2016

Source Water Protection Plan for Teton County, Idaho

Prepared by Friends of the Teton River on behalf of the Teton County Source Water Planning Team

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Contents

1.0 INTRODUCTION 1
1.1 Drinking Water Systems in Teton County
1.2 Project Background
1.3 The Need for Drinking Water Protection in Teton County
1.4 Elements of a Certified Source Water Protection Plan
2.0 COMMUNITY PLANNING TEAM PARTICIPANTS, ROLES, AND DUTIES……...5
2.1 Formation of the Community Planning Team
2.2 Planning Team Participants
2.3 Planning Team Roles and Duties
2.4 Planning Team Meetings
2.5 Planning Team Protection Strategy
3.0 DELINEATION OF THE SOURCE WATER PROTECTION AREA…….……...9
4.0 POTENTIAL SOURCES OF GROUND WATER CONTAMINATION……..11
4.1 Potential Contaminant Source Inventory
4.2 Prioritization of Potential Contaminant Sources
5.0 SOURCE WATER PROTECTION MANAGEMENT TOOLS…….13
5.1 Public Education and Information
5.2 Community Planning and Monitoring
5.2.1a: Integration with Teton County Comprehensive Plan
5.3 Non-Regulatory Best Management Practices
5.4 Regulations and Permits
6.0 MANAGEMENT TOOLS AND PROTECTION MEASURES FOR PRIORITY POTENTIAL CONTAMINANT SOURCES……..16
7.0 EMERGENCY RESPONSE (CONTINGENCY) PLAN……20
8.0 PLANNING & PROTECTION STRATEGIES FOR NEW DRINKING WATER SOURCES……...…21
9.0 IMPLEMENTATION STRATEGY……22

APPENDIX A – Glossary of Terms……..24
APPENDIX B – Planning Team Meeting Agendas and Timeline……26
APPENDIX C – List of Funding Sources for Sourcewater Plan Implementation……27
APPENDIX D – References……..29

LISTING OF FIGURES

Fig. 1: List of Public Water Systems (PWS) in Teton County, Idaho…….1
Fig. 2: Teton County Source Water Planning Team Participants……6
Fig. 3: Map of Public Water Systems in Teton County, Idaho……..10
Fig. 4: Known or perceived threats to drinking water sources in Teton County, as identified by Teton County Source Water Planning Team……..11
Fig. 5: Measures and activities to address potential sources of drinking water contamination in Teton County, Idaho……...…17
Fig. 6: Implementation Schedule for Teton County Source Water Protection Plan…….22

1.0 INTRODUCTION

According to the Idaho Department of Environmental Quality, source water protection is "a voluntary effort a community can implement to help prevent contamination of the source water that supplies its public water system. The effort may involve creating a source water (or drinking water) protection plan and implementing regulatory and/or non-regulatory management practices. Preventing contaminants from entering a public water system supply greatly benefits the community by minimizing the problems that can occur from contaminants in the water supply, such as increased health risks to the public, expanded drinking water monitoring requirements, additional water treatment requirements, and expensive environmental cleanup activities."[1]

Teton County, Idaho, has developed this Source Water Protection Plan (SWPP) in recognition that a sustainable supply of clean and reliable drinking water is needed to support economic vitality and quality of life in our community. Preventing contaminants from entering our drinking water supply will help to minimize potential problems, such as increased health risks, expanded drinking water monitoring requirements, additional water treatment requirements, or expensive environmental cleanup activities.

1.1 Drinking Water Systems in Teton County

This plan is designed to benefit all existing public drinking water sources in Teton County, Idaho (See Fig.1). Additionally, this plan recognizes that a substantial percentage of Teton County's population is rural, and receives their drinking water from individual domestic wells, rather than from a public drinking water system. This plan is designed to promote cooperation among citizens, local governments, federal agencies, businesses, agricultural producers, and professional water managers in order to protect *all* of Teton County's drinking water sources.

Fig. 1: Public Water Systems (PWS) in Teton County, Idaho, as listed in the Idaho Department of Environmental Quality Source Water Assessment Database as of 7/18/2016[2]

ID7410001	MOOSE CREEK RANCH	WELL 1	Active
ID7410002	HIGH PEAKS HEALTH AND FITNESS	WELL 1	Active
ID7410003	DARBY WATER ASSN	DARBY SPRING	Active
ID7410004	DRIGGS CITY OF	HUNTSMAN WELL	Active
ID7410004	DRIGGS CITY OF	VALLEY CENTRE WELL (EMERGENCY)	Active
ID7410004	DRIGGS CITY OF	TETON CREEK WELL	Active
ID7410004	DRIGGS CITY OF	WELL #1, TANK (EMERGENCY)	Active

ID7410004	DRIGGS CITY OF	HIGH SCHOOL WELL	Active
ID7410004	DRIGGS CITY OF	WELL #3, LIONS (EMERGENCY	Active
ID7410004	DRIGGS CITY OF	WELL #2, DALLEY (EMERGENCY)	Active
ID7410004	DRIGGS CITY OF	TETON CR SPRINGS/MANIFOLD	Active
ID7410006	PACKSADDLE SUBD	PACKSADDLE WELL	Active
ID7410008	TETON VALLEY CAMPGROUND	WELL 1	Active
ID7410011	TETON VALLEY LODGE	WELL 1	Active
ID7410012	TETONIA CITY OF	WELL #1	Active
ID7410013	VICTOR CITY OF	SPRING #2	Active
ID7410013	VICTOR CITY OF	SPRING #3	Active
ID7410013	VICTOR CITY OF	SPRING #5	Active
ID7410013	VICTOR CITY OF	WILLOW CREEK WELL	Active
ID7410013	VICTOR CITY OF	NORTH WELL	Active
ID7410013	VICTOR CITY OF	SPRING #1	Active
ID7410013	VICTOR CITY OF	SPRING #6	Active
ID7410013	VICTOR CITY OF	SPRING #4	Active
ID7410014	USFS MIKE HARRIS CAMPGROUND	WELL	Active
ID7410016	BADGER CREEK OUTDOOR CENTER	WELL #1	Active
ID7410018	ROCKING H MOBILE PARK	WELL 1	Active
ID7410019	EE DAH HOW ACRES SUBD	WELL #1	Active
ID7410020	GROVE CREEK SUBD WATER ASSN	WELL #1	Active
ID7410022	JACKALOPE ASSN	WELL #1	Active

ID7410023	DRIGGS SUPER 8	WELL #1	Active
ID7410024	TARGHEE MEADOWS WATER USERS ASSN	WELL #1	Active
ID7410027	TETON VALLEY CABINS	WELL #1	Active
ID7410028	GOOD SHEPHERD CATHOLIC CHURCH	WELL #1	Active
ID7410033	TETON SPRINGS WATER AND SEWER COMPANY	WELL #1	Active
ID7410033	TETON SPRINGS WATER AND SEWER COMPANY	WELL #2	Active
ID7410034	FOX CREEK COUNTRY CLUB ESTATES	WELL #2	Active
ID7410034	FOX CREEK COUNTRY CLUB ESTATES	WELL #1	Active
ID7410035	TETON CREEK RESORT	WELL # 2/FIRE WELL	Inactive
ID7410035	TETON CREEK RESORT	WELL # 1	Inactive
ID7410036	VALLEY VISTA ESTATES	WELL #2	Active
ID7410036	VALLEY VISTA ESTATES	WELL #1	Active
ID7410038	CHILLER ICE	WELL	Active
ID7410039	LINN GUEST RANCH	MAIN WELL	Active
ID7410042	THE LEARNING ACADEMY	MAIN WELL	Active
ID7410044	RIVER RIM RANCH SUBDIVISION #1 AND LODGE	RIVER RIM WELL NO. 1	Active

Detailed information about each public water system covered by this plan is available on the Idaho Department of Environmental Quality website.

1.2 Project Background

Currently in Idaho, most Source Water Protection Plans (SWPPs) are developed by individual Public Water Systems (PWSs), such as those run by a city, a public utility, a subdivision, or a resort. However, there is recognition that, while these PWS-specific plans are very useful and should continue to be developed, they also leave gaps unfilled. When PWS-specific plans are developed by non-governmental entities, these entities often lack the authority that is needed to

actually implement drinking water protection measures. Additionally, whether the SWPP is developed by a governmental agency or not, land within a water source's delineation zone[*] often falls under multiple jurisdictions, again making it difficult for the entity completing the SWPP to actually implement protection measures defined in the plan. For example, the delineation zone for the City of Driggs Spring Water Source (PWS #ID7410004) covers a land area that is administered by the US Forest Service; Teton County, Idaho; and Teton County, Wyoming. Land uses within this area range from grazing, recreation, irrigated and non-irrigated agriculture, residential development, and resort development. The ability of the city, which does not actually administer any of the land within the delineation zone, to affect protection measures in these areas is clearly limited.

In recognition of these challenges, Friends of the Teton River (FTR), a 501(c)(3) non-profit organization that works for clean water, healthy streams, and resilient fisheries in the Teton Watershed, worked with Teton County, Idaho and regional Idaho Department of Environmental Quality (IDEQ) staff to apply for an IDEQ Source Water Protection Grant. This grant, which was received in 2011, funded the Drinking Water Source Protection Plan for Teton County, Idaho project. The goal of this project was to bring together a diverse group of community stakeholders to create a county-wide SWPP that protects all existing drinking water sources in Teton County, Idaho; the plan is also intended to serve as a resource, or model, for other entities interested in creating a county or regional-scale SWPP in Idaho. The plan was completed by Friends of the Teton River, on behalf of the Teton County Source Water Protection Planning Team, received approval from the Idaho Department of Environmental Quality in 2015, and was formally adopted by Teton County, Idaho in 2016.

1.5 The Need for Drinking Water Protection in Teton County

Thanks in large part to Teton County, Idaho's low density, rural population; its location high in the headwaters of the Teton Mountain range; and the relatively low-impact land uses that occur in much of its land area, most of the county's residents enjoy very high quality drinking water, and are free of many of the drinking water concerns that affect heavily industrialized and/or urban areas. However, despite the comparatively pristine condition of most of the community's drinking water sources, research conducted prior to embarking on this plan revealed water quality and quantity issues in some portions of the county that are of significant concern, both now and in the future. Additionally, there is recognition in Teton County that the only way to ensure good water quality and quantity for future generations is to implement measures now to protect this valuable resource.

Detailed Source Water Assessments[†] have been completed for most of the PWSs in Teton County, Idaho, and additional research on ground and surface water quality and quantity has been conducted by IDEQ, FTR, and others. While risks and contamination sources vary according to location, the following generalizations can be made:

[*] A *delineation zone* is the physical area around a well, spring, or surface water intake from which ground water or surface water is drawn. See section 4.0 for more information.
[†] See section 5.0 for more information on Source Water Assessments

- Portions of Teton County are included in the Ashton/Drummond Nitrate priority Area, which was ranked #13 of the 32 most severely degraded ground water areas in the state, according to the IDEQ 2008 Nitrate Priority Area Delineation and Ranking Process document (See Fig.1).

- The Teton River and many of its tributaries have been listed under Clean Water Act Section 303(d) for excessive nutrients, and several streams in the region have established Total Maximum Daily Loads that have been developed in attempt to limit their nutrient loads. Since 2001, water quality studies conducted by FTR and IDEQ have shown consistently high levels of nitrogen in surface water sources throughout Teton County, as well as areas of moderate nitrogen in some groundwater wells.

- Teton County, Idaho has experienced a rapid transition of land from irrigated agriculture to development, with 14.3% of the County's previously irrigated agricultural land being converted to development between 1970 and 2008. Because aquifer recharge incidental to irrigation is a major component of the watershed's current hydrology, further land conversion may continue to reduce groundwater quantity available for PWS use. [3]

- Numerous potential sources of contamination[‡] exist within the delineation zones of virtually all PWSs in Teton County for which Source Water Assessments have been completed. These include a decommissioned landfill; petroleum storage tanks; agricultural chemical storage sites; transportation corridors (including an airport runway, dirt roads, and highways); subdivisions and individual residences with septic tanks; irrigated agricultural land use; old wells; a cemetery; irrigation canals; and surface water streams. In the event of a spill or failure of one of these potential contaminant sources, one or more PWS water sources, and potentially a significant portion of the groundwater aquifer, would be at risk of contamination from inorganic chemicals (IOCs), synthetic organic chemicals (SOCs), volatile organic chemicals (VOCs), and/or microbial contaminants.

1.5 Elements of a Certified Source Water Protection Plan

Teton County has prepared this source water protection plan with guidance provided in the document "Protecting Drinking Water Sources in Idaho"[4]and addresses the eight required elements for a state certified source water protection plan. These eight elements are:

1) Description of Planning Team Participants, Roles, and Duties
2) Delineation of the Source Water Protection Area
3) Inventory of Potential Sources of Contamination
4) Tools and Protection Measures to Manage Potential Sources of Contamination
5) Contingency Plan
6) Plan for future drinking water sources
7) Public Participation and Education
8) Implementation Strategy

[‡] If a business, facility, or property is identified as a potential contaminant source, this should not be interpreted to mean that they are in violation of any local, state, or federal environmental law or regulation. What it does mean is that the *potential* for contamination exists due to the nature of the business, industry, or operation.

This Source Water Protection Plan (SWPP) was completed in 2014 by Friends of the Teton River, on behalf of the Teton County Source Water Planning Team, with funding from a Source Water Protection grant awarded by the Idaho Department of Environmental Quality.

2.0 COMMUNITY PLANNING TEAM PARTICIPANTS, ROLES, AND DUTIES

The first step in the development of a Source Water Protection Plan consists of forming a planning team, and defining roles and duties.

2.1 Formation of the Community Planning Team

As noted in section 5.2.1a, development of this plan was preceded by a community-driven process to revise the Teton County Comprehensive Plan. Amy Verbeten, Executive Director for Friends of the Teton River, served as the Chair of the Natural Resources and Outdoor Recreation Sub-Committee of the Comprehensive Plan. During the comprehensive planning process, Amy compiled a list of individuals who expressed an interest in drinking water or watershed protection. Added to this list were individuals who directly manage public water systems, irrigation companies, plumbing businesses, and other water-related industries; staff and elected officials of local governmental entities, as well as state and federal agencies, that make decisions about land use; individuals who represent industries with a significant land use in Teton County, such as agriculture, residential, and resort development. These individuals were invited to participate in the first Teton County Source Water Planning Team meeting, or to suggest another individual who should represent their demographic if they were unable or unwilling to attend. Additionally, at the first planning team meeting, an agenda item was to brainstorm additional team members; these members were invited to attend the second meeting, or were invited to meet individually with planning team coordinator Amy Verbeten to add to meeting notes if they were unable to attend meetings. At each subsequent meeting, all attending participants were asked whether any individuals and/or important community demographics were underrepresented, and any individuals identified were invited to participate.

2.2 Planning Team Participants

During development of this plan, the following individuals participated as members of the Teton County Source Water Planning Team:

Fig. 2: Teton County Source Water Planning Team Participants

Participant Name	Affiliation
Carl Allen	Trail Creek Sprinkler Irrigation Company
Randy Blough	Targhee Town Water District
Rachel Burnside	Teton Soil Conservation District, Idaho
Ryan Colyer	Biota Research and Consulting; Teton County Planning and Zoning Commission
Rachel Daluge	Teton Conservation District, Wyoming
Michael Dronen	Eastern Idaho Public Health District
Jarod Gunderson	City of Driggs
Ron Hansen	Teton County Idaho Farm Bureau
Merrill Hemming	Eastern Idaho Public Health District
Robert Heuseveldt	City of Victor

Harley Hill	Teton Soil Conservation District, Idaho
Sherry Hill	Citizen
Ashley Koehler	City of Driggs
Stacy Lerwill	Teton Soil Conservation District, Idaho
Lindsay Markegard	Natural Resources Conservation Service
Glen Nelson	Farmer; Teton Soil Conservation District
Ron Overson	Grand Targhee Resort
Kelly Park	Teton County Idaho Board of County Commissioners
Wyatt Penfold	Darby Water Company
Shayne Rammell	Three Peaks Plumbing, Inc.
Caroline Reynolds	Citizen; Environmental Science background/interest
Marlene Robson	Farmer; Citizen
Mitch Smaellie	City of Tetonia
Randy Thomas	City of Victor
Harvey Walker	Grand Teton Canal Company
Louis Wasniewski	Caribou-Targhee National Forest
Allen Wilder	Wilder System Solutions; Contract Operator

Technical assistance was provided by:
Flint Hall, Idaho Department of Environmental Quality Regional Office, Idaho Falls
Melinda Harper, Source Water Protection Specialist, Idaho Rural Water Association
Miles Edwards, USDA Source Water Specialist, Wyoming Association of Rural Water Systems
Dan Chamberlain, Small Systems Circuit Rider, Wyoming Association of Rural Water Systems

2.3 Planning Team Roles and Duties

Amy Verbeten, of Friends of the Teton River, served as the team coordinator during development of the plan. At the first planning team meeting, it was agreed that her role would consist of the following:

- Coordinating and facilitating all team meetings during the planning stage, as well as future meetings to review and revise the plan.

- Taking detailed notes at each meeting, and providing a meeting summary for review and editing to all planning team members and other relevant parties as needed.

- Writing and revising the Source Water Protection Plan Document according to planning team recommendations, and presenting the plan to the Teton County Source Water Planning Team and the Teton County Idaho Board of County Commissioners for final review and approval.

- Presenting the plan to the Idaho Department of Environmental Quality for State Certification.

- Coordinating and ensuring that the protection measures and activities identified in this protection plan are implemented.

- Serving as the primary contact for questions related to this plan. Amy can be reached at the Friends of the Teton River Office, at 208-354-3871 x 13.

Future duties of the planning team will include:

- Holding meetings every two (2) years to review and update this protection plan and its components.

- Updating the contaminant source inventory every two years when the rest of the protection plan is under review, adding any new point or nonpoint sources of contamination identified in the delineated source water area.

- Evaluating and prioritizing new and proposed contaminant sources within the delineated source water area for their risk to the water system.

2.4 Planning Team Meetings

The full planning team met three times during the development of this plan, and multiple individual or small-group meetings to follow up on action steps were conducted between meetings or following the final large group meeting, at the recommendation of the planning team. A detailed agenda was provided to all planning team members prior to each meeting, and a meeting summary was provided after each meeting for review and editing. The final plan has been submitted to all planning team members for editing and review, and a summary of comments and how each comment will be addressed will be attached as an appendix to this document prior to final adoption and publication. Meeting agendas are attached as an appendix to this document, and meeting summaries are available upon request from Amy Verbeten by calling 208-354-3871 x 13, or emailing amy@tetonwater.org.

2.5 Planning Team Protection Strategy

There was general consensus among the planning team about the following points, which were used to guide the development of the overall protection strategy:

- Most drinking water in Teton County currently meets or exceeds all EPA drinking water quality standards, and is available in a quantity that will meet the county's near-term future needs.

- More data needed is needed to determine the degree of risk to individual drinking water sources, and to identify reason(s) for data that shows elevated nitrates in individual wells and surface water.

- At this time, non-regulatory measures and activities, such as education and outreach, monitoring/research and planning, and implementation of best management practices, are the most appropriate way to address the known or perceived risks to Teton Valley's drinking water sources.

- In some cases, there may be a need for more enforcement of current regulations.

- If regulatory measures are proposed in the future, the planning team should evaluate the following before deciding whether these measures should be implemented:
    - Data indicating that a specific water quality problem exists or is looming
    - Data that identifies the cause of the problem
    - A detailed summary of the pros, cons, costs, and efficiency of the proposed solution

3.0 DELINEATION OF THE SOURCE WATER PROTECTION AREA

The next step in the development of a source water protection plan requires delineating the source water area from which each of Teton County's public water sources issues water. In response to Safe Drinking Water Act requirements, DEQ developed the *Idaho Source Water Assessment Plan* (DEQ, 1999) that describes the major components of, and procedures for, conducting source water assessments.

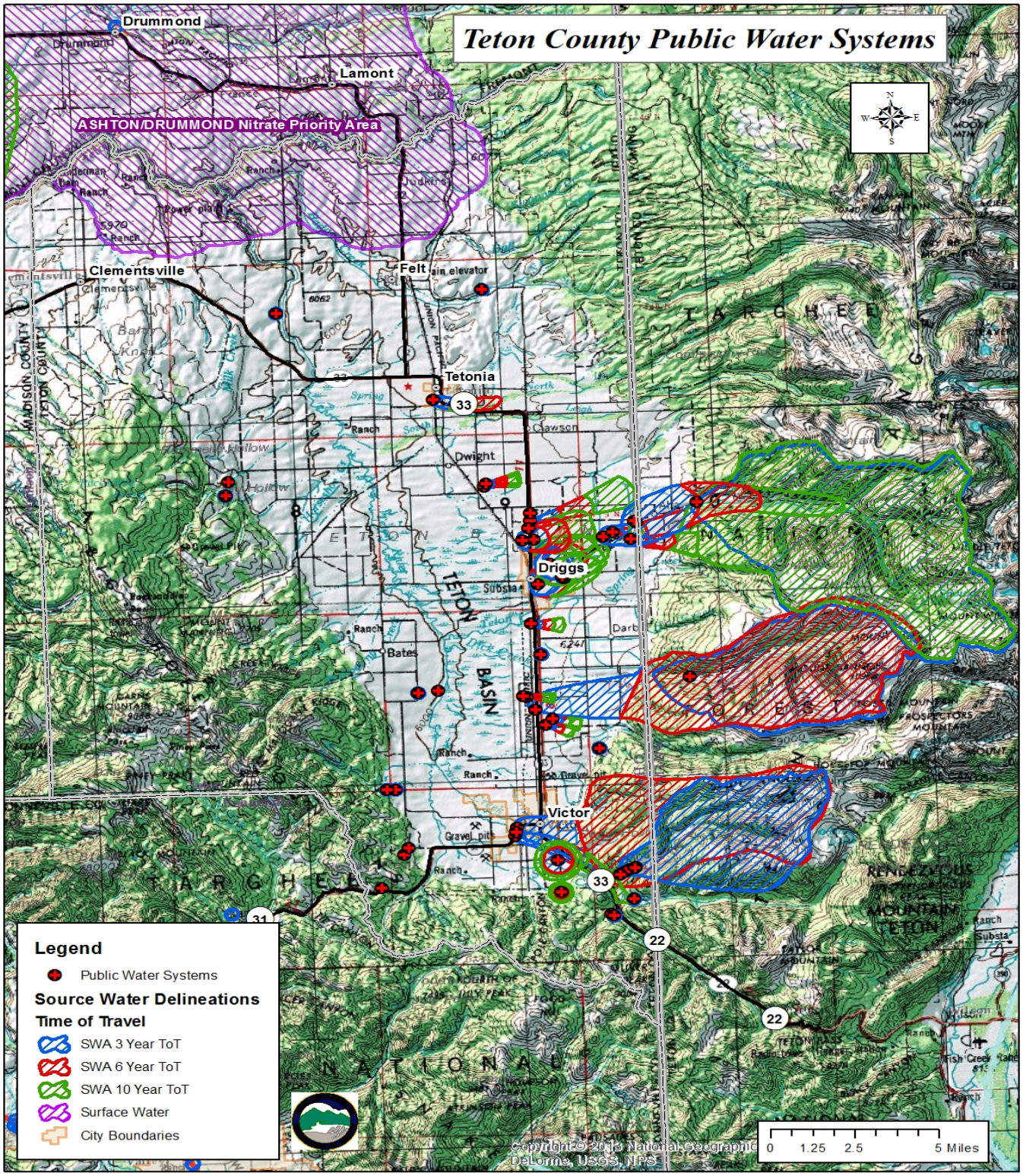
The delineation process, completed in the source water assessment for each public water system, establishes the physical area around a well, spring, or surface water intake from which ground water or surface water is drawn. The process uses a refined analytical model approved by the Environmental Protection Agency (EPA) to map the boundaries of the assessed source water area(s) into three separate time of travel (TOT) zones. Time of travel represents the number of years necessary for a particle of water to travel to reach the well, spring, or surface water intake.

Three TOT zones are mapped:

- The 0-3 year TOT zone, referred to as Zone IB. Water in this zone takes 0-3 years to travel through the aquifer and reach the spring, well, or intake being assessed.
- The 3-6 year TOT zone, referred to as Zone II. Water in this zone takes 3-6 years to travel through the aquifer and reach the spring, well, or intake being assessed.
- The 6-10 year TOT zone, referred to as Zone III. Water in this zones take 6-10 years to travel through the aquifer and reach the spring, well, or intake being assessed.

Figure 2 provides a compiled map of the source water delineations all Public Water Systems in Teton County (each PWS mapped in Fig. 2 is listed in Fig. 1). The Source Water Assessment Final Report for each of these Public Water Systems provides a detailed description of the water system's delineated source water area. These reports are available on IDEQ's website at: www2.deq.idaho.gov/water/swaOnline/SearchSwa.aspx.

Fig. 3:Map of Public Water Systems in Teton County, Idaho



4.0 POTENTIAL SOURCES OF GROUND WATER CONTAMINATION

Development of a drinking water source protection plan requires performing an inventory of contaminant sources within the delineated source water area.

4.1 Potential Contaminant Source Inventory

For virtually all of the Public Water Systems (PWSs) in Teton County, potential contaminant sources within the delineated source water area (Fig. 2) were identified and documented as part of the Source Water Assessment process. Additional research on ground and surface water quality in Teton County has been conducted by IDEQ, Friends of the Teton River, and others. Detailed information about potential contaminant sources for each individual PWS can be found on IDEQ's website: www2.deq.idaho.gov/water/swaOnline/SearchSwa.aspx.

As noted in Fig. 4, an implementation step identified by this plan includes conducting an enhanced potential contaminant source inventory for the public water systems operated by the cities of Driggs, Tetonia, and Victor. These inventories will be documented in the individual Source Water Protection Plan developed by each city, either as an implementation step, or in the section that details potential sources of groundwater contamination. Contaminant inventories will be updated as specified in the cities' source water protection plans.

4.2 Prioritization of Potential Contaminant Sources

The Planning Team has accomplished an additional step by identifying known or perceived threats to the aquifer that supplies and serves as a public drinking water source for all of Teton County's PWSs and individual domestic wells. The following were identified by the planning team as the highest priority threats to Teton County's Public Water System sources and/or the aquifer in general, listed in Fig. 3 in alphabetical order. It is important to note that, if a land use, industry, facility, or property is identified as a potential contaminant source, this should not be interpreted to mean that they are in violation of any local, state, or federal environmental law or regulation, or that they are currently operating in a manner that contaminates a water source(s) or the aquifer. What it does mean is that the *potential* for contamination exists due to the nature of the land use, industry, or operation.

Fig. 4: Known or perceived threats to drinking water sources in Teton County, as identified by Teton County Source Water Planning Team

Potential Contaminant Source/Threat	Description	Potential Contaminants[§]
Agricultural Hazardous Waste	Agriculture represents a significant land use within Teton County. Improper use, storage, and/or disposal of agricultural chemicals could result in source water contamination.	IOC, SOC
Fertilizer Application	Teton County is considered a high nitrogen fertilizer use area. Improper application of fertilizers on resort,	IOC

[§] IOC=inorganic compound; VOC=volatile organic compound; SOC=synthetic organic compound; M=microbials

	agricultural, or residential land could result in source water contamination.	
Forest Management Practices & Forest Recreation	Forest management (including fire prevention, wildfire suppression, grazing, timber harvest, campground operation, dispersed camping, road maintenance, and recreation management), if not conducted in accordance with Best Management Practices, could result in source water contamination.	IOC, VOC, SOC, M, Sediment
Grazing/Dairy /Feedlot	Grazing, feedlot, and/or dairy operations exist within the source water delineation zones of several Teton County water sources. If not managed properly, these operations could present a risk of contamination.	IOC, M
Household Hazardous Waste	Residential development represents a significant land use within Teton County. Improper use, storage, and/or disposal of household chemicals could result in source water contamination.	IOC, SOC, VOC
Increased demand/water management changes	Aquifer recharge incidental to irrigation and stream flow are major components of the region's hydrology. Increased withdrawal of water from the aquifer, reduction in irrigated agriculture or closure of canals, and changes in stream flow level could reduce the amount of water available for public water system use.	Water Quantity
Irrigation Backflow	Many residences in Teton County utilize non-potable water in irrigation systems that are directly connected to individual wells or public potable water supply systems. Absence, improper use, and/or failure of a backflow prevention device could result in source water contamination.	IOC, M
Landfill	Teton County, Idaho closed its old landfill in 2007, and has been working with IDEQ to prevent leaking of leachate. Continued leachate leakage could result in source water contamination.	IOC, VOC, SOC, M
Roads	Major and minor roads throughout the county pose a risk of contamination due to road salt application and chemical spills.	IOC, VOC, SOC
Septic Tanks	A significant percentage of Teton County residences utilize individual septic tanks for waste water treatment. Improper installation, maintenance, and/or increased density of septic tanks could result in source water contamination.	IOC, SOC, M
Surface Water	The delineation zones of numerous public water sources in Teton County are located within the floodplain of the Teton River and/or its tributaries. Flooding could result in source water contamination.	IOC, VOC, SOC, M, Sediment
Underground Storage Tanks	Numerous underground storage tanks exist in the County, particularly at the Driggs Reed Memorial	VOC, SOC

	Airport, and in industrial/commercial zones within and surrounding the cities of Driggs, Tetonia, and Victor	
Wells (Residential)	A significant percentage of Teton County residences utilize individual wells as their primary source of drinking water. Improper installation, maintenance, and/or use of individual wells, or improper capping of defunct wells, could result in source water contamination.	IOC, SOC, M

Priority threats will be reviewed and updated if needed when this source water protection plan is updated every other year.

5.0 SOURCE WATER PROTECTION MANAGEMENT TOOLS

The Teton County Source Water Planning Team has identified the following general management tools as appropriate ways to protect Teton County's drinking water sources and groundwater aquifer from potential sources of contamination. Specific ways in which these tools will be applied are presented in Section 6. This section will be reviewed and updated every other year if needed, when the source water protection plan is updated.

5.1 Public Education and Information

Public education and information is one of the primary protection tools identified by the planning team as appropriate for Teton County at this time. Public education and information will include:

- Continuing to offer a Water Awareness Week water festival for all 6th grade students in Teton County. This annual water festival, coordinated by Friends of the Teton River, offers students the opportunity to learn about water resources and drinking water protection from water resource professionals in the community. All 6th grade students in Teton County School District #401, in addition to most of the county's private school 6th graders, have attended this event annually since 2004.

- Continuing to provide free testing for nitrates for Teton County residents with individual residential wells. Friends of the Teton River, in partnership with several local plumbers, Teton High School, and the Teton Conservation District, has offered 6 public well testing events since 2011, in addition to offering this service free of charge in the FTR office by appointment. These events include information about drinking water protection for individual homeowners. Free well testing events will continue to be offered on a minimum annual basis as an implementation step of this plan, provided that funding can be secured.

- Providing online drinking water protection information to Teton County adults, in the form of a web page, hosted by Friends of the Teton River and linked to by Teton County and the cities of Driggs, Tetonia, and Victor; as well as community education classes and forums, that highlight information specific to:
    - General information about drinking water sources and source water protection in Teton County, Idaho

- Recommended use and maintenance of individual residential septic systems
- Recommended testing, maintenance and protection of individual residential wells
- Prevention of backflow from residential irrigation systems
- Proper disposal of household hazardous waste, including pharmaceuticals
- Recommendations for safe application of fertilizers for lawns and landscaping
- Recommendations for water conservation in residential households
- Recommendations for properly closing abandoned wells and unused septic systems.

- Providing an online copy of the Teton County Source Water Protection Plan final document, and updated revised versions, hosted on the Teton County website, and linked by Friends of the Teton River and any other interested entities. Hard copies of the document will also be available in the Teton County planning department and at the Friends of the Teton River office.

5.2 Community Planning and Monitoring

A number of planning and monitoring activities have been identified by the planning team as appropriate means for protecting drinking water in Teton County. These include:

- The Cities of Driggs, Tetonia, and Victor will each complete and/or continue to update a city-specific Source Water Protection Plan, and integrate it with the Teton County plan.

- The cities of Driggs, Tetonia, and Victor will perform an enhanced potential contaminant source inventory as an implementation step of their Source Water Protection Plans, and use this to update the Teton County Plan if necessary.

- Conducting detailed monitoring studies to determine source of high nitrates in Teton River and moderate nitrates detected in groundwater samples from private wells.

- Conducting detailed study of changing water management and climate on water availability for future municipal and rural residential growth in Teton County

5.2.1a: Integration with Teton County Comprehensive Plan

The Idaho Local Land Use Planning Act (I.C. 67-6537) requires local governing boards to consider the impact on ground water quality when amending, repealing, or adopting a comprehensive plan. In August of 2012, the Teton County, Idaho Board of County Commissioners approved a revised Comprehensive Plan. [5]

The revised Comprehensive Plan was developed as a grassroots, with community participation as the cornerstone of the process. Public input was solicited through a variety of means, including public workshops, open houses, stakeholder interviews, a “plan van” that attended many local events, online surveys, and targeted landowner workshops. This resulted in over 4,000 input occurrences, with a large percentage of Teton County’s approximately 10,000 residents participating in the process. This community input was evaluated and assimilated into the final plan by citizen committees made up of dedicated volunteers who represented the breadth of community values.

Amy Verbeten, Executive Director of Friends of the Teton River, served as Chair of the Natural Resources and Outdoor Recreation (NROR) Subcommittee of the Comprehensive Plan. This committee, and the public input it received, laid the groundwork for the subsequent Teton County Source Water Protection Plan.

Drinking water protection consistently ranked as a high value priority for Teton County residents in public input solicited prior to and during the comprehensive planning process. As a result, the NROR Subcommittee incorporated drinking water protection into the Comprehensive Plan in the following manner:

- NROR Goal 1: Conserve our public lands, trail systems, and natural resources (air, water, wildlife, fisheries, wetlands, dark skies, viewsheds, soundscape, soils, open space, native vegetation).
    - Policy 1.4: Work with municipalities and public water systems to ensure safe and adequate drinking water.
        - Action Items:
            - Develop a source water protection plan
            - Ensure developments have adequate supply of drinking water and ability for adequate wastewater treatment prior to approval.

Now that the revised Comprehensive Plan has been approved, the Teton County Planning and Zoning Commission is analyzing and reviewing Teton County's Land Use Code, with an anticipated completion date in fall of 2016. The goal of this revision is to bring the land use code into alignment with the comprehensive plan. It is intended that the Teton County Source Water Protection Plan will be used as a reference document during this process.

5.3 Non-Regulatory Best Management Practices

Development or implementation of voluntary best management practices has been identified by the planning team as an appropriate means for protecting drinking water in Teton County. Areas in which best management practices have been targeted for development or implementation include:

- Offering agricultural hazardous waste disposal events at times and locations that are practical for agricultural producers.

- Ensuring that best management practices are being used on US Forest Service land to promote watershed and source water protection, with particular emphasis on decreasing potential sediment and inorganic compound effects from forest roads, dispersed camping areas, grazing, and/or wildfire.

- Continuing to work with agricultural producers to research, implement, and monitor cutting-edge best management practices that further reduce potential for water contamination, particularly in the areas of fertilizer application, grazing, dairy, and feedlot operations, buffer zone use, and tillage practices.

- Offering household hazardous waste disposal events at times and locations that are practical for homeowners.

- Researching best management practices for irrigation recharge wells, and ensuring they are followed in the event that permits for irrigation recharge wells are applied for.
- Developing a coordinated emergency response plan to prevent water contamination in the event of an emergency that disrupts delivery by one or more of the public water systems in Teton County.

- Developing an incentive program that encourages residents to perform regular maintenance on individual septic tanks.

- Developing and implementing municipal storm water standards.

5.4 Regulations and Permits

While no new regulations are recommended at this time, the following have been identified by the planning team as areas where current regulations should be implemented more effectively, or where inspection should be continued or increased:

- Continuing to inspect subdivision construction to ensure that approved plans for irrigation backflow prevention, septic/sewer placement and maintenance, storm water management, and well siting are followed, and investigate whether additional capacity is needed for increased inspection in the future.

- Continuing to implement and monitor steps to prevent leakage of leachate from the old Teton County landfill.

- Ensuring that regulations regarding use and inspection of underground storage tanks are followed, and continuing to monitor groundwater near the Driggs Reed Memorial Airport to ensure early detection and containment of any potential contamination event.

6.0 MANAGEMENT TOOLS AND PROTECTION MEASURES FOR PRIORITY POTENTIAL CONTAMINANT SOURCES

Teton County's planning team identified measures and activities designed to addressing the highest priority known or perceived threats to drinking water sources that were identified in Fig. 4. Protection measures are listed in an order that corresponds to the threats listed alphabetically in Fig. 4.

Fig. 5: Measures and activities to address potential sources of drinking water contamination in Teton County, Idaho.

Contaminant Source/Threat Addressed**	**Protection Measure**	**Specific Tasks (Responsible Party)**	**Anticipated Date of Completion**
All	Planning: Source Water Protection Plan	• The Cities of Driggs, Tetonia, and Victor will each complete a Source Water Protection Plan, and integrate it with the Teton County plan (Idaho Rural Water Association)	Tetonia plan is complete Driggs, Victor plans currently in progress
All	Planning: Enhanced potential contaminant source inventory	• The cities of Driggs, Tetonia, and Victor will perform an enhanced potential contaminant source inventory as an implementation step of their Source Water Protection Plans, and use this to update the Teton County Plan if necessary (Idaho Rural Water Association, IDEQ)	By 2021
Unknown; may address one or more of the following: • Fertilizer application • Forest management practices & forest recreation • Grazing/dairy/feed -lot • Septic tanks	Planning: Groundwater monitoring and surface water monitoring	• Conduct detailed monitoring studies to determine source of high nitrates in Teton River and moderate nitrates detected in groundwater samples from private wells (Idaho Department of Environmental Quality; Friends of the Teton River)	By 2021 (contingent on funding)
Agricultural hazardous waste	Best management Practice: Proper storage and disposal of agricultural hazardous waste	• Offer agricultural hazardous waste disposal events at times and locations that are practical for agricultural producers (Friends of the Teton River, Teton Soil Conservation District, Teton County Farm Bureau, Teton County	By 2017 (contingent on funding)

** See Fig. 3 for description of known or perceived threats to drinking water sources in Teton County

		Community Recycling, Teton County Landfill) • Seek funding sources to support education & disposal events (Friends of the Teton River)	
• Fertilizer application • Irrigation backflow • Septic tanks • Wells (residential)	Education, Outreach, and Public Information	• Continue school-based annual water festival for 6th graders to educate about water quality protection (Friends of the Teton River)	Ongoing
Forest management practices & forest recreation	Best Management Practices: Forest practices that promote source water protection	• Coordinate with US Forest Service to promote BMPs designed to promote watershed and source water protection, with particular emphasis on decreasing potential sediment and inorganic compound effects from forest roads, dispersed camping areas, grazing, and/or wildfire. (Friends of the Teton River)	Ongoing
• Fertilizer Application	Best Management Practices: Conservation Tillage	• Conduct a soil health initiative that includes a low-cost no-till drill rental program, cover crop incentives, education/outreach to agricultural producers, and research/monitoring to evaluate and document effects (Teton Soil Conservation District, Friends of the Teton River)	By 2017 (contingent on funding)
• Fertilizer Application • Grazing/Dairy/ Feedlot	Best Management Practices: Various	• Continue to work with agricultural producers to research, implement, and monitor a variety of best management practices to further reduce potential for water contamination (Teton County Farm Bureau, NRCS, Teton Soil Conservation District, Teton Conservation District)	
Household Hazardous Waste	• Education, Outreach, and Public Information	• Distribute educational information to residents about proper disposal of household	By 2016 (contingent on funding)

	• Best Management Practice: Proper disposal of household hazardous waste	hazardous waste (Friends of the Teton River; Teton Valley Community Recycling) • Work with Teton County Community Recycling & Teton County Landfill to offer household hazardous waste disposal events at times and locations that are practical for homeowners (Friends of the Teton River) • Seek funding sources to support education & disposal events (Friends of the Teton River)	
Increased demand/water management changes	Planning: Impact Studies	• Conduct detailed study of changing water management on water availability for future agricultural, municipal and rural residential use in Teton County (Friends of the Teton River, Teton Water Users Association) • Seek funding sources to support research (Friends of the Teton River, Teton Water Users Association)	By 2021 (contingent on funding)
• Irrigation backflow • Septic tanks • Surface water • Wells (residential)	Regulations and Permits: Inspections and Technical Assistance	• Ensure that approved plans for irrigation backflow prevention, septic/sewer placement and maintenance, storm water management, and well siting are followed (Eastern Idaho Public Health District)	Ongoing
Landfill	Regulations and Permits: Inspections and Technical Assistance	• Continue to work with IDEQ to implement and monitor steps to prevent leakage of leachate (Teton County)	Ongoing
• Roads • Surface water • Natural disaster	Best Management Practice: Coordinated Emergency Response Plan	• Work with fire department, cities, and small public water systems to educate about source water delineation areas, map and distribute source water delineation areas, and develop a coordinated emergency response plan to	By 2021

		prevent water contamination in the event of an emergency that disrupts delivery by one or more public water systems (Teton County)	
Septic Tanks	• Education, Outreach, and Public Information • Best Management Practice: Proper location and maintenance of private septic tanks	• Distribute educational information to residents and potential buyers about proper septic system location and maintenance • Work with Teton County and local plumbing companies to develop an incentive program that encourages residents to perform regular maintenance on individual septic tanks. Potential incentives could include property tax relief; payment vouchers; rebates; and/or sponsored discounts with local plumbing companies. (Friends of the Teton River) • Seek funding sources to support incentive program (Friends of the Teton River) • Ensure that private septic permitting is including with applicable County permits and comply with county code (Teton County)	By 2017 (contingent on funding)
Surface water	Best Management Practices: Storm water management	• Incorporate storm water management into land use code update, and ensure compliance with county code (Teton County) • Coordinate with Cities of Driggs, Tetonia, and Victor to develop and implement municipal storm water standards (IDEQ, Idaho Rural Water Association)	By 2021 (contingent on funding)
Underground Storage Tanks	Regulations and Permits: Inspections and Technical Assistance	• Continue monitoring groundwater in airport area to ensure early detection and	Ongoing

		containment of any potential contamination event (IDEQ)	
• Wells (residential) • Fertilizer application • Irrigation backflow • Septic tanks Wells (residential)	Education, Outreach, and Public Information	• Expand Water Awareness Week activities and other Community Education Programs to include additional free well testing for nitrates, an adult/community water festival that highlights water quality protection, and wide distribution of water quality protection educational information in written and electronic formats (Friends of the Teton River)	By 2016 (contingent on funding)

7.0 EMERGENCY RESPONSE (CONTINGENCY) PLAN

A source water protection emergency response plan is designed to serve as a guide in the event that an emergency occurs in which one or more of Teton County's public drinking water systems become unable to deliver safe drinking water to its users. Examples of emergencies that may prevent safe drinking water delivery include contamination, loss of power, equipment failure, and natural disasters such as earthquakes, drought or flooding. The development and implementation of an emergency response plan increases the likelihood that correct and immediate action will be taken, and that any damage or potential health risk, both in the long and short term, will be minimized.

Because Teton County does not operate its own public water system, its role in the development of an emergency response plan will be to provide education to, and act as a coordinator for, region-wide emergency response agencies. As noted in Fig. 5, an implementation step of this Source Water Protection Plan is to work together with the fire department, the cities of Driggs, Tetonia, and Victor, and small public water systems to educate about source water delineation areas, and to develop a coordinated emergency response plan to prevent water contamination in the event of an emergency that disrupts delivery by one or more public water systems. This will occur by or before 2021, and will be coordinated with the development of individual Source Water Protection Plans being developed by each of the cities. Once development of the emergency response plan is finalized, it will be included as a separate document that serves as an appendix to the source water protection plan. Regular updates to the source water protection plan, which will occur every two years, will also include updates to the emergency response plan.

8.0 PLANNING & PROTECTION STRATEGIES FOR NEW DRINKING WATER SOURCES

During the development of this source water protection plan, Teton County has been recovering from its largest ever development boom/bust cycle to date. From 2000 to 2010, Teton County, Idaho was one of the fastest growing counties in the nation; it then experienced a precipitous

decline in the real estate market that rippled through the area's entire economy. There is currently a great deal of speculation about future rates of development, but little confidence in projections.

The general consensus of the Planning Team was that, on a regional scale, there appears to be adequate drinking water quality and quantity to meet Teton County's near-term future needs. Finer scale evaluation of current and future need for new water sources will occur with the development of individual Source Water Protection Plans for the cities of Driggs, Tetonia, and Victor (see Fig. 5). The contingency plan will be reviewed, and updated if needed, when this source water protection plan is updated every other year.

Additionally, as noted in Fig. 5, an implementation step of this plan is to conduct a detailed study of the potential impacts of changing water management and climate on water availability for longer-term future municipal and rural residential growth in Teton County. Provided that funding can be secured, this step is anticipated for completion by 2021.

In the event that the need for additional drinking water source development does arise in the near-term future, the source water area will be estimated to determine the safest location for a new water source. The new drinking water source will then be delineated in a manner consistent with the delineation process for existing drinking water sources. In addition, if there are major changes to construction, discharge rate or pumping rate of any public water systems within Teton County, the planning team should be notified, and the existing delineation should be reviewed to ensure that it still represents the appropriate source water delineation. The assessed source water delineation may be updated or modified if significant new information becomes available. The delineation for any new or modified source water site should be inventoried for any potential contaminant sources, and the risk evaluated. Anticipated pumping rate and existing knowledge of the aquifer will be used to determine which proposed location for a potential new drinking water source would provide the least risk of contamination. The planning team can then recommend appropriate actions to prevent contamination of the proposed new source water site, and this plan will be updated as needed.

9.0 IMPLEMENTATION STRATEGY

It is anticipated that source water protection measures identified in this plan will be implemented on the following timeline, provided that funding can be secured. The source water protection plan will be updated to reflect completed items when it is reviewed every two years.

Fig. 6: Implementation Schedule for Teton County Source Water Protection Plan

Year 1 (September 2016-September 2017)	• Final approval of Teton County Source Water Protection Plan by Teton County Board of County Commissioners • Source water protection plans completed for Driggs, Victor • Offer agricultural and household hazardous waste collection events • Develop and implement pilot Soil Health Initiative • Water Awareness Week events for 6th grade students and adults • Develop educational information about proper septic system location and maintenance, backflow prevention, residential fertilizer

	application, and residential well maintenance and testing. Post on websites and distribute at community events. • Develop and seek sustainable funding source for septic maintenance incentive program • Seek funding for detailed study of changing water management on water availability for agricultural, municipal, and rural residential uses
Year 2 (October 2017-September 2018)	• Begin seeking funding for research to identify source of high nitrates in groundwater and surface water in Teton County • Agricultural and household hazardous waste collection events • Water Awareness Week events for 6th grade students and adults • Offer pilot septic maintenance incentive program • Conduct study of changing water management on water availability for agricultural, municipal, and rural residential uses; develop implementation strategy for meeting/sustaining future needs
Year 3 (October 2018-September 2019)	• Planning team meeting(s) to review and update all sections of Teton County Source Water Protection Plan • Conduct research to identify source(s) of high nitrates in groundwater and surface water in Teton County • Annual agricultural and household hazardous waste collection events • Water Awareness Week events for 6th grade students and adults • Implement septic maintenance incentive program • Begin implementing strategies to meet/sustain future water needs
Year 4 (October 2019-September 2020)	• Conduct research to identify source(s) of high nitrates in groundwater and surface water in Teton County • Annual agricultural and household hazardous waste collection events • Water Awareness Week events for 6th grade students and adults • Implement septic maintenance incentive program
Year 5 (October 2020-September 2021)	• Planning team meeting(s) to review and update all sections of Teton County Source Water Protection Plan • Planning team meeting(s) to conduct 5-year review of success of Teton County source water protection efforts • Enhanced potential contaminant inventory completed for Driggs, Tetonia, Victor and Teton County contaminant inventory updated • Publish report and recommendations on source(s) of high nitrates in groundwater and surface water in Teton County. Incorporate recommendations as necessary into update of SWPP. • Annual agricultural and household hazardous waste collection events • Water Awareness Week events for 6th grade students and adults • Finalize Drinking Water Emergency Response Plan, and include as separate document with updated SWPP. • Implement septic maintenance incentive program • Finalize development and implementation of municipal storm water standards for Driggs, Tetonia, and Victor

The following implementation steps are already in progress, and will continue as ongoing action items over the course of the 5-year timeline described above:

- Work with US Forest Service to implement forest best management practices in source water protection areas on USFS lands.

- Work with agricultural service agencies and producers to research, educate about, implement, and monitor agricultural best management practices for source water protection.

- Ensure that existing regulations for irrigation backflow prevention, septic/sewer placement and maintenance, storm water management, and well siting are being followed. Consider whether increased inspection is needed.

- Continue to work with IDEQ to meet regulations on preventing leachate from leaking from old Teton County landfill.

- Continue to monitor groundwater in and around the Driggs Reed Memorial Airport to ensure early detection and containment of a potential contamination event

APPENDIX A: GLOSSARY

Adapted from the IDEQ Document, **"***Protecting Drinking Water Sources in Idaho*"

Aquifer - A geological formation of permeable saturated material, such as rock, sand, gravel, etc., capable of yielding economically significant quantities of water to wells and springs.

Best Management Practice (BMP) - A practice or combination of practices determined to be the most effective and practical means of preventing or reducing contamination to ground water and/or surface water from nonpoint and point sources to achieve water quality goals and protect the beneficial uses of the water.

Contaminant - Any chemical, ion, radionuclide, synthetic organic compound, microorganism, waste product, or other substance which does not occur naturally in ground water or which naturally occurs at a lower concentration.

Contamination - The direct or indirect introduction into ground water or surface water or source water of any contaminant caused in whole or in part by human activities.

Delineation (delineate) - The process of defining or mapping a boundary that shows the areas that contribute water to a particular water source used as a public water supply. For surface waters, the land area usually consists of the watershed for a reservoir or stream. For groundwater sources, the boundary typically encompasses the areal extent of the aquifer that contributes water to the public water supply.

Ground Water - Any water of the state which occurs beneath the surface of the earth in a saturated geologic formation of rock or soil.

Monitoring- the process of watching, observing, or checking (in this case water). The entire process of a water quality study including: planning, sampling, sample analyses, data analyses, and report writing and distribution.

Potential Contaminant Source Inventory - The process of identifying and inventorying contaminant sources within delineated source water areas. Inventory steps include: using existing contaminant sources locations and description data, identifying likely sources for further information, and verifying accuracy and reliability of the data sets.

Public Drinking Water System - A water system which provides piped water to the public for human consumption. The system must have at least 15 service connections or regularly serve at least 25 individuals daily for at least 60 days.

Source Water - Any aquifer, surface water body, or watercourse from which water is taken either periodically or continuously by a public water system for drinking or food processing purposes.

Source Water Assessment - A source water assessment provides information on the potential contaminant threats to public drinking water sources. Each source water assessment consists of a delineation of the water source area, a contaminant inventory, and a susceptibility analysis.

Source Water Assessment Area - The part of the watershed or ground water area that contributes to the water supply.

Surface Water(s) - All water which is open to the atmosphere and subject to surface runoff. Includes lakes, ponds, streams, rivers, and other water bodies which lie on the surface of the land. Surface waters may be partially or fully supplied by groundwater.

Time of Travel (TOT) - The time required for a contaminant to move in the saturated zone from a specific point to a well.

Watershed - A drainage area or basin in which all land and water areas drain or flow toward a central collector such a stream, river, or lake at a lower elevation. The whole geographic region contributing to a water body

APPENDIX B:
Teton County Source Water Planning Team Meeting Agendas

Meeting 1 Agenda:

- Agree upon planning team roles, responsibilities, logistics,
- Identify additional planning team members
- Identify strengths, weaknesses, threats, opportunities of current drinking water protection in Teton County & its cities
- Identify and assign planning team action steps

Meeting 2 Agenda:

- Review public water system delineations
- Discuss contaminant inventory action steps
- Review and discuss current management tools, and changes needed to current management tools
- Identify and assign action steps

Meeting 3 Agenda:

- Discuss current contingency plan, strengths and gaps
- Discuss outreach plan and means for gaining additional public input
- Discuss timeline for creating and reviewing written Source Water Protection Plan

Follow Up:

- 1-on-1 meetings as needed for follow up on action items identified in meetings
- Public outreach and nitrate testing
- Write Source Water Protection Plan
- Planning team, Teton County planning staff, IDEQ staff review/revise draft plan
- Plan edited based on recommendations by planning team and technical advisors
- Final plan presented to Teton County, Idaho Board of County Commissioners for approval
- Final plan presented to Idaho Department of Environmental Quality for state certification

APPENDIX C: Potential Funding for Source Water Protection Plan Implementation

Listed below are funding resources most likely to be applicable funding sources for action steps identified in Teton County's source water implementation plan.

In addition, the Rural Community Assistance Corporation (RCAC) publishes a comprehensive document, updated every other year, entitled "*RCAC Funding and Resource Guide: Idaho Water/Wastewater Systems*"[6].

Funding Source	Who is Eligible?	How Can Funds Be Used?	Contact Information
IDEQ Source Water Protection Grants	• Public water systems • State and local government agencies • Special districts (such as soil conservation districts) • Associations • Nonprofit organizations • Educational institutions	Projects must contribute to improved protection of one or more public water supply sources. Eligible projects include: • Contaminant source identification (research) • Contaminant pathway removal (closure of abandoned or unused wells) • Contaminant removal (hazardous waste collection, pollution prevention, and waste reduction) • Contaminant management (implementation of best management practices (BMPs), ordinance development and implementation of a source water protection plan, structures to divert contaminated runoff from the source) • Education and information sharing (brochures, workshops, media campaigns)	https://www.deq.idaho.gov/water-quality/grants-loans/source-water-protection-grants.aspx
IDEQ Public Water System Planning Grants	Most public water systems owned by Idaho municipalities, special water districts, and associations.	Provides assistance for facility planning projects designed to ensure safe and adequate supplies of drinking water. Grants awarded under this program are used to develop engineering reports identifying the most cost-effective, environmentally sound method of upgrading a public drinking water system to achieve and maintain compliance with state and federal standards. Grants cover up to 50% of eligible planning costs, with a matching share funded by local sources.	https://www.deq.idaho.gov/water-quality/grants-loans/water-system-planning-grants.aspx

IDEQ Construction Loans	Community water systems and non-profit, non-community water systems	Provides below-market-rate interest loans to help repair or build new drinking water facilities. Loans of up to 100% of project costs may be awarded for project design and/or construction.	https://www.deq.idaho.gov/water-quality/grants-loans/water-system-construction-loans.aspx
USDA Rural Development water and waste direct loans and grants	Communities in rural areas up to 10,000 population	• Construct, enlarge, extend, or improve rural water, sanitary sewage, solid waste disposal, and storm wastewater disposal facilities. • Relocate buildings, roads, bridges, fences, or utilities associated with the project • Payment of utility connection charges • Reasonable fees and costs such as: engineering, legal, administrative, environmental analysis, surveys, and planning • Costs of acquiring interest in land, waters rights, leases, permits, rights-of-way, etc. • Purchase or rent equipment • Cost of applicant labor or other expenses • In extraordinary situations, connecting user to the mainline	http://www.rurdev.usda.gov/SupportDocuments/ID_WEP_Water_WasteDirectLoans_Grants.pdf
USDA Agricultural Conservation Programs	Agricultural landowners	The Natural Resources Conservation Service (NRCS) offers a variety of programs for water quality protection and improvement, well head protection, and water resource conservation on eligible farmland. These include the Conservation Reserve Program (CRP),Conservation Stewardship Program (CSP), Environmental Quality Incentives Program (EQIP), and Agricultural Water Enhancement Program (AWEP)	NRCS Teton Soil Conservation District Driggs Service Center (208) 354-2680

275 Old Railro

Driggs, ID 83

APPENDIX D: REFERENCES

[1] Idaho department of Environmental Quality Website: Source Water Protection https://www.deq.idaho.gov/water-quality/source-water/protection.aspx

[2] Idaho Department of Environmental Quality Searchable Source Water Assessment Database. www2.deq.idaho.gov/water/swaOnline/SearchSwa.aspx

[3] Liegel, L., 2011. Landscapes in Transition: Exploring the Intersections Between Land Use Planning and Water Management in Henry's Fork Watershed, IDA. http://humboldt-dspace.calstate.edu/bitstream/handle/2148/717/Liegel_thesis.pdf?sequence=1

[4] Idaho Department of Environmental Quality Publication: Protecting Drinking Water Sources in Idaho. Revised 2007. http://www.deq.idaho.gov/media/499488-drinking_water_protection_guidance.pdf

[5] Teton County, Idaho Comprehensive Plan -- A Vision and Framework 2012-2030 www.tetoncountyidaho.gov/pdf/codePolicy/120928_TetonID_CompPlan_FINAL.pdf

[6] Rural Community Assistance Corporation Funding and Resource Guide: Idaho Water/Wastewater Systems http://www.rcac.org/assets/Idaho/IDresourceGuide10pg.pdf