

Protecting the Source:
Inter-agency coordination to protect Utah's
drinking water sources

Enabling Source Water Protection:
Aligning State Land Use and
Water Protection Programs

September 22, 2011

About Enabling Sourcewater Protection:

Under cooperative agreement with the US Environmental Protection Agency, the **Smart Growth Leadership Institute** and the **Trust for Public Land**, in partnership with the **Association of State Drinking Water Administrators** and the **River Network** have selected several state partners for a project focused on Protecting Drinking Water Sources through alignment of state land use and drinking water programs.

By working with state program managers, recognized national experts in land use, land conservation, and water quality protection, the project aims to help states work across political and programmatic boundaries to better align planning, economic development, regulation and conservation to protect drinking water sources at the local and watershed levels. Protecting drinking water sources through better land use management requires strong collaboration among state agencies and between all levels of government and concerned stakeholders.

About the members of the Utah project team:

Smart Growth America's Leadership Institute (SGLI) was created by former Maryland Governor Parris N. Glendening to help state and local leaders design and implement effective smart growth strategies. SGLI manages the Governors' Institute on Community Design, a national, non-partisan program created specifically to assist governors, their cabinet, and top staff as they make investments in their communities and guide growth and development in their states.

The **Association of State Drinking Water Administrators (ASDWA)** supports states in their efforts to protect public health through the assurance of high quality drinking water and provides advice, counsel, and expertise to organizations and entities having an interest in drinking water including Congress and EPA.

The **River Network** is a national nonprofit organization working for clean and healthy waters. River Network is unique among national organizations because it supports grassroots groups working for watershed protection. The network consists of thousands of organizations, including grassroots watershed associations, statewide conservation groups, large river basin groups, Native American tribes, fishing and boating associations, businesses, state and federal governmental agencies and other national environmental organizations.

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Protecting source water is an overlooked but a fundamentally conservative approach to public health and environmental protection.

Greg Bell
Lieutenant Governor of Utah
June 2010

Introduction

Utah has a long, strong tradition of respect for natural resources. From their earliest years in the territory, settlers treated water as a public good, and worked to conserve it and protect its purity. A century and a half later, Envision Utah – a public planning process designed to create a vision for future growth in the state – again demonstrated that Utahns value their natural resources and want to protect them for future generations' use and enjoyment. Scenic beauty, wildlife habitat, clean air and clean water all proved important enough to motivate citizens of the state to change the status quo approach to growth and development.

Seeking to improve their ability to respond to this motivation, the Division of Drinking Water (DDW), part of Utah's Department of Environmental Quality, submitted an application for technical assistance under the nationwide *Enabling Source Water Protection* initiative. The initiative, funded through a cooperative agreement with the U.S. EPA's Office of Ground Water and Drinking Water, combines the expertise of four non-governmental organizations: the Smart Growth Leadership Institute (SGLI), River Network, Association of State Drinking Water Administrators and Trust for Public Land. It was created to help states protect their ground and surface sources of drinking water by improving coordination between their source water protection program and the policies, regulations, activities and practices of state agencies that shape land development and land use.

Project Background

Utah was one of three states selected in 2009 to participate in the initiative. A three-person project team convened in Salt Lake City in July 2009 for a research and fact-finding visit. The team met with and interviewed representatives of various state agencies and other stakeholder organizations about the institutional framework governing source water protection in Utah.

In June 2010, the team returned to Salt Lake City to lead a day-long workshop with representatives from other divisions within the Department of Environmental Quality and other state and federal agencies responsible for regulating activities on public and private

land. Based on the needs that emerged through the team’s interviews and research, the workshop was designed to explore opportunities and potential tools for improved communication between the DDW and other agencies. The agenda included presentations and active, facilitated conversations designed to draw on attendees expertise and experience. An agenda and list of attendees is Attachment A to this report.

The following recommendations reflect the facts and opinions that emerged during the workshop and the team’s research.

Source water protection needs in Utah

In a state as dry as Utah, the most obvious need for protecting drinking water is to protect the supply of existing surface and underground sources through conservation. Less obvious, but equally important, is the need to protect the *quality* of drinking water sources. If an aquifer is sufficiently contaminated, it may be lost forever to human use. Developing replacement water sources is generally costly and in some cases is impossible. Even if it can be treated, polluted drinking water sources require additional water treatment, which means expensive upgrades to existing water treatment plants. Preventing the contamination of drinking water also reduces the threat of waterborne illnesses, saving hundreds of millions of dollars annually in health-care expenses and decreased economic productivity.

Utah has just over 1,000 public water systems, drawing water from nearly 100 surface water intakes and almost 3,000 wells and springs. Surface waters—in the form of various rivers, streams and lakes—serve the large, generally urban populations in the Wasatch Front and also in the St. George area, in the state’s southwest corner. (The Wasatch Front, in the state’s northeast, accommodates roughly 80 percent of Utah’s population, as it contains most of the state’s large cities.) Due to the simple fact of the state’s geography, source water faces growth and development is not seen as a significant threat to drinking water quality. Surface sources are in the mountains above the most populous part of the state, and run through largely undeveloped areas to reach consumers.

Most of the other, primarily rural parts of the state are entirely dependent on groundwater sources, including the Navajo Aquifer and many smaller aquifers. Protecting surface sources is important because a vast majority of the state’s population depends on them. Protecting ground sources is important for a number of other, different reasons: most aquifers are isolated and well contained, which means that pollutants can become trapped and accumulate; many parts of the state are entirely dependent on single aquifers; and

rural water systems have fewer resources to treat groundwater that becomes contaminated or to develop new water sources.

[How Utah's Division of Drinking Water protects drinking water sources.](#)

In Utah, DDW, a division of the Department of Environmental Quality, administers the Source Water Protection Program. To meet federal requirements, DDW has required all public water systems in Utah (with the exception of “transient” systems such as campgrounds) to complete drinking water source protection plans and to revise them every six years. While the requirements differ for plans for surface and ground sources, both must include sections that describe:

- Delineation – Where the source protection zone is and the methodology and data that determined its delineation.
- Sources of potential contamination – A prioritized list of all potential sources of contamination within the protection zone.
- Pollution control measures and their effectiveness – Which control measures are in place and an assessment of their adequacy.
- Management plans – Both for the three highest priority potential contamination sources that are not “adequately controlled” and for future potential contamination sources.
- Implementation schedules for each management plan.
- Financial, staff, and other resources needed to implement the source protection plan.
- Record-keeping methods for the source protection plan.
- Contingency plans in the event of a contamination event or other emergency.

Public water systems must notify their consumers of the availability of their system’s drinking water source protection plan.

The Division of Drinking Water helps water providers identify tools and data to prepare their plans, and works with the Rural Water Association of Utah to reach out to smaller systems throughout the state. One of the tools DDW promotes is the adoption of municipal and county source protection ordinances, which limit or prevent new potential sources of contamination in protection zones. The legislature required that larger Counties adopt these ordinances by May of 2010. DDW assists smaller counties and municipalities as they continue to voluntarily adopt similar ordinances.

DDW also issues permits to develop new drinking water sources and reviews other state agency activities to identify source contamination concerns.

[Role of local governments and public water systems](#)

DDW does not have the authority to control potential contamination sources, even to protect water sources from contamination. That is the responsibility of municipalities and counties. Local governments may, for example, pass and enforce zoning ordinances to control land uses and activities within protection zones that jeopardize the purity of their drinking water source. In addition, Section 10-8-15 of the Utah Code gives cities and towns the extraterritorial authority to enact ordinances to protect a stream or source from which their drinking water is taken “...for 15 miles above the point from which it is taken and for a distance of 300 feet on each side of such stream....” Cities with population greater than 100,000 have the authority to protect their entire watersheds.

Public water systems that are not owned by municipalities or counties must pursue source protection through other means. These include ownership of the land within a source water protection area; written land use agreements wherein landowners agree not to locate pollution sources on their land, at least unless design standards are implemented to prevent contaminated discharges; public education programs; and enlisting the cooperation of county or municipal governments in their watershed to restrict potentially polluting activities.

[Role of other Utah state agencies](#)

While DDW manages Utah’s source protection program, numerous other state agencies have a role in source protection. Some agencies might have an impact on water sources directly, through their own projects. The Utah Department of Transportation, for example, builds, operates and maintains roads, which can be a significant source of stormwater runoff pollution. In another example, the Trust Lands Administration owns and manages 3.5 million acres of land (roughly seven percent of the state’s land area); it regularly leases some of its raw lands to try to realize gains from land development.

More commonly, state agencies impact drinking water sources indirectly, by regulating, permitting, licensing or otherwise enabling the activities of other parties. The Trust Lands Administration, for example, leases its lands for the extraction of oil, gas and minerals and for farming, grazing and forestry. The Department of Food and Agriculture regulates and licenses the application of pesticides and provides information to assist concentrated

animal feeding operations to comply with water quality permits. Within the Department of Natural Resources (DNR), the Division of Water Rights sets and enforces construction standards for water wells, and regulates the filling and capping of abandoned water wells. DNR's Division of Oil, Gas and Mining regulates certain underground injection wells and the reclamation of abandoned mines. Within the Department of Environmental Quality, the Division of Water Quality administers permit programs to regulate contaminated discharges to ground water, most underground injection wells and the discharge of pollutants into water bodies; the Division of Solid and Hazardous Waste regulates the treatment, storage and disposal of solid and hazardous wastes; and the Division of Environmental Response and Remediation regulates underground storage tanks.

Improving source water protection in Utah

Our research and the June 2010 workshop suggest that increasing collaboration between the Source Water Protection program and other state agencies should be the highest priority for DDW as it seeks to stretch its limited resources while maintaining the high quality of the state's drinking water sources. The following recommendations describe several different paths to accomplishing this goal.

Recommendations to Increase Source Water Protection Efforts through Inter-agency Coordination

The June workshop and other research suggest three strategies that could work together or individually to move towards the goal of increasing collaboration between the Division of Drinking Water and other state agencies and divisions. All of these strategies will require DDW initiative and leadership, although in some cases responsibility for implementation may rest with another part of state government.

- 1. Educate state partners about the Drinking Water Source Protection Program.*
- 2. Share information about the locations of source water protection areas and activities that could potentially impact source water quality.*
- 3. Work with other DEQ divisions and state agencies to develop source water protection components of their permitting programs.*

1 Recommendation: Educate State Partners

A common theme emerged from the June meeting: other agencies and divisions within the state want to incorporate source water considerations but are not certain how to proceed.

Attendees agreed that improved understanding of DDW's work would help them protect drinking water sources during the routine performance of their own jobs. Uniformly, they believed that better relationships with potential partners across state agencies and throughout local, state and federal government would allow them to be more effective and efficient source water protection partners.

What the state is already doing

The Division of Drinking Water's Source Protection program interacts primarily with those who prepare source water protection plans, such as water providers, and those who implement them, including representatives of local governments that manage land use. These partners are aware of source protection requirements and the state source protection program's role and available support.

Additionally, other state agencies have acted to integrate source protection needs into their work programs and are proactively using information about the location of drinking water protection zones. For instance,

- The Division of Environmental Response and Remediation identifies the location of underground storage tanks relative to drinking water sources and exercises additional precautions to prevent leaks or clearly and promptly communicate threats to water suppliers if there is a leak.
- The School and Institutional Trust Lands Administration actively monitors activities on its properties to ensure compliance with environmental regulations, including source water protection requirements. The Trust Administration's Environmental Compliance Manager works directly with DDW staff to understand the location of source protection areas on Trust Lands, as well as permit requirements in those areas.

Attendees discussed a need for two distinct types of information. The first is data about where source protection areas are located; this need is addressed further in Recommendation 2. The second type of information needed is operational: which state agencies monitor and protect source water and how, which local partners monitor and

protect source water quality and how, and how to communicate across agency lines about inter-related water and land use issues.

1.1 Communicate Source Water Protection Issues and Needs to Potential Partners

1.1.1 Develop a brief summary of the Source Protection program in Utah designed for state and federal agency staff

Describe what drinking water source protection is and why it is important. Include a brief description of what each group of partners (eg. private landowners, local governments, water utilities, state agencies, etc.) would ideally do to protect existing and potential sources of drinking water. Identify sources for information about source protection area locations and important contacts.

- Create a flyer for distribution to current and potential partners in other state agencies. Consider asking the attendees of the June meeting to help identify additional recipients.
- Make this summary available via a new web page designed to help state agency partners understand and fulfill their role in protecting drinking water sources. (See 1.2.1, below)

1.1.2 Develop a presentation to explain the Source Protection program to state and federal agency partners

Adapt existing presentations to create a training for other agencies. Take this training “on the road” to meet with larger groups of staff from single divisions, in order to focus the presentation on their interests and needs. SITLA staff suggested this type of training during our 2009 interview with them, and the audience at the June workshop was very engaged during the introductory presentations that covered source protection basics, suggesting that this information was interesting and useful.

- Develop specific requests for assistance from each division visited, as appropriate. For instance, request explicit consideration of impacts to source protection areas during Division of Oil, Gas and Mining permit reviews. Use the training to explain why that assistance is needed and to gather information about how DDW can facilitate or support efforts to integrate source protection into existing tasks.
- When possible, bring along a current state agency partner to explain how they work with your program. For instance, a representative from the Division of Environmental Response and Remediation’s Underground Storage Tank

program could describe how and why they seek out information about the location of drinking water sources.

1.2 Develop simple tools to make it easier for state agency staff to communicate with DDW and each other about source water protection needs

1.2.1 Design a web page for state agency partners to provide important updates, essential information and links to additional resources

Attendees at the June workshop specifically requested a place to find names and contact information for key partners in the DDW and in local governments and water utilities. A single web page tailored to their needs would also make it easy for state agency partners to remind themselves of specific requirements and keep abreast of important changes.

- In its simplest form, the web page could re-package existing information that is most useful to permitting staff in other agencies. This might include a summary of the regulations applying to source protection areas with links to rules and guidance, a link to a description of which agencies do what in relation to source water (available in the November 2008 *Ground Water Source Protection Users' Guide* and the 2005 *Surface Water Source Protection Users' Guide*), a directory of relevant staff in each agency mentioned, and a link to the DEQ GIS tool.
- Additional useful information that would require more maintenance would include links to local source water protection plans and ordinances and a directory of local contacts such as water utility managers, local land use staff and the Rural Water Association of Utah.
- If more resources – particularly staff-time – were available up front, the web page could feature tailored information for the different needs of agency partners, such as a fact sheet for staff permitting land development activities, one for managers of aquatic habitat, one for stormwater regulators, etc.

1.3 Create (an) inter-agency working group(s) on clean drinking water

Participants at the June workshop discussed several options for continued communication and networking, including a variety of electronic formats, such as a listserv, a wiki, and a social networking-inspired page that would allow users to sign up for updates or simply check-in as needed. In spite of the enthusiasm displayed during the workshop, we are not recommending that DDW work to establish any of these general-purpose networking tools. Rather, we suggest that DDW focus on creating opportunities for collaboration with other agencies on specific tasks. (See

Recommendation 3.) Any network, formal or informal, that results from this specific collaboration is more likely to be used and maintained over time.

Measures of Success for Recommendation 1

1. *Permitting and regulatory staff in other agencies and divisions understand how the activities they regulate could impact source water.*
2. *Permitting and regulatory staff in other agencies and divisions understand where to find information about the location of source protection areas.*
3. *Permitting and regulatory staff in other agencies and divisions know where to go for additional information, including local resources.*
4. *Increase in regular contact between DDW staff and staff in other agencies leads to additional collaboration.*
5. *DDW better understands partner agencies' operations and approaches to source protection.*

2 Recommendation: Share information about locations of source water protection areas and potential source water quality impacts.

One of the most promising opportunities to advance Utah's source protection efforts is for DDW and other state agencies to exchange information on the location of source waters and of state projects and activities. This would enable DDW to monitor and comment on potentially harmful activities in source protection areas; conversely, it would allow other agencies to more easily consider and address the potential impacts of their activities on drinking water sources.

What the state is already doing

DEQ already maintains an online GIS interface with source protection data layers, including the location of water system facilities and ground and surface water zones throughout the state. At the same time, most agencies in the state record the location of their projects and permitted activities on their own agency-specific GISs. DEQ's various divisions, for example, log the location of underground storage tanks, contaminated properties, hazardous- and solid-waste facilities and water discharge permits. The School and Institutional Trust Lands Administration records the location of all surface and sub-surface permits and leases on their lands. Similarly, the Division of Oil, Gas and Mining maintains records of oil and gas wells, mines and Class II injection wells.

Much of this information is available to be shared, but there is no common location or platform to access all state agency data layers. Many can be found in the State

Geographic Information Database (SGID) hosted by the Utah Automated Geographic Reference Center (AGRC). Some layers can be accessed directly on agencies' websites and some (including DEQ's) are on web-based GISs. Some layers are accessible only to agency staff. There is no automated or even streamlined protocol for DDW and other agencies to access each other's data for source protection purposes.

2.1 Develop a data-sharing strategy

In 2010, the DDW secured funding from the Drinking Water State Revolving Fund to work with the AGRC to develop an optimal GIS strategy for sharing its source protection data with other agencies and for helping other agencies identify potential threats to source waters posed by their activities. In addition to establishing technical protocols, this strategy must balance security concerns against the potential source protection benefits of public access to information about drinking water sources.

This activity is well under way, but it is included here as a reminder that the rest of these recommendations should be evaluated in light of that strategy.

2.2 Provide source protection data layers to other agencies

Proactively provide data to agencies that manage or permit projects or activities with possible impacts on current and potential future drinking water sources. Update the data annually.

Different strategies may be appropriate for different agencies. For instance, some may prefer to incorporate the data into their own GIS while some may prefer to access the information through a separate application. Each of the following strategies would meet slightly different needs.

2.2.1 Develop a simple application to allow users to identify the source protection status of a given project location.

As noted, DEQ maintains a web-accessible GIS. Users may apply to view four types of water source data (water system facilities, ground water zones, surface water zones and source water assessment zones) at a location they specify in advance. The requirement that users be approved applies to everyone, including public agency staff, and is intended to restrict access to information that could be used to endanger the public.

Another approach, employed in North Carolina, is to develop a simple mapping application tailored to the purpose of giving non-source protection staff information

about a specific location. North Carolina's Department of Public Health also manages an expansive online mapping application, but the streamlined application allows users to choose a location using a street address or a pointer and a map. The program returns information about whether the location is in a source water assessment area and its susceptibility rating. To see the application, go to <http://149.168.87.13/pws/>.

2.2.2 Work with other agencies and the AGRC to develop ways to flag activities in source protection areas.

By incorporating source protection data layers into their own GIS tools, agencies could automatically flag activities in sensitive areas as they complete their own reviews. For instance, in processing a permit application, an agency official could enter the affected site's address or coordinates and generate a report of the relevant facts about the site including whether it is in a source protection area. Depending on the agency's requirements, this information could influence permit conditions or alert the permittee to the need to contact the Division of Drinking Water for a more detailed review.

- This strategy will be appropriate for those agencies that already use GIS in their review, permitting and tracking processes.
- While it does require the sharing of sensitive data, a flagging mechanism could provide true/false answers about a site without displaying maps. If more extensive review of site plans were required, staff could then consult the existing DEQ GIS or work directly with DDW staff.
- Working with each potential agency partner, DDW should recommend specific ways to use the data layers for source protection; for example to prioritize inspection, enforcement or outreach actions, or to impose special conditions on certain permits.

2.3 **Develop an online GIS application for the Resource Development Coordinating Council.**

In the words of the Council's website, Utah's Resource Development Coordinating Committee (RDCC) "coordinates the review of technical and policy actions that may affect the physical resources of the state and facilitates the exchange of information on those actions among federal, state, and local government agencies." To achieve this mission, the RDCC distributes information about all of these actions for agency comment twice a month. Agency personnel must review each action to determine whether it would impact state resources in their area of interest. Currently, a Project Management Database allows staff and the public to access information

about each action online and search by sponsoring agency, county, project ID and project description.

The RDCC could develop an online GIS application for its database of projects. A GIS application could automatically flag projects in sensitive areas, streamlining the project review process for many reviewers. For instance, DDW could elect to have the application notify them automatically if a project under RDCC review was in a source protection zone. Right now a DDW staff person manually checks the location of every project before they can determine whether or not they need to review the project in detail. DDW could further streamline the process by choosing to be notified only of the projects of certain agencies, of projects near “priority” or “sensitive” source waters or of projects meeting other attributes or criteria.

RDCC staff have considered such a tool and found the cost to be prohibitive; however, the costs of the current process are also high, both in terms of time spent reviewing projects (and diverted from core responsibilities) and the likelihood that many projects are not adequately reviewed because of time constraints or a failure to share information within divisions. By reducing the time spent to check each project, an automated system would allow agency staff to focus on what matters most to them.

Measures of Success for Recommendation 2

- 1. Increase in agencies and staff using DEQ’s source protection GIS data.*
- 2. Increase in projects and activities that use source protection area locations to improve decision-making.*
- 3. Progress toward development of a work scope for an RDCC GIS application and, ultimately, of the GIS application itself.*
- 4. Increase in funding for development of GIS tools related to source protection.*

3 Work with other DEQ Divisions and other state agencies to develop source water protection components of other permitting programs.

Divisions within the Department of Environmental Quality and other state agencies review or permit an array of activities with the potential to impact drinking water sources. Such activities include industrial and municipal discharges, stormwater management, stream alteration, dredge and fill activities, grazing, hydropower facilities, and oil and gas development, among others. While underlying statutes often dictate what may be regulated and how, many state-administered permitting programs include untapped opportunities to increase protections for drinking water sources.

What the state is already doing

Currently, DDW staff work to identify drinking water source impacts in other agencies' activities and permits and advocate for appropriate protections on a case-by-case basis. DDW staff are diligent in seeking out potential concerns, but the individualized approach is resource-intensive and time-consuming. A few divisions have taken a more systematic and proactive approach to source protection. For instance, the Division of Environmental Response and Remediation uses GIS data to flag permits in source protection areas for additional scrutiny and incident reporting protocols.

3.1 Incorporate source water protection concerns into existing permitting and regulatory programs.

Work with other agencies to develop strategies for increasing scrutiny of activities in source protection areas. This work could be the focus of inter- or intra-agency working groups as described in Recommendation 1.3.

3.1.1 Identify actions and approaches to coordination that would support DDW's work.

Initiate coordination efforts by bringing together DDW staff to discuss different ways to coordinate with other agencies and divisions. This discussion should result in a set of actions to be used as a template when approaching other agencies. The "template" would illustrate what DDW means by coordination and would serve as a starting point for further conversations.

Possible actions and approaches to include in this template for other agencies and divisions could include:

- Notify DDW and affected water suppliers when a permit is being considered for activities in a particular source protection area;
- Establish a set of standard permit conditions for projects in a source protection area;
- Work with DDW to establish an additional review process for activities of special concern or those in "sensitive" or "priority" source protection areas;
- Develop additional best management practices or mitigation measures or other conditions to protect source water in the most sensitive areas; and

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- Provide for longer public comment periods for projects in source water protection areas.

In addition to actions to request of other agencies, DDW should also consider how coordination would affect current workloads in the short and long term. Ideally, increased coordination should allow DDW staff to focus their attention on activities that require increased scrutiny and special consideration.

3.1.2 Work directly with other agencies and divisions to develop specific permitting and regulatory coordination strategies.

Using the above-referenced list of actions and approaches as a starting point, work directly with other agencies to identify changes to their rules that would more systematically protect source water in permitting processes. For example, Colorado has special source water protections related to oil and gas operations; Rule 317B for the Colorado Oil and Gas Conservation Commission restricts and regulates oil and gas operations within specified setbacks on classified water supply segments for 5 miles upstream of a drinking water intake.

Conversations with other agencies could begin with a training for each potential partner in source protection issues and how to incorporate GIS data into their permitting work. (See Recommendations 1.1.2 and 2.2.)

3.1.3 Start with the Division of Water Quality (DWQ)

DWQ staff have expressed a willingness to incorporate source water concerns into their processes, and their physical and organizational proximity to DDW could facilitate coordination, making them an ideal “pilot” partner.

In addition to the general suggestions for coordination listed above, coordination with DWQ could specifically address the following concerns:

- As general UPDES permits come up for renewal, work with DWQ to incorporate special conditions that apply to facilities in source water protection areas.
- Work with water suppliers to identify specific concerns related to current or potential UPDES individual permit holders in source water areas. Develop a default list of special conditions to add to individual UPDES permits in the source water protection area.
- Continue to target individual permits of special concern for attention. DDW may want to consider prioritizing source waters of special sensitivity or concern to better target their time spent on engaging with individual permitting actions. Alternatively, DDW may consider prioritizing permitting of certain activities

deemed particularly “risky” for source water protection or certain pollutants of risk that trigger a more time intensive review.

3.2 Use the Division of Water Quality’s 401 certification authority to advance source protection

DWQ could review the use of its Section 401 authority to ensure that the state is not missing opportunities to protect source waters.

Section 401 of the Clean Water Act gives states the authority to review, approve, place conditions on or deny activities requiring a federal license or permit that may result in a discharge that would violate state water quality standards. While this “401 water quality certification” authority applies to all federal licenses and permits, the activities that most commonly trigger it are construction and operation of hydropower dams that require federal licensing; dredge and fill activities involving wetlands and stream alterations that require federal “404” permits; and, in some states, pollution discharge permits.

Colorado’s 401 water quality certification regulations, for example, include special requirements for notice to water suppliers. Any permittee within 20 miles upstream of a suppliers’ intake must give 15 days notice to the supplier before the permittee begins working in a water body and must give immediate notice of any spill or unauthorized discharge. These requirements are included in every 401 certification by rule. (5 CCR 1002-82.6)

DDW could support DWQ by helping to develop a default list or lists of 401 conditions to be applied on certain permitted activities within source water protection areas. The list would likely vary depending on the type of permitted activity and other factors. Potential conditions include requiring applicants to provide public notice of their actions, add buffer zones around water intakes, and prevent or limit the discharge of particular pollutants. In addition to applying their internal expertise, DDW should consider a survey of drinking water providers to identify conditions they would suggest.

DDW could also use the 401 certification process to focus their attention and resources by:

- Tracking general permits having a larger possible impact on drinking water sources and requesting that DWQ exercise its authority to place protective 401

conditions on those permits. As general permits are applied around the state, many of them have a broad impact on water quality and drinking water intakes. By working with the DWQ to ensure these permits contain appropriate conditions, DDW staff can protect more water sources.

- Tracking individual permits that raise particular concerns for source water and requesting that they include appropriate conditions. Use GIS data to better prioritize or “tier” source waters of concern or sensitivity. By targeting waters of high concern, DDW could work with DWQ to assign tiers of 401 conditions and prioritize permits that deserve more individualized (and hence more time intensive) review.

Measures of Success for Recommendation 3

1. *Increase in use of source water GIS data in other agencies’ and divisions’ permitting processes.*
2. *Increase in structural and/or regulatory mechanisms that include source water protection in the permitting process automatically without permit-by-permit review by DDW.*
3. *Decrease in DDW time spent on routine reviews of permits.*
4. *Increase in number of DWQ’s general permits incorporating source water protection controls.*
5. *Increase in number of DWQ’s individual permits incorporating source water protection controls.*
6. *Increased application of 401 water quality certification conditions designed to protect source water.*
7. *Ability to prioritize critical individual permits for review.*

Conclusions

In 2005, a survey designed to explore how westerners valued wildlife revealed that Utahans ranked fourth highest of nineteen western state in their trust of state government.¹ The reason for this attitude may have something to do with the people we met during the course of this project, every one of whom expressed a strong commitment to Utah’s environment and great respect for the needs and efforts of local water suppliers.

¹ Utah Division of Wildlife. (2005) “Wildlife Values in the West: Regional survey results, Utah-related highlights.” Adapted from: “Wildlife Values in the West.” (Project Rep. No. 58). Project Report for the Western Association of Fish and Wildlife Agencies. Ft. Collins, CO: Colorado State University, Human Dimensions in Natural Resources Unit. Downloaded on September 22, 2011, from http://wildlife.utah.gov/habitat/pdf/wildlife_value_in_west.pdf.

The recommendations developed in this report are designed with these strengths in mind, in confidence that when coordination makes these committed professionals more effective, they will embrace it. Our workshop revealed that other agencies have a strong demand for the information the source protection program has to share.

In our experience in Utah, alignment of source protection efforts with other state actions was largely dependent on individuals who had developed the personal relationships and/or had specialized knowledge that motivated them to reach across departmental lines. This is entirely normal (and laudable), but systemic coordination will require Agency leadership to support these pioneers and institutionalize their successes.



Protecting the Source: Inter-agency coordination to protect Utah's drinking water sources

June 24, 2010

Agenda

- 8:00 am** **Continental Breakfast Available**
- 8:30 am** **Welcome and Opening Remarks**
Lieutenant Governor Greg Bell (Invited)
Amanda Smith, Executive Director, Department of Environmental Quality
- 9:15** **Protecting Utah's Drinking Water Sources: A Role for Every Agency**
An introduction to source water protection in Utah, including the science, the array of impacts overseen or created by state agencies, and the regulatory framework.
Kate Johnson, Environmental Program Manager, Division of Drinking Water
Mark Jensen, Environmental Scientist/Geologist, Division of Drinking Water
- 10:15** **BREAK**
- 10:30** **Coordination in Action: Using GIS to identify source water protection areas.**
Doug Hansen, Division of Environmental Response and Remediation
- 11:00** **Inter- and Intra-agency Communication about Source Water Impacts**
Facilitated small group discussions and reports back to the group.
- 12:00** **Recommendations for Improved Coordination (over Lunch)**
Project team will present recommendations for consideration in light of preceding discussions. A box lunch will be provided.
- 1:00** **Discussion**
Comparing notes from morning's discussions and presentations. Raising questions. Identifying best opportunities.

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- 2:00** **Home-grown Solutions I: The Resource Development Coordinating Committee (RDCC)**
Judy Edwards, Director, Resource Development Coordinating Committee
- 2:45** **Home-grown Solutions II: GIS tailored for interagency coordination**
Bert Granberg, Director, State Geographic Information Database (AGRC)
Nathan Kota, Division of Wildlife Resources
- 3:30** **BREAK**
- 3:45** **Moving Forward: A Review of the Day's Best Ideas**
Ken Bousfield, Director, Division of Drinking Water
- 5:00** **Meeting Ends**

This workshop is part of the “Enabling Source Water Protection: Aligning State Land Use and Water Protection Programs” project, a Joint Project of The Trust for Public Land and The Smart Growth Leadership Institute, in partnership with The Association of State Drinking Water Administrators and River Network. The project is funded by the U.S. Environmental Protection Agency’s Office of Water.



Protecting the Source: Inter-agency coordination to protect Utah's drinking water sources

June 24, 2010

ATTENDEES*

AUTOMATIC GEOGRAPHIC REFERENCE CENTER

Bert Granberg

GOVERNOR'S OFFICE OF PLANNING AND BUDGET

Judy Edwards

DEPARTMENT OF ENVIRONMENTAL QUALITY

Division of Drinking Water

Mark Jensen
Kate Johnson
Jim Martin

Office of Planning and Public Affairs

Renette Anderson

Division of Environmental Response and Remediation

Doug Hansen
Kim Viehweg

Division of Solid and Hazardous Waste

Helge Gabert

DEPARTMENT OF NATURAL RESOURCES

Division of Water Rights

Dana Dredge
Lee Eschler

Division of Oil, Gas and Mining

Brad Hill
Kevin Lundmark

* Department of Water Quality staff were unable to attend because they were dealing with the Red Butte Canyon Oil Spill that had occurred two weeks previously. Department of Agriculture staff were expected but did not attend.

Jan Morse
Dan Smith

Division of Wildlife Resources
Nathan Kota

DEPARTMENT OF TRANSPORTATION
Rebecka Stromness

SCHOOL AND INSTITUTIONAL TRUST LANDS ADMINISTRATION
Jessica Kirby

US BUREAU OF LAND MANAGEMENT
Becky Hammond
Mike McKinley

ALSO ATTENDING
Candace Cady
Theron Blatter
Charles Condrat
Ben Bloodworth