

CANYON SOIL CONSERVATION DISTRICT  
2208 E. CHICAGO, SUITE A  
CALDWELL, ID 83605  
ANNUAL PLAN  
FIVE-YEAR RESOURCES CONSERVATION  
BUSINESS PLAN

January 1, 2014 – December 31, 2018

## FORWARD

The Canyon Soil Conservation District 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 6<sup>th</sup> day of March, 2014 do hereby approve the following document known as the Resource Conservation Business Plan. This Plan will be in effect for a five-year periods ending December 31, 2018 during which time it will be updated annually and/or amended, as necessary.

Canyon Soil Conservation District Board's evidence of our adoption and final approval.

Mike Swartz, Chairman

Mike Somerville, Vice Chairman

Rex Runkle, Sec. /Treasurer

Rock Smith, Member

Bob McKellip, Member

James Eller, Natural Resources Conservation Service

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# **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, Mike Somerville, Rex Runkle, Rock Smith and Robert McKellip Jan. 2014

### **ASSOCIATE BOARD MEMBERS**

Richard Gunning, Tom Johnston, Glen Nielson, and Dennis Evans

## **D. District Administration and Operations**

The district programs not plan related 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 four 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.

Now in 2014, our natural resources are viewed in a much broader scope. Growth in population and changing demands by national and state NRCS as well as EPA and state DEQ require we revise and update our program to include total concept of resource and use planning.

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.

The Canyon Soil Conservation District (SCD) is involved with the Lower Boise Watershed Council (LBWC) and the Idaho Soil Water Conservation Commission (ISWCC) to provide a Lower Boise River TMDL Project Agricultural BMPs for Water Quality Improvement (319 Grant Project) for owners and operators of agricultural lands to apply conservation practices that protect and enhance water quality, which began September of 2009. In 2012 Canyon SCD and LBWC co-sponsor this project.

In 2013 Canyon SCD co-sponsored with Ada SWCD on the management of a no-till drill. Also, in 2013 Canyon SCD partnered with Boise River Enhancement Network (BREN).

#### **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**

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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 278,517 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. Canyon County contains 9,217 acres of unique farmland.

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.

The Canyon Soil Conservation District has a total land and water area of 387,799 acres. Land use is broken down as follows:

Irrigated Cropland	219,654 ACRES
Pasture and Hayland	42,263 ACRES
Rangeland	16,618 ACRES
Wildlife Land	6,800 ACRES
Recreation Land	15,000 ACRES
Other Land	67,084 ACRES
Federal Land	5,100 ACRES
State Land	1,600 ACRES
Wetlands	13,680 ACRES

## **2) Soil Resources**

Canyon County, with an area of 589.72 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.

**G. COOPERATING AGENCIES**

Bureau of Land Management	<u>Jim Fincher; Boise D. M.</u>	<u>384-3300</u>
Canyon County Commissioners	<u>Steven Rule</u>	<u>454-7507</u>
Caldwell Chamber of Commerce	<u>Theresa Hardin</u>	<u>459-7493</u>
Canyon Extension Service	<u>Jerry Neufeld</u>	<u>459-6003</u>
Canyon Planner II	<u>Debbie Root</u>	<u>454-8691</u>
Environmental Protection Agency	<u>James Wertz</u>	<u>378-5743</u>
Idaho Association of Soil Conservation Districts	<u>Benjamin Kelly</u>	<u>895-8928</u>
Idaho Department of Water Resources	<u>Gary Spackman</u>	<u>287-4800</u>
Idaho Division of Environmental Quality	<u>Julia Achabal</u>	<u>373-0575</u>
Idaho Fish and Game	<u>Andy Ogden</u>	<u>465-8465</u>
Idaho Soil & Water Conservation Commission	<u>Teri Murrison</u>	<u>332-1790</u>
Idaho State Department of Agriculture	<u>Celia Gould</u>	<u>332-8503</u>
National Fish & Wildlife Deer Flat Refuge	<u>Stan Culling</u>	<u>467-9278</u>
Natural Resources Conservation Service	<u>James Eller</u>	<u>454-8684</u>
USDA Farm Service Agency	<u>Kyla Pearson</u>	<u>454-8695</u>

**II. Resource Conditions, Trends and Conservation Needs**

**A. Population**

The population of Canyon County referenced from the Canyon County Work Force Trends, November 2013, is nearly 194,000 residents. The urban percentage is 73.3% and rural 26.7%. The population per sq. mile is 321 (2010). 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 October, 2013, total employment in Canyon County was 81,047

2012 averages by employment type:	
Total covered employment	50,861
Agriculture	2,800
Mining	22
Construction	2,811
Manufacturing	7,499
Trade, Utilities & Transportation	11,043
Information	620
Financial Activities	1,541
Professional & Business Services	3,631
Educational & Health Services	7,460
Leisure & Hospitality	3,452
Other Services	1,451
Government	8,531

**B. Agricultural Economy**

There are approximately 1898 farm operating units in the District with an average size of about 187 acres, with the total number of acres being 354,919. 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 dealers slaughter house, etc,)

There are approximately 29,400 acres of rangeland in the District. Approximately 10,106 acres are public lands managed by the Bureau of Land Management. 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 cooperators 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 (when ever 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 ISCC. The District will continue to carry out the Dixie Slough Watershed Project, Water Quality Program for Agriculture (WQPA). In 2002 the Sand Hollow West project was completed. In December 2006 the Dixie slough Watershed Project was complete.

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. 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. The CSCD has been able to hire an Outreach Coordinator in 2012 with a Conservation Technical Assistance (CTA) agreement. September 2013 a new CTA agreement was signed to continue CSCD Outreach Coordinator.

4) Technical Assistance: Technical assistance is provided through the District partnership with NRCS, IASCD, and ISWCC. The CSCD has been able to hire a Soil Conservation Technician in 2012 with a Conservation Technical Assistance (CTA) agreement. September 2013 a new CTA agreement was signed to continue CSCD Soil Conservation Technician Assistance.

### **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 253,000 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 115,000 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.

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.

3) 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 high quality goals to reduce nutrients and sediments set by BAGS. Assisting farmers and landowners continues to be the priority of the District. The rapid growth that impacted the loss of prime farmland, the rural subdivisions that sprouted among the farming operations, the impact of new county ordinances on farming practices (such as the burn bans and dust ordinances), and compliance with Idaho Department of Agriculture Animal Feed Operations (AFO)/Confined Animal Feeding Operations (CAFO) are issues of 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 2008**

**Integrated report which can be accessed at**

**[http://www.deq.idaho.gov/water/data\\_reports/surface\\_water/monitoring/integrated\\_report\\_2008\\_final\\_entire.pdf](http://www.deq.idaho.gov/water/data_reports/surface_water/monitoring/integrated_report_2008_final_entire.pdf)**

### **IMPACTED WATERS**

The following stream segments are listed as impacted waters by the Idaho Department of Health and Welfare.

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--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 affects 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 run off 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 and wheel line irrigation 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) Shoreline**--The Canyon Soil Conservation District has very little shore line area. The main one is around Lake Lowell. The District would be glad to work with different involved departments in maintaining the riparian areas and in developing more access to the Lake and developing parking and camping areas that would accommodate most RV's.

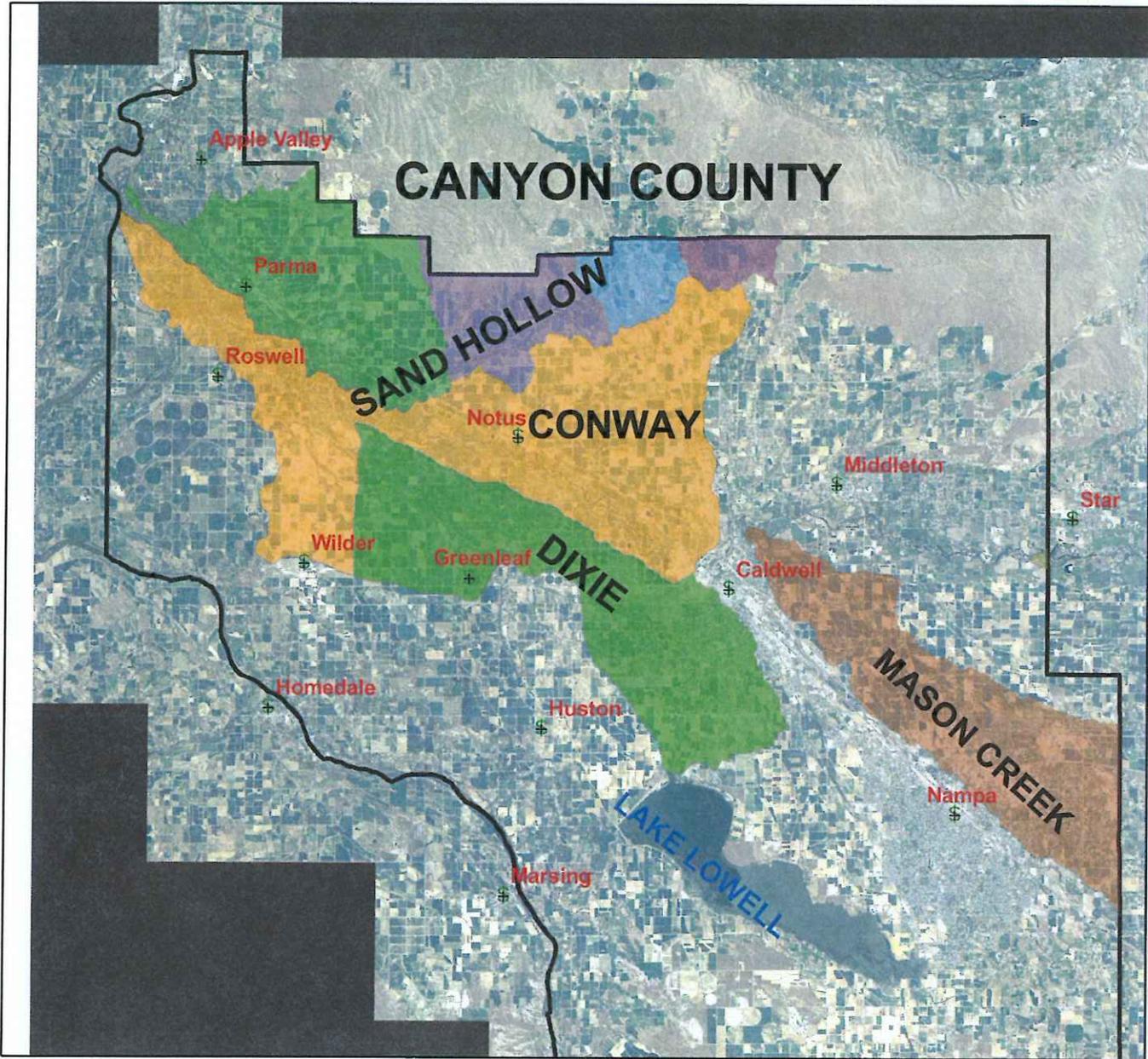
**13) Woodlands**--The only areas in the Canyon Soil Conservation District that could be called woodlands are in the Upper Deer Flat Wildlife Refuge and possibly along the Boise River. There are other agencies that have control of those areas. The SCD does encourage the plantings of windbreaks for wind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

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

# CRITICAL GEOGRAPHIC AREAS

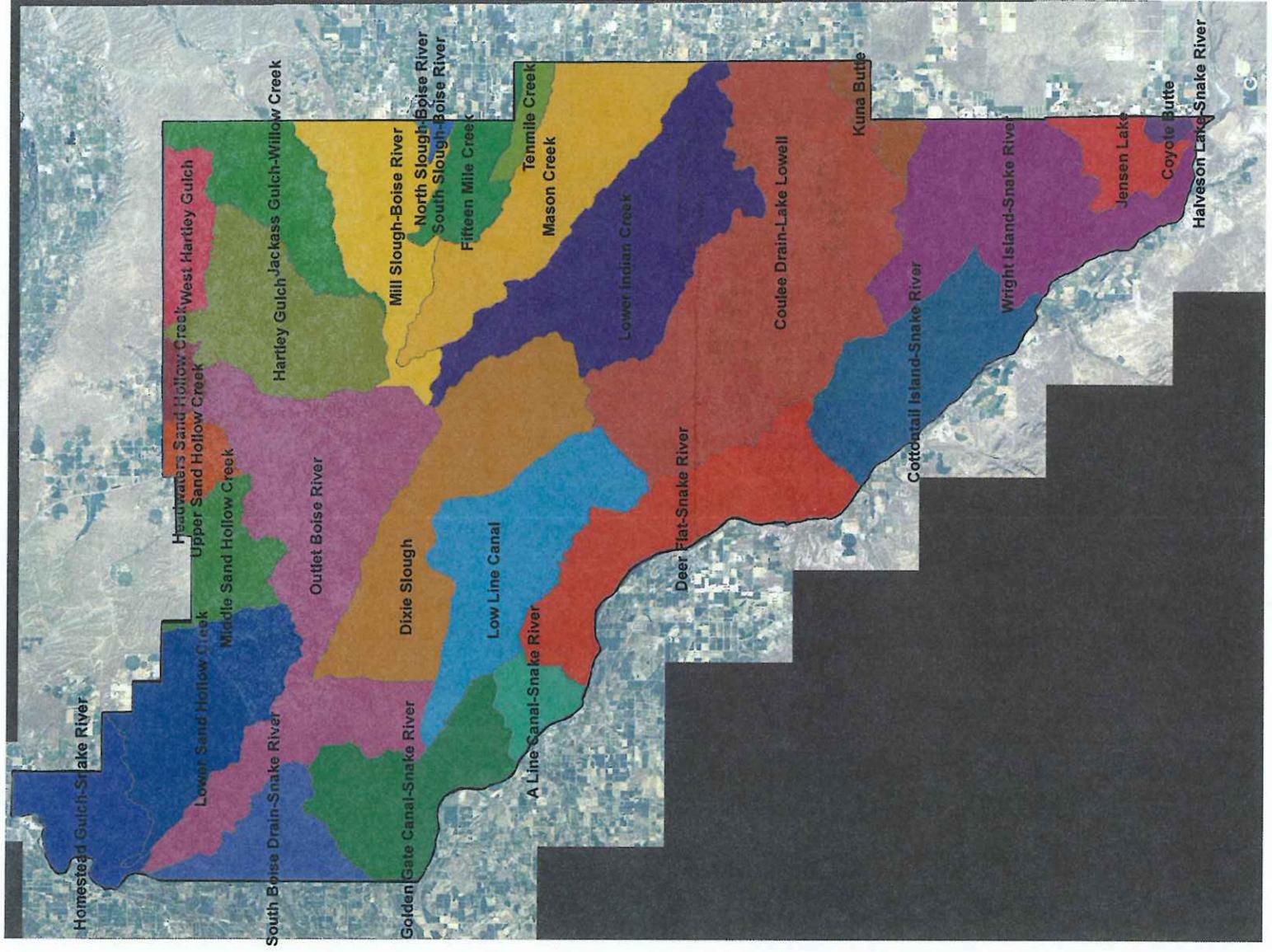
## CANYON SOIL CONSERVATION DISTRICT

Date: 4/7/2009



State and County: ID, CANYON









# FY2015 (7/1/14 – 6/30/15) Annual Plan of Work Canyon Soil Conservation District



## Conservation District Priority Number 1: Water Quality

**Objective: Maintain a local priority for all stream segments of concern based on technical and public input and implement watershed management plans(s) on priority watersheds.**

**Goal(s): Meet rules, regulation of section 319 of the Water Quality Act, the Sage Drinking Water Act and the antidegradation section of the Clean Water Act.**

Actions	Target Date	Individual(s) Responsible/Partners
1. Assess technical & public input gained during basin area meeting and establish priorities.	6/30/15	Mike Swartz, Mike Somerville, Rock Smith, & James Eller D.C.
2. Accelerate activities in the high priority watershed at the local level in the following ways: a. Concentrate I&E efforts to demonstrate the problem and alternatives b. Formally notify NRCS and other cooperating agencies of the priorities and plans to accelerate assistance. A brief resource inventory of the watershed developed for use, in combination with data from the WAG, will be used as documentation.	6/30/15	Mike Swartz, Rock Smith, Mike Somerville, Bob McKellip, Rex Runkle, Lori Kent, James Eller D.C., Jason Miller & LBWC
3. Seek outside funding, as needed, to augment technical and financial assistance available in the District.	6/30/15	Mike Swartz, and James Eller D.C.
4. Support the development and implementation of a TMDL plan for the Boise River and assist farmers in meeting the TMDL goals. Enhance partnership work with the city of Notus on the Boise River. Support the development and implementation of the Lake Lowell TMDL plan. Animal Agriculture assistance with Nutrient Management & Water Quality Protection. Collaborative work with Wilder Irrigation District, CO-OP Canal and other entities on return flows and Sediment/Nutrient reduction.	6/30/15	Mike Swartz, Rex Runkle, Mike Somerville, Rock Smith, Bob McKellip, & James Eller D.C., Mary Wolf, Jason Miller, and Robin Hadelers
5. Provide financial incentive to owner and operators agricultural lands to apply conservation practices that protect and enhance water quality, 319 Grant.	6/30/15	CSCD, NRCS, and Jason Miller
6. Through the CTA grant assistance CSCD was able to hire two employees in 2012. September 27, 2013 a new CTA agreement was signed to continue Soil Technical Assistance and Outreach work for CSCD.	12/31/15	Robin Hadelers, Linda Phillips, Jeff Burwell S.C., Bob Tribelhorn A.C. and Canyon SCD
7. September 12, 2013 an Integrated Pest Management (IPM) agreement was signed. The goal is to reduce the overall use of pesticides and use an integrated approach to pest management.	9/30/15	Linda Phillips, Canyon SCD, and NRCS



## FY2015 (7/1/14 – 6/30/15) 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.	6/30/15	Lori Kent and Linda Phillips
2. Cooperate with other agencies that have prime farmland protection programs and agriculture preservation.	6/30/15	Rock Smith, Mike Somerville, & Coalition for Agriculture's Future
3. Promote growth and development on non-agricultural land.	6/30/15	Mike Swartz

### Conservation District Priority Number 3: District Operation

**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.	6/30/15	Rex Runkle, Mike Somerville & Mike Swartz
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.	6/30/15	Mike Swartz, Rock Smith, Bob McKellip, Rex Runkle, Mike Somerville & Jason Miller
3. Encourage Volunteer help to District Office. Retired Senior Volunteer Program.	6/30/15	Bob McKellip, James Eller D.C. & Lori Kent



# FY2015 (7/1/14 – 6/30/15) 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): Control wind and water erosion.**

<b>Actions</b>	<b>Target Date</b>	<b>Individual(s) Responsible/Partners</b>
1. Provide public service announcements to local TV and radio stations.	6/30/15	Linda Phillips, Lori Kent & James Eller, D.C.
2. Provide newsletter articles to local newspapers and magazines.	6/30/15	Linda Phillips, Lori Kent, James Eller, D.C. & NRCS
3. Utilize the District Newsletter to promote conservation practices.	6/30/15	Linda Phillips & Lori Kent
4. Provide and promote Soil Health Practices and No-till Conservation Systems for Ada SWCD and Canyon SCD producers.	6/30/15	Ada SWCD, Canyon SCD and NRCS
5. Canyon SCD to hold Soil Health Tour with Canyon producers.	6/30/15	Canyon SCD and NRCS

## Conservation District Priority Area 5: Fish and Wildlife

**Objective: Enlarge riparian areas.**

**Goal(s): Improve Water Quality.**

<b>Actions</b>	<b>Target Date</b>	<b>Individual(s) Responsible/Partners</b>
1. Encourage farmers engaged in Water Quality Projects to maintain riparian areas.	6/30/15	NRCS & Canyon SCD
2. Promote the Buffer Strip Initiative and CRP continuous sign-up.	6/30/15	NRCS & Canyon SCD
3. Encourage mosquito abatement.	6/30/15	Canyon SCD

**Canyon Soil Conservation District assisting land managers with their conservation choices**



## FY2015 (7/1/14 – 6/30/15) 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.	7/2014	Lori Kent, Richard Gunning, Linda Phillips & 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.	9/14 and 4/15	Linda Phillips & Lori Kent
3. CSCD will hold the speech contest.	9/15	Linda Phillips & Lori Kent
4. CSCD will hold the poster contest. New school participation (Notus)	10/15	Linda Phillips & Lori Kent
5. CSCD volunteers at the Regional Land Evaluation Contest	10/15	Lori Kent, Linda Phillips, Mary Wolf, & Erin Brooks
6. Legislative Display	2-3/14	Linda Phillips & Lori Kent
7. Western Idaho Ag Expo	1/15	Lori Kent, Richard Gunning, & Linda Phillips & NRCS
8. CSCD will sponsor the State Envirothon.	5/14	Lori Kent, Rock Smith
9. CSCD will sponsor students to attend the Natural Resources Workshop	6/14	Linda Phillips, Lori Kent, Rex Runkle & Rock Smith
10. CSCD Newsletter goes out to over 650 different landowners and entities four times a year.	03-06-09-12/2014 & 2015	Lori Kent, Linda Phillips, & NRCS
11. 319 project media stories	6/30/14	Linda Phillips
12. 319 project tour/lunch/float trip	07-08/14	Linda Phillips, Lori Kent, CSCD, NRCS, & 319 TAC Committee
13. Treasure Valley Irrigation Conference	12/14	Linda Phillips, Lori Kent, NRCS & Bob McKellip
14. Agriculture Symposium	2/15	Linda Phillips & 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

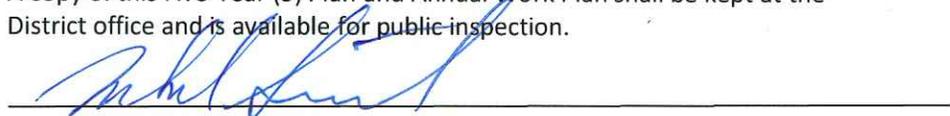
**FOR FISCAL YEAR:**  
2014-2018 / FY2015

**DUE :** March 31, 2014

**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

Michel Swartz  
\_\_\_\_\_  
Printed Name

3/26/14  
\_\_\_\_\_  
Date

208-454-8684 EXT 126  
\_\_\_\_\_  
Telephone

Lori.Kent@id.nacdnet.net  
\_\_\_\_\_  
District Email Address

**FOR SWC USE ONLY:**  
**RECEIVED**  
**MAR 27 2014**  
IDAHO SOIL & WATER  
CONSERVATION COMMISSION  
**DATE OF CONFIRMATION:**  
\_\_\_\_\_