Snake River Soil and Water Conservation District

Resource Conservation Business Plan

2025-2030

March 12, 2025

Snake River SWCD Board

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Foreword

Conservation districts are subdivisions of state government charged the conservation of soil, water and related natural resources. The Snake River Soil and Water Conservation District is one of three conservation districts in Twin Falls County. A total of 51 conservation districts, encompassing 99 percent of the state, are working to protect Idaho's soil and water resources.

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

The Snake River 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 Snake River 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. Snake River 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 Snake River 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 Snake River Soil and Water Conservation District.

Snake River SWCD Introduction

History

Officially organized in April 1966, the Snake River Soil and Water Conservation District includes some of the most extensively farmed and irrigated land in southern Idaho. The District is made up of about 1,800 acres of public land and 108,360 acres of private land.

Two conservation districts were already operating in Twin Falls County when Kimberly farmer Dick Stafford began circulating petitions to form the new district. It would be comprised of 789 farms located between the High Line Canal and the Snake River, and would bring all of Twin Falls County into a conservation district. Stafford and Dean Moore of Kimberly; Lyle Jones, Lester Naylor and Virgil Wilson, all of Hansen; were the first supervisors. Roy Jesser and Keith Rhodes, of Twin Falls, wee appointed to the board in 1967.

The first long-range plan (adopted February 20, 1967) gave top priority to conservation planning. In the first three months agreements were signed with 52 cooperators covering 9,819 acres. Help was requested mostly on conservation planning, soil surveys and revising irrigation systems. Soil surveys were completed on 1,730 acres of farmland in the first year.

Also in the first year, the District recognized the need for conservation research, and leased 40 acres of cropland near Kimberly. That property was sub-leased to the Snake River Conservation Research Center. This lease was in force, continuously, until 1989 when it was allowed to expire. The District continues to cooperate with the USDA-Agriculture Research Service Pacific Northwest Irrigation and Soil Laboratory (as the Center is known today) on soil and water quality demonstrations and tours. In recent years, most of those efforts have focused on the benefits of using polyacrylamide on surface irrigated fields to reduce irrigation-induced erosion and using ponds in conjunction with polyacyrlamide to virtually eliminate sediment loss from fields.

An Eversman 6-yard scraper was purchased by the District in 1979 and is still available for cooperators to lease on a rental basis for digging and maintaining sediment basins and ponds.

Water quality efforts

The first special conservation project for the District began in 1974 with the Snake River Canyon Rim Study. At the request of the South Idaho Resource Planning and Development Association, the District studied sol, water and plants in the Snake River Canyon and along the canyon rim from the mouth of Rock Creek upstream to the Hansen Bridge, about 14 miles.

The Idaho Department of Health and Welfare contracted with the District in 1976 to conduct a water quality demonstration project on the LQ Drain, a 3,300-acre irrigated watershed southeast of Filer. The project, which proved that farmers would voluntarily use conservation practices to improve water quality, was a success. When the project ended in 1979, the LQ was discharging only about 2,000 tons of sediment per year into the Snake River, down from a 1976 estimate of 10,000 tons per year.

The Snake River SWCD has partnered with the Twin Falls Canal Company to develop about a dozen wetlands since the early 2000s.

Snake River SWCD has provided funding to the Southern Idaho Water Quality Coalition. The SIWQC is a coalition of stakeholders in the Magic Valley composed of representatives from local cities, canal companies, the aquaculture industry and others.This new group provides a unified voice to speak up for the quality of the Snake River and create a better water quality plan. A tour of the Mid-Snake was held in the fall of 2019 to educate members and others about past efforts and potential new projects.

Snake River SWCD Associate Member Ron Jones has also been elected as a representative to the SIWQC.

Rock Creek

The Snake River SWCD joined forces with the Twin Falls Soil and Water Conservation District in the late 1970s to address water quality problems in Rock Creek. Rock Creek had been identified as a top priority stream segment in the Idaho Agricultural Pollution Abatement Plan of 1979. The districts applied for and received a grant under Section 208 of the Federal Water Pollution Control Act Amendments of 1971 to develop a treatment plan. Since the Rock Creek project encompassed parts of both districts, a special project board was established, made up of four supervisors from each district. The treatment plan developed by the Rock Creek Project Board was later selected for funding as part of the Federal Rural Clean Water Program (RCWP) and implementation began in 1981. The project was one of only 13 original RCWP projects nationwide, and was the only one on irrigated cropland.

Supervisors were responsible for contacting farmers, approving water quality plans and directing technical assistance. Response to the project was overwhelming, and by the time the contracting period ended in 1986, 185 long-term water quality contracts had been signed to treat 21,147 acres — about 75 percent of the critical acres in the watershed.

Water quality in Rock Creek surfaced again as a community concern in the late 1990s. This time the concern was generated by high fecal coliform counts which caused the Health and Welfare Department to close Rock Creek Park to swimming. Rock Creek historically has had fluctuating fecal coliform counts, depending on the season.

The Snake River and Twin Falls conservation districts again worked together to address this concern. The districts delineated the Upper Rock Creek drainage as an Environmental Quality Incentives Program (EQIP) High Priority Area. A workshop was held in March 1999 to educate cattle producers about the link between sediment loading and fecal coliform colonies, and to educate producers about best management practices they can use for grazing and irrigating their pastures.

Rock Creek continues to be a high priority for both the Snake River and Twin Falls conservation districts. Within the Snake River SWCD boundaries, Rock Creek is influenced primarily by irrigated cropland and urban influences compared to grazing and recreational use in the Twin Falls SWCD. The Snake River SWCD has applied for a 319 grant to construct a wetland along the Twin Falls Canal Company's O-Coulee to trap sediment and nutrients. O-Coulee enters Rock Creek just above Rock Creek Park in Twin Falls, and is considered to be a major contributing source of degraded water to Rock Creek.

A state pilot project, funded by federal 319 grant funds, worked with small acreage landowners along Rock Creek. Nutrient management, irrigation scheduling and grazing management

are just parts of the educational components involved with that project that will focus on the relationship between surface and ground water. A video of the project was developed for use by local planning and zoning officials in other counties to address water issues in subdivsions.

The Stargazer Wetland Complex was completed in 2018. It cleans up irrigation return flows from approximately 10,000 acres before the water enters Rock Creek and then the Snake River.

Perrine Coulee

In 1995, the District turned its attention to another water quality impaired watershed within the District — the Perrine Coulee, which is comprised of 27,540 acres of which 16, 957 are considered to be critical acres. The Perrine Coulee is a tributary to the Mid-Snake River and was listed as water quality impaired in 1991.

Board supervisors went through a lengthy planning process in the late 1990s to try to establish a State Agricultural Water Quality Program for the Perrine Coulee watershed, but were unsuccessful. As part of that process, several field days and tours were held in the area; and educational efforts continue to focus on farmers in that area. In August 2003, a field day was held in the area that focused on pond construction and maintenance. Over 40 individuals attended that field day, sponsored with help from the Twin Falls Canal Company.

Recently, district supervisors have turned their attention to improving water quality as water leaves this watershed. Snake River SWCD has purchased 15 acres of land east of Twin Falls, where the last of the agricultural influence is felt on the coulee, and constructed a multi-cell wetland on the property. The Twin Falls Canal Company has been an important cooperator on this project. Construction was completed in the winter of 2003-04 and wetland plants will be planted in the spring of 2004. A $66,600 grant from the federal Environmental Protection Agency's 319 grant program was used to pay for the project.

The City of Twin Falls was also a cooperator on this project. Once the water has run through the wetland project, the City will have a source of clean water that can be used in pressurized sprinkler systems for irrigation, which will reduce the City's demand on the aquifer.

The Snake River SWCD has applied for another 319 grant, $95,000 this time, to construct another series of wetlands about a half-mile below the Main Perrine Coulee. This series of five wetlands will serve as finishing ponds to remove fine sediment and additional nutrients.

LS/LQ

The LS/LQ watershed remains an area of concern for the Snake River SWCD. Fields in this area are steep and row crops, which are mores susceptible to irrigation-induced erosion, are common in the rotation.

The watershed was approved for a State Agriculture Water Quality Project in 1999. Through this project, 7 contracts were written to treat 781 acres at a total cost of $584,114, with the cost borne nearly equally between cost-share and operator. Best management practices installed because of this project included pipelines, sprinkler systems, sediment basins and other structures for water control. The project ended December 31, 2003.

A constructed wetland project, done by the Twin Falls Canal Company in cooperation with Idaho Power, the Idaho Department of Environmental Quality and the Idaho Department of Fish and Game, resurrected a wetland structure that had been constructed during the first LQ project in the 1970s. The original wetland was filled with sediment and farmed through in the interven-

ing years. A pond field day was held at the Malone Pond site in August 2001 and over 80 cooperators attended the event.

Several other field days and tours were held in the LS/LQ project area to educate potential cooperators about both the cost-share available through the project and best management practices.

Another constructed wetland project below Malone Pond, was built in 2006 to clean up return flow from the LS drain as well as finish cleaning the LQ drain. The District has received a $115,000 grant from the federal 319 program to help pay for this project. TFCC and the Snake River SWCD worked with the Idaho Department of Fish and Game to stock fish in the pond system to create a safe fishing hole for kids in nearby Twin Falls.

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While it sometimes seems the Snake River Soil and Water Conservation District focuses its attention on the same problem areas year-after-year, progress is being made. The Twin Falls Canal Company adopted a by-law change at its January 2000 annual meeting that requires stockholders to meet the target sediment allocation under the Upper Snake-Rock TMDL implementation plan of 52 mg/L.

Monitoring data from the University of Idaho on selected drains in the Snake River SWCD shows that while the target is not being met in every drain, significant improvements have been made, particularly in drains where have large wetland projects have been constructed such as the LS/LQ and Perrine Main Perrine. Fluctuations in other drains are largely a result of crop rotation.

Drain	Ave. TSS in 2023	Ave. TSS in 2008	Ave. TSS in 1990-91
TF Coulee	99	66	121
East Perrine	45	106	100
LQ/LS	75	49	215

Source: University of Idaho & USDA Ag Research Service

Land

The Snake River Soil and Water Conservation District is located in the northcentral and northeastern part of of Twin Falls County. The District contains a total of 110,230 acres — 98 percent of the agricultural land is privately owned (91 percent is irrigated cropland, 5 percent is rangeland and 4 percent is classified as other uses). The predominant change in land use has been from cropland to houses — particularly near Twin Falls but also around Filer and Kimberly, and along Rock Creek. Little urban sprawl has been seen near Hansen and Murtaugh.

The District lies in an area of light to slightly dark-colored, mostly well-drained lacustrine and wind-deposited silt loam soils of the Portneuf Association. Average field slopes are in the 1 to 2 percent range. Soil depths range from 10 to more than 60 inches with strongly calcareous subsoils. Some areas have hardpans and most are underlain by basalt bedrock.

Soils within the Snake River SWCD are predominantly Minveno, Portneuf and Sluka.

Portneuf soils are characterized as well drained soils that are very deep and have slopes of 0 to 8 percent. These soils are found in the eastern reach of the District.

Sluka and Minveno soils are characterized as well-drained soils that are moderately deep and shallow over a hardpan, and have slopes of 0 to 8 percent. These soils are found in the western portions of the District.

Together these soils are some of the best adapted to irrigation in the state, and are generally fertile. Under proper management, they will produce high yields with little soil loss.

Geology and Topography

The geology of the Snake River Soil and Water Conservation District evolved during the Mesozoic and Cenozoic periods. Faults and fissures released molten lava from low profile shield volcanoes, such as Stricker Butte located 4.5 miles south of Kimberly.

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. During the 1920s it became necessary to construct drainage systems to drain groundwater away from localized areas. In today's watershed excess irrigation water can now percolate below the crop root zone, accumulate and flow along a cemented hardpan or bedrock. Hardpans develop from leaching calcium carbonate over long periods of time. Groundwater can either drain into the Snake River Canyon or surface in the midst of productive cropland.

The District is drained by the Snake River and its tributaries, Rock Creek and Perrine Coulee, from the south.

The Snake River flows from east to west through the District in a canyon that is up to 500 feet deep. The canyon was partially created by the Bonneville Flood, which is believed to have occurred between 18,000 and 30,000 years ago. The flood resulted from the spilling of water from the Great Salt Lake Basin, which filled during Ice Age climates to form Lake Bonneville. This inland sea was fully comparable in size to the modern Great Lakes. As the icecaps melted, water continued to rise in the lake until it overflowed through Red Rock Pass near what is now Downey, Idaho. Evidence of that phenomenally deep and turbulent flood appears along the entire length of the Snake River Canyon. The flow is believed to have filled the canyon above its brim and overflowed the neighboring plains. The best informed estimates have the Bonneville Flood discharging a total volume of approximately 600 cubic miles of water.

The topography of this part of Twin Falls County varies from rolling to level. Elevations vary from about 3,000 feet in the Snake River Canyon to 4,450 feet at the summit of Hansen Butte. The landscape appears mostly flat, with scattered buttes which mark the locations of ancient shield volcanoes and volcanic vents. Rock Creek bisects the District from the south to north, creating a broken landscape the last few miles as it flows through the gradually deepening Rock Creek Canyon.

Climate

Climate within the Snake River 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.

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.

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 nonpoint 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 Snake River 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 Snake River 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 Snake River 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 Snake River SWCD meets the second Tuesday of each month at the soil conservation district office (1441 Fillmore St. #A, Twin Falls). Meetings are held in the afternoons during winter months and in the evenings during the summer months.

Each spring the Snake River 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.

Financing

The District is funded through county appropriations, with state funds provided up to two-to-one match of county funds,

Special grant programs — such as the former State Agricultural Water Quality Program and 319 grants from the federal Environmental Protection Agency — are applied for whenever appropriate to provide additional cost-share assistance, and information and education programs for cooperators.

The Idaho Soil Conservation Districts Accounting Policies and Procedures Manual is followed with regards to maintaining the financial records of the District.

Natural Resources Priorities and Goals

1) Soil Erosion/Water Quality
2) Soil Health
3) Urban

Trends Impacting Natural Resources

Some progress has been made on a priority resource concern. Twin Falls County was ranked 9th in the state according to the 2020 nitrate priority list with an average nitrate reading of 4.9 mg/L with a maximum of 41mg/L. DEQ monitored 719 wells; and listed Twin Falls County as moderate high but with no trend in nitrate levels. In comparison, 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.

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.

Snake River 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 improving — 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.

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 82,248 residents in 2017, up from 67,722 residents in 2009. Over two-thirds of the population is considered urban.

The U.S. Census Bureau population estimates Idaho's population at 1,964,726 in July 2023, up 1.3 percent over 2022 and ranking it fourth nationally in percentage growth. Despite ranking 17th in numerical growth and falling from its top-10 status of the last two years, Idaho still outpaces the national population growth rate.

Twin Falls County had a population of 92,243 in 2021. The City of Twin Falls has seen the greatest growth increasing from about 35,000 people in 2002 to 55,906 residents in January 2024. The population has grown by 7.35 percent since the 2020 census showed 52,079 residents. It is now the eighth largest city in Idaho. The populations of other Kimberly has seen growth as Twin Falls continues to sprawl at 4,824 residents in 2021, up from 3,311 in 2010. But other small towns in the east end of Twin Falls County have not fared a well despite new construction. Hansen's population fell from 1,146 in 2010 to 1,105 in 2021, while Murtaugh fell from 130 to 122.

A tremendous amount of agricultual land has already been developed and the continued population boom is gobbling up more land. According to Twin Falls County Commissioner Brent Reinke in March 2022, Filer is slated for an additional 240 homes with Twin Falls planning for another 1,400 to 1,600 homes.

The Twin Falls City Building Department issued 218 residential home permits in 2023 and 138 commercial permits. The median home value was $365,000 in January 2024, up from $199,300 in 2018 and $93,800 in 2000.

Twin Falls County had a unemployment rate of 3.2 percent in February 2024, up from the previous year at 2.4 percent and the long-term average of 4.63 percent. Idaho's unemployment rate was 3.3 percent in December 2023, which was 0.5 percent higher than 2.8 percent the previous year. The national unemployment rate was 3.7 percent in January 2024, down from the COVID peak of 14.8 percent in April 2020.

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.

Despite strong employment growth, Twin Falls County wages remain relatively low. The average income of a Twin Falls resident is $26,803 a year compared to the U.S. average is $31,133 a year. The median household income of a Twin Falls resident was $53,936 annually in 2021. The average salary for jobs in Twin Falls is $58,763 annually or $28 per hour.

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 2022 Agricultural Census, the total number of farms in Twin Falls County fell slightly to 1,169 farms compared to 1,211 in 2017; but down significantly from 1,439 in 1997. Farm size is down from 458 acres in 2012 to 383 in 2022.

The largest number of farms in the county are those that range in size from 1 to 9 acres (352 operations) followed by 10 to 49 acres (323 farms). The bulk of farms are in the middle group with 351 farms between 50 and 179 acres and another 200 between 500 and 499 acres. Of the largest farm classification, 63 are between 500 and 999 acres with another 80 greater than 1,000. The large number of tiny farms accounts for why the average farm size is 393 acres but the median farm is just 34 acres.

Large farms and small farms are equally represented on a percentage basis. About 30 percent (356) of the farms reported sales above $100,000 with 28 percent reporting sales below $2,500. Crops accounted for 25 percent of sales with livestock accounting for 75 percent.

The number of irrigated acres in Twin Falls County fell to 236,196 acres on 965 farms in 2022 from 256,974 acres in 2012 on 1,142 farms. In comparison, 1,294 farms were irrigating 244,520 acres in the county in 2007.

A period of sharply higher land values has pushed the value of farmland and buildings up significantly. The average value of land and buildings in in 2022 was $2,304,916 with an average of $5,512 per acre, up from $1,718,569 in 2017 with an average of $4,439 per farm. In comparison, the total value of $1,155,801 with an average of $3,090 per acre un 2012 and $614,239 and an average of $1,946 per acre in 2002.

Supply chain issues and the war in Ukraine helped push commodity prices higher. The average value of products sold per farm was $971,714 in 2022, up from $561,716 in 2017 and $599,581 in 2012. In comparison, the value was $364,090 in 2007 and $225,021 in 2002. Net cash farm income averaged $181,550 in 2022 compared to $119,676 in 2017. Government payments were received by 156 farms for a total of $4,192,000 compared to 360 farms for a total of $4,456,000 in 2017.

Crop rotations within the Snake River 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.

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.

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Crop	2022 farm	2022 acres	2012 farms	2012 acres
Forage	600	81,871	739	72,812
Barley	151	35,228	56	30,616
Dry edible beans	82	20,794	308	27,885
Corn for silage	138	6,559	200	33,885
Wheat (all)	166	19,625	243	26,415
Corn for grain	103	15,650	225	20,828
Sugar beets	39	8,343	42	8,755

Livestock continues to be an important part of the Twin Falls agricultural economy. Beef cow numbers are down slightly at 24,246 head on 440 farms compared to 27,319 head on 452 farms in 2017 and 26,762 in 2012. Sheep and lamb numbers continued to fall to just 6,717 head on 58 farms compared to 8,473 head were on 62 farms in 2017 after reaching 14,000 head in 2007. Rotational or management-intensive grazing was practiced on 205 farms, compared to 200 reported in the 2017 Ag Census.

Milk cow inventory has increased to 108,379 head on 58 farms after falling to just 89,876. In comparison, there were 63,960 milk cows on 73 dairies in 2012.

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 the at 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 seems to have leveled off. Twin Falls County was home to 26 organic farms in 2017, up from 14 in 2012; but the number has fallen back 14 in 2022. The value of sales was $30,310,000 in 2022, down from $35,072,000 in 2017 but still signicantly above the $2,044,00 in 2012. The Twin Falls SWCD continues to be concerned about weed control on organic farms and the spread of weeds from untreated border areas.

The 2022 Ag Census confirms that farmers across Twin Falls County are experimenting with soil health practices such as conservation tillage and cover crop usage. The table below shows the 10-year trend. Comparing the 2017 and 2022 census data shows that the number of farms using no-till was stable (63 to 64) but the average acres per farm fell from 62 acres in 2017 to 49 acres in 2022. The number of farms using reduced tillage fell by 10 between 2017 and 2022, but the number of acres covered increased by about 12,000 acres (44,815 to 56,268 acres). Average acres treated per farm also increased from 227 to 301 acres. Cover crops were also planted on 12 fewer farms but the number of acres was fairly stable (up 188 acres between 2017 and 2022) with the average acres per farm also increasing from 111 to 130 acres.

Soil health practice	2022 farms	2022 acres	2012 farms	2012 acres
No-till	64	3,886	62	7,765
Reduce tillage	187	56,268	138	26,382
Cover crops	81	10,524 80	6,669	

Critical Geographic Areas

- Critical Waterbodies
- Snake River SWCD High Nitrate Priority Area
- Twin Falls County Highly Erodible Land
- Groundwater Levels
- Urban Interface

Strategies to Address Trends

- Develop an education program to help landowners and operators adopt conservation practices that reduce erosion potential while building soil health.
- 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 districts
- Continue to provide a college scholarship to students who intend to pursue a career in natural resources or agriculture.
- Work with the Twin Falls Canal Co. to target priority return drains for wetlands projects.
- Conservation Easements

Project Needs

- Rock Creek clean up efforts
- Purchase land for constructed wetlands

Cooperating Agencies and Organizations

pDistrict 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 Snake River Soil and Water Conservation District will cooperate with the following agencies and private groups to accomplish this five-year plan:

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

Bureau of Reclamation— coordination and cooperation on water resources

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

Corps of Engineers — 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 tributaries to Mid-Snake and Rock Creek, 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 us and aquifer monitoring

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

Nature Conservancy — help with soil health practice adoption, sponsor field days or workshops

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

Public Schools — poster and speech contests, conservation teachers

Southern Idaho Water Quality Coalition — help guide water quality plans for the Mid-Snake River

Southwest Irrigation District— cooperation on aquifer recharge

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

Twin Falls County Parks and Recreation Department — maintaining Rock Creek and Murtaugh Lake parks

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

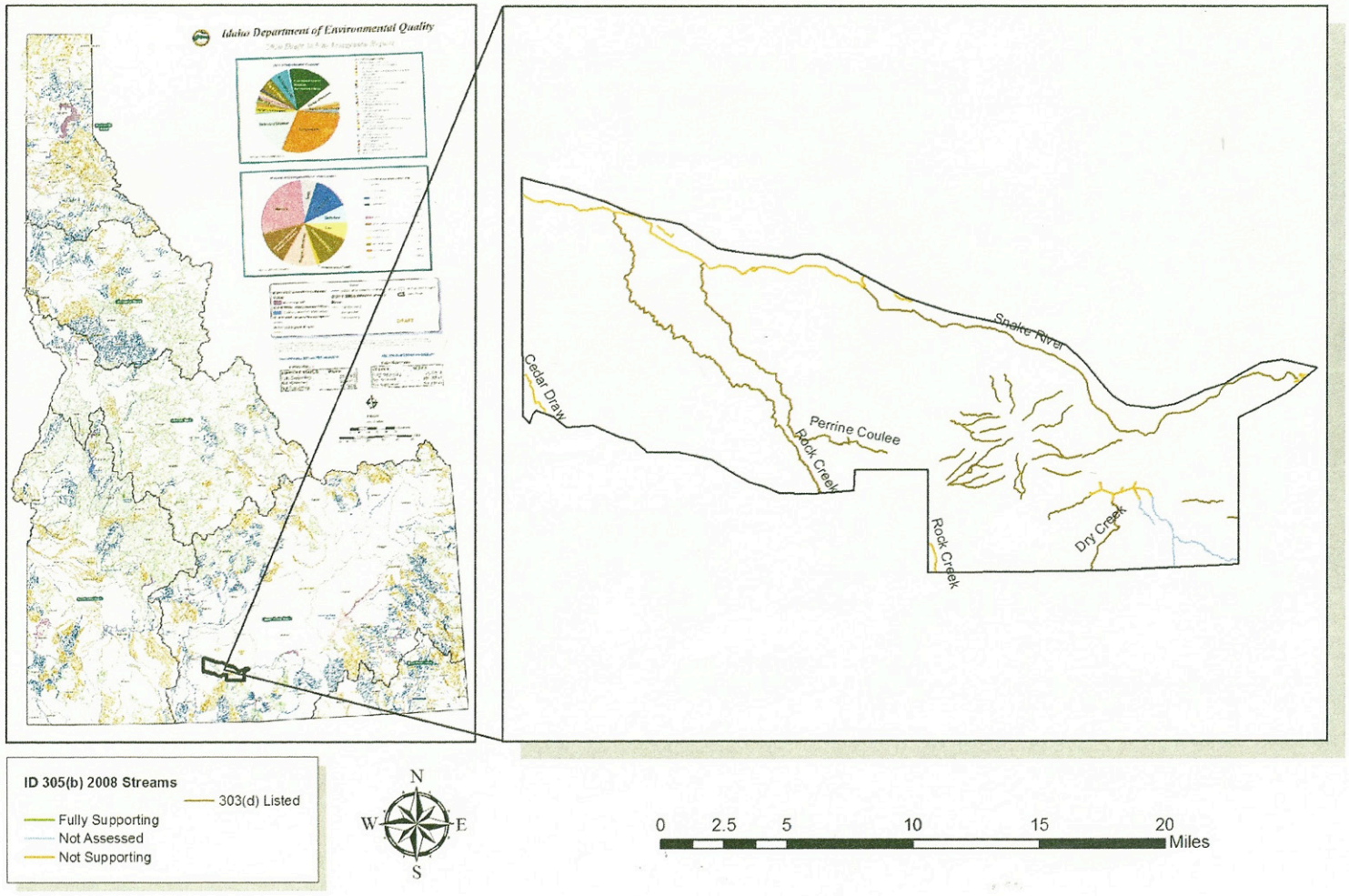
University of Idaho Cooperative Extension Service — provide leadership and support for conservation tours and field days, help develop irrigation management and scheduling plans, help develop grazing plans, help develop site plans for dairies

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

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

Snake River Soil and Water Conservation District
Nitrate Priority Areas

Snake River Soil and Water Conservation District
303(d)/305(b) Listed Waterbodies



TWIN FALLS COUNTY HEL

Date: 2/9/2016

Field Office: TWIN FALLS SERVICE CENTER
Agency: NRCS
Assisted By: MICHAEL REMMING

Snake River 2025 Annual Work Plan
February 18, 2025

Resource Concerns
Soil Erosion/Water Quality
Soil Health
Urban

Proposed/planned Projects:	Leader:	Time:
1) Educate farmers about irrigation water management & BMPs to reduce irrigation-induced soil erosion.	Snake River SWCD board Public outreach specialist	Jan. to Dec.
2) Support the Innovative Ag Marketing Partnership	Snake River SWCD	March to Dec.
3) Work with TFCC to identify potential water quality projects	Snake River SWCD board	Jan. to Dec.
4) Support Rock Creek clean up efforts	Snake River Board ISWCC	Jan. to Dec.
5) Work with TFFC & ID Water Resources Board to identify potential recharge sites	Snake River SWCD board	Jan. to Dec.
6) Participate in the Division IV soil testing program.	Snake River SWCD board UI	Jan. to Dec.
7) Actively participate in the Mid-Snake RC&D.	Snake River SWCD board	Jan. to Dec.
8) Work with the Twin Falls County Fair Board and Twin Falls County Farm Bureau Federation on 2025 Ag Pavilion.	Public outreach specialist	February to Oct.

9) Host annual poster and speech contests.	Public outreach specialist	February to Oct.
10) Host Harrington Fork and Rock Creek Education Days.	Public outreach specialist	February to May
11) Establish social media presence. post water quality videos, soil health info, meeting agendas, etc.	Public outreach specalist Administrative assistant	Jan. to Dec.
12) Provide college scholarship to those entering an agricultural or natural resource field	Snake River SWCD board	Jan. to Dec.
13) Promote Natural Resource Camp scholarships	Public outreach specialist Snake River SWCD board	March to June
24) Participate in Soil Health Forum	Snake River SWCD Board	Jan. 2024

IDAHO SOIL & WATER CONSERVATION COMMISSION

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

DISTRICT: Snake River SWCD

FOR FISCAL YEAR: 2025

DUE : March 31,

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.

Matt Nail

Board Supervisor Signature

Matt Nail

Printed Name

3/11/25

Date

208-944-3736

District Telephone

2t3conservation@gmail.com

District Email Address

FOR SWC USE ONLY:

DATE OF CONFIRMATION: _____