

CANYON SOIL CONSERVATION DISTRICT

2208 E. CHICAGO, SUITE A

CALDWELL, ID 83605

ANNUAL PLAN

FIVE-YEAR RESOURCES CONSERVATION

BUSINESS PLAN

January 1, 2020 – December 31, 2024

FORWARD

The Canyon Soil Conservation District (Canyon SCD) is one of 50 Conservation Districts in Idaho. Idaho Soil and Water Conservation Districts are political subdivisions of state government but are not state agencies. Conservation Districts are charged with carrying out a program for the conservation, use and development of soil, water, and other natural resources.

Conservation Districts are the primary entities that provide assistance to private landowners and land users in the conservation, sustainment, improvement and enhancement of the land. They are an entity for coordinating and implementing conservation programs, channeling expertise from all levels into action at the local level. Programs are non-regulatory; science-based technical assistance, incentive-based financial programs and informational and educational programs at the local level.

Both by legislation and by agreement, the USDA Natural Resources Conservation Service provides technical assistance to landowners and land users through Conservation Districts. Each Conservation District in Idaho has a signed Mutual Agreement with the Secretary of Agriculture and the Governor of Idaho that establishes a framework for cooperation.

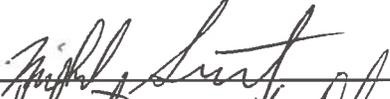
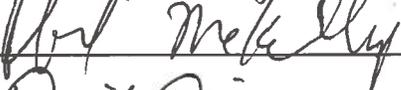
This Annual Plan/Five-Year Resource Conservation Business Plan was developed not only to guide the Conservation District, but through the use of these abilities assist the land owners/users with the acceptable programs that will ensure a sustainable natural resource base for present and future generations in the Canyon Soil Conservation District.

This document identifies the resource needs in the Conservation District and presents a resource conservation action plan for meeting these needs.

CERTIFICATE OF ADOPTION

We, the Board of Supervisors of the Canyon Soil Conservation District this 5th day of March 2020 do hereby approve the following document known as the Resource Conservation Business Plan. This Plan will be in effect for a five-year period ending December 31, 2024 during which time it will be updated annually and/or amended, as necessary.

As evidence of our adoption and final approval, we do hereby affix our signatures to this document.

	Mike Swartz, Chairman
	Bob McKellip, Vice Chairman
	Dave Dixon, Sec. /Treasurer
	Rex Runkle, Supervisor
	Mike Somerville, Supervisor

	Amie Miller, NRCS District Conservationist
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Table of Contents

Section I – Conservation District Structure and Governing Policies

- A. Enabling Legislation, Legal Structure
- B. Powers and Authorities
- C. Current District and Associate Supervisors
- D. District Administration and Operations
- E. District Objectives
- F. District Priorities
- G. District Boundaries
- H. District Resources
 - 1) Main Land use
 - 2) Soil Resources
 - 3) Climate
- I. Cooperating Conservation Partners
- J. Cooperating Agencies and Organizations

Section II – Resource Conditions, Trends and Conservation Needs

- A. Population
- B. Agricultural Economy
- C. District Operations
 - 1) Administration
 - 2) Financial
 - 3) Public Outreach
 - 4) Technical Assistance
- D. Soil Resources
 - 1) Present Condition and Trend
 - 2) Soil Erosion
 - 3) Soil Survey Status
- E. Water Resources (Quantity)
 - 1) Water Sources
 - 2) Flooding
- F. Surface Water Quality
- G. Ground Water Quality
- H. Land Uses
 - 1) Animal Waste Management
 - 2) Cropland
 - 3) Pasture and Alfalfa
 - 4) Rangeland
 - 5) Urban
 - 6) Water Resources
 - 7) Land Preservation
 - 8) Wetlands
 - 9) Fish & Wildlife
 - 10) Recreation
 - 11) Riparian
 - 12) Shoreline
 - 13) Woodlands

Section III-- Maps

Section IV-- Annual Work Plan/Five Year Resource Conservation Business Plan

See attached spreadsheet.

I. Conservation District Structure and Governing Policies

A. Enabling Legislation, Legal Structure

The Canyon Soil Conservation District (Canyon SCD) is a legal subdivision of the State of Idaho deriving its authorities, powers and structure contained in Soil Conservation District Law, Title 22, Chapter 27, Idaho Code. The Canyon Soil Conservation District was formulated for the purpose of assisting landowners in conserving soil, in water resources and to effectively coordinate conservation activities within the District. This District may cooperate and enter into agreements with government agencies, private organizations, and with landowners for the purpose of conservation, development, wise uses and improvement of soil, water, and other natural resources within the boundaries of the District.

B. Powers and Authorities

The District and original program for the District was organized in 1951. The Canyon SCD focused on farm-related soil and water problems. Many farmers received help leveling their land, lining ditches, installing irrigation pipelines, developing conservation cropping systems, and learning to utilize crop residues for better soil and water conservation. Irrigation companies received help upgrading their canals and diversions and improving water-measuring devices along the Boise River.

The first supervisors to serve the Canyon County Soil Conservation District were; Irvin Callahan 1951-1955, and Perry Christensen 1951-1954, both from Caldwell. Leon Henricks 1951-1957, Mark Terrel 1951-1952, and Jack Obermeyer 1951-1953, all from Middleton.

C. Current District Board & Associate Supervisors

BOARD MEMBERS

Mike Swartz, Robert McKellip, David Dixon, Rex Runkle, & Mike Somerville -Jan. 20

ASSOCIATE BOARD MEMBERS

Tom Johnston, Rich Sims & Matt Livengood

D. District Administration and Operations

Canyon SCD programs are administered by a five-person board of supervisors elected by the citizens of Canyon County. Supervisors serve staggered four-year terms. There are currently three associate supervisors serving in advisory capacities. Regular meetings are held monthly and special meetings are called as they are needed.

The District provides landowners and land users with a self-governing system enabling them to:

- 1) Cooperate in solving soil, water and conservation issues
- 2) Receive assistance from local, state and federal agencies to address solving the soil, water and conservation issues

The original program for the District was based on the needs and issues in 1951. The program was revised in 1969 to meet the identified needs at that time. Much of that program has been accomplished.

Currently, the Canyon Soil Conservation District advises and assists landowners and land users when plausible in the preparation and implementation of conservation plans. Emphasis is placed on improved soil and water techniques which will result in higher production, reduce soil erosion, and improve water quality.

The District will continue to be a resource to the county and city officials in areas of comprehensive planning for wise land use and will assist individuals and groups with educational information on soil conservations mission.

Currently the District publishes an informative newsletter quarterly and has articles published in the local newspaper. The District sponsors the conservation poster contest, speech contest, and an Envirothon team. The District provides scholarship money for a student or students to attend the Natural Resources Workshop. The District supports both the State and Local Judging Contest sponsored by the FFA Chapter. District supports the State Envirothon.

The Canyon Soil Conservation District formed a partnership in 2009 with the Lower Boise Watershed Council (LBWC) by providing administration and technical assistance for the "Treasure Valley BMP Implementation 319 Project". Owners and operations of agricultural lands can apply for the 319-grant funding to implement conservation practices that protect and enhance water quality.

- To date LBWC/CSCD Ag BMP Grants (2009-2019):
 - 2 watershed-scale and 21 farm-scale projects supported, with about:
 - **18,000 acres treated
 - **24,000 tons sediment reduced annually
 - **49,000 pounds of phosphorus reduced annually
 - **\$2,000,000 in fed and state 319 grants awarded, matching funds about the same.

Canyon SCD submitted a Regional Conservation Partnership Program (RCP) project proposal and the cooperative agreement between NRCS and Farmers' Co-Operative Ditch Company (FCDC) was signed in 2016. The project consists of an 8.8 acres sediment pond to settle out sediment and associated nutrients from approximately 4,000 acres of predominately surface irrigation crop ground. FCDC Sediment Basin is completed and monitoring water quality started in June of 2019. When the water was out of the canal for the season FCDC cleaned out the sediment basin. The FCDC of Parma built the sediment basin to reduce the amount of sand, silt and clay entering the Lower Boise Watershed/Snake River. The results from the first year was 5,714 tons of sediment and six tons of phosphorous captured in the basin. That equates to 570 dump truck loads or 45 railroad cars.

In 2011 Canyon SCD applied for NRCS CTA (Conservation Technical Agreement) to provide landowners with Canyon SCD additional technical assistance for implementation of Best Management Practices. This partnership continues with the latest agreement signed in 2016. In 2020, Canyon SCD is working on another agreement.

The Canyon SCD Soil Conservation Technician completed projects in 2018. One project was a 150-acre Tree Farm being converted from flood irrigation to pressurized drip irrigation. There was the project on the Conway Drain that is being converted from surface/flood irrigation to sprinkler or drip irrigation on 134 acres. Another project installed was a 3.7 acres Sediment Basin on Mill Slough for the City of Middleton.

In 2019 the Canyon SCD Soil Conservation Technician completed 3 projects. One project was conversion from surface to sprinkler irrigation on 34 acres. This project will eliminate

approximately 4.3 tons/year sediment & 8.5 pounds/year phosphorous from Mason Creek and the Boise River. Another project was conversion from surface to sprinkler irrigation on 140 acres. Project will eliminate approximately 4.5 tons/year sediment & 9 pounds/year phosphorous from Hartley Gulch and the Boise River. The other project was conversion from surface irrigation to pivot sprinkler systems on approximately 190 acres.

Currently, Canyon SCD plans to purchase a NO-Till Drill for landowner/operators to rent during the planting season. There are many interested Landowners/operators. The purchase of the No-Till Drill is a huge step forward in soil health and natural resources.

E. District Objectives

1. Develop and/or implement programs for better soils and water management using all available tools (research, special projects, etc.)
2. Emphasize programs which have enduring conservation benefits, production gains, include energy use, etc.
3. Strong educational effort with: A-Cooperators of programs, B-Institutions public and private, C-General public
4. Cooperate with NRCS, ISWCC, and DEQ in applying conservation programs
5. Lend assistance and work with agencies and units of government with whom we have memorandums of understanding
6. Continue support of proven conservation programs
7. Support wildlife habitat establishment and maintenance
8. Assist if asked to provide help on parks, greenbelts, nature trails, etc.
9. Continue generating Soil Classification Reports

F. District Priorities

1. Develop and/or implement programs for better soils and water management using available tools (research, special programs, etc.)
2. Emphasize programs which have enduring conservation benefits, production gains, including energy use, etc.
3. Cooperate with NRCS, ISWCC, and DEQ in applying conservation programs
4. Strong educational effort with:
 - a. Cooperators of programs
 - b. Institutions public and private
 - c. General public
5. Lend assistance and work with the agencies and unites of government with whom we have memorandums of understanding
6. Continue support of proven conservation programs
7. Support wildlife habitat establishment and maintenance
8. Support wise land use planning.
9. Assist if approached to provide help for parks, greenbelts, nature trails, etc.
10. Continue generating Soils Classification Reports
11. Look closely at SCD policy to effect continuing positive change

G. District Boundaries

The boundaries of the District were originally drawn to include farmers and ranchers who wanted the services of a district and excluded those whose fear was an increase in taxes and government control over their land. The Canyon Soil Conservation District was organized in April 1951 and was comprised of the Second Unit of the Black Canyon Irrigation Project. The South Canyon SCD was organized in 1957 covering generally the southern half of Canyon

County. In 1975 the South Canyon SCD and Canyon SCD were consolidated to form the present Canyon Soil Conservation District, which covers all of Canyon County with the exception of the corporate limits of Caldwell, Nampa, Parma, Notus, Middleton, Wilder, and Melba.

H. District Resources

1) Main Land Use

The original farmers of this county took desert sagebrush and developed the landscape into prime farmland and made it productive with the use of the irrigation infrastructure that gives Canyon County Idaho uniqueness. Prime farmland is identified as the best combination of physical and chemical characteristics for producing food, feed, forage, fiber, seed, and oilseed crops. In general, prime farmlands have an adequate and dependable water supply, a favorable temperature and growing season, an acceptable pH, and few or no rocks. They are permeable to water and air, not excessively erodible, not saturated with water or subject to frequent flooding. Canyon County has 236,376 acres of prime farmland.

Unique farmland is land other than prime farmland that is used for the production of specific high value food and fiber crops. It has the special combination of soil quality, location, growing season, and moisture supply needed to economically produce sustained high quality and/or high yields of a specific crop when treated and managed according to acceptable farming methods. Examples of such crops are fruit orchards, citrus groves, nut trees, olives, cranberries and vegetables.

In 1978, public meetings were held to identify resource concerns in the county. Some of the land related problems identified during these meetings include the following:

1. The loss of prime farmland to other uses such as subdivisions, industrial and commercial developments.
2. Agricultural land should be taxed on its production capabilities, rather than its value for housing or other development.
3. Leased land farming--The renter is limited in making conservation decisions.
4. Trespassing--Hunting on private land with little or no regard for the owner's property.
5. Valuable topsoil is being lost and the sediment is polluting streams.
6. The cost of implementing erosion control practices is high; the landowner is not benefiting financially in the short run.
7. Wind erosion is severe in some areas.

Land use is broken down as follows: USDA National Agricultural Statistics Service –
2012 Census of Agriculture-County Data

Land in Irrigated Farms	2,001
Harvested Cropland Farms	1,384
Other cropland excluding Cropland Pasture Farms	7,000
Pastureland excluding Woodland Pasture Farms	57,831
Irrigated Land	225,310
Harvested Cropland	203,531
Pastureland and other land	23,047
Highly Erodible Land (HEL)	100,000

i. Soil Health is a major concern with Canyon SCD. The Canyon SCD is educating landowners, public and the students of the importance of Soil Health. Cover crops, No-Till, Strip Till farming, and Best Management Practices are ways that helps the total soil health.

2) Soil Resources

Canyon County, with an area of 587.37 (in 2010) square miles of land, includes generally level, rolling, and bench terrain which rise from elevations of 2200 feet along the Snake River to 2800 feet in the Black Canyon area in the northeast corner of the county. The Boise River flows across the center of the District from east to west. The Snake River forms the west and south boundaries. Other perennial streams are Indian Creek, Five Mile, Sand Hollow and Willow Creek.

The County has a complex geologic history involving volcanic activity interspersed with the action of local rivers and torrential floods of glacial origin. Surface materials consist of alluvial deposits along the Snake and the Boise rivers and tributaries. Elsewhere terrace gravels predominate with occasional basalts which are exposed as prominent landmarks in isolated places.

3) Climate

Based upon a 35+year record at the nearby Boise Airport, Canyon County has a dry temperate climate of cool wet winters and warm dry summers. Temperatures during the day may fluctuate widely. In the summer, hot periods range from a few days in length to several weeks long. In winter, cold spells will range from a few days to several weeks long. The main annual temperature is 51 degrees F with main monthly temperatures of 29 degrees F in January and 75 degrees F in July. Extremes of 107 degrees F and -30 degrees F have been recorded. The average dates of killing frosts are May 7th and October 3rd, allowing an average frost-free period of 150 days. Southeast winds predominate with an average of 9 miles per hour. Relative humidity averages about 58 percent. The annual precipitation varies from 6.5 to 11.7 inches with most of it falling as rain or snow in the winter months. The high percentage of cloudless days combined with the control of moisture, makes Canyon County one of the most productive agricultural counties in the Nation with high crop diversity and intensive farming methods.

I. Cooperating Conservation Partners

The Canyon Soil Conservation District is one of 50 Districts in Idaho who works in a partnership with the Idaho Soil and Water Conservation Commission and with the Idaho Association of Conservation Districts. The USDA Natural Resources Conservation Service provides technical assistance to the landowner, creating their conservation plans and helping them to deal with their conservation resource problems.

J. COOPERATING AGENCIES

Bureau of Land Management	208-384-3300
Canyon County Commissioners	208-454-7507
Caldwell Chamber of Commerce	208-459-7493
Canyon Extension Service	208-459-6003
Canyon Planner	208-454-7340
Environmental Protection Agency	208-378-5743
Idaho Association of Soil Conservation District	208-895-8928
Idaho Department of Water Resources	208-287-4800
Idaho Division of Environmental Quality	208-373-0464
Idaho Fish and Game	208-465-8465
Idaho Soil & Water Conservation Commission	208-332-1790
Idaho State Department of Agriculture	208-332-8503
National Fish & Wildlife Deer Flat Refuge	208-467-9278
Natural Resources Conservation Service	208-779-3447
USDA Farm Service Agency	208-779-3430

II. Resource Conditions, Trends and Conservation Needs

A. Population

The population of Canyon County referenced from the Canyon County Workforce Trends; January 2020 is 223,499 residents. The population grew 38,503 or 21 % from 2008 to 2018. Growth remain robust over the past year posting a 3.1 percent gain, the highest since 3 percent in 2008. Nampa's population 93,590, a 2.9 percent increase from 2016. Caldwell had a 3.1 percent increase to 54,660. Middleton with a population of 7,439 growth at 4.5 percent. The urban percentage is 80% and rural 20%. The population per sq. mile is 344 in 2014. The population increase is in non-agricultural occupations. The number of full-time farmers is dropping with a shift to more part-time farmers who earn a substantial part of their income from off-farm activities.

As of January 2019, total employment in Canyon County was 101,849
2018 averages by employment type:

Total covered employment	68,046
Agriculture	3,400
Mining	41
Construction	6,568
Manufacturing	10,468
Trade, Utilities & Transportation	13,235
Information	675
Financial Activities	1,806
Professional & Business Services	5,184
Educational & Health Services	9,281
Leisure & Hospitality	6,078
Other Services	1,797
Government	9,515

B. Agricultural Economy

In 2017, there were approximately 2,289 farm operating units in the District with an average size of about 120 acres, with the total number of acres being . Major crop enterprises include:

1. General row crops such as sugar beets, potatoes, field corn, small grain, onions etc. Highly specialized crops include mint and hops.
2. Commercial seed crops include a wide variety of vegetable seeds including alfalfa and clover seed.
3. A wide variety of fruit orchards and vineyards (wine grapes).
4. Forage crops include alfalfa and grass hays, corn ensilage and tame pasture.
5. Commercial Nurseries

Major livestock enterprises include:

1. Dairy
2. Beef
3. Sheep
4. Hogs
5. Some poultry

The District consists of moderately large dairy operations, as well beef, sheep, and hog operations dispersed throughout the county. The larger operations are primarily confinement type feedlots while the small beef, sheep and hog operations usually utilize pastures.

The trend continued until recently toward fewer and larger farms; however, according to the latest USDA reports a return of many smaller operations is a focus. The number of dairy operations continued to decline but has now stabilized. The rapid growth threatened the stability of Canyon County agriculture until the 2008 financial decline. Canyon County still ranks high in the nation in the production of alfalfa seed and sweet corn seed.

Some of the major problems facing the crop and livestock producers include the following:

1. Production costs and equitable returns
2. The availability of dependable labor.
3. Regulations (animal waste, sediment, chemicals etc.).
4. Markets for products, crops and animals such as sheep and hogs.
5. Soil problems-resurfacing lava rock, low organic soils.
6. Water storage.
7. The Economic downturn.
8. Availability of fuel.
9. Disease control, interstate transfer of livestock.
10. High interest rates and ability to borrow money.
11. Loss of Agriculture related businesses (seed companies, implement dealer's slaughterhouse, etc.)

There are approximately 9,258 acres of rangeland in the District. The rangeland consists largely of annual grass and scattered sagebrush- type range. Most of the original bunchgrass has disappeared through mismanagement. Low rainfall makes re-seeding to improved perennial type grasses difficult. Some of the private range is being converted to cropland by irrigation developments; there is also considerable residential development on these lands.

Agri-business operations make up a large part of the economy. Without these businesses, agriculture - as we know it today - would be impossible. Included are plants for processing dairy products, potatoes, sugar beets, hops, mint, and corn; also, facilities for packaging and transporting fruit, vegetables and other farm produce. Seed companies have facilities for processing the large volume of seed crops produced. There are also farm and irrigation equipment manufacturers and dealers, feed processing plants, seed, fuel, and chemical supplies. There are many financial institutions to handle agriculture's financial needs.

C. District Operations

1) Administration: The focus of the Canyon Soil Conservation District was to assist in every way possible to help with ideas and practices that best suited the needs of the cooperator and the lay of the land for the erosion of soil and preservation of water and other necessary natural resources. We would accomplish this by making available, whatever the source, educational resources (some of our knowledge of years of experience), financial (whenever it would fit a practice) and cooperating with the Districts NRCS Conservationist to assist the needs of the local land owner/manager with conservation of their soil and water. Emphasis has always been placed on improved soil and water management techniques which will result in higher production, reduced soil erosion, improved water quality. Our mission was committed to providing quality leadership, information, education, and technical assistance for the conservation and wise use of natural resources.

2) Financial: The District Board requests funding from County and State and Federal agencies. In handling these public funds, the District Board reviews sources of funding, develops budgets and sends budget reports to the ISWCC.

3) Public Outreach: The District continues assisting county and city officials with issues related to comprehensive planning for wise land use. We will also continue to work with groups

and individuals to reduce and prevent pollutions of both surface and ground water.

4) The District currently publishes an informative newsletter each quarter and puts articles in the local newspaper. The District sponsors the conservation poster contest, speech contest, Soil & Water Stewardship Week/all year, and an Envirothon team. The District provides scholarship money for students to attend the Natural Resources Workshop. The District supports both the State and Local Land Judging Contest sponsored by the FFA Chapter.

5) Technical Assistance: Technical assistance is provided through the District partnership with NRCS, IASCD, and ISWCC. Canyon SCD has been able employ a Soil Conservation Technician since the first Conservation Technical Assistance (CTA) agreement which was originally signed in 2009. This agreement has enabled Canyon SCD to continue to improve soil health and water quality through education and implementation of best management practices. Landowner, operators, general public and students benefit by learning the importance of protecting our agricultural lands & natural resources.

D. Soil Resources

1) Present Condition and Trend: Most soils are of medium texture with good drainage and high inherent fertility and productive capacity. The general soil problems, usually confined to local areas include saline and alkaline conditions, sandy texture, steep slope, poor drainage, and shallow depth over gravel and hardpan.

2) Soil Erosion (IRRIGATION INDUCED EROSION): There are approximately 260,341 acres of irrigated cropland in Canyon County. Most of this area now has switched to sprinkler irrigation and drip systems as a result of conservation assistance. Surface irrigated lands generally have higher erosion rates and are of particular concern to water quality objectives. Substantial areas of Canyon County have excessive irrigation induced erosion. Over 100,000 acres of surface irrigated cropland in the county has been identified as having serious erosion. Primarily, this is surface irrigated cropland which has slopes greater than 1%. These acres do not occur in any particular location in the County. On some fields, surface soil horizons have been eroded away, and the subsurface horizons exposed.

3) Suspended sediment reduces water clarity, interferes with irrigation by decreasing pump life and increasing ditch cleaning costs, fills in reservoirs, and reduces habitat quality for fish and other aquatic life. The major nutrients associated with agricultural runoff are nitrogen and phosphorous, although through awareness has curbed some of the problem. In high concentrations, these nutrients stimulate excessive algae or aquatic plant growth that is thought may reduce oxygen to levels harmful to fish, and clog pipes and ditches.

4) Soil Survey Status: A soil survey of the District was published in 1972. Soils were grouped and classified according to depth, texture, slope, degree of drainage, limiting layers, etc. These groupings (soil series) have been grouped into eight General Soil Associations to show the pattern of soils for broad use planning (note soil association map). This was enhanced by district conservation staff member Keith Griswold early 2000 when he mapped the soil types.

SOIL SURVEY INTERPRETATIONS

An inventory of soil and water characteristics is a necessary prerequisite to good land use planning. Whether the texture is sand or clay, level or steep, wet or dry, deep or shallow, saline or non-saline, determines the feasibility of crop production, sewage disposal, building and road construction and many other uses. In addition to agricultural uses, the soil survey interpretations are useful for planning and zoning commissions, engineers, land and tax appraisers, real estate developers, lending organizations and educators. Some uses of this interpretive information are for determining:

1. Suitability for industrial, business, residential and recreational sites.
2. Suitability for and effects on construction and maintenance of roads, airports, pipelines,

building foundations, water storage facilities, water control structures, land drainage systems and sewage disposal systems.

3. Suitability as a source for topsoil, sand and gravel, and for road and dam building material.

4. Soil related limitations and production potentials for cultivated crops, pasture, trees and wildlife.

For soil association descriptions, please refer to the 1972 Canyon County Soil Survey available in the District office, contact the Canyon SCD Admin. Assist. or at the web soil survey @ <http://websoilsurvey.nrcs.usda.gov>.

E. Water Resources (Quantity)

1. Water Sources

Water continues to be an issue. The Basin Advisory Group (BAGS) has completed a Total Maximum Daily Load (TMDL) on the Boise and Snake Rivers. Conservation practices continue to be necessary to meet the goals to reduce nutrients and sediments. Assisting farmers and landowners continues to be the priority of the District. Rapid population growth has impacted the district with the loss of prime farmland. Impacts of new county ordinances on farming practices are a great concern.

2. Flooding and Drainage

Flooding is not a frequent problem in the county but when it does occur, the impacts can be serious. Flooding occurs on an infrequent basis along most of the streams and draws in the County. It normally occurs in the late winter or early spring when the soil is frozen. Rain melts the snow cover which cannot soak into the frozen soil and rapid runoff occurs. Streams and draws overflow, eroding crop fields, damaging irrigation structures, and occasionally destroying county roads.

Drainage is no longer a major problem within the District. Most areas in need of drainage to improve crop production have been drained. Maintenance of the drainage systems is needed. The importance of wetlands to wildlife, and federal and state programs designed to protect wetlands will limit future drainage projects.

F. Surface Water

Snowfall on the Boise and Payette River's watersheds determine the adequacy of surface water. Upstream storage reservoirs were built for irrigation, provide flood control, and assure a regulated flow to meet peak irrigation demands. Organized irrigation districts manage the water on most of the irrigated land. Major irrigation districts are the Black Canyon, Wilder, Pioneer, Farmers Co-op, Riverside, Nampa - Meridian, and the Boise - Kuna.

G. Ground Water Quality

There are several hundred irrigation wells in the District providing both primary and supplemental irrigation water. The Idaho Department of Water Resources is responsible for permitting irrigation wells. Groundwater pollution is a major public concern. DEQ has a nitrate plan in place for Canyon County after a 2-year study and sampling of wells. A TMDL study for the Lower Boise River was completed in 2002, which reports on the causes of contamination in this area.

WATER QUALITY OFFICIAL STREAM SEGMENTS OF CONCERN

The following were segments of concern that were sampled and followed as part of the 303d listing. This list of impacts affecting these waters, have been reduced by a number of issues, awareness being number one. There will always be impacts of some form, but the result

was lessening the known. 303d listed stream segments occur in the District. The 303d list changes with time. **The current list of impaired water bodies is included in IDEQs 2012 Integrated report which can be accessed at <http://www.deq.idaho.gov/water/data>.**

IMPACTED WATERS

The following stream segments are listed as impacted waters by the Idaho Department of Environmental Quality.

Snake River King Hill to Marsing--impacted by nutrients and pesticides from irrigated cropland.

Indian Creek from New York Canal to Boise River--impacted by nutrients, sediment, organic enrichment, and petroleum products from irrigated cropland, pastures, feedlots, construction, storm sewers and land disposal areas.

Boise River Star to Notus--impacted by nutrients, sediment and organic enrichment from irrigated cropland, pastureland, feedlots, construction and hydrologic modification.

Mason Creek headwaters to Boise River--impacted by nutrients, sediment and organic enrichment from irrigated cropland, pastureland and feedlots.

Boise River Notus to Snake River--impacted by nutrients, sediment, organic enrichment and pathogens (bacteria) from irrigated cropland, pastureland, rangeland, feedlots, construction and hydrologic modification.

Sand Hollow Creek headwaters to Snake River--impacted by nutrients, sediment and organic enrichment from irrigated cropland and pastureland.

Snake River Boise River to Weiser River--impacted by nutrients and sediment from irrigated cropland and pastureland.

WATER QUALITY CONCERNS

Another water quality concerns in the county is Lake Lowell. This lake is recognized as one of the best bass fisheries in the state and was severely impacted from irrigation return flows.

WATER QUALITY STATEMENT

The Canyon Soil Conservation District willingly accepts the responsibility inherent to Districts to address agricultural nonpoint source pollution as set forth in Section 319 of the 1987 Water Quality Act; the Safe Drinking Water Act of 1986; and the Clean Water Act of 1972 Section 208. The Canyon Soil Conservation District accepts this responsibility in order to preserve a locally administered voluntary approach for the control and abatement of agricultural nonpoint source pollution and to protect and enhance the quality and value of water resources of the State of Idaho.

H. Land Uses

1) Animal Waste Management: A permit system is managed by the U. S. Environmental Protection Agency for larger animal waste facilities. Most of the livestock operations in the county have adequate facilities for storing and spreading animal waste in a non-polluting manner.

2) Cropland

a. Irrigated--The current economic conditions dictate that Canyon County farm ground is intensively row cropped. The Canyon Soil Conservation District encourages the maintenance and improvement of the soil by controlling wind and water erosion. The District supplies information on best management practices to land users through the local news media, the District newsletter, and direct contact. More and more farmers are using conservation practices. These include such practices as sediment ponds, vegetative filter strips, straw mulching, conservation tillage, agro-tillage, and proper crop rotations. Many of the farmers have switched

to surge, drip, and sprinkler irrigation.

b. Non-Irrigated--Dry cropland is essentially non-existent in Canyon County and is not recognized as a land use. Some irrigated cropland may be dry-cropped occasionally due to a shortage of irrigation water.

3) Pasture and Alfalfa--Pasture and hay are soil conserving crops. The Canyon Soil Conservation District encourages the planting of hay and pasture on problem soils and slopes. One way they plan on doing this is through the media and District newsletter.

4) Rangeland-- is a minor land use in Canyon County. Rangeland is mainly used for spring and winter pastures.

5) Urban--The increase in business activities and the large increase in population of the District has resulted in conversion of many hundreds of acres from agricultural use to residential, commercial and industrial uses. With the economic downturn virtually, all expansion has stopped, and our focus will be directed at keeping the agriculture viable with conservation practices.

The effects of changing from agricultural to urban use results in impacting of drainage water with industrial waste and sewage effluents. Runoff from large areas of concrete and paved areas need to be accommodated by the drainage systems.

The District will cooperate with city and county planning and zoning departments by providing soil survey and any other data available to help in an orderly transition of these land uses.

6) Water Resources--The conditions of water resources in Canyon County are generally good. The trend is more pressure from environmentalists and concerned citizens for cleaner water, both surface and ground water. Water resources are used for personal, business, irrigation and recreational uses. The Canyon Soil Conservation District will work with other agencies and groups concerned with improving water resources without undue pressure on the local economy.

7) Land Preservation--With the Conservation Security Program, the District is actively working to sign up landowners for the program to preserve our agricultural land.

8) Wetlands--In the last few years the District has sponsored wetland projects. One of the biggest is the CB Springs Ranch. The whole office has been evolved with the plantings and cleaning up the moss with barley straw. The exact amount of wetlands on private land in the Canyon Soil Conservation District has not been determined yet. The bulk of obvious natural and artificial wetland areas are associated with the irrigation districts or the Upper Deer Flat Wildlife Refuge. It is difficult in this area to differentiate between artificial and natural wetlands due to the impact of irrigation and flood control structures.

9) Fish and Wildlife--The changing of land use from the early years of agriculture in Canyon County when a hay, grain, and livestock economy was predominant, to the present time of continuous row crop and limited livestock production, has resulted in a loss of habitat suitable for many species of wildlife. Fish life has suffered from an increased amount of silt from the clean-cropped fields and the nitrates, herbicides and pesticides present in runoff water. The SCD encourages and will assist land users in planning areas for use by wildlife. Our focus is generally in this area to add more wildlife reserves to the two we have already established.

Important needs are conservation practices which result in less loss of soil into the streams, reducing or eliminating runoff of chemicals and incorporating and retaining wildlife food and cover plots in farm plans when feasible. The District does cooperate with Idaho Fish and Game, Federal Wildlife Refuge personnel and District Cooperators to further management of this resource.

The major problem with fisheries in the district is water quality. Degradation of water quality does reduce the opportunity for fishing in the district. Current trends are improving.

Reducing sedimentation will continue to improve as more center pivots, wheel line and drip irrigation systems are introduced into farming practices.

Some wildlife populations are decreasing from natural predators and loss of wildlife habitat. The District is encouraging farmers to use practices that leave ground cover and settling ponds to increase wildlife habitat.

10) Recreation--With the growth in Idaho's population and the increase in the number of tourists to our state, there are definite needs for more recreational facilities and the up-grading of facilities we already have.

The trend has been for the state to cut funds for the maintenance of some camping areas. This money could easily be recovered from out of state tourist's spending money in our state if we had good recreation areas and adequate R.V. parking and camping facilities for them to use.

The Canyon SCD's goal is to assist the State and County Departments of Parks and Recreation, the Idaho Fish and Game Dept., the Forest Service and other related agencies in any way we are able to accomplish the above-mentioned needs.

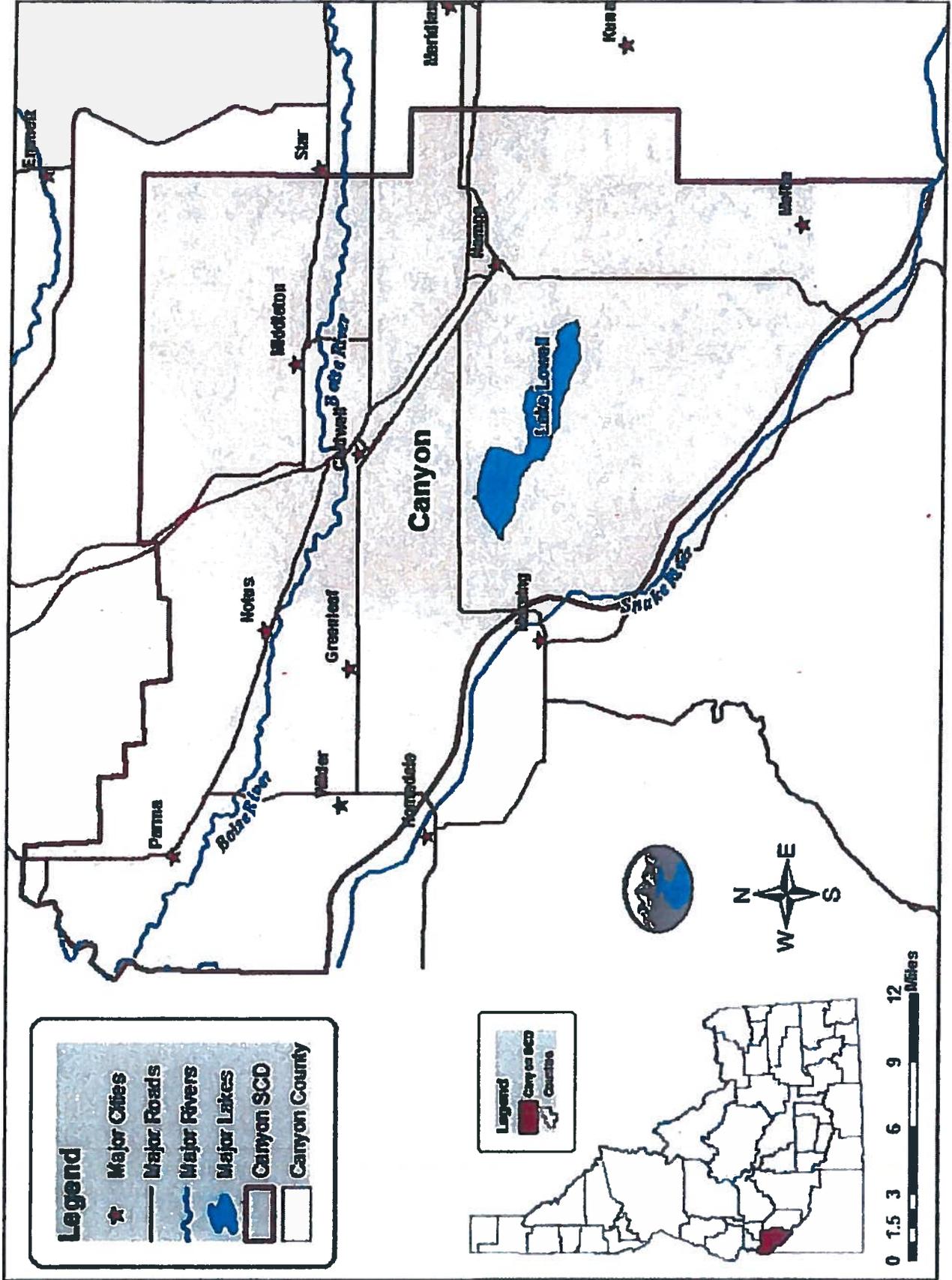
11) Riparian--The rivers, streams and waterways in the District have riparian areas that vary in quality. These areas are used mainly for livestock grazing and recreation. The Canyon SCD supervisors are willing to work with landowners and people interested in improving and maintaining the riparian areas.

12) Lake Lowell return flows back into Lake Lowell are a priority. There is a Total Maximum Daily Loads (TMDL's) Implementation Plan for the Boise River and Lake Lowell.

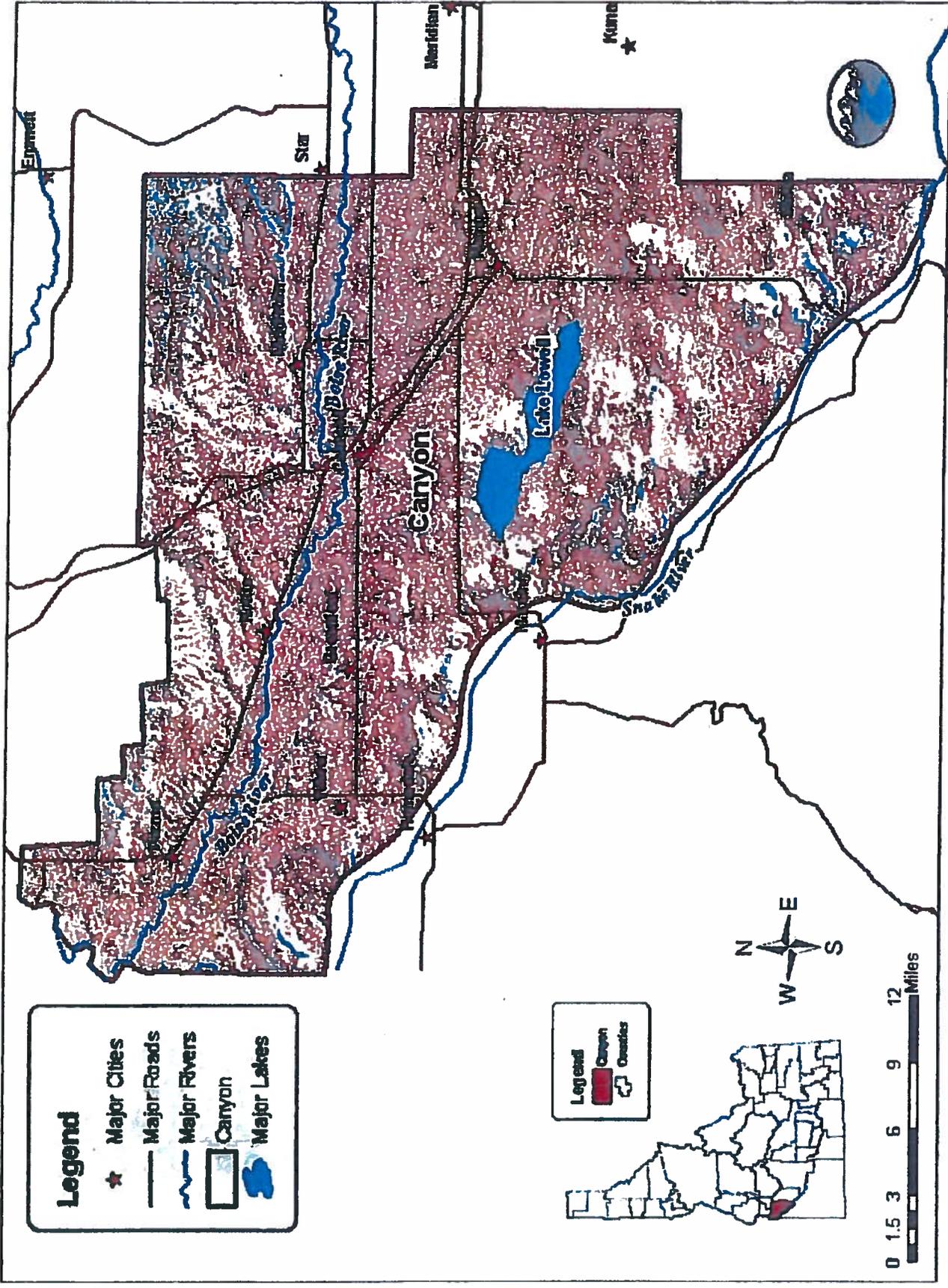
13) Woodlands--The only areas in the Canyon Soil Conservation District that could be called woodlands are in the Upper Deer Flat Wildlife Refuge and possibly along the Boise River. There are other agencies that have control of those areas. The SCD does encourage the plantings of windbreaks for wind control and wildlife habitat improvements.

Whenever possible the Canyon Soil Conservation District will assist other agencies in these areas if help is requested.

Canyon Soil Conservation District Boundary



Canyon Soil Conservation District Boundary





FY2020 (7/1/19 – 6/30/20) Annual Plan of Work Canyon Soil Conservation District

For Information Contact: Mike Swartz, Chairman

Telephone Number: 208-779-3443

Email: Lori.Kent@id.nacdnet.net

Counties Served: Canyon

Legislative Districts: 9, 10, 11, 12, 13



Mission of the Canyon Soil Conservation District (Canyon SCD):

The Canyon Soil Conservation District is committed to providing quality leadership, information, education, technical, and financial assistance for the conservation and wise use of natural resources.

Trends & Issues Impacting Conservation in the Canyon Soil Conservation District:

Water Quality continues to be an important issue. Total Maximum Daily Load (TMDL) plans have been completed for the Lower Boise River, Snake River and Lake Lowell. Conservation practices will need to continue to be implemented to reduce sediment and nutrients if the water quality goals are to be met.

Locating funding and property for large sediment pond development is increasing in importance. Locating property close to the Boise River is the ideal location to get the most benefit. With real estate prices this close to the river this has become a challenge.

Of concern to the District is the rapid growth in the county and loss of prime farmland and the impact of rural subdivisions on farming operations. It is important to continue work with Canyon County and other partners to reduce urban sprawl and loss of farm ground in the District.

Projects Planned, Coordinated or Managed by the Canyon Soil Conservation District:

The Canyon Soil Conservation District (SCD) continues its partnership with the Lower Boise Watershed Council (LBWC) in implementing the "Treasure Valley BMP Implementation 319 Project". Project assists agricultural landowners and operators by providing educational, financial and technical assistance to apply conservation practices to protect and enhance water quality.

In partnership with the Natural Resource Conservation Services, RCPP program, Canyon SCD assisted Farmer's Co-Operative Ditch Company in securing technical assistance and funding to construct an 8.8-acre sediment basin to settle out sediment and associated nutrients from the Farmer's Co-Operative Canal. Lower Boise Watershed Council and Idaho Department of Water Resources also provided funding for the project. NRCS created a special EQIP signup for landowners within the 4,000-acre project

area to implement best management practices to improve irrigation efficiencies and decrease pollutant runoff. A total of 5 landowners have implemented projects under this program.

Canyon SCD has a current Memorandum of Understanding (MOU), with NRCS for Conservation Technical Assistance (CTA) to assist the Caldwell NRCS office with conservation coordination and planning. Funding has provided Canyon SCD with a part time Soil Conservation Technician position.

Funding Sources for District Operations and Projects Coordinated

Idaho Soil and Water Conservation Commission (ISWCC) provides funding assistance to Canyon SCD to continue educational outreach to residents of Canyon County and administrative assistance for district reporting.

The Canyon Soil Conservation District (SCD) formed a partnership with the Lower Boise Watershed Council (LBWC) in 2009 to implement the "Treasure Valley BMP Implementation 319 Project". This funding can provide agricultural landowners and operators to apply conservation practices that protect and enhance water quality.

The District also promotes federal and state funding programs. These programs include, ISWCC - Resource Conservation & Rangeland Development Program (RCRDP) - Loan Program, NRCS - Environmental Quality Incentive Program (EQIP), NRCS - Agricultural Conservation Easement Program (ACEP), NRCS - Regional Conservation Partnership Program (RCPP) and NRCS - Conservation Stewardship Program (CSP).

Canyon SCD continually seeks additional partnerships and grant funding to implement best management practices for water quality improvement projects.



FY2020 (7/1/19 – 6/30/20) Annual Plan of Work Canyon Soil Conservation District

Conservation District Priority Number 1: Water Quality

Objective: Provide technical and financial assistance to agricultural landowners and operators to implement best management practices to decrease pollutants from 303(d) listed waterbodies.

Goal(s): Assist Agricultural landowners and operators in meeting pollutant load reductions as defined in local watershed TMDL's and Groundwater management plans.

Actions	Target Date	Individual(s) Responsible/Partners
1. Continue partnership with Lower Boise Watershed Council (LBWC) by providing assistance with landowner technical support, Lower Boise Watershed Council Technical Advisory Committee support and input and 319 grant support.	ongoing	Canyon SCD Board of Supervisors, Canyon SCD Staff, NRCS
2. Accelerate activities in the high priority watershed at the local level in the following ways: a. Concentrate I&E efforts to demonstrate the problems and alternatives b. Work with NRCS to concentrate funding in high priority watersheds through EQIP, RCPP and other funding programs.	ongoing	Canyon SCD Board of Supervisors, Canyon SCD Staff, NRCS, LBWC
3. Seek outside funding, as needed, to augment technical and financial assistance available in the District.		Canyon SCD Board of Supervisors, Canyon SCD Staff, NRCS
4. Support the development and implementation of TMDL Implementation Plans for the Lower Boise Watershed. Assist farmers in meeting TMDL goals. Enhance partnership work with the city of Notus on the Boise River. Support the development and implementation of the Lake Lowell and Lower Boise River TMDL Implementation Plans. Work with Wilder Irrigation District, Farmer's Co-Op Canal and other entities on return flow sediment/nutrient reductions. Provide support to landowners within Regional Conservation Partnership Program (RCPP) boundary on signups for EQIP.	ongoing	Canyon SCD Board of Supervisors, Canyon SCD Staff, NRCS, LBWC
5. Provide financial incentive to agricultural landowners and operators to apply conservation practices that protect and enhance water quality through the Treasure Valley BMP Implementation 319 grant project.	ongoing	Canyon SCD Board of Supervisors, Canyon SCD Staff, NRCS, ISWCC
6. Through continued agreement with NRCS, Canyon SCD Resource Enhancement Project, the Soil Conservation Technician will continue to aid agricultural landowners and operators in implementation of Best Management Practices and conservation planning for water quality projects in high priority watersheds.	ongoing	Canyon SCD Board of Supervisors, Canyon SCD Staff, NRCS



FY2020 (7/1/19 – 6/30/20) Annual Plan of Work Canyon Soil Conservation District

Conservation District Priority 2: Urban

Objective: Encourage the protection of Prime Farmland.

Goal(s): Keep Local growth from destroying the rural character and agricultural production in the county.

Actions	Target Date	Individual(s) Responsible/Partners
1. Provide soils information to P&Z Board on subdivision requests and lot splits.	ongoing	Canyon SCD Staff, NRCS
2. Cooperate with other agencies that have prime farmland protection programs and agriculture preservation.	ongoing	Canyon SCD Board of Supervisors, Canyon SCD Staff, NRCS, ISWCC
3. Promote growth and development on non-agricultural land.	ongoing	Canyon SCD Board of Supervisors, Canyon SCD Staff, ISWCC

Conservation District Priority Number 3: District Operations

Objective: Seek more assistance from state, county, and federal sources.

Goal(s): Get more technical assistance in the field

Actions	Target Date	Individual(s) Responsible/Partners
1. Publicize the need for more technical assistance.	ongoing	Canyon SCD Board of Supervisors
2. Encourage County, Federal and State agencies to take note of District's needs. Enhance District capacity to maintain partnerships with local, state, and federal agencies. Open Meeting Law & Legality of Supervisors including public issues, ethics, and conduct.	ongoing	Canyon SCD Board of Supervisors, ISWCC
3. Encourage Volunteer help to District Office. Retired Senior Volunteer Program.	ongoing	Canyon SCD Board of Supervisors, Canyon SCD Staff, NRCS



FY2020 (7/1/19 – 6/30/20) Annual Plan of Work Canyon Soil Conservation District

Conservation District Priority Number 4: Irrigated Cropland

Objective: Encourage the adoption of conservation practices that will reduce wind and water erosion.

Goal(s): Decrease erosion from wind and water.

Actions	Target Date	Individual(s) Responsible/Partners
1. Provide public service announcements to local TV and radio stations.	ongoing	Canyon SCD Staff, NRCS
2. Provide newsletter articles to local newspapers and magazines.	ongoing	Canyon SCD Staff, NRCS
3. Utilize the District Newsletter to promote conservation practices.	ongoing	Canyon SCD Staff, NRCS
4. Provide and promote Soil Health Practices and No-till Conservation Systems for Ada SWCD and Canyon SCD producers.	ongoing	Ada SWCD Staff, Canyon SCD Staff, NRCS, ISWCC
5. Continue partnership with Payette SWCD on Soil Health Symposium held each year in February.	2/13/20	Canyon SCD Board of Supervisors, Canyon SCD Staff, NRCS, ISWCC

Conservation District Priority Area 5: Fish and Wildlife

Objective: Increase size of riparian areas.

Goal(s): Improve Water Quality.

Actions	Target Date	Individual(s) Responsible/Partners
1. Encourage farmers engaged in Water Quality Projects to maintain riparian areas.	ongoing	Canyon SCD Staff, NRCS
2. Promote Best Management Practices (BMP'S) to increase habitat where applicable	ongoing	NRCS & Canyon SCD Staff
3. Encourage mosquito abatement.	ongoing	Canyon SCD Board of Supervisors



FY2020 (7/1/19 – 6/30/20) Annual Plan of Work Canyon Soil Conservation District



Conservation District Priority Area Number 6: Information & Education

Objective: Increase public awareness of farmer stewardship of the land.

Goal(s): Disseminate information and education about soil and water conservation.

Actions	Target Date	Individual(s) Responsible/Partners
1. A display will be created and used at the Canyon County Fair. Demonstrated soils & water concepts to general public.	7/23-26/20	Canyon SCD Staff, NRCS
2. Soil Stewardship material letters will be sent to elementary and high schools. New contact with teachers, learning groups and school presentations were conducted.	9/19 and 4/20	Canyon SCD Staff
3. CSCD will hold the speech contest.	9/20	Canyon SCD Staff
4. CSCD will hold the poster contest.	10/20	Canyon SCD Staff
5. CSCD and NRCS help with Ada's Conservation Days a five-day event.	Yearly	Canyon SCD Staff, Ada SWCD Staff, NRCS
6. Legislative Display and Social	1/20	Canyon SCD Board/Staff
7. Western Idaho Ag Expo	1/20	Canyon SCD Staff, NRCS
8. CSCD will sponsor the State Envirothon.	5/20	Canyon SCD Board & Canyon SCD Staff
9. CSCD will sponsored two students to attend the Natural Resources Workshop	6/20	Canyon SCD Board & Canyon SCD Staff
10. CSCD Newsletter is mailed out to 530 & emailed to 55 different landowners and entities four times a year.	quarterly	Canyon SCD Staff, NRCS
11. 319 project media stories	ongoing	Canyon SCD Staff
12. 319 project tour/lunch	Summer	Canyon SCD Board & Canyon SCD Staff, NRCS
13. Annual Soil Health Symposium	2/20	Canyon SCD Staff, NRCS
14. Science, Technology, Engineering and Mathematics (STEM) night Notus Elementary	4/20	Canyon SCD Staff, NRCS

Canyon Soil Conservation District assisting land managers with their conservation choices

**IDAHO SOIL & WATER
CONSERVATION COMMISSION**

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

DISTRICT: Canyon Soil Conservation
District

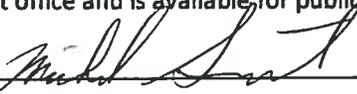
FOR FISCAL YEAR:
FY 2020

DUE : March 31, 2020

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

Mike Swartz

Printed Name

3-5-2020

Date

208-779-3443

District Telephone

Lori.Kent@id.nacdnet.net

District Email Address

FOR SWC USE ONLY:

DATE OF CONFIRMATION:
