies to protect drinking water sources.

Protection strategies may include security fencing, household hazardous waste (HHW) collection events, best management practices, education and outreach, or development of source water protection ordinances.



Security Fencing



HHW Collection