

**TWIN FALLS  
SOIL AND WATER  
CONSERVATION DISTRICT**

**RESOURCE CONSERVATION  
BUSINESS PLAN**

**JULY 1, 2015 TO JUNE 30, 2020**

**MARCH 3, 2015**

## FOREWORD

Conservation districts are subdivisions of state government charged the conservation of soil, water and related natural resources. The Twin Falls Soil and Water Conservation District is one of three conservation districts in Twin Falls County. A total of 50 conservation districts, encompassing 99 percent of the state, are working to protect Idaho's soil and water resources.

It is the goal of the Twin Falls Soil and Water Conservation District elected supervisors to set high standards for the conservation of natural resources. This document identifies needs within the Twin Falls SWCD and presents a resource conservation action plan for meeting these needs.

The Twin Falls SWCD operates on a philosophy that conservation begins in the minds of farmers and ranchers who see a need for conservation on their land. Conservation can succeed only as landowners and users take responsibility for maintaining a conservation program on every acre.

The Twin Falls SWCD is the primary entity that provides assistance to private landowners and users in southern Twin Falls County. District supervisors coordinate non-regulatory conservation programs, provide science-based technical assistance, implement incentive-based financial programs, and offer informational and educational programs at the local level.

Through both legislation and agreement, the USDA-Natural Resources Conservation Service provides technical assistance to landowners and land users through conservation districts. Twin Falls SWCD, like every other conservation district in the state, has a signed mutual agreement with the Agriculture Secretary and the Governor of Idaho that establishes a framework for cooperation.

This plan was developed to not only guide the Twin Falls SWCD, but also to encourage cooperation among landowners, government agencies, private organizations and elected officials. Through knowledge and cooperation, all concerned can ensure a sustainable natural resource base for present and future generations in the Twin Falls Soil and Water Conservation District.

## HISTORY

Water shortages and noxious weeds headed the list of problems that led farmers south of the Twin Falls Canal Company's High Line Canal to petition for a soil conservation district in 1950. A public hearing was held October 12. On November 21, farmers voted 157 to 32 to form the Twin Falls Soil Conservation District. The SCD held its first regular meeting on August 5, 1951. Founding supervisors were: W.A. Loughmiller and Glenn J. Nelson, Twin Falls; Ralph Schnell, Rogerson; Orion S. Butler, Kimberly; and Truman Clark, Roseworth.

People in the Twin Falls SCD hauled domestic water about six months out of each year in 1950. Water shortages left many fertile fields uncultivated and rangeland undeveloped. Farmers and ranchers faced other problems: soil erosion off irrigated fields; wind erosion on cultivated fields; water losses in canals and laterals; reduced yields; loss of organic matter; destructive rodent pests; and uncontrolled range fires. The new SCD set forth a simple goal — to promote conservation farming on every acre in the District and thereby build a more stable and prosperous agricultural community.

The SCD pursued this goal through land leveling, reorganizing irrigation systems, designing irrigation structures and pipelines, developing ponds for stock water and irrigation storages, providing seeding mixtures of irrigated pastures and alfalfa grass hay, and conducting range improvement programs.

On September 17, 1953, the District sponsored a "Conservation Day" on the Buddy Rayl and Glenn Nelson farms in cooperation with the Twin Falls County Farm Bureau and 21 local equipment dealers. The day-long demonstration of sprinkler irrigation systems, pumps, gated pipe and backhoe ditchers, rock pickers, bushbeaters, heavy disk plows, soil surveys, engineering surveys and stubble mulching equipment drew 1,500 people.

SCD supervisors harvested 40 acres of crested wheatgrass seed at the Twin Falls City airport in 1953. They got 1,500 pounds of clean seed for their work, which they sold to cooperators for 25 cents a pound. The District began buying equipment in 1954, which it leased to cooperators for a small fee.

Measuring and forecasting water supplies has been a primary responsibility of the District since it began gathering snow data in 1954. Thirteen snow-measuring courses help the Salmon River Canal Company gather needed data to set water allocations for the upcoming year. An annual water forecast meeting, sponsored by the District, is held each April.

## GEOLOGY AND TOPOGRAPHY

The geology of the Twin Falls Soil and Water Conservation District evolved during the Mesozoic and Cenozoic periods. Shield volcano lava flows from buttes such as Salmon Butte blocked stream channels. Gravel and gravelly alluvium were deposited in areas east of Salmon Butte, in the Deep Creek area north and west of Hollister, in the Desert Creek area north and east of Hollister and in the Rock Creek area.

The bedrock consists of basalt lava flows underlain by rhyolite at shallow depths. These lava flows intermittently blocked the Snake River drainage, creating lakes which filled with sediments, glacial debris and wind-blown soil particles.

The silty soils that were formed in the lake deposits (lacustrine deposits) are generally described as thin, dark-colored, medium-textured surface soils with very strong calcareous silty subsoils. These soils vary in total depth from 10 inches to greater than 60 inches to bedrock, were formed under arid conditions, and are low in organic matter.,

After irrigation water became available in the early 1900s, the hydrology of the area changed. Once irrigation came to the area, the groundwater table rose so that domestic wells could be used instead of hauling water in.

Through the 15 miles just north of the Nevada line, Highway 93 crosses rhyolite that belongs to the Snake River Plain. Most are as flows that were still hot enough when they finally settled to weld themselves into more or less solid rock. They vary in color from white through shades of red to almost black.

A rhyolite ash flow (about 1 acre in size) exposed along the road about 5 miles north of the state line contains Thunder Eggs, color concoctions of chaledony and quartz crystals about the size of eggs. A few rhyolite flows contain such lumps, though most do not. A convincing explanation of how Thunder Eggs form has not yet been advanced.

Except for the rhyolites found from Rogerson south, the rocks in the Twin Falls SWCD are primarily basalt lava flows of various ages, that generally tend to get younger as you go north.

The topography of this part of Twin Falls County varies from very steep to level. Elevations vary from 3500 feet in Salmon Falls Canyon to 7500 feet near Magic Mountain Ski Resort. The landscape appears mostly flat, with scattered buttes which mark the locations of ancient shield volcanoes and volcanic tents.

## CLIMATE

Climate within the Twin Falls Soil and Water Conservation District is semi-arid with moderately cold winters and warm summers. Temperature extremes can range from a maximum of 107 degrees F and a minimum of -30 degrees F. Average precipitation is 10.5 inches per year. However, the period from 1999 to 2004 has been the longest dry period on record.

A 10-year, 24-hour storm within the area can generate 1.6 inches of precipitation. A record-setting rainy period in August 2014 dumped approximately 5 inches of rain on Twin Falls County over several days. This rain fell in the midst of grain harvest damaging barley, wheat and hay crops.

While the area generally has 120 frost-free days, the National Weather Service data indicates there is a 50 percent chance of having 138 frost-free days. Prevailing winds are west-southwest, moderately strong winds are common especially in spring and early summer.

There is a pattern of downslope winds from the higher valleys east of this area occurring in the mornings, and upslope winds coming from the west in the afternoon. March and April typically record the highest wind speeds, with an average wind speed of 8.7 mph in March and 9.3 mph in April.

Snow depth at Magic Mountain averages 70 inches per season, which provides spring runoff for Rock Creek and Shoshone Creek. The normal peak snow water equivalent at Magic Mountain is 19.6 inches.

One concern that supervisors are watching closely is how projected changes in climate will impact total precipitation and when that precipitation falls. Many climatologists now predict that southern Idaho will experience warmer temperatures that will shift precipitation in lower elevations from snow to rain. If this prediction comes true, it will further constrain water supplies for the Salmon River Canal Company.

## AUTHORITY

The Legislature of Idaho has placed certain responsibilities upon the supervisors of soil conservation districts. This Declaration of Policy is found in Paragraph D of Idaho Code 22-2716. It is hereby declared to be the policy of the Legislature to:

- a) provide for the conservation of the soil and soil resources of this state;
- b) provide for the control and prevention of soil erosion;
- c) and for the prevention of floodwater and sediment damages;
- d) and for furthering the conservation, development, utilization and disposal of water, and thereby to prevent impairment of dams and preserve wildlife;
- e) to protect the tax base and public land; and
- f) promote the health, safety and general welfare of the people of this state.

The Idaho Department of Environmental Quality gives responsibility to soil conservation districts for non-point source pollution control.

## FUNCTION

The Twin Falls Soil and Water Conservation District recognizes its role in land use and takes an active role in determining land use policy by working with planning officials and county commissioners. The District has established guidelines in a written memo of understanding with city and county commissioners, to be reflected in their program and annual work plan.

The Twin Falls Soil and Water Conservation District provides assistance to all landowners and operators by:

- Assuring cooperators of needed technical assistance in preparing their conservation plans.
- Taking an active part in sponsoring group projects.
- Promoting better understanding between contractors and others.
- Providing SWCD equipment as available and necessary.
- Providing follow-up with cooperators and/or training to individuals, where necessary.
- Prioritizing technical assistance to landowners, public and private organizations, and other district cooperators.
- Obtaining needed plant materials for wind breaks, critical area seedings and other conservation practices.

All owners and operators of agricultural lands within the District are eligible to become district cooperators, without restriction. Requests for assistance are prioritized according to resource problems and needs.

Public participation in Twin Falls SWCD meetings, tours, demonstrations, conferences and all other activities are strongly encouraged. Assistance is provided to all cooperators without regard to race, color, sex, age, handicap, marital status, religion or national origin.

## WHO WE SERVE AND WHY

The Twin Falls Soil and Water Conservation District is a legal subdivision of state government organized by local people, responsible by law for the conservation of soil, water and other natural resources. Each district coordinates conservation activities within the boundaries of that district.

District supervisors manage the SWCD programs with guidance from the Idaho Soil Conservation Commission.

Supervisor elections are held every two years. Seven supervisors are elected, with four vacancies filled one year and three filled two years later. Elections are held on the first Tuesday after the first Monday in November of even-numbered years.

Supervisors serve four years and hold office until a qualified successor is elected or appointed. Candidates receiving the most votes are elected to office.

The Twin Falls SWCD meets the first Wednesday of each month at the soil conservation district office (1441 Fillmore St. #A, Twin Falls). Meetings are held in the evenings year-round.

Each spring the Twin Falls SWCD reviews its work plan, reviews its accomplishments from the previous year and sets out goals for the coming year. These plans are sent to local county commissioners, legislative and congressional representatives and cooperating agencies. Locally led conservation planning meetings are called as needed.

## POPULATION AND EMPLOYMENT

Twin Falls County, located in southern Idaho, is the sixth-largest population center in the state and the thirteenth largest county in terms of size. About 52 percent of the county is federal land.

Twin Falls is the retail and service hub of south-central Idaho, boasting a market of nearly 200,000 people. Twin Falls County itself is home to an estimated 79,957 residents, up from 67,722 residents in 2009. Over two-thirds of the population is considered urban.

The City of Twin Falls has seen the greatest growth increasing from about 35,000 people in 2002 to 44,125 residents according to the 2010 census. Hollister's population continues to grow. According to the 2010 U.S. Census, the population was 272 people, up from 227 in 2002.

Twin Falls County has had a strong upsurge in retail and service jobs as big box retailers and the new regional medical center converged around the entrance to the city and on its main artery. Construction slowed following the Great Recession beginning in 2008, but is beginning to recover as the economy improves.

Despite strong employment growth, Twin Falls County wages remain relatively low and have not recovered to pre-Great Recession levels. Per capita income increased from \$20,800 in 1998 to \$28,642 in 2007, but has fallen to \$20,588 in 2012. This mirrors the state and national trends. Per capita income in Idaho was \$31,804 in 2007 but was just \$22,568 in 2012; nationally income fell from an average of \$38,615 to \$28,155.

Despite the housing slump beginning in late 2008, construction continues to grow. Nearly 350 building permits were issued in the county in 2012. The median home value was \$148,900 between 2009 and 2013, up \$93,800 in 2000 and three times that of 1990.

Twin Falls County had a unemployment rate of 3.2 percent in December 2014, less than both the state (3.9 percent) and nation (5.6 percent). At the peak in 2009, unemployment reached 8.9 percent in Twin Falls County..

Top employing industries are: State and local government, manufacturing, farm, business and profession services, construction,, transportation/communication/public utilities, leisure and hospitality and education and health.

## AGRICULTURAL ECONOMY

Even though an ever-increasing urban area is sprawling into valuable irrigation land, agriculture is still an important industry and that industry has been suffering from low prices and tight water supplies for much of the last decade. According to the 2012 Agricultural Census, the total number of farms in Twin Falls County remains constant at 1,294 farms compared to 1,296 in 2007; after falling from 1,439 in 1997. While farm numbers are fairly stable, farm size has increased again from 339 acres in 2007 to 458 acres in 2012.

Despite moratoriums on new groundwater wells, the number of irrigated acres in Twin Falls County increased to 256,974 acres in 2012 on 1,142 farms. In comparison, 1,294 farms were irrigating 244,520 acres in the county in 2012 and 1,243 farms were irrigating a total of 231,351 acres in 1997.

A period of sharply higher land values has pushed the value of farmland and buildings up significantly. The average value of land and buildings per farm in 2012 was \$1,155,801 with an average of \$3,090 per acre compared to \$840,386 per farm in 2002 with an average of \$2,479 per acre. In comparison, those same values were \$614,239 and an average of \$1,946 per acre in 2002. The average value of products sold per farm was \$599,581 in 2012, up from \$364,090 in 2007, and \$225,021 in 2002.

Just over half of the farmers in Twin Falls County list farming as their primary occupation.

Crop rotations within the Twin Falls SWCD generally last about eight years and include: alfalfa hay two or three years, beans one or two years, small grains one year, beans one year and peas with new alfalfa seeding one year. Field corn, silage corn or potatoes may be included in the rotation instead of beans. A few farmers include sugar beets in the rotation, and most alfalfa is planted with a cover crop like peas or grain. Enough flexibility exists within the rotations to allow for market fluctuations and climate changes.

Crop sales accounted for 36 percent of the county's ag production at \$216,047,000. The following comparison of acres and farms growing selected row crops also shows the influence the dairy industry continues to have on crop rotations. As a general rule of thumb, 2 acres of corn are needed to feed every 3 new cows added to the state's herd.

Crop	2012 farms	2012 acres	2007 farms	2007 acres
Haylage, green chop	739	72,812	645	74,863
Alfalfa hay	686	64,242	596	68,924
Barley	56	30,616	251	23,235
Dry edible beans	308	27,885	243	18,699
Corn for silage	200	33,885	238	34,690
Wheat (all)	243	26,415	218	24,464
Corn for grain	225	20,828	130	13,461
Sugar beets	42	8,755	47	10,045

Market value of livestock and product sales accounted for 64 percent of the county's ag value at \$383,533,000, with dairy products accounting for \$266,937,000 of that. Beef cow numbers were 26,762 in 2012, up slightly from 25,898 in 2007, but down from 29,664 in 1997. Sheep and lamb numbers are also down to 12,261 head after reaching 14,000 head in 2007. Sheep inventory fell to a low of 9,968 head in 1997.

The unprecedented slump in milk prices combined with extremely high feed costs between 2008 and 2010 continues to impact the dairy industry. Milk cow inventory was just 63,960 in 2012 on 73 dairies, down from 78 dairies with 70,256 head in 2007 but still ahead of the 51,315 cows in 2002.

Although a slump in milk prices in early 2009 has slowed the growth of the dairy industry during the early 2000s, dairying continues to be one of the Magic Valley's fastest growing industries. A 1 million-square-foot facility, making it the largest Greek yogurt plant in the U.S. was built between Twin Falls and Kimberly Idaho in 2012. Citizens of Hollister complained about the number of trucks and smell of whey products being land-applied to fields during the summer of 2013 and Chobani designed a waste treatment facility to reduce the amount of waste generated at the plant.

Idaho is now ranked third in the nation for milk production, behind California and Wisconsin. While cow numbers are down in Twin Falls County, the state's herd has continued to expand. Idaho had 576,761 milk cows in 2012, up from 536,463 milk cows in 2007 and 390,600 cows in 2002.

Even though the number of dairy cows in the county has stabilized, efficiently storing and using the manure produced remains a challenge. According to an analysis done by the Agricultural Research Service's laboratory in Kimberly, the eight counties that make up the Magic Valley are home to 475,000 dairy cows and approximately 1 million acres of cropland. Soil scientists have calculated a nitrogen balance for the Magic Valley that includes both the nitrogen coming in as feed to a dairy and the manure produced, along with commercial fertilizer applied to cropland and nitrogen uptake of those crops. That works out to an excess of 105 million pounds of nitrogen annually or enough to apply 100 pounds of nitrogen per acre.

Organic production is becoming more prevalent in the area and the Idaho Agricultural Statistics Service began reporting census data for organic production in 2007. Seventeen farms certified farms made their home in Twin Falls County including a fairly large organic, grass-based dairy near Hollister. The county reported organic sales of \$266,937,000, up from \$2,033,000 in 2007.

Although many conventional agricultural producers are adopting some practices from their organic neighbors such as planting cover crops to improve soil health or treating cows with herbs rather than drugs; organic production is still viewed as suspect. The Twin Falls SWCD is particularly concerned about weed control on organic farms and the spread of weeds from untreated border areas.

# NATURAL RESOURCE PRIORITIES AND GOALS

The following seven items are the highest priorities for the Twin Falls SWCD:

- 1) Water quantity
- 2) Water quality
- 3) Cropland
- 4) Rangeland
- 5) Animal Waste Management
- 6) Renewable Energy
- 7) Vegetative Management/Weed Control

## TRENDS IMPACTING NATURAL RESOURCES

### HEL Exposed

A change in farm policy from direct farm payments to an increased reliance on risk management has brought attention to a little discussed conservation issue on the Salmon Tract — the potential for wind erosion. Over 90 percent of cropland in Twin Falls County is classified as HEL or highly erodible. Following passage of the 2014 Farm Bill that tied conservation measures more closely to crop insurance, the USDA Farm Service Agency and USDA Natural Resources Conservation Service were directed to be more thorough in checking that approved conservation plans were being followed. It took just one season for the ramifications of that new policy to be felt on the Salmon Tract.

Due to the lack of irrigation water in 2014, many producers left fields fallow and chose to take the preventative planting option on their federal crop insurance policies. Those policies specify that fields must be left “one step from planting.”

According to an interpretation of those policies by local insurance agents, farmers were required to plow or disk out existing hay stands or grain stubble to ensure the fields were one step from planting (and to be sure no tried to take one cutting of hay from a field that had already received an indemnity payment). However, that left fragile soils bare and exposed, a direct violation of the conservation plans on file with the USDA Farm Service Agency. Farmers who were found to be in violation of the 1985 Food Security Act by leaving HEL unprotected, were subject to repaying any farm payments they had received plus fines. Several farmers in Twin Falls County were found to be in violation during the spot check process and were fined.

Wind erosion is not a new issue for the Twin Falls SWCD, but it has gained importance in light of the new farm policy. Twin Falls SWCD hopes to develop a cover crop pilot project to see what cover crops can be planted in water short years that will armor the soil surface without violating federal crop insurance policies. Supervisors are also working with the NRCS, FSA and the University of Idaho to educate the Risk Management Agency and its local, independent insurance agents about the need to protect fragile soils from wind erosion.

Twin Falls SWCD has sponsored a two-year multi-species cover crop demonstration project to help identify species that will both grow well across a variety of soil types and climates and also provide soil health and/or livestock feed benefits for growers. Early results of that effort are promising and fit well under the NRCS Soil Health Initiative.

### Nitrate trend on decline

Some progress has been made on another priority resource concern. Twin Falls County dropped from number one on the state's 2008 nitrate priority list to number 21 on the 2014 list by the Idaho Department of Environmental Quality in the fall of 2008. The downgrade was largely due to a slight declining trend in nitrate levels among the 618 wells tested by the State of Idaho.

Well sampling shows nitrate is coming from commercial fertilizers as well as decaying organic material from green manure crops and livestock waste. Legumes that fix nitrogen can also lead to increased nitrate levels. Septic systems are another potential source.

According to the IDEQ data, the average nitrate level in Twin Falls County was 5.18 mg/L in 2014, down from an average of 5.2 mg/L in 2008 (when Twin Falls County was the number one nitrate high priority area) and 5.3 mg/L in 2002 (#2 on the list). The maximum nitrate reading in 2014 and 2008 was 41 mg/L compared to 30.5 mg/L in 2002. This indicates that while the overall trend is heading in the right direction, some wells are well over drinking water standards indicating that more work is needed. Just over 300 wells were tested in 2002, twice that many were tested in both 2008 and 2014.

In addition to nitrate, sampling has also detected low levels of pesticides, pharmaceuticals and even caffeine. That indicates all human activities — from farming to flushing toilets — can impact drinking water quality.

While nitrates can come from many sources, better irrigation and nutrient management can help stem the increase. Overall nitrogen efficiency in the U.S. is 40 percent meaning that 60 percent of the nitrogen applied as commercial fertilizer or manure is not necessarily utilized for its intended purpose. Utilizing conservation practices such as applying only the amount of fertilizer needed to reach a yield goal and managing irrigation water to keep those nutrients within the crop root zone have been proven to be beneficial. Well sampling shows nitrate is coming from commercial fertilizers as well as decaying organic material from green manure crops and livestock waste. Legumes that fix nitrogen can also lead to increased nitrate levels. Septic systems are another potential source.

Twin Falls SWCD has participated, intermittently, with the Twin Falls Groundwater Committee and its public outreach efforts. The District has also jointly administered the Twin Falls Nitrate Priority Area CCPI (Cooperative Conservation Priority Initiative) beginning in 2011. Through this project, seven cooperators across the county have enrolled nearly 1,800 acres in three-year contracts. Cooperators receive cost-share to use enhanced nutrient management and irrigation water managed practices on these acres. One cooperator says the soil mapping and testing components have saved him \$20 to \$25 per acre in fertilizer costs. Using the system of soil meters and irrigation scheduling has allowed him to reduce water application while maintaining — and even improv-

ing — crop yields. While he has seen benefits from the project, he is concerned about the cost of maintaining the system once the cost-share has been exhausted.

Several large dairies have been built within the Twin Falls SWCD boundaries, but new construction has slowed. The District continue to encourage both dairies and crop farmers who accept dairy waste utilize nutrient management practices that will maximize the benefit of using manure while protecting soil and water resources is a high priority for the District.

### Clean Streams Key

Most of the soil erosion within the District occurs on the surface-irrigated cropland on the Clover Tract. The 3,800-acre Clover Tract, located on the northern end of the District, is irrigated using Twin Falls Canal Company water. The Twin Falls Canal Company adopted a by-law change at its January 2000 annual meeting that requires stockholders to meet certain water quality standards in irrigation return flow. This action is intended to provide another incentive to help landowners and operators keep the soil on their fields and out of the canal system, and ultimately, the Snake River.

Because of higher pumping costs (\$54 per acre plus the \$25-per-acre TFCC share) associated with irrigating the Clover Tract, it has a shorter irrigation season than the Twin Falls Canal Company (from April 20 to October 1 compared to mid-April to late October). Aging pipelines are leaking and contributing to the inefficiencies of the system. Clover Tract stockholders are exploring the feasibility of replacing the mainline but the anticipated cost of \$500,000 is an impediment.

If necessity is the mother of invention, then chronic short water situations make Twin Falls SWCD farmers the father of minimal irrigation return flow. The less water that runs off the end of a field, the less soil that can potentially be carried off the field.

Farmers in the Twin Falls Soil and Water Conservation District get most of their irrigation water from surface sources: the Salmon Falls Reservoir on the Salmon Tract and the Snake River on the Clover Tract. Between 5 and 10 percent of the farms on the Salmon Tract (about 5,000 acres) have supplemental irrigation wells (many are at least 600-feet deep), but the moratorium on drilling new wells has limited groundwater irrigation sources.

Water in Twin Falls County is a precious, limited commodity and nowhere is that more true than in southern Twin Falls County. After the astounding success early irrigation developers had with the Twin Falls and North Side canal companies, those developers set their sights on the Salmon River, a creek that winds its way up from Nevada. A 200-foot high dam was built on the Salmon River, west of Rogerson, between 1908 and 1911. Backers hoped to develop 150,000 acres, but the Salmon River did not live up to their expectation and the tract consists of only about 38,500 irrigated acres today. In fact, the reservoir has only filled a fistful of years in its 90-year history. The last time water supplies were bountiful enough to give stockholders a full allocation of 1.1 acre-feet per acre was in 1998.

Even though the conversion to sprinklers and the decision to pipe laterals in the last few years has improved the overall system efficiency, prolonged drought makes it difficult to run the SRCC system effectively. Although the system achieve 63 percent

efficiency in 1999, the system usually operates at around 50 percent efficiency. Nearly 23 miles of inefficient laterals have been piped during the last decade.

Flooding is a rare occurrence in the Twin Falls SWCD, occurring mainly in years with abnormally high spring runoff. The District provided technical assistance to the Salmon River Canal Company to help develop and test a reservoir management plan in response to potential flooding concerns.

Streams that are listed as water-quality impaired are primarily found on rangeland in the District. Two-thirds of the water in the Upper Salmon River Drainage (above Salmon Falls Reservoir) comes from Nevada and is exempt from Idaho's pollution loading requirements. The remaining one-third comes from the Shoshone Basin.

Water quality impaired stream segments are identified and monitored by the Idaho Department of Environmental Quality, and their findings are compiled in an Integrated Report, which is submitted to the federal Environmental Protection Agency. The Salmon Falls Creek Sub-basin Agriculture TMDL Implementation Plan was completed in 2009.

### Changing climate patterns

Water quantity continues to be the top priority for this chronically water short region. Irrigation water supplies are expected to be short again for the 2015 irrigation season after a short year in 2014. The Twin Falls SWCD has established a revolving loan fund that the Salmon River Canal Co. uses to help explore and develop water delivery system upgrades. SRCC is investigating the feasibility of piping sections of the main canal that have been historically leaky and subject to erosion.

One concern that supervisors are watching closely is how projected changes in climate will impact total precipitation and when that precipitation falls. Many climatologists now predict that southern Idaho will experience warmer temperatures that will shift precipitation in lower elevations from snow to rain. If this prediction comes true, it will further constrain water supplies for the Salmon River Canal Company. Twin Falls SWCD would like to see more of the low elevation SNOTEL sites automated to provide more up-to-date information to better estimate water supply. Automating a manual snow course is estimated to cost \$25,000 to \$30,000. The state NRCS office was budgeted the money to automate the O'Neil Basin manual snow course but has not had the personnel to complete the project.

### Weeds and more

Another continuing resource concern is the impact that an increasing number of small acreage landowners have within the district. Many of these small acreages do not have adequate irrigation water and becoming weed nurseries.

Sage grouse habitat, in the face of a potential endangered listing of the bird, is another resource concern. Several large wildfires have decimated leks. The proposed Gateway Transmission Line may also cross critical sage grouse habitat. The U.S. Fish and Wildlife Service is expected to determine whether sage grouse will be listed as endangered later in 2015. The Twin Falls SWCD has provided information about the USDA Natural Resource Conservation Service's sage grouse initiative to interested ranchers and landowners.

## Critical Geographic Areas

Nitrate priority area

Shoshone Basin Cooperative Weed Management Area

303(d) listed streams

## Strategies to Address Trends

- Continue to work with the University of Idaho to explore cover crops that can be successfully grown on the Salmon Tract to reduce the potential for wind erosion and improve soil health, even in water short years.
- Work with the USDA Risk Management Agency to fine-tune insurance policies to allow cooperators to maintain cover on highly erodible (HEL) cropland when fields are fallowed during water short years without jeopardizing either insurance payments or farm program eligibility.
- Work with the Agricultural Research Service to better understand the nitrate mineralization and develop management practices farmers can use to improve nitrogen efficiency.
- Develop an education program to help landowners and operators adopt conservation practices that reduce the trend of increasing nitrate levels in ground water.
- Continue efforts to reach out to urban/small acreage landowners and involve them in conservation efforts
- Become more involved with county planning and zoning issues impacting natural resources
- Continue to sponsor project proposals with other with other districts
- Promote vegetative diversity to reduce threat of wildfire and improve range health
- Work with small acreage owners and organic farmers on practices to reduce weed infestations.

## Staffing Needs

- Full-time (with benefits) tri-district program manager — \$75,000
- Full-time (with benefits) tri-district soil health specialist — \$50,000
- Full-time (with benefits) range conservationist — \$75,000

## Projected Budget Needs

- Automate O'Neil Basin SNOTEL site — \$25,000 to \$30,000
- Drought tolerant cover crop demonstration project — \$25,000
- Salmon Tract canal lining project — \$500,000
- Clover Tract pipeline upgrade — \$500,000

## COOPERATING AGENCIES AND ORGANIZATIONS

District supervisors believe that effective natural resource conservation is a job they cannot do alone, but one that requires the joint efforts of many. Memorandums of understanding are maintained between the District and the Farm Services Agency, Farm Credit Association, Agricultural Resources Service, Cooperative Extension Service and the Natural Resources Conservation Service. The NRCS is the principal source of federal assistance to the District. The District may have working arrangements with other federal agencies outside USDA, with state agencies, with municipal or county governments or with private organizations and groups.

The Twin Falls Soil and Water Conservation District will cooperate with the following agencies and private groups to accomplish this five-year plan:

Salmon River Canal Company — cooperate water forecast meeting, help maintain SNOTEL cooperate with system efficiency projects,

Bureau of Land Management — cooperating on developing grazing plans and implementing TMDLs

College of Southern Idaho — meeting room facilities, cooperation in agricultural seminars and tours

Corps of Engineers — Rock Creek Canyon feasibility study; dredge and fill permits

Idaho Association of Soil Conservation Districts — provide District with monitoring data for implementing future TMDLs (total maximum daily loads) on listed stream segments

Idaho Soil Conservation Commission — provide assistance to state water quality projects, writing contracts for projects, evaluating effectiveness of projects; provide assistance for state cost-share programs

Idaho Department of Agriculture — monitoring for dairies, providing technical assistance for implementing nutrient management plans and siting lagoons, and pesticide recertification

Idaho Department of Environmental Quality — monitor Shoshone Creek, McMullen Creek and Rock Creek (tributaries to the Snake River), oversee implementation of TMDLs

Idaho Department of Fish and Game — aquatic life and fish population surveys, habitat improvement programs, and participation in coordinated resource management plans.

Idaho Department of Lands — developing grazing plans for state grazing land, potential cooperation and participation in coordinated resource management plans

Idaho Department of Water Resources — assistance with permitted water use and aquifer monitoring

Mid-Snake Resource Conservation Development — potential cooperation and participation in coordinated resource management plans

News Media — publicizing tours, demonstrations, public service announcements, supporting District outreach programs

Public Schools — poster and speech contests, conservation teachers

Twin Falls County Commission — funding approval, support and approval of conservation programs

Twin Falls Planning and Zoning Commission — dairy and feedlot siting ordinances, zoning to promote proper use of soil resources

Twin Falls County Weed Bureau — identifying problem weed areas, assisting with Conservation Reserve Program recommendations, developing coordinated weed management areas

University of Idaho Cooperative Extension Service — provide leadership and support for conservation tours and field days, help develop irrigation management and scheduling plans, help develop grazing plans, help develop site plans for dairies, help identify cover crop species for southern Twin Falls County and appropriate management strategies

USDA-Agricultural Research Service — research to reduce irrigation-induced soil erosion, research for more efficient irrigation scheduling, provide technical assistance for water quality field days and tours, help identify management strategies to reduce nitrogen losses from dairies and cropland

USDA-Farm Services Agency — funds administration, cropping and acreage data, cooperation on all agricultural conservation programs

USDA-Forest Service — cooperation on developing grazing plans and implementing TMDLs

USDA-Natural Resources Conservation Service — provide District with assistance in program guidelines, soil and range surveys, technical help in applying conservation practices, preparing conservation plans on individual farms and ranches, office space for District employees, meeting room facilities

NITRATE PRIORITY AREA	DEQ_REG	ACRES	SQ_MILES	POPULATION	SITES	MAX_NO3	AVG_NO3	MEDIAN	PWS_SWA	# >= 2 mg/L	% >= 2 mg/L	# >= 5 mg/L	% >= 5 mg/L	# >= 10 mg/L	% >= 10 mg/L	TREND	SCORE	RANK
MARSH CREEK	TFRO	98788	154	17977	398	40.00	7.16	6.43	43	354	89	256	64	91	23	Incr. Trend	27.28	1
WEISER	BRO	25370	40	7501	131	43.50	13.21	12.00	23	116	89	107	82	77	59	No Trend	24.78	2
LINDSAY CREEK	LRO	28360	44	2269	67	21.00	5.64	4.12	17	42	63	29	43	17	25	Incr. Trend	20.91	3
ADA CANYON	BRO	257038	402	198458	1092	49.80	5.29	4.07	303	813	74	445	41	138	13	No Trend	19.83	4
FORT HALL	PRO	23881	37	1780	8	23.60	12.76	12.35	5	8	100	6	75	4	50	No Trend	19.75	5
BLACKFOOT	PRO	41540	65	3218	30	16.00	4.68	4.03	29	25	83	13	43	2	7	Incr. Trend	19.51	6
GRAND VIEW	BRO	5994	9	549	35	100.00	12.19	9.00	2	35	100	30	86	13	37	No Trend	19.00	7
BRUNEAU	BRO	13818	22	39	5	110.00	33.12	21.80	0	4	80	4	80	3	60	No Trend	18.60	8
NE STAR	BRO	3250	5	297	88	54.00	11.35	7.49	6	61	69	51	58	38	43	No Trend	18.58	9
BLACK CLIFFS	PRO	1030	2	493	26	28.68	10.61	9.75	18	18	69	16	62	13	50	No Trend	18.48	10
MOUNTAIN HOME	BRO	1663	3	406	45	40.00	11.17	8.07	5	38	84	26	58	16	36	No Trend	17.18	11
MOUNTAIN HOME AFB	BRO	9242	14	3250	37	29.20	7.20	5.60	9	33	89	22	59	8	22	No Trend	16.93	12
PRESTON	PRO	124409	194	11120	72	23.80	4.74	4.01	24	47	65	29	40	9	13	No Trend	16.60	13
CLEARWATER PLATEAU	LRO	359306	561	4347	216	77.10	7.24	4.30	27	155	72	93	43	50	23	Decr. Tendency	16.39	14
MILD LAKE	IFRO	129404	202	1916	80	15.20	3.92	3.87	13	57	71	21	26	6	7	Incr. Tendency	16.02	15
N. POCATELLO	PRO	7239	11	24542	32	12.30	4.19	4.08	44	25	78	10	31	2	6	No Trend	15.71	16
ASHTON/DRUMMOND	IFRO	162473	254	2564	191	47.00	7.25	6.62	20	168	88	135	71	32	17	Decr. Tendency	15.51	17
MARSING	BRO	6692	10	600	47	60.00	9.74	2.43	12	26	55	20	43	15	32	No Trend	15.45	18
GLENNIS FERRY	BRO	16781	26	1496	17	73.30	11.62	5.13	3	10	59	9	53	4	24	No Trend	15.23	19
MINK CREEK	PRO	1976	3	715	40	21.00	4.84	3.00	32	26	65	14	35	8	20	No Trend	15.05	20
TWIN FALLS	TFRO	359150	561	76284	618	41.00	5.18	4.80	88	540	87	288	47	35	6	Decr. Trend	14.69	21
PARMA	BRO	7057	11	1063	19	14.50	4.58	2.10	4	10	53	8	42	4	21	No Trend	14.26	22
NOTUS	BRO	2674	4	168	7	16.00	5.79	6.70	1	5	71	4	57	1	14	No Trend	13.67	23
MALAD	PRO	22379	35	2803	13	17.00	4.86	3.77	3	8	62	5	38	2	15	No Trend	13.64	24
MINIDOKA	TFRO	147501	230	18612	337	83.00	5.45	4.26	69	230	68	140	42	30	9	Decr. Trend	13.36	25
SOUTH FREMONT CO.	IFRO	7693	12	979	15	35.00	8.47	3.50	6	8	53	5	33	3	20	No Trend	12.71	26
LAPWAI CREEK	LRO	34214	53	982	15	10.30	4.74	4.80	10	12	80	7	47	1	7	No Trend	12.65	27
HOMEDALE	BRO	5585	9	478	24	16.00	4.16	2.05	1	13	54	10	42	3	12	No Trend	12.48	28
GEORGETOWN/BENNINGTON	PRO	17764	28	795	22	13.30	4.72	4.89	4	15	68	11	50	2	9	No Trend	12.46	29
GRACE	PRO	152954	239	2977	69	37.20	4.54	3.20	16	46	67	18	26	5	7	No Trend	12.34	30
LOWER PAYETTE	BRO	28587	45	8755	246	61.00	5.91	4.11	39	169	68	103	42	38	15	Decr. Trend	11.96	31
BLISS	TFRO	6791	11	67	29	45.00	5.25	3.17	0	19	66	10	34	5	17	No Trend	11.72	32
EMMETT NORTH BENCH	BRO	11928	19	865	53	22.80	3.87	2.80	3	33	62	13	25	5	9	No Trend	11.39	33
PURPLE SAGE	BRO	16399	26	4032	120	27.00	5.28	4.55	24	92	77	55	46	11	9	Decr. Trend	10.74	34
<b>TOTAL</b>		<b>2138930</b>	<b>3342</b>	<b>402397</b>	<b>4244</b>				<b>903</b>	<b>3261</b>		<b>2013</b>		<b>691</b>				
Increasing Trend																		
Increasing Tendency																		
No Trend																		
Decreasing Tendency																		
Decreasing Trend																		

Table 1. 2014 ranked nitrate priority areas with score components.

2014 NPA Delineation and Ranking Process

Rank Year	AREA NAME	DEQ Region	Acres	Square Miles	Population	Total Sites	MAX. NO3	Ave. NO3	MEDIAN	#>=2.00	%>=2.00	#>=5.00	%>=5.00	#>=10.00	%>=10.00	#PWS/SWA	TREND	SCORE	RANK	
2002	Burley/Marsh Crk	TFRO	169563	265	11,787	234	20.00	6.36	5.8	205	88	140	60	40	17	33	Increase	26.50	3	
2008	Cassia	TFRO	193280	302	17,525	384	40.00	6.34	5.74	331	86	224	58	65	17	48	No Trend	20.32	9	
2014	Marsh Creek	TFRO	98788	154	17,977	402	40.00	7.16	6.43	358	89	258	64	91	23	43	Incr. Trend	27.28	1	
2002	Lindsay Creek																Not Ranked			
2008	Lindsay Creek	LRO	28160	44	1,273	45	18.6	4.74	3.8	25	56	18	40	9	20	16	No Trend	14.12	22	
2014	Lindsay Creek	LRO	28360	44	2,269	67	21	5.64	4.12	42	63	29	43	17	25	17	Incr. Trend	20.91	3	
2002	Blackfoot																Not Ranked			
2008	Blackfoot	PRO	15360	24	1100	15	16	6.98	5.64	15	100	9	60	3	20	13	No Trend	15.00	20	
2014	Blackfoot	PRO	41540	65	3218	30	16	4.68	4.03	25	83	13	43	2	7	29	Incr. Trend	19.51	6	
2002	Rupert	TFRO	116780	182	25,132	236	100.00	5.60	4.4	183	78	104	44	18	8	29	No Trend	19.60	9	
2008	Minidoka	TFRO	147200	230	18,395	319	83.00	5.35	4.32	224	70	131	41	27	8	56	No Trend	17.25	12	
2014	Minidoka	TFRO	147501	230	18,612	337	83.00	5.45	4.26	230	68	140	41	30	9	69	Decr. Trend	13.36	25	
2002	Payette	BRO	30509	48	2725	74	23.4	6.5	5.6	52	70	39	53	15	20	15	No Trend	18.10	10	
2008	Lower Payette	BRO	26880	42	6718	119	28	6.05	4.74	83	70	57	48	22	19	25	No Trend	17.70	11	
2014	Lower Payette	BRO	28587	45	8755	246	61	5.91	4.11	169	68	103	42	38	15	39	Decr. Trend	11.96	31	
2002	Purple Sage																Not Ranked			
2008	Purple Sage	BRO	14080	22	2835	87	22.7	5.26	4.61	66	76	38	44	9	10	25	No Trend	15.00	20	
2014	Purple Sage	BRO	16399	26	4032	120	27	5.28	4.55	92	77	55	46	11	9	24	Decr. Trend	10.74	34	
2002	Twin Falls	TFRO	244229	382	47,687	303	30.50	5.30	4.90	281	93	132	44	17	6	59	Incr. Trend	26.70	2	
2008	Twin Falls	TFRO	379520	583	63354	605	41.00	5.20	4.90	536	89	288	48	34	6	88	Incr. Trend	24.78	1	
2014	Twin Falls	TFRO	359150	561	76284	618	41.00	5.18	4.80	540	87	288	47	35	6	88	Decr. Trend	14.69	21	

Table 2. Selected comparisons between ranking periods.

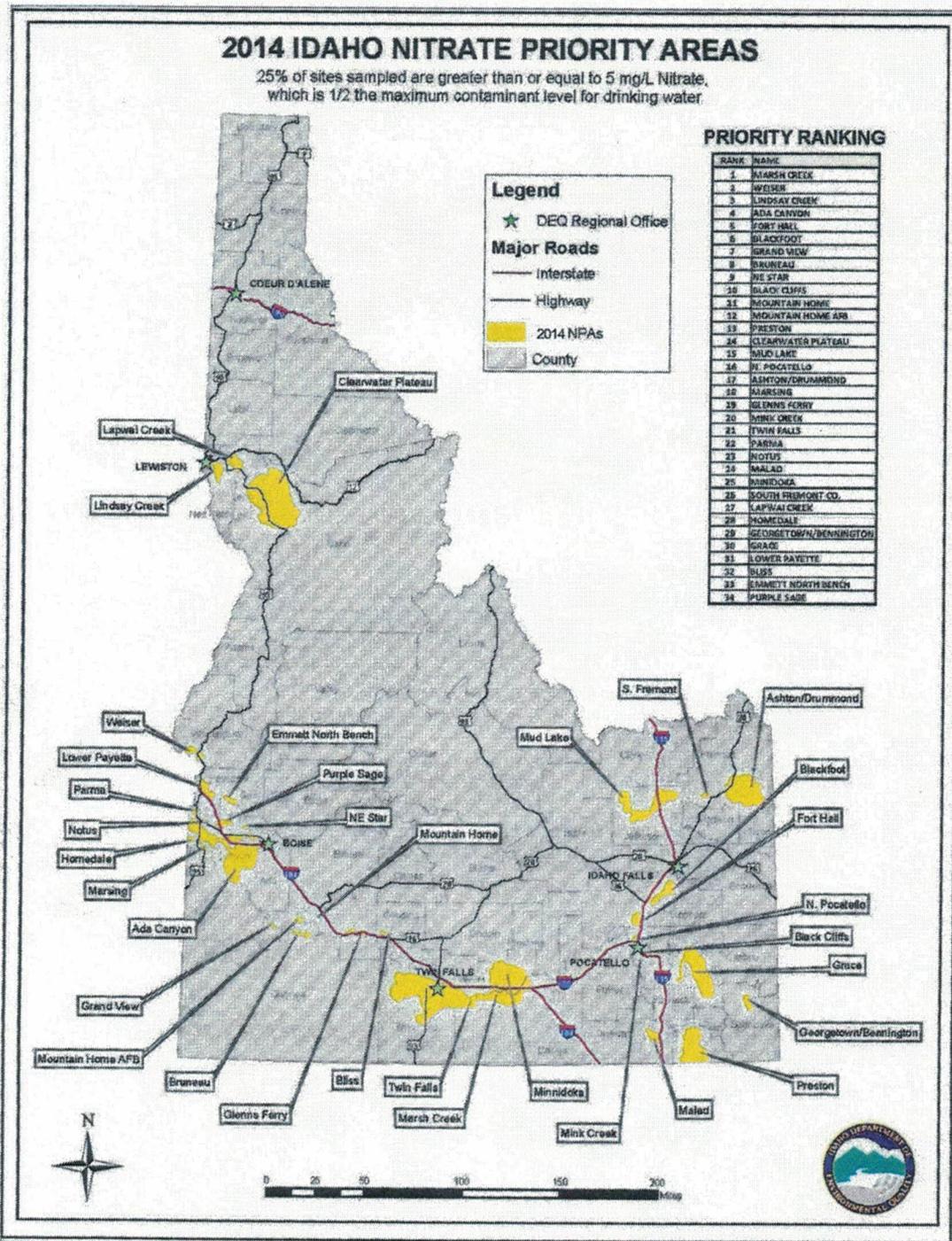
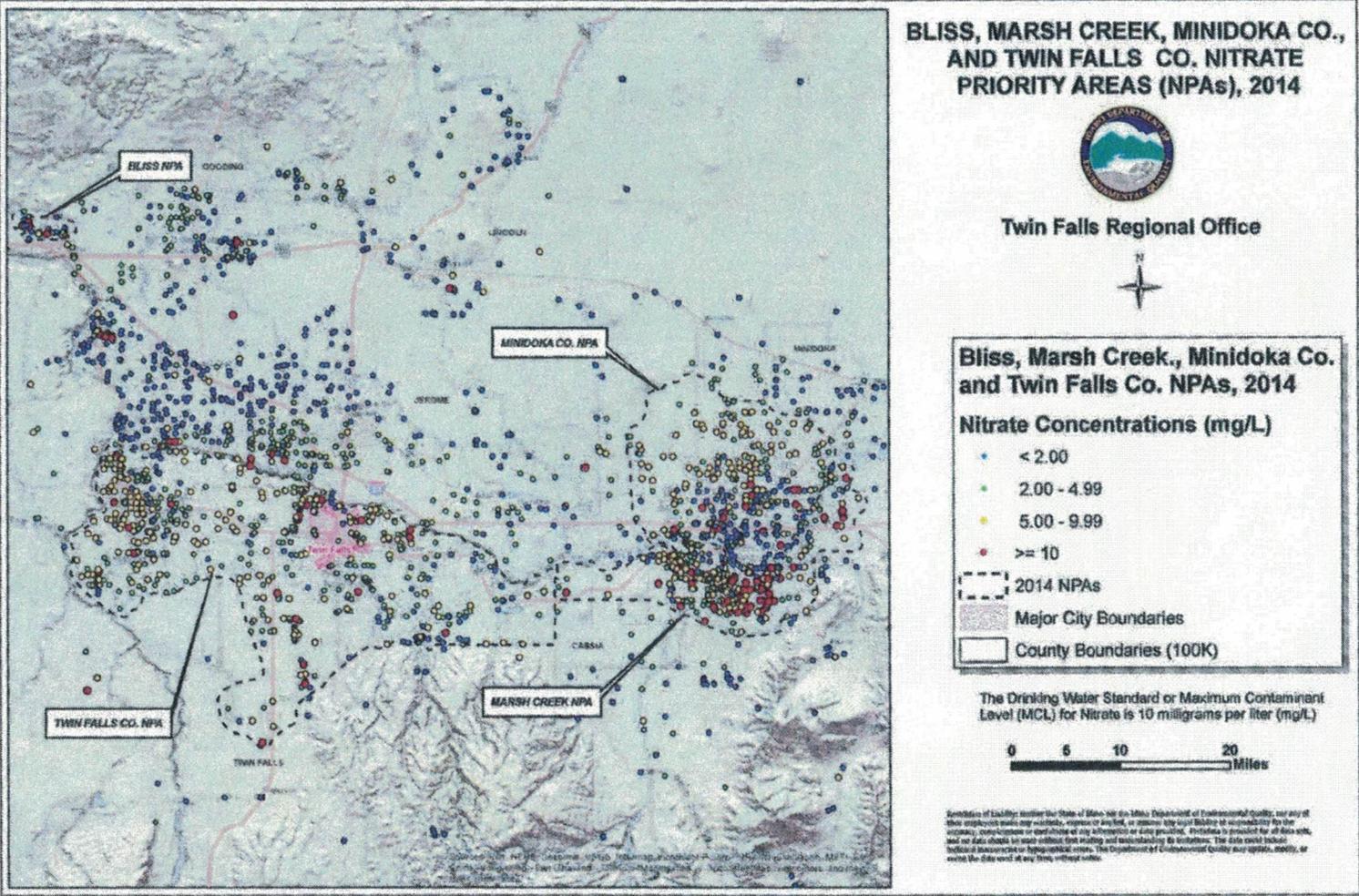
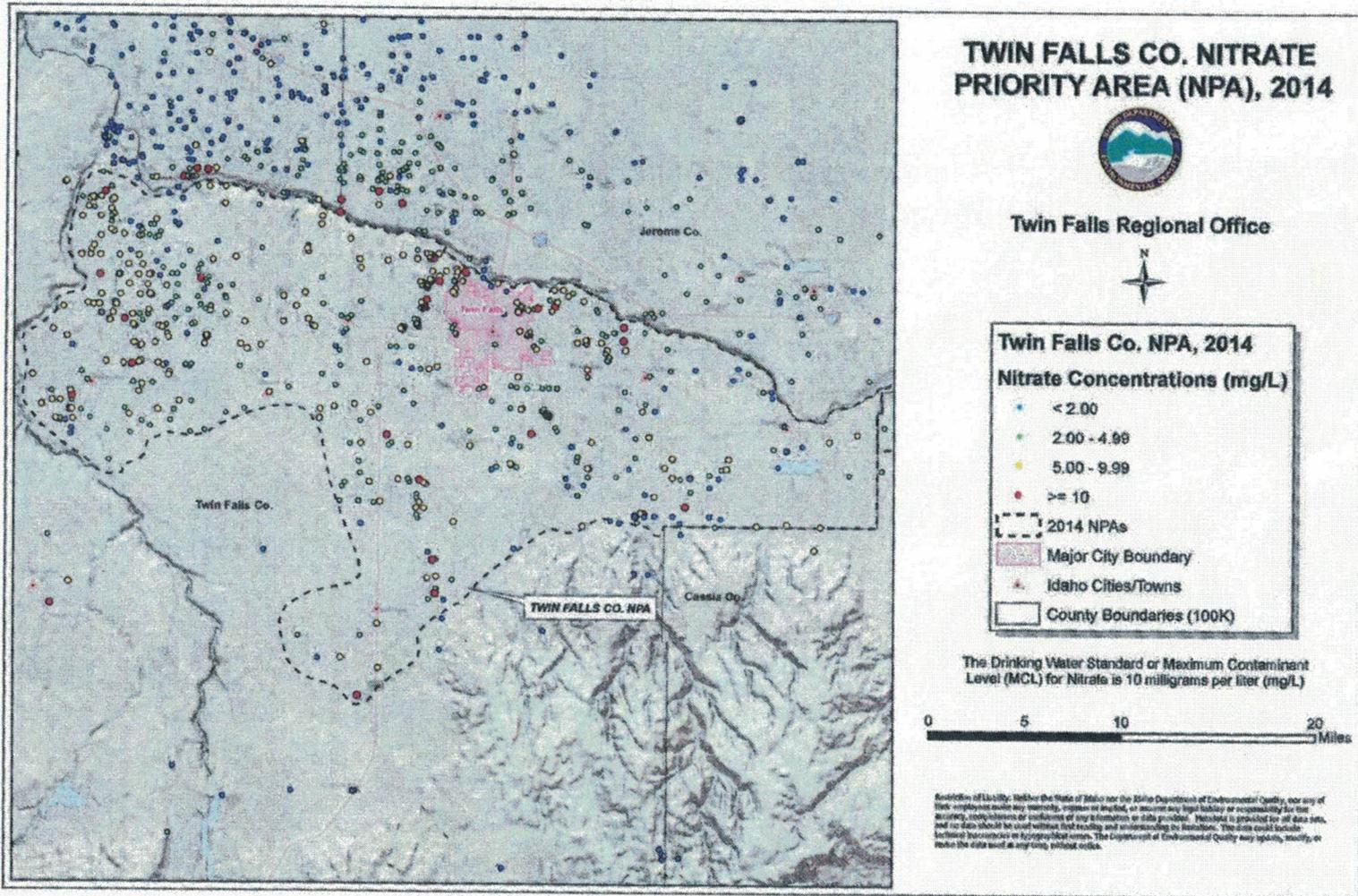


Figure 3. 2014 ranked nitrate priority areas.

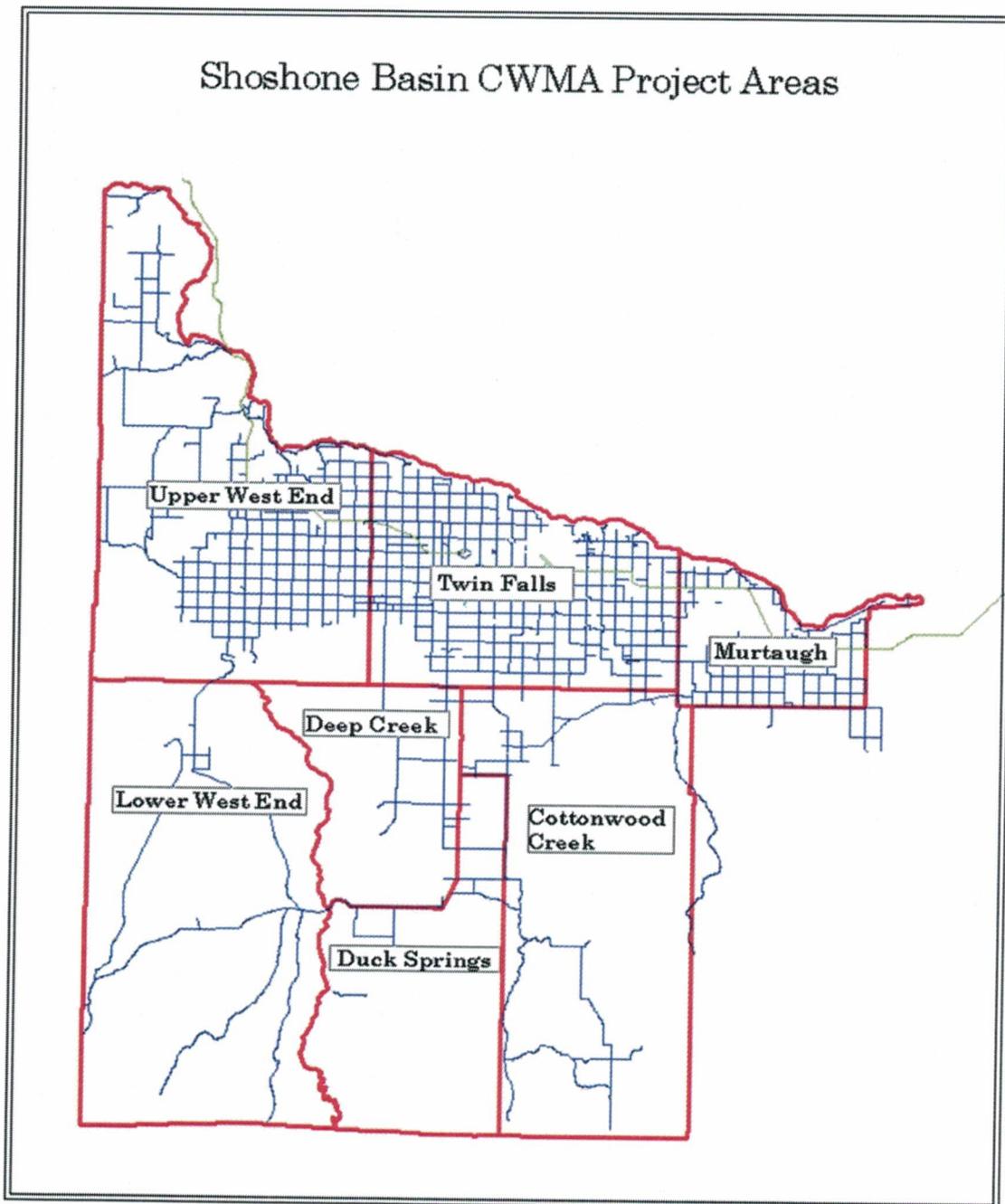




<b>2014 Twin Falls NPA Summary</b>		<b>Dairies*</b>	<b>SWA + PWS**</b>
Number of Sampled Sites	618		
Minimum Nitrate Value (mg/L)	0.01		
Maximum Nitrate Value (mg/L)	41.00		
Middle Nitrate Value (mg/L)	4.80		
Average Nitrate Value (mg/L)	5.18		
Number of Sites less than 2 mg/L	78		
Percent of Sites less than 2 mg/L	12.62		
Number of Sites greater than or equal to 2 mg/L	540		
Percent of Sites greater than or equal to 2 mg/L	87.38		
Number of Sites greater than equal to 2 mg/L but less than 5 mg/L	252		
Percent of Sites greater than equal to 2 mg/L but less than 5 mg/L	40.78		
Number of Sites greater than or equal to 5 mg/L	288		
Percent of Sites greater than or equal to 5 mg/L	46.60		
Number of Sites greater than equal to 5 mg/L but less than 10 mg/L	253		
Percent of Sites greater than equal to 5 mg/L but less than 10 mg/L	40.94		
Number of Sites greater than or equal to 10 mg/L	35		
Percent of Sites greater than or equal to 10 mg/L	5.66		
Number of Public Water Systems	48		
Number of Source Water Delineated Areas Intersecting NPA	40		88
Sites sampled by DEQ	152		
Sites sampled by IDWR	100		
Sites sampled by the U.S.G.S.	45		
Sites sampled by ISDA	273	99	
Population within NPA, based on 2010 Census	76,284		
*Included with ISDA sampled sites			
**Sum of Source Water Delineations intersecting a NPA and the number of Public Water System Sources within a NPA			

Priority Area Number: 21		Priority Area Name: Twin Falls		
Ranking Criteria			Score	Comments
<b>1) POPULATION</b>				
	Points	Select One		
<b>a) Within Degraded Area</b>				
<1000	1			
1000 to 10,000	2			
>10,001	3	x	3	76,284
Subtotal			3	
<b>b) Source Water Protection Areas or Public Water System wells in Priority Area</b>				
0	0			
1 to 20	1			
21 to 40	2			
>40	3	x	3	88
Subtotal			3	
<b>c) Number of Wells with NO<sub>3</sub> ≥ 10 mg/L</b>				
0	0			
1 to 5	1			
6 to 20	2			
21 to 40	3	x	3	35
>40	4			
Subtotal			3	
Population Score Total			9	
Max Possible Score = 10				
<b>2) WATER QUALITY</b>				
	% wells	Nitrate Concentration Criteria		
Percent of wells with NO <sub>3</sub> ≥ 2 mg/L	0.87	2	1.74	
Percent of wells with NO <sub>3</sub> ≥ 5 mg/L	0.47	5	2.35	
Percent of wells with NO <sub>3</sub> ≥ 10 mg/L	0.06	10	0.60	
Water Quality Total			4.69	
<b>3) WATER QUALITY TRENDS</b>				
		Select One		
Increasing Trend	10.0			
Increasing Tendency	7.5			
No Discernable Trend	5.0			
Decreasing Tendency	2.5			
Decreasing Trend	0	x	0	
Trend Score			0	
<b>4) OTHER BENEFICIAL USES</b>				
Other beneficial uses are impaired	1	Yes=1 No = 0	0	
Beneficial use score			1	Aquaculture
Max Possible Score = 1				
Total Score			14.69	

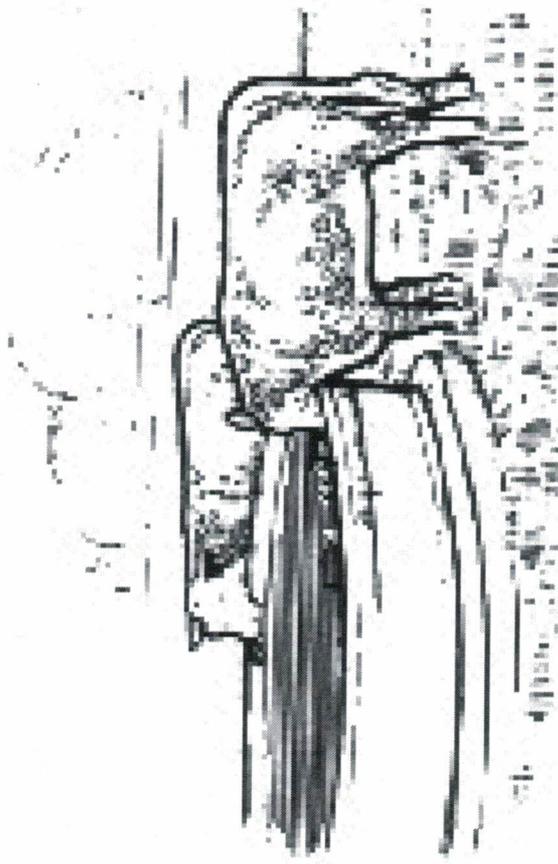
## Shoshone Basin CWMA Project Areas



**Duck Springs** – West boundary is Salmon Falls Creek, North boundary Salmon Falls Dam road to Highway 93, then turn north on 93 to 2400 North road that continues to 2700 East road which becomes the east boundary to the Nevada State line that becomes the South boundary.

**Deep Creek** – West boundary is Salmon Falls Creek, South boundary is Salmon Falls Dam road to Highway 93 that becomes the West boundary, and the North line is 3000 North road.

**Cottonwood Creek** – The North boundary line is 3000 North road to Cassia County line on the east and down to the Nevada state line on the south. West boundary line is 2700 East to 2400 North for 4 miles to Highway 93 on the West.



**Twin Falls Soil and Water Conservation District  
Annual Work Plan  
March 4, 2015**

## Twin Falls Soil and Water Conservation District

The Twin Falls Soil and Water Conservation District encompasses southern Twin Falls County. Much of the District is considered rangeland or grazing land. The approximately 20,000 acres of cropland irrigated by the Salmon River Canal Company makes up the majority of the cropland in the District. Both water quantity and water quality are important issues for the seven-member District board.

### Our top accomplishments in FY 2015

1. Administer the second year of the Multi-Species Cover Crop Demonstration Project.
2. Shared a display about the first results from the Multi-Species Cover Crop Demonstration which was has been shown at a sustainable ag conference, the Idaho Association of Soil Conservation Districts annual meeting, the State Capitol and the Twin Falls County Fair.
3. Held a field day at the 2015 main demonstration site of the Multi-Species Cover Crop Demonstration site that was attended by more than 40 people.
4. Administered the Twin Falls Nitrate Cooperative Conservation Partnership Initiative.
5. Co-sponsored a booth at the 2013 Twin Falls County Fair in conjunction with the Ag Pavillion.

### Our top priorities for FY 2016

1. Work with several cooperators to test different cover crop mixes to see what might grow during water short years.
2. Educate federal crop insurance agents about the need to protect HEL soils during water short years.
3. Administer the Twin Falls Nitrate Cooperative Conservation Partnership Initiative.
3. Continue to educate cooperators about fire-wise grazing practices and cost-share opportunities through the Sage Grouse Initiative.

### If the District had more funding, supervisors would like to:

1. Work with federal crop insurance agents and cooperators to identify management practices that reduce the potential for soil erosion during water short years and still meet federal crop insurance requirements.
2. Provide more assistance to landowners to improve sage grouse habitat without jeopardizing private grazing rights.
3. Provide more assistance to landowners to fence critical riparian areas.
4. Recruit urban and/or small acreage landowners to become supervisors on the board. Continue to work with Snake River and Balanced Rock conservation districts on urban issues.
5. Retain employees who are providing additional technical service at the Twin Falls field office.
6. Identify and help finance water conservation efforts within the District.

# Twin Falls Soil and Water Conservation District

## Serving southern Twin Falls County and Legislative Districts 23 and 24

For more information contact: **Barry Bollwinkel, chairman at 733-5380 ext. 3**

### **Mission**

To promote conservation practices on every acre in the District and thereby build a more stable and prosperous agricultural community.

### **Trends impact Conservation**

Armoring soil against wind erosion is becoming a higher priority. Much of the cropland on the Salmon Tract is considered highly erodible land and is subject to scrutiny under the Food Security Act. Helping landowners and operators devise strategies that will protect the future productivity of the land and also meet federal crop insurance requirements is a challenge.

A growing resource concern is the impact that an increasing number of small acreage landowners have within the district. Many of these small acreages do not have adequate irrigation water and becoming weed nurseries.

Groundwater quality is a separate, but related concern. Twin Falls County has fallen to number 21 on the state's 2014 nitrate high priority list (after being ranked number one on the 2008 list) thanks largely to a slight declining trend in nitrate levels. According to the state's ranking criteria, nitrate averaged 5.18 mg/L in 618 wells that were tested, down from an average of 5.20 mg/L nitrate in 605 wells included in the 2008 ranking. Handling both dairy manure and commercial fertilizer correctly to avoid potential problems is the best way to limit further degradation of groundwater sources.

Water quantity continues to be the top priority for this chronically water short region. Irrigation water supplies are expected to be short for the 2015 irrigation season, identifying water conservation projects and providing technical—and where possible financial—assistance top cooperators is a top priority for the Twin Falls SWCD.

### **Projects Planned, Coordinated or Managed**

- Wind erosion demonstration
- Twin Falls Nitrate Cooperative Conservation Partnership Initiative
- Multi-Species Cover Crop Demonstration Project
- Urban initiative
- Sage Grouse Habitat

### **Funding Sources for District Operations and Projects**

- Anticipated funds — \$8,000 from Twin Falls County and \$18,000 from the State of Idaho.
- Anticipated funds — \$800 ISWC Capacity Building Grant
- Conservation Innovation Grant — \$75,000

*Twin Falls SWCD — Assisting Landowners and Operators with their Conservation Choices*

**Twin Falls Soil and Water Conservation District**  
**Annual Work Plan**  
**July 1, 2015 to June 30, 2016**

**Priority #1 – Water Quantity**

**Objective:** Utilize every drop of water in the Salmon Tract to its highest and best use.

**Goal:**

Promote water conservation management

**Action:**

- Work with the Salmon River Canal Co. to line the portion of the SRCC canal where the highest losses are occurring for more efficient irrigation water deliveries.
- Provide technical assistance through the NRCS for evaluating efficiencies within the Salmon River Canal Company system.
- Provide planning assistance to the Clover Pumping Co. to upgrade the main pipeline.
- Monitor snowpack using Sno-Tel site and use statistical models to provide as accurate as possible water forecast each April.
- Maintain sno-tel sites.
- Encourage NRCS to automate a low elevation manual snow course.
- Encourage continual improvements to canal company system and farmland efficiency through delivery practices and irrigation practices.
- Encourage water conservation practices in Hollister and on rural acreages to stretch limited water resources.
- Continue to work with the Salmon River Canal Company on water measuring sites.
- Maintain gauge at Shoshone Creek.
- Maintain precipitation gauge at White Rock Well.
- Keep abreast of changes in climatic conditions and how that may impact water supplies.

**Target Dates**

Annual  
 Annual  
 Annual  
 Oct. - June  
 Oct. - March  
 Spring 2016  
 Annually  
 July to Nov.  
 Annually  
 Annually  
 Annually  
 Annually

**Leader**

L. Lanting  
 S. Schuyler  
 L. Meyer  
 R. Abramovich  
 L. Berg & R. Abramovich  
 D. Jones  
 L. Lanting  
 C. Snyder  
 L. Berg  
 L. Berg  
 L. Berg  
 R. Abramovich

*Twin Falls SWCD – Assisting Landowners and Operators with their Conservation Choices*

**Twin Falls Soil and Water Conservation District**  
**Annual Work Plan**  
**July 1, 2015 to June 30, 2016**

**Priority #2 — Water Quality**

**Objective:** Meet rules & regulations of section 319 of the Water Quality Act, the 1986 Safe Drinking Water Act and Amendments to the 1972 Clean Water Act.

**Goal:** Help Rock Creek meet pollutant loading targets in the Snake-Rock TMDL.

**Actions:**

- Coordinate grazing plans with USFS to protect riparian areas.
- Administer the Twin Falls Nitrate Cooperative Conservation Partnership Initiative.
- Continue to explore potential riparian improvement projects along Rock Creek.

**Target Dates**

Annually

Annually

April to August

**Leader**

S. Schuyler

M. Cothorn

C. Snyder

**Goal:**

Fulfill Shoshone Basin TMDL requirements.

**Actions:**

- Work with the Western Stockgrowers grazing association to develop projects to fence riparian and other sensitive areas in the interface between the South Hills and Shoshone Basin.
- Identify applicable cost-share programs and work with qualifying landowners and operators to develop projects.
- Monitor sites within Shoshone Basin.
- Promote the Conservation Stewardship Program.
- Explore options to stabilize an eroded streambank with the landowners.

**Target Dates**

Annually

Annually

Annually

Annually

Summer 2015

**Leader**

M. Cothorn

M. Cothorn

C. Pentzer

S. Schuyler

L. Lanting

**Twin Falls Soil and Water Conservation District**  
**Annual Work Plan**  
**July 1, 2015 to June 30, 2016**

**Priority #3 – Cropland**

**Objective:** Maintain long-term sustainability of cropland productivity through conservation practices.

**Goal:**

Encourage farmers to adopt best management practices to reduce potential for wind erosion.

**Actions:**

- |   |   |   |
|---|---|---|
| <ul style="list-style-type: none"> <li>• Work with several cooperators to try cover crops under drought conditions.</li> <li>• Educate crop insurance companies and the USDA Risk Management Agency about the need to armour fragile soils during water-short years.</li> <li>• Encourage adoption of conservation tillage practices.</li> <li>• Identify applicable loan and grant programs.</li> <li>• Promote the Conservation Stewardship Program.</li> </ul> | <p><b>Target Dates</b><br/>Summer 2015</p> <p>Summer 2015</p> <p>Annually</p> <p>Annually</p> <p>Annually</p> | <p><b>Leader</b><br/>C.Snyder</p> <p>C. Snyder</p> <p>L. Meyer</p> <p>L. Meyer</p> <p>S. Schuyler</p> |
|---|---|---|

**Goal:**

Explore the feasibility of adopting soil health practices on the Salmon Tract.

**Actions:**

- |  |   |   |
|--|---|---|
| <ul style="list-style-type: none"> <li>• Administer the Multi-Species Cover Crop Demonstration to encourage more use of cover crops.</li> <li>• Encourage participation in EQIP Soil Health Initiative.</li> <li>• Help crop farmers improve nutrient management by encouraging preplant soil sampling and use of fertility guides.</li> <li>• Encourage producers to adopt irrigation water management practices</li> <li>• Administer the Twin Falls Nitrate Cooperative Conservation Partnership Initiative.</li> </ul> | <p><b>Target Dates</b><br/>Annually</p> <p>Annually</p> <p>Annually</p> <p>Annually</p> <p>Annually</p> | <p><b>Leader</b><br/>C. Snyder</p> <p>S. Schuyler</p> <p>S. Schuyler</p> <p>S. Schuyler</p> <p>M. Cothorn</p> |
|--|---|---|

**Twin Falls Soil and Water Conservation District**  
**Annual Work Plan**  
**July 1, 2015 to June 30, 2016**

**Priority #4 — Rangeland**

**Goal:** Increase forage production and reduce erosion on public and private rangeland.

**Objective:**  
 Improve rangeland productivity.

**Action:**

- Update grazing plans.
- Promote Conservation Stewardship Program.
- Support better grazing management practices that allow better fire management.
- Identify future sites for riparian restoration projects along Shoshone Creek or Rock Creek.

<b>Target Dates</b>	<b>Leader</b>
Annually	J. Lanting
Annually	S. Schuyler
Annually	S. Schuyler
Annually	J. Lanting

**Objective:**

Improve sage grouse habitat.

**Action:**

- Provide technical assistance to grazing associations regarding management practices.
- Help cooperators become more informed about the Sage Grouse Management Plan.
- Help identify areas of critical sage grouse habitat.
- Encourage participation in the EQIP Sage Grouse Initiative.
- Support work by local landowners to improve lek habitat.

<b>Target Dates</b>	<b>Leader</b>
Annually	M. Cothorn

**Twin Falls Soil and Water Conservation District**  
**Annual Work Plan**  
**July 1, 2015 to June 30, 2016**

**Priority #5 — Animal Waste Management**

**Objective:** With the arrival of large dairies to southern Twin Falls County, the District must strive to become better informed about dairy waste and nutrient management issues and practices.

**Goal:**

Decrease potential nutrient (nitrate, phosphorus and potassium) contamination of groundwater by animal waste.

**Actions:**

- Promote proper use of nutrient management plans. **Target Dates**  
Annually **Leader**  
S. Schuyler
- Educate operators about importance of timely manure applications. Annually **Leader**  
L. Meyer
- Educate operators about effective use of animal waste to reduce nitrate leaching or loss. Annually **Leader**  
L. Meyer
- Advocate proper lagoon sizing and construction. Annually **Leader**  
L. Lanting
- Administer the Twin Falls Nitrate Cooperative Conservation Partnership Initiative. Annually **Leader**  
M. Cothem
- Keep abreast of land application of whey by Chobani. Summer 2015 **Leader**  
L. Griff
- Promote Conservation Stewardship Program. Annually **Leader**  
S. Schuyler

**Objective:**

Locate animal feeding operations in proper sites.

**Actions:**

- Provide information to the Twin Falls County Planning and Zoning Administration. **Target Dates**  
Annually **Leader**  
J. Lanting
- Educate county officials and potential dairies about groundwater vulnerability. Annually **Leader**  
J. Lanting

**Twin Falls Soil and Water Conservation District**  
**Annual Work Plan**  
**July 1, 2015 to June 30, 2016**

**Priority #6 — Renewable Energy**

**Objective:** Promote energy conservation by reducing dependence on electricity.

**Goal:**

Reduce demand for electricity on the Salmon River Canal Co. tract.

**Actions:**

- Educate cooperators about pipeline projects that can save water and reduce electrical demand by using gravity instead to power pivots.
- Educate cooperators about cost-share programs available through Idaho Power, Rural Development and NRCS to help offset the cost of installing a pipeline project.
- Continue to work with Salmon River Canal Co. on pipeline projects that eliminate electric pumps.
- Educate cooperators about the USDA-NRCS on-farm energy initiative through the district newsletter.
- Educate cooperators about methane digesters through a potential tour or field day.

<b>Target Dates</b>	<b>Leader</b>
Annually	S. Schuyler
Annually	L. Griff
Annually	L. Lanting
Annually	L. Lanting
Fall 2015	C. Snyder

**Twin Falls Soil and Water Conservation District**  
**Annual Work Plan**  
**July 1, 2015 to June 30, 2016**

**Priority #7 — Vegetative Management/Weed Control**

**Objective:** Promote establishment and growth of appropriate plants within District to minimize noxious weed problems.

**Goal:**  
Reduce spread of noxious weeds in District.

**Actions:**

- Work with several cooperators to try cover crops under drought conditions.
- Educate cooperators and small acreage land owners about weed control methods through the District newsletter.
- Educate cooperators about the Shoshone Basin Cooperative Weed Management Area. Invite Twin Falls County Weed Bureau to the 2015 Tri-District meeting.
- Work with the Twin Falls County Highway District to replant borrow pits with appropriate grasses.
- Secure additional funding to control knapweed.
- Work with organic growers to better control weeds along property boundaries.
- Work with BLM to establish firebreaks of resistant plants.

**Target Dates**  
Summer 2015

**Leader**  
C. Snyder

Annually  
C. Snyder

November 2015  
C. Snyder & C. Simons

Annually  
D. Jones

Annually  
L. Lanting

Annually  
D. Jones

Summer 2015  
M. Cothorn

**Goal:**

Promote use of water-wise landscapes.

**Actions:**

- Now that grasses and forbs are well-established maintain demonstration site to promote healthy plant communities.
- Continue to offer the site as an educational resource to area schools.

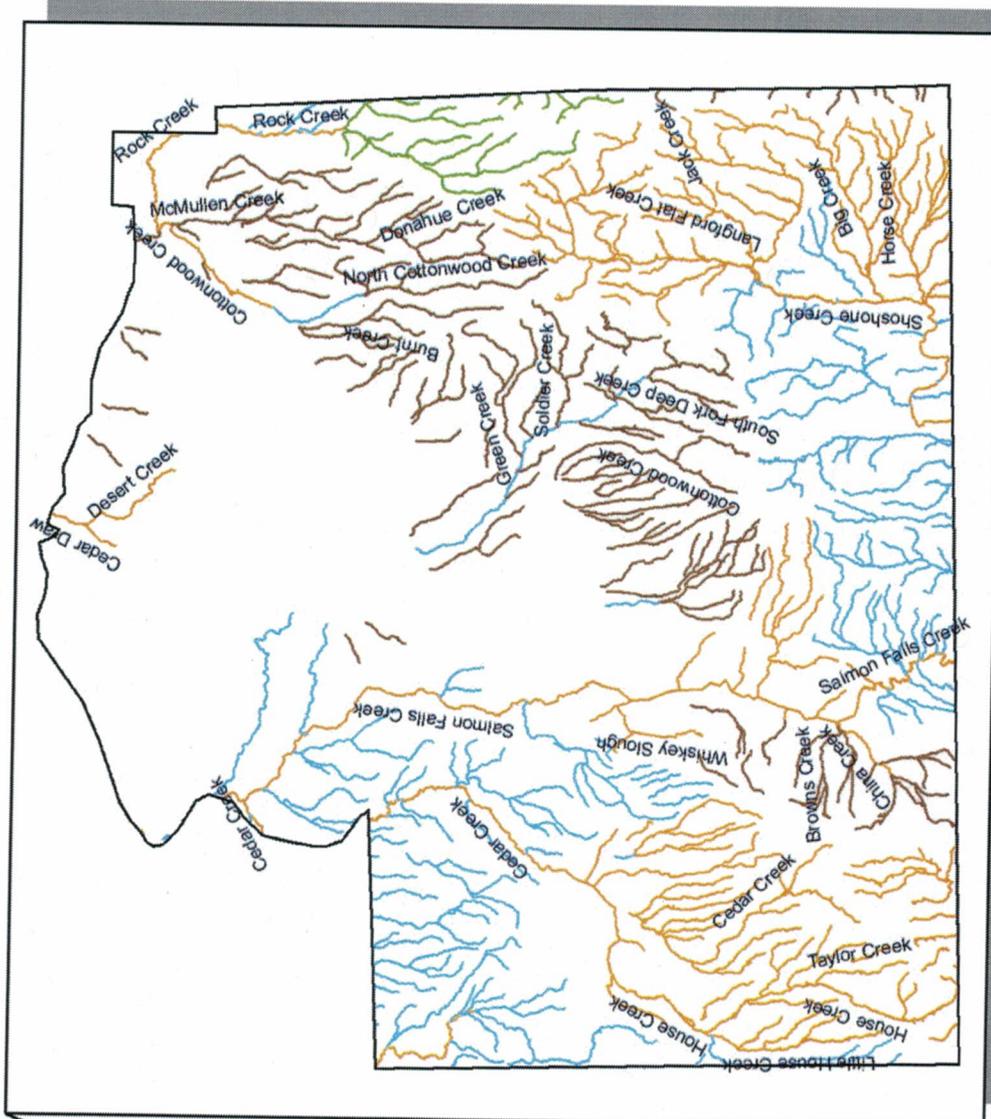
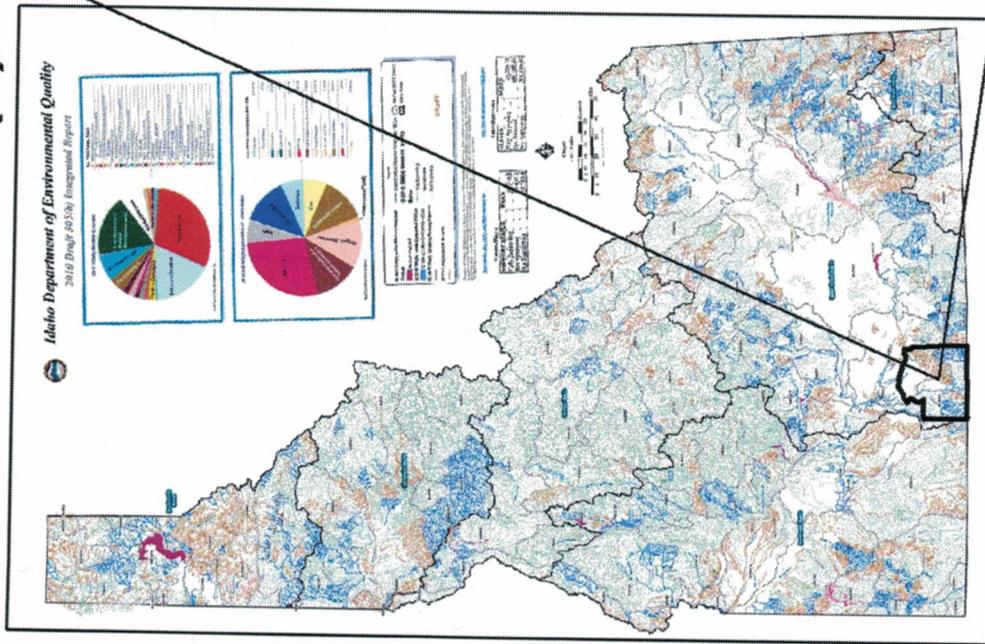
**Target Dates**  
Annually

**Leader**  
C. Snyder

Annually  
C. Snyder

*Twin Falls SWCD — Assisting Landowners and Operators with their Conservation Choices*

# Twin Falls Soil and Water Conservation District 303(d)/305(b) Listed Waterbodies



**ID 305(b) 2008 Streams**

- Fully Supporting
- Not Assessed
- Not Supporting

**303(d) Listed**



**IDAHO SOIL & WATER  
CONSERVATION COMMISSION**

**FIVE-YEAR (5) PLAN and  
ANNUAL WORK PLAN  
CERTIFICATION**

DISTRICT: Twin Falls SWCD

FOR FISCAL YEAR:

2015

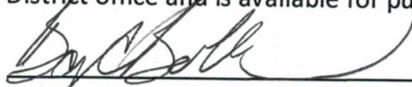
DUE :

March 31, 2015

**CERTIFICATION**

On behalf of my local Board of Supervisors, I hereby certify that the attached Five-Year (5) Plan and Annual Work Plan is true and accurate, and further submit said Plan for the above named District and fiscal year.

A copy of this Five-Year (5) Plan and Annual Work Plan shall be kept at the District office and is available for public inspection.



Board Supervisor Signature



Printed Name

Date

208-733-5380 ext 101

Telephone

chsimons@cableone.net

District Email Address

**FOR SWC USE ONLY:**

**DATE OF CONFIRMATION:**