

# Memorandum Of Understanding

This agreement, regarding the plan for the payment of analytical and other costs associated with sampling selected Statewide Monitoring Sites representative of aquifer conditions in Source Water Assessment or Protection Areas in Southwest Idaho, is made by and between the Idaho Department of Water Resources (IDWR) and the Idaho Department of Environmental Quality (IDEQ). IDWR and IDEQ may hereinafter be collectively referred to as the "Parties."

**Witnesseth:** The IDEQ and the IDWR enter into this agreement pursuant to the authority granted to them in Title 39, Chapter 1, Idaho Code. The Parties hereby agree to undertake performance of this agreement under the terms and conditions set forth herein.

## **Background**

In 1990, the Idaho Department of Water Resources (IDWR), with help from other state and federal agencies, began the Statewide Ground Water Quality Monitoring Program (the Statewide Program). By 1995, the Statewide Program monitored about 1,600 sites with 100 sites sampled annually to establish trend monitoring and the remaining sites sampled on 4-5 year rotations. Since 2008, the Statewide Program has undergone reductions in funding totaling over 35%.

Amendments to the Safe Drinking Water Act include a Source Water Assessment Program for Public Drinking Water Supplies. Idaho has primacy for Drinking Water and IDEQ began developing source water assessments in 1999 and continually updates the program as new information becomes available or new systems are activated. In Idaho, most of those sources (>95%) are ground water.

The Statewide Program provides valuable information about Idaho's ground water quality to private citizens, consulting companies, and governmental entities. Because the Statewide Program is so valuable, not only in providing an overview of ambient ground water quality in the state, but it also identifies detections of concern, IDEQ has obtained permission from EPA to use federal source water funds in 2011 to supplement the program in sampling and analytical costs for sampling Statewide Program sites located within Source Water Protection Areas in Southwest Idaho.

## **Program Objectives**

IDWR - The objectives of the Statewide Program are to:

1. Characterize the ground-water quality of the state's major aquifers.
2. Identify trends and changes in ground-water quality within the state's major aquifers.
3. Identify potential ground-water quality problem areas

Since 2008, the Statewide Program has undergone a 35% reduction in funding. The Statewide Program provides valuable information about Idaho's groundwater quality to private citizens,

consulting companies, and governmental entities, and also provides data into the Environmental Data Management System (EDMS) database.

IDEQ - The objectives of the Source Water Assessment Program are:

- Define the zone of contribution to a public water system well or surface water intake, which is that portion of the watershed or subsurface area contributing water to the well or surface water intake (**source area delineation**);
- Identify the significant potential sources of drinking water contamination in those areas (**contaminant source inventory**);
- Determine the likelihood that the public water supply will become contaminated (**susceptibility analysis**).

A source water assessment provides information on the potential contaminant threats to public drinking water sources. Source water assessments are the cornerstone for drinking water protection. Local communities can use the information gathered through the assessment process to create a broader source water protection program to address current problems and prevent future threats to the quality of their drinking water supplies. The information acquired from assessments also assists DEQ in overseeing public water systems.

The IDEQ and the IDWR have collaborated on issues related to ground water protection associated with several programs. Both agencies mutually agree that pursuing ground water quality monitoring in aquifers that are the source for public water systems is a benefit to both agencies and the people of the State of Idaho.

### **Authorities**

Idaho Environmental Protection and Health Act (30-129) recognizes IDEQ as the primary agency to coordinate and administer ground water quality protection programs for the state.

IDEQ is authorized to administer Idaho's Drinking Water Program through the federal Safe Drinking Water Act and the Idaho Rules for Public Drinking Water Systems (IDAPA 58.01.08). Under amendments to the Safe Drinking Water Act outlined in 1996, IDEQ was charged with developing Source Water Assessments for all public water systems in Idaho and lead with protection planning

Senate Bill 1269, which was passed by the Idaho State Legislature in 1989, recognized that the IDWR is the "collector of baseline data for the state's water resources,...". The Bill also called for the state's lead environmental agencies and the Ground Water Quality Council, to "make plans for development and administration of a comprehensive ground water quality monitoring network...". In response, the Ground Water Quality Council completed the Idaho Ground Water Quality Plan in 1996. Table 3 on Page 51 of the Ground Water Quality Plan lists IDWR as the Lead Agency for the long term, ongoing, Statewide Monitoring.

**Agreement Conditions**

In this agreement IDEQ will provide funding to the total of thirteen thousand dollars and no cents (\$13,000.00) for sampling and analytical costs associated with water quality monitoring of 18 Statewide Program sites during the summer/fall of 2011. The sites are located within source water protection areas that were delineated by IDEQ.

IDWR will provide IDEQ with copies of laboratory results, field sheets and other records associated with each of the 18 Statewide Program sites selected for this study.

IDWR will submit one invoice to IDEQ after the sampling and analyses have been completed and the records submitted to IDEQ. The invoice will be on IDWR letterhead, and will describe the work completed. IDEQ will reimburse IDWR within 30 days of receiving the invoice.

**Term of Agreement**

The term of this agreement will be from the date of signature until December 31, 2012.

**Agreement Additions**

Agency program managers, with the approval of the Parties' Directors, may develop additional agreement items or implementation details to be added to the text of this document or as an appendix.

**Signatory Parties**

This agreement may be amended as necessary through mutual agreement of the Parties. This agreement, when accepted by each agency, will be effective on the date of the last signature.

  
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Toni Hardesty, Director  
Idaho Department of Environmental Quality

7/6/11  
\_\_\_\_\_  
Date

  
\_\_\_\_\_  
Gary Spackman, Interim Director  
Idaho Department of Water Resources

6/29/2011  
\_\_\_\_\_  
Date

**GRANT APPLICATION**

Submitted by the

**IDAHO DEPARTMENT OF WATER RESOURCES  
STATEWIDE GROUND WATER QUALITY MONITORING PROGRAM**

to the

**IDAHO DEPARTMENT OF ENVIRONMENTAL QUALITY  
SOURCE WATER ASSESSMENT AND PROTECTION PROGRAM**

for the

**COLLECTION OF WATER QUALITY DATA IN SELECTED  
STATEWIDE WELLS LOCATED WITHIN SOURCE WATER AREAS**

Prepared by:  
Kenneth W. Neely, Technical Hydrogeologist  
Statewide Ground Water Quality Program  
May 4, 2011

**Type of Submission**

Application

**Applicant**

Idaho Department of Water Resources  
Statewide Ground Water Quality Monitoring Program  
322 East Front Street  
Boise, Idaho 83702

**Contacts**

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Technical Hydrogeologist  
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**Amount Applied For** (proposed budget shown in appendix A)

Fiscal year 2012 = \$13,000

**Start Date**

July 1, 2011

**End Date**

December 31, 2012

**Project Summary**

As part of the ongoing Statewide Ground Water Quality Program, the Idaho Department of Water Resources (IDWR) proposes to collect and analyze water quality samples from eighteen Statewide Program wells that are located in Source Water Assessment Areas delineated by the Idaho Department of Environmental Quality (IDEQ). The water samples will be collected in the summer-fall of 2011 at the sites selected by the IDEQ. The water quality data collected by this effort will aid the IDEQ in addressing the Source Water Program's objectives.

**Agency Responsibilities**

The IDEQ administers Idaho's Source Water Assessment and Protection Program (SWAPP) which is responsible for conducting assessments on all public water systems and making the assessments available to the public. The objectives of each source water assessment are to:

1. Define the zone of contribution to a public water system well or surface water intake, which is that portion of the watershed or subsurface area contributing water to the well or surface water intake (**source area delineation**).
2. Identify the significant potential sources of drinking water contamination in those areas (**contaminant source inventory**).
3. Determine the likelihood that the water supply will become contaminated (**susceptibility analysis**).

Senate Bill 1269, which was passed by the Idaho State Legislature in 1989, recognized that the IDWR is the “collector of baseline data for the state’s water resources,...”. The Bill also called for the state’s lead environmental agencies and the Ground Water Quality Council, to “make plans for development and administration of a comprehensive ground water quality monitoring network,...”. In response, the Ground Water Quality Council completed the Idaho Ground Water Quality Plan in 1996. Table 3 on Page 51 of the Ground Water Quality Plan lists IDWR as the Lead Agency for the long term, ongoing, Statewide Monitoring.

### **Statewide Program Description**

The IDWR, in conjunction with the USGS, began collecting ground water quality monitoring data for the Statewide Program in 1990. By 1995, the Statewide network contained about 1,600 monitoring sites (previously-existing wells and springs). In each year from 1991 through 2008, about 400 of the original 1,600 sites were sampled during the summer and early fall months. Most sites were initially sampled on a four year rotation. Due to attrition of sites, and a lack of funding for replacing the last sites, the remaining sites were moved to a five year rotational schedule in 2001. Beginning in 1995, about 100 sites were sampled annually in an effort to advance trend monitoring. The field work from 1992 through 2008 was conducted solely by the USGS, under contract with IDWR.

Beginning in 2008, budgetary constraints necessitated the need for the following changes in the Statewide Program:

1. The number of sites sampled was reduced to 342 and 300 in 2009 and 2010, respectively.
2. IDWR staff assisted USGS with the sample collections in 2009 and 2010.
3. In 2010, ½ of the Annual Sites were switched to the five-year rotational schedule.
4. The number of water quality constituents that are tested began to be reduced before 2009, and has continued to be reduced slightly since then.

All of these efforts have been made thoughtfully and in manners that allow IDWR to maintain a viable monitoring program in the face of the program funding reductions that have totaled more than 35% since 2008.

## **Scope of Work for the 2011 Statewide Program**

The primary Scope of Work tasks for the Statewide Program in 2011 are:

1. The remaining Annual sites will not be sampled in 2010 and all of them have been converted to a five year rotational schedule.
2. The number of sites to be sampled is 300 (Figure 1). Over 2/3<sup>rd</sup> of the sites were last sampled in 2006. Most of the other sites were sampled before 2006, but have not been sampled in the last five years for various reasons. A few of the sites have been sampled since 2006.
3. USGS will collect water samples at 200 sites; IDWR will collect at 100 sites.
4. The list of constituents to be analyzed will remain the same as last year.
5. The Treasure Valley Shallow and Twin Falls subareas are targeted for pilot trend studies. As such, additional sites (beyond the sites that were last sampled in 2006), will be sampled in these subareas in 2011 and 2012 (both subareas also had elevated number of sites sampled in 2010). After the 2012 sampling, a detailed trend analysis using a spatial-temporal kriging technique will be tried.
6. All samples will be collected in accordance with the USGS/IDWR Statewide Program QA/QC water quality sampling protocols.

## **IDEQ's Assistance through the Source Water Assessment Program**

IDEQ selected 18 Statewide Program wells that intersect the Source Water Assessment or Protection Areas, and that are completed to similar depths as the Public Water System wells. Other considerations in the selection process include the vulnerability or susceptibility of the Public Water System, or if the system had previous detections of concern reported. The IDEQ agrees to provide IDWR with \$13,000 in Source Water Assessment funding for the sampling of these 18 Statewide wells (Figure 2). The funding will cover the costs of sample collection and sample analyses for these 18 sites.

## **Deliverables**

IDWR will deliver to IDEQ an electronic spreadsheet file with the complete water quality results for all of the 18 sites selected by IDEQ for this study. The file will be delivered to IDEQ as soon as the data have been released by the USGS and the Idaho Bureau of Laboratories, but no later than March 31, 2012.

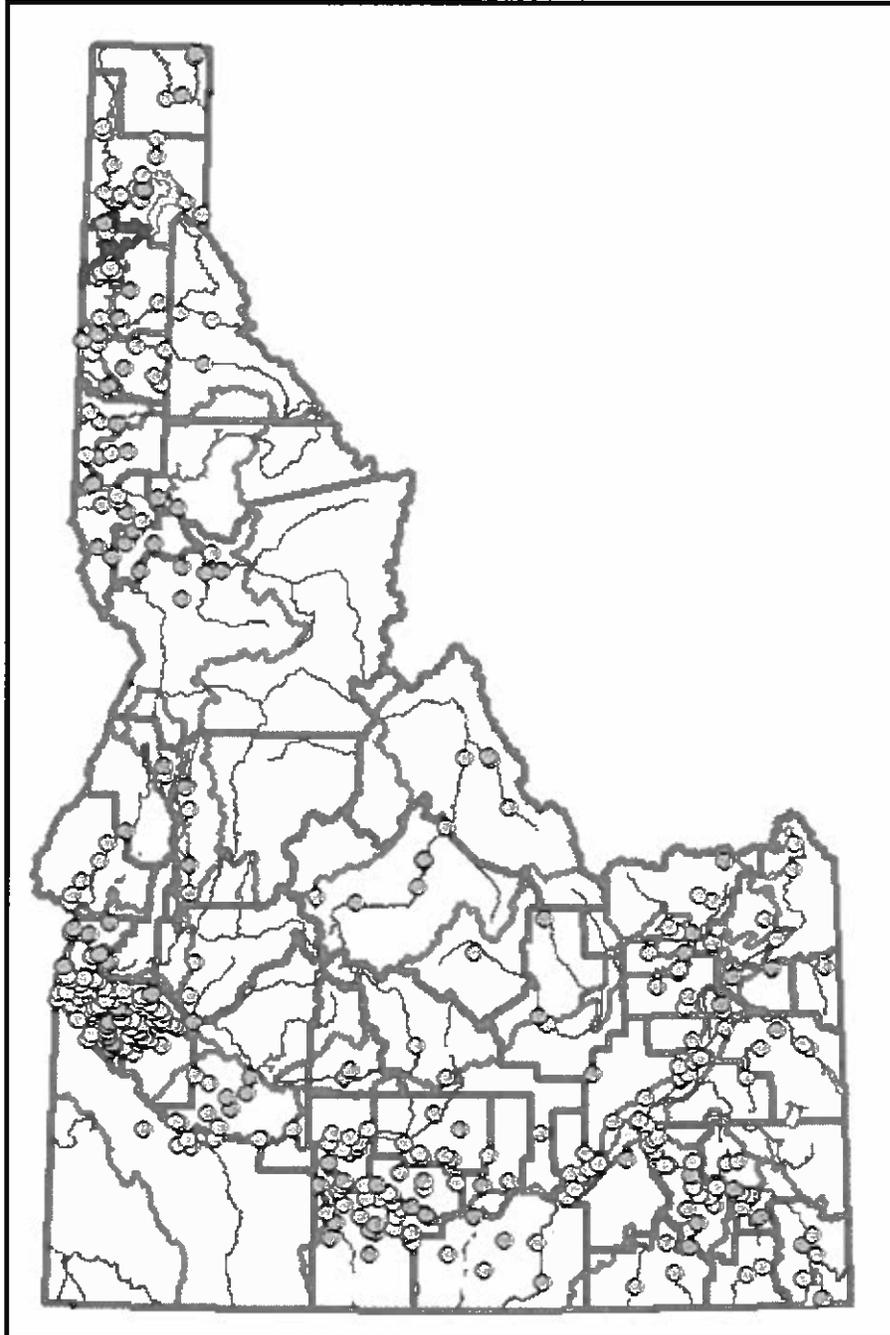


Figure 1. Map showing the 350 potential Statewide Program sites selected for sampling in 2011. The list will be reduced to 300 sites based on owner responses, well availability, etc.

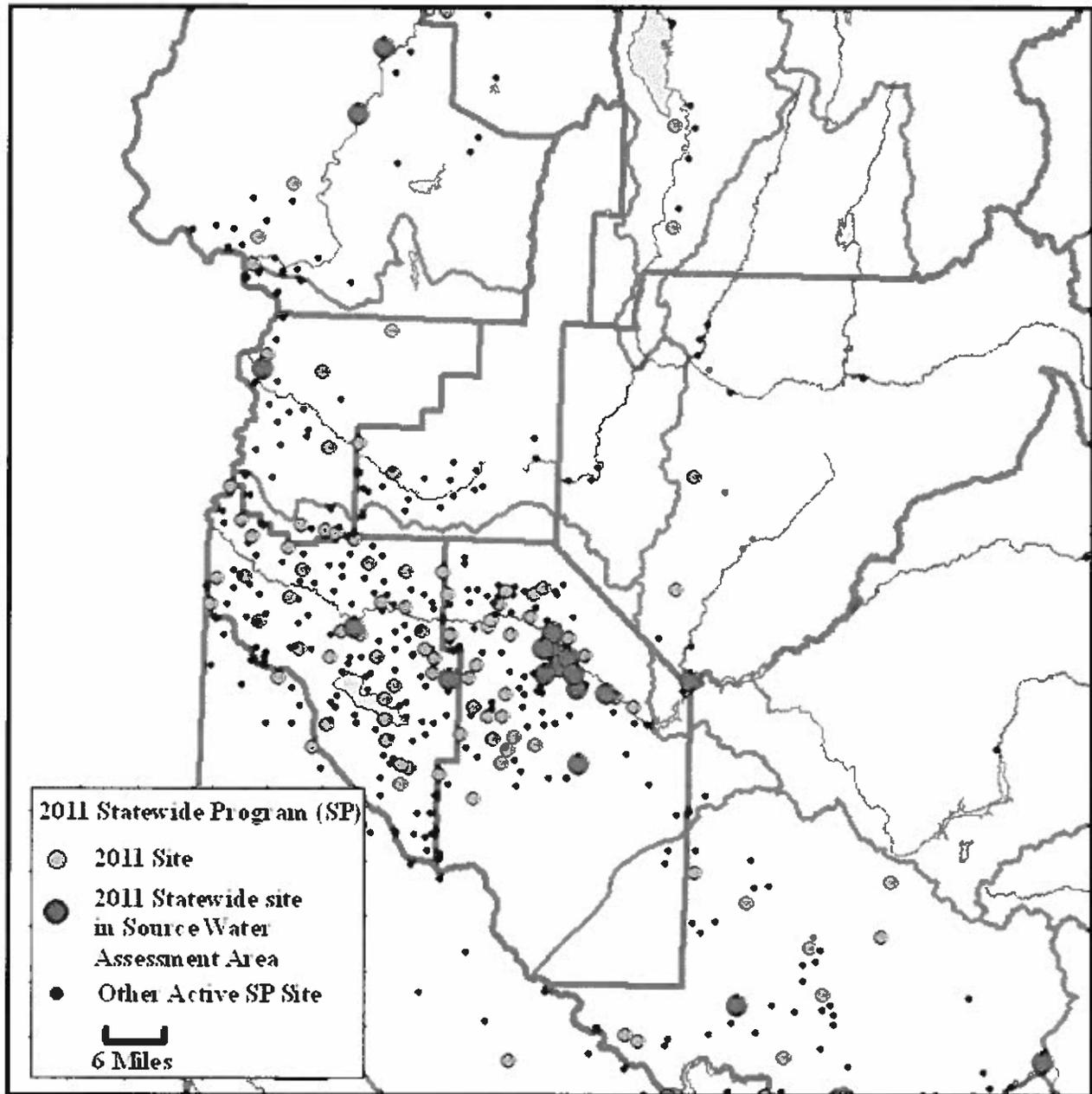


Figure 2. Map showing the locations of the 18 Statewide Program sites that were selected by IDEQ because of their value to the Source Water Assessment Program.