

Preliminary Evaluation Report
Standard Report Format for New Surface Water Sources

May 2023

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STATE OF UTAH
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DIVISION OF DRINKING WATER

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Preliminary Evaluation Report (PER) R309-605 of the Utah Administrative Code

If the Standard Report Format identified in this document is followed, the Division of Drinking Water (Division) should be able to provide timely review and response. If it is not followed, the writer must ensure that each item is adequately addressed. Letters from the Division will always reference sections of this document. To ensure that each plan is complete, please number each section of the PER to match the sections of the Standard Report Format.

Please see the Surface Water Source Protection User's Guide for additional background and details about the report sections outlined here.

EXECUTIVE SUMMARY

Include a brief summary of this report.

1.0 INTRODUCTION

1.1 System Information:

Include the water system name, number, and address. Is it a new or an existing water system? Is it a public or a non-public water system? If public, is it a community, a non-transient/non-community, or a transient/non-community water system? The first name of a new water system submitted to Division will be the name under which it will be tracked in the future. Please ensure, to the best of your ability, that the name established for the water system remains the same. A water system number will be assigned to that name.

1.2 Source Information:

Include the source name. What is the water right number? What is the latitude and longitude of the proposed point of diversion? Is it a lake, river, or reservoir? Include a brief description of the proposed source location, and the location of the point of diversion.

1.3 Designated Person - R309-605-5

Include the name, address, and phone number of the designated person. This information must be included in each Drinking Water Source Protection (DWSP) plan that is submitted to the Division. Correspondence regarding this report and future correspondence will be directed to the designated person.

2.0 THE DELINEATION REPORT - R309-605-7(3)

Three alternatives are available for providing the Delineation Report.

- a. The Delineation Report may be obtained from the Division. The report will identify the four protection zones described in R309-605-7(3)(b), and will contain a map or maps showing the extent of the zones. A Delineation Report from the Division will become section 2.0 of your DWSP plan.
- b. Alternatively, the Public Water System (PWS) may create and provide the Delineation Report. Such a report must identify the four protection zones described in R309-605-7(3)(b), and must contain a map or maps showing the extent of the zones.
- c. Alternatively, the PWS may define their own protection zones based on their own criteria (R309-605-7(3)(c)), if they can demonstrate that those zones are no less protective of their drinking water source than the zones defined in R309-605-7(3)(b). Such a report must identify the protection zones, must explain why the zones are protective of the source, and must contain a map or maps showing the extent of the zones. The entire watershed must be included in the delineation.

3.0 SUSCEPTIBILITY ANALYSIS AND DETERMINATION- R309-605-7(4)

3.1 Susceptibility Analysis - R309-605-7(4)(a)

3.1.1 Evaluate and describe the structural integrity of the proposed intake. Will it prevent inadvertent/accidental contamination? Will it comply, on a pass-fail basis, with the minimum requirements for diversion structures (R309-515-5(5))? These are:

- (a) Withdrawal of water from more than one level if quality varies with depth;
- (b) Intake of lowest withdrawal elevation located at sufficient depth to be kept submerged at the low water elevation of the reservoir;
- (c) Separate facilities for release of less desirable water held in storage;
- (d) Occasional cleaning of the inlet line;
- (e) A diversion device capable of keeping large quantities of fish or debris from entering an intake structure; and
- (f) Suitable protection of pumps where used to transfer diverted water (refer to R309-540-5).

3.1.2 Evaluate and describe the sensitivity of the setting. Consider physiographic and hydrogeologic factors, as well as man-made or natural

features that increase or decrease the likelihood of a contamination event. Note that sensitivity is not related to the presence or absence of potential contamination sources.

3.1.3 Assess the management and control of likely potential contamination sources:

3.1.3(a) Inventory Potential Contamination Sources (PCS) -R309-605-7(4)(a)(iii)(A)

The Division may provide you with a list of PCSs within your watershed from the state's geographic information system databases if you or your consultant is not capable of assembling the information. The Division prefers the PWS or their consultant obtain a list of PCSs from the Utah Environmental Interactive Map at this web address: <https://enviro.deq.utah.gov/>. The Division can also provide maps identifying the location of the various PCSs or generalized land use maps, which will allow you to assess nonpoint sources of potential contamination, if requested.

PWS Inventory: You are responsible for inventorying zones 1 to 3 (as applicable) and identifying any PCSs that are not in the state's database. Obtain information regarding the name and address of non-residential PCSs, the types of hazards associated with a PCS, the zone the PCS is located in, and the name and phone number of a contact person at the PCS. Residential PCSs may be identified as generalized areas, rather than listing individual residential lots. Related areas, such as mining districts and the like, may also be grouped. You will provide this information with your prioritized list of PCSs in section 3.3.

3.1.3(b) Identify and assess controls - R309-605-7(4)(a)(iii)(B)
You are responsible for determining whether a PCS is controlled or not. The Surface Water User's Guide contains criteria and factors that must be evaluated when you determine whether a PCS is controlled or not. Note that you must provide a discussion of what control is in place, and the criteria and factors that were evaluated. You may also wish to discuss intrinsic hazards associated with the PCS, since one currently considered controlled can become uncontrolled in the future. The specific criteria, which must be addressed in your report, can be found in the Surface Water User's Guide and in R309-605-7(4)(a)(iii)(B)(II).

3.2 Susceptibility Determination - R309-605-7(4)(b)

After evaluating the three factors in section 3.1, evaluate how susceptible your source is to each PCS. You will probably want to weigh the three factors against each other, *although the Division will accept your best judgement regarding susceptibility*. It is possible that one factor may conspicuously outweigh the others. As an example, if a PCS located near your intake is an uncontrolled source of pathogens, you will probably want to consider your source susceptible to that PCS, regardless of how sensitive the setting is, or what condition your intake or diversion structure is in. You might decide that your source water is not susceptible to any PCS that is considered controlled, although in some instances, you may wish to consider your source water susceptible to a PCS that is considered controlled but that contains extremely hazardous materials.

You may, at your discretion, want to use an analytical approach to making your susceptibility determinations. This may especially be the case when you have many PCSs to evaluate, and you want to be sure that your determinations are uniform and unbiased. The Surface Water User's Guide contains examples for analytical approaches to susceptibility determinations, as well as a work sheet to assist you in compiling information for your analysis.

3.3 Prioritized Potential Contamination Source Inventory - R309-605-7(4)(c)

At the conclusion of your susceptibility determination for all your PCSs, you will have enough information to create a prioritized inventory of your PCSs. The inventory will be arranged in an order emphasizing the relative susceptibility of your source to each PCS. The inventory is a tool for you to use to allocate your resources towards the PCSs that represent the highest threat to your drinking water source.

When you create and present your inventory, include the following information for each PCS:

- Name and address of the PCS
- Which protection zone the PCS is located in
- The hazards associated with the PCS (chemical, biological, or radiological)
- Name and phone number of a contact at the facility, if applicable
- Whether the PCS is controlled or not

A map or maps showing the locations of all the PCSs within your watershed and protection zones must also be provided.

4.0 LAND USE MAP

A land use map which includes all land within zones one and two is required. You may use existing maps or Geographic Information System data to satisfy this requirement. A land use map and list are not required if ordinances are used to protect these areas. It is the responsibility of the Public Water System to cite and quote references and interpret the zoning ordinance to substantiate these restrictions. Please do not send a zoning ordinance and expect the Division to do this research.

5.0 DOCUMENTATION OF DIVISION OF WATER QUALITY CLASSIFICATION

With reference to R317-2, provide documentation of the classification of the source waters by the Division of Water Quality. If the source water is not currently classed as 1C under UAC R317-2, the Public Water System must request such a classification from the Division of Water Quality for zones 1 and 2, and must document the request. The Public Water System must also request that the source water be categorized as Category 1 or 2 under UAC R317-2-3. Categorization of the source will reduce the potential for source water degradation from new pollution sources.

Note: Engineering Plans and Specifications -The pre-design submittal must be prepared and submitted to the Engineering section. The Preliminary Evaluation Report must be concurrently prepared and submitted to the Administrative Services Section. Following approval of the pre-design submittal and the Preliminary Evaluation Report, the pre-construction submittal must be approved by the Engineering section.