

**Gem Soil And Water Conservation District**

**1805 Highway 16, Room #1  
Emmett, Idaho 83617-9076**

**FIVE-YEAR RESOURCE CONSERVATION  
BUSINESS PLAN**

**JULY 1, 2014 – JUNE 30, 2019**

## **Executive Summary**

The Gem Soil and Water 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 to provide assistance to private landowners and land users in the conservation, sustainment, improvement and enhancement of Idaho's natural resources. They are catalysts for coordinating and implementing conservation programs, channeling expertise from all levels of government 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 also to encourage cooperation among landowners, government agencies, private organizations, and elected officials. Through knowledge and cooperation, all concerned can ensure a sustainable natural resource base for present and future generations in the \_\_\_\_\_ Gem \_\_\_\_\_ Soil and Water 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**

The Board of elected supervisors of the Gem Soil and Water Conservation District this \_\_3rd\_\_ 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 period ending June 30, 2019 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.

\_\_\_\_\_ Kirk Vickery - Chairman  
\_\_\_\_\_ Joy Sisler - Vice Chairman  
\_\_\_\_\_ Cliff Fivecoat - Secretary  
\_\_\_\_\_ Charles Jones – Treasurer  
\_\_\_\_\_ Tim McFarlane - Supervisor

Supporting Idaho Conservation Partners

\_\_\_\_\_ Natural Resources Conservation Service  
\_\_\_\_\_ Idaho Soil and Water Conservation Commission  
\_\_\_\_\_ Idaho Association of Soil Conservation Districts



# 5-Year Resource Conservation Business Plan

July 1, 2014 – June 30, 2019

## Gem Soil & Water Conservation District

1805 Highway 16, Room #1, Emmett, ID 83617-9076 208/365-4212



---

### Organization of the Gem Soil & Water Conservation District

A political subdivision of the State of Idaho – authorities, powers and structure contained in Soil Conservation District Law, Title 22, Chapter 27, Idaho Code

- Organized in 1954 to provide voluntary land and water conservation technical and financial assistance to landowners and uses within the Gem SWCD boundary.

---

### Function of the Gem Soil & Water Conservation District

To make available technical, financial and educational resources, whatever their source, and focus or coordinate them so that they meet the needs of the local land manager with conservation of soil, water and related natural resources.

---

### We Serve & Why

- The people and natural resources in the Gem SWCD, to conserve the natural resources for the beneficial and sustainable use by all.

---

### Mission of the Gem Soil & Water Conservation District

- The Districts mission is to set high standards for conservation of soil, water and related natural resources and encourage cooperation among landowners, government agencies, private organizations and elected officials, through education, technical support and financial assistance.

---

### Vision of the Gem Soil & Water Conservation District

- To be recognized by landowners, agencies, organizations and the public as the district entity for the coordination of natural resource information in Gem SWCD.*

---

### Values of the Gem Soil & Water Conservation District

- Sustainable use of natural resources
- Support for agriculture activity that uses sustainable, economic feasible practices
- Value and respect for the Idaho Conservation Partnership
- Conservation education for adults and youth

---

## Natural Resource Priorities and Goals:

- Water Quality / Animal Waste Management
- Irrigated Cropland
- Urban
- *Rangeland*
- Public Outreach / Information and Education

County population in July 2012: 16,673 (55% urban, 45% rural)

County owner-occupied houses and condos: 4,423

Renter-occupied apartments: 1,638

% of renters here: 20%

State: 30%

Land area: 563 sq. mi.

Water area: 3.2 sq. mi.

Population density: 30 people per square mile  (low).

March 2012 cost of living index in Gem County: 91.7 (less than average, U.S. average is 100)

## Agriculture in Gem County:

Average size of farms: 276 acres

Average value of agricultural products sold per farm: \$34,248

Average value of crops sold per acre for harvested cropland: \$366.22

The value of livestock, poultry, and their products as a percentage of the total market value of agricultural products sold: 67.82%

Average total farm production expenses per farm: \$36,483

Harvested cropland as a percentage of land in farms: 10.91%

Irrigated harvested cropland as a percentage of land in farms: 91.51%

Average market value of all machinery and equipment per farm: \$36,071

The percentage of farms operated by a family or individual: 93.64%

Average age of principal farm operators: 54 years

Average number of cattle and calves per 100 acres of all land in farms: 12.38

Milk cows as a percentage of all cattle and calves: 8.40%

Corn for grain: 1765 harvested acres

All wheat for grain: 1892 harvested acres

Vegetables: 24 harvested acres

Land in orchards: 591 acres

## **Priorities and Goals**

1. Water Quality
    - By April with assistance of Conservation Partners provide and/or determine nutrient management technical assistance needed by dairies and beef feeding operations.
    - Attend Lower Payette River Watershed Advisory Group and administer financial funds for administrative assistance.
  2. Irrigated Cropland
    - By April evaluate irrigation systems in order to improve water management.
  3. Urban
    - By September reduce invasive and noxious weeds in Lower Payette Weed Management Area.
    - By March, a work plan will be developed with Lower Payette Weed Management Partners leading to a 25% reduction in noxious weed species by the end of October.
    - District will sponsor a Weed Control Workshop in Spring with a target of reach 40 landowners and operators
  4. Rangeland
    - Annually assist landowners and operators to control animal waste.
  5. Public Outreach / Information & Education
    - Semi-annually SWCD will provide current information to constituents through the District quarterly newsletter.
    - By March develop and implement a Conservation Outreach Program.
    - Annually conduct youth environmental education programs and increase participation in – speech contest, poster contest, seek and sponsor Envirothon Team.
    - Annually sponsor a fair booth, participate with IASCD in the display at the capital.
- 

## **Critical Geographic Areas: (attached map)**

- *Lower Payette River Watershed*
- *Bissel Creek Watershed*
- *Big Willow Watershed*
- *Gem County Nitrate Priority Area*

# Surface Water: Lower Payette River Subbasin Assessment and Total Maximum Daily Load

## The Subbasin at a Glance

<b>Hydrologic Unit Code</b>	17050122
<b>Size</b>	380,000 acres
<b>§303(d) Listed Stream Segments</b>	Lower Payette River (River Mile 38.5 to River Mile 0)
<b>Beneficial Uses Affected</b>	Cold water biota, primary contact recreation, secondary contact recreation, salmonid spawning
<b>Pollutants of Concern</b>	Nutrients, temperature, bacteria
<b>Major Land Uses</b>	Rangeland, irrigated agriculture
<b>Date Approved by U.S. EPA</b>	May 2000
<b>Date Big Willow Addendum Approved by U.S. EPA</b>	July 2008
<b>Date Little Willow Addendum Approved by U.S. EPA</b>	December 2013

## Background

The federal Clean Water Act requires that states and tribes restore and maintain the chemical, physical, and biological integrity of the nation's waters. States and tribes must adopt water quality standards necessary to protect fish, shellfish, and wildlife while providing for recreation in and on the waters whenever possible.

Section 303(d) of the Clean Water Act establishes requirements for states and tribes to identify and prioritize water bodies that are water quality limited (i.e., water bodies that do not meet water quality standards). States and tribes must periodically publish a priority list of impaired waters, currently every two years. For waters identified on this list, states and tribes must develop water quality improvement plans known as total maximum daily loads (TMDLs) that establish allowable pollutants loads set at levels to achieve water quality standards.

## Overview

The lower Payette River is located in southwestern Idaho. [Bissel Creek](#), also listed on the 1994 §303(d) list and located in the Lower Payette River TMDL project area, is addressed in a separate document.

The hydrology of the river is complex, with numerous irrigation water withdrawal and return drains dominating both the flow and quality of the river. The presence of Black Canyon Dam has greatly altered the amount and type of sediment in the lower Payette River originating from the upper watershed.

Fisheries studies conducted by the Idaho Department of Fish and Game in 1997 indicate many of the same species supported by the river in 1974 were also supported in 1997. Mountain whitefish is the dominant cold water species. Warm water species can be found throughout the river, with non-game species being dominant.

Sources of pollutants include both point sources and nonpoint sources. Point sources are limited mainly to municipal wastewater treatment plants and confined animal feeding operations. Nonpoint sources are associated with agricultural, urban, suburban, and rural areas.

Nutrients have not been shown to cause impairment to the beneficial uses in this water body at this time. While total phosphorus and nitrogen are at concentrations that could cause nuisance aquatic vegetation growth, data show they do not. While dissolved oxygen concentrations do not drop below the water quality standard, monitoring indicated that aquatic growth is causing a fluctuation in dissolved oxygen levels. If it is determined that the lower Payette River is a significant source of nutrients to the lower Snake River (in the lower Snake River/Brownlee TMDL), reduction targets for the lower Payette River will be addressed at that time.

Summer water temperatures in the lower Payette River are warm and exceed water quality standards for both cold water biota and salmonid spawning. However, it was determined that other factors, including habitat modification and flow alteration, were also significant causes of impairment of beneficial uses. In addition, warm water temperatures that exceed water quality standards originate from Black Canyon Reservoir. Because of these conditions, a temperature TMDL was not developed. TMDLs were also not written for flow alteration and habitat modification because these are not pollutants as described under Section 303(d) of the Clean Water Act.

Fecal coliform bacteria levels exceed the water quality standards for both primary and secondary contact recreation. Increasing levels are noted from Black Canyon Dam to the Snake River, with an exceedance of the water quality standards from river mile 25 to the confluence. Overall, a fecal coliform reduction of 84% will be required to achieve water quality standards. The load allocation will focus on nonpoint sources only. The overall contribution to the fecal coliform bacteria load from point sources (municipal wastewater treatment plants) is 0.005%. If the total elimination of bacteria from the point sources were to occur, a total load reduction of only 0.07% would be achieved. Therefore, any reduction from point sources would not impact the overall load to the lower Payette River.

Stream and Pollutant for which a TMDL was developed

Lower Payette River

Bacteria



## **Information – Education Priorities and Goals:**

- By April each year all 6<sup>th</sup> grade students will have had the opportunity to participate in the conservation poster contest.
  - By the end of April annually give seedling tree and presentation on the importance of planting a tree to all third graders.
  - By September distribute rules and other materials to district High School students for speech contest.
  - Semi-annually all Conservation District cooperators addresses and files will be updated.
- 

## **District Operations Priorities, Goals:**

- New supervisors will have completed New Supervisor Training.
  - Semi-annually complete effective and efficient operations including accounting, personnel management, training and development, annual planning and reporting.
  - In cooperation with Conservation Districts develop and carry out an effective legislative outreach program to ensure 90% State matching funds for all Districts.
  - Conduct Conservation District elections in November 2014 and 2016.
- 

## **Trends Impacting Conservation in the Gem Soil & Water Conservation District**

- Urban impact on agriculture production
  - Poorly planned growth in agricultural areas
  - Increasing small acreage farms, five acres or less
  - Limited availability of State funds for conservation
  - Focus on water quality compared to other conservation and environmental issues
  - Increased paper work to getting the job done
  - Trend to regulate agriculture and ranching
- 

## **Strategies to Address Trends**

- More education but not the usual – more outreach instead of publications
  - Determine opportunities to coordinate outreach activities with traditional and non-traditional partners.
  - Raising awareness of conservation values with state legislature and elected officials – help decision makers be better informed
  - Strengthen Locally Led efforts
  - Supervisors become more informed on current issues impacting working lands, Farm Bill programs, Information from agencies instead of relying on NRCS District Conservationist
  - Determine how to become involved with County Planning and Zoning issues impacting natural resources.
  - Map noxious and invasive weeds to more effectively target weed control efforts
  - Establish a data base to track resource conditions
  - Host an open house to make public aware of goals
  - Solicit input to improve Annual Plan/Five-Year Resource Conservation Business Plan
  - Take a proactive approach to funding water delivery systems on irrigated cropland
  - Identify the information methods to communicated with small land owners
  - Sponsor project proposals with other districts
  - Training for Conservation District Supervisors and staff
- 

## **Staffing Needs**

- Full-time Conservation District Administrative Assistant/Office Manager with benefits

---

## Annual Budget Needs

- The annual budget needed to carry out the plan of the Gem Soil and Water Conservation District based on the above information

Gem Soil and Water Conservation District  
Budget Overview: FY2015/2016 Budget Request - FY16P&L  
July 2015 - June 2016

Income	
Grants	1,000.00
County Allocation	5,000.00
Drill Income	1,080.00
Interest	65.00
Newsletter Ads	250.00
State Allocation	8,500.00
	6,841.00
Total Income	\$22,736.00
Expenses	
Administration	15,899.00
Drill Expense	560.00
Travel / Mileage	1,250.00
Workers Comp	150.00
Misc. Expenses	1,947.00
Youth Programs	2,930.00
Total Expenses	\$22,736.00
Net Income	\$0.00

---

## Key Decision Makers

- Landowners in Conservation District
- Gem County Commissioners and Planning and Zoning – Mark Rekow, Carlos Bilbao and Lan D. Smith, Brad Clark
- State legislators representing Conservation District – Senator Steven P. Thayn, Representative Lenore Hardy Barrett, Representative Terry Gestrin.
- U.S. Senators, Representatives – Senator Mike Crapo, Senator James Risch, Congressman Raul Labrador, Congressman Mike Simpson
- Conservation District Supervisors – Chairman Kirk Vickery, Vice-Chair Joy Sisler, Treasurer Charles Jones, Secretary Cliff Fivecoat, Tim McFarlane.

---

## Priority Actions – 6 Months

- *Priority actions needed to start the 5-year plan of the Gem Soil & Water Conservation District based on the above information.*

Action	Begin Date	End Date
▪ Seek public comments on Annual Plan/Five-Year Resource Conservation Business Plan	3/1/14	8/30/14
▪ Board of Supervisor review of Annual Plan/Five-Year Resource Conservation Business Plan priorities, actions, and public comment	3/1/14	8/6/14
▪ Complete written update of Annual Plan/Five-Year Resource Conservation Plan	3/7/14	3/31/14
▪ Identify budget and staff needs	10/1/13	3/30/14
▪ Develop, adopt and submit annual budget	2/1/14	3/30/14
▪ Adopt and submit Annual Plan/Five-Year Resource Conservation Business Plan	3/6/14	3/31/14

Idaho Conservation Districts assisting land owners and operators with their conservation choices

Vickery Drip Installation

Top, left to right: Pump and electrical installation.

Main: Sand media filters/pump station.



Above: drip tape connected to mainline



Right: Slotted pipe structure

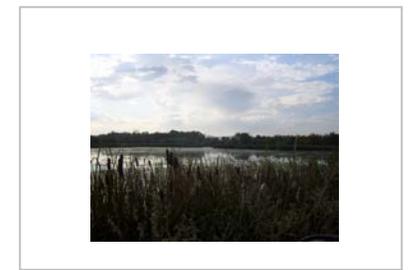


Above: Installation of 6" PVC mainline, done on each field.

Above, top to bottom: Riser, with partially poured thrust block, installed drip tape, VFD



## FY2015 (7/1/2014 – 6/30/2015) Annual Plan of Work Gem Soil and Water Conservation District



Conservation District Priority Number 1: Water Quality

Objective: Promote conservation of water by approved Best Management Practices

Goal(s): Protect water resources through proper use and treatment.

Actions	Target Date	Individual(s) Responsible
Encourage landowners in critical areas to implement BMP's, develop water resources for improved benefits and improve wetlands.	March/September	Scott Henderson, Kirk Vickery
Apply for 319 Funds to assist with installation of BMP's, resulting in load reduction on the Lower Payette River TMDL	February	Sheryl Stelling
Coordinate with Irrigation Districts and Ditch Companies to improve water usage	March/October	Kirk Vickery, Scott Henderson
Assist cooperators to improve and install BMP's and improve water management, also minimize loss of prime cropland	Annually	Kirk Vickery, Scott Henderson
Provide technical assistance to develop comprehensive nutrient management plan	Annually	Duane Pearson, Cory Greer
Learn more about the process and Educate landowners on oil and gas exploration	Continuously	Joy Sisler, Scott Henderson, Sheryl Stelling

***Gem Soil and Water Conservation District*** assisting land managers with their conservation choices



## FY2015 (7/1/2014 – 6/30/2015) Annual Plan of Work Gem Soil and Water Conservation District



Conservation District Priority Number 2: Irrigated Cropland

Objective: Provide economic stability by promoting improved technology for resource management  
Improve irrigation and grazing management and improve yields of good quality forage

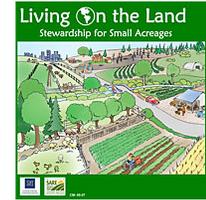
Goal(s): Protect cropland base through proper use and treatment (this includes irrigated and non-irrigated cropland)

Actions	Target Date	Individual(s) Responsible
Provide assistance in developing alternative crops and marketing strategies	September	Scott Henderson
Assist with evaluation of irrigation systems and improve water management	Spring	Duane Pearson, Cory Greer
Promote soil quality and health to maintain soil fertility, favorable pH, structure, etc.	Annually	Scott Henderson, Mark Bateman
Treat highly erodible land by developing conservation compliance plans	Annually	Mark Bateman, Duane Pearson

**Gem Soil and Water Conservation District assisting land managers with their conservation choices**



## FY2015 (7/1/2014 – 6/30/2015) Annual Plan of Work Gem Soil and Water Conservation District



Conservation District Priority Number 3: Urban

Objective: Provide community awareness for proper development when urbanizing land.

Goal(s): To maintain quality development through technical assistance and education

Actions	Target Date	Individual(s) Responsible
Work with landowners to eliminate mosquito habitat, such as standing water, ultimately controlling mosquitoes.	Spring/ Summer	Sheryl Stelling
Work with County Agencies to encourage proper development to avoid erosion	Continuously	Sheryl Stelling, Kirk Vickery, Scott Henderson
Encourage proper use and application of fertilizers and pesticides	Spring/Fall	Scott Henderson, Duane Pearson, Sheryl Stelling
Encourage the control of noxious weeds on all lands within the District	Spring/Fall	Mark Bateman Sheryl Stelling, Scott Henderson
Improve irrigation systems to reduce irrigated-induced erosion	Annually	Scott Henderson, Duane Pearson
Research needs and resources to alleviate drought/potential drought conditions	Annually	Scott Henderson, Sheryl Stelling, Duane Pearson

**Gem Soil and Water Conservation District assisting land managers with their conservation choices**



## FY2015 (7/1/2014 – 6/30/2015) Annual Plan of Work Gem Soil and Water Conservation District



Conservation District Priority Number 4: Rangeland

Objective: Establish quality rangelands within the District

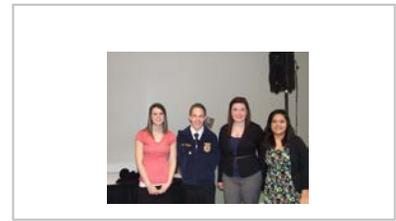
Goal(s): Work with Landowners to maintain quality forage and water.

Actions	Target Date	Individual(s) Responsible
Provide cooperators researched and proven equipment such as the No-Till Drill.	Spring/Fall	Sheryl Stelling, Kirk Vickery, Charles Jones
Encourage and provide technical assistance to establish adapted grasses where needed & feasible to improve quality forage.	Spring/Fall	Kirk Vickery, Joy Sisler, Charles Jones, Sheryl Stelling
Promote and encourage range plans with landowners and ranchers.	Annually	Kirk Vickery, Joy Sisler, Charles Jones, Sheryl Stelling

Gem Soil & Water Conservation District assisting land managers with their conservation choices



## FY2015 (7/1/2014 – 6/30/2015) Annual Plan of Work Gem Soil and Water Conservation District



### Conservation District Priority Number 5: Public Outreach / Information & Education

Objective: Maintain public awareness of conservation needs and programs for all natural resources, demonstrate and utilize effective new technology. Provide for a dynamic Board of Supervisors, Maintain active cooperators with the District, & maintain an adequate financial base

Goal(s): Provide an information and education program, extend Outreach and promote Locally Led Conservation and maintain active viable Conservation District

Actions	Target Date	Individual(s) Responsible
Elect qualified Supervisors representing diversity within the District. Participate in annual Board/Supervisor training at monthly district meetings or attend workshop such as; ISWCC Partnership District Capacity Training	Annually or Semi-annually	Sheryl Stelling, Kirk Vickery, Joy Sisler, Charles Jones,
Distribute information through various avenues such as; district newsletter, local newspaper, press releases, county fair, Legislative display, etc.	Continuously	Sheryl Stelling
Provide cooperators with technical information on subjects such as; BMP's, Soil Quality, Riparian Improvement, Wetlands, Irrigation Improvements, etc.	Continuously	Sheryl Stelling
Work with Gem County Mosquito Abatement District in their efforts to reduce mosquito habitat	Continuously	Sheryl Stelling
Support IASCD efforts on carrying out natural resources programs by providing technical and cost-share assistance to the landowners	Annually	Kirk Vickery, Joy Sisler, Charles Jones, Sheryl Stelling

***Gem Soil and Water Conservation District assisting land managers with their conservation choices***

**IDAHO SOIL & WATER  
CONSERVATION COMMISSION**

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

**DISTRICT:** Gem Soil and Water  
Conservation District

**FOR FISCAL YEAR:**

2015

**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

**Joy Sisler**

Printed Name

03-03-2014

Date

208.365.4212 ext. 101

Telephone

sheryl.stelling@id.nacdnet.net

District Email Address

**FOR SWC USE ONLY:**

**DATE OF CONFIRMATION:**  
\_\_\_\_\_