

Section 2. 2007 Project Field Evaluation Season

This section summarizes the 2007 field evaluations. More detailed discussions for the three highlighted projects can be found in the Section 3 “Outstanding Projects” portion of this report. A listing of those projects closed out in 2007 can be found in Table 2, page 10. Summaries for all projects that were evaluated during 2007 can be found in Section 4, starting on page 57.

Introduction

As of December 31, 2007, DEQ oversaw 67 active projects in Idaho (Figure 1, page 9). Each project is assigned a unique tracking number once funding is awarded. To assure projects are completed in a timely manner and achieve their goal of cleaning up and preventing NPS water pollution, all projects are subject to field evaluations by DEQ. Although DEQ’s goal is to annually field evaluate the progress of approximately half of all ongoing or recently completed projects, only 31 projects were actually evaluated in 2007. The number of evaluations fell short by two projects because an unusually high number of projects scheduled for closure were given extensions late in the year, which raised the number of active projects to a record high of 67. This evaluation rate still ensures that, over a two-year period, the majority of ongoing or recently completed projects will receive a field evaluation.

Field Evaluation Process

During the summer and fall of 2007, DEQ staff evaluated field work at 31 projects across Idaho that tackle a variety of nonpoint source water quality issues (Figure 2). Twenty-four of the 31 field projects (77%) focus on a variety of BMPs for water quality protection related to agriculture; four projects (13%) focus on logging; and three projects (10%) focus on urban and rural storm water treatment.

DEQ generated a standard form for staff to use during field evaluations. For all projects, the DEQ evaluator visiting the site carefully reviewed the project’s subgrant agreement prior to going to the field. The evaluator routinely contacts appropriate DEQ regional staff to make arrangements to accompany the project manager, DEQ regional staff, and any other stakeholders to the field. In all cases, the evaluation form is used as a guide to assure that NPS requirements are being met in the field.

Results

Of the 31 projects evaluated during 2007, 30 projects appear to be fully meeting their work plan obligations by being totally completed or by demonstrating substantial progress toward completion of their designated tasks. One important project, S171 Bear River Animal Feeding Operation (AFO) Relocation, has had delays in getting started but now appears to be making some progress. Table 3 lists and briefly describes all the active NPS projects that were field evaluated during the summer and fall of 2007.

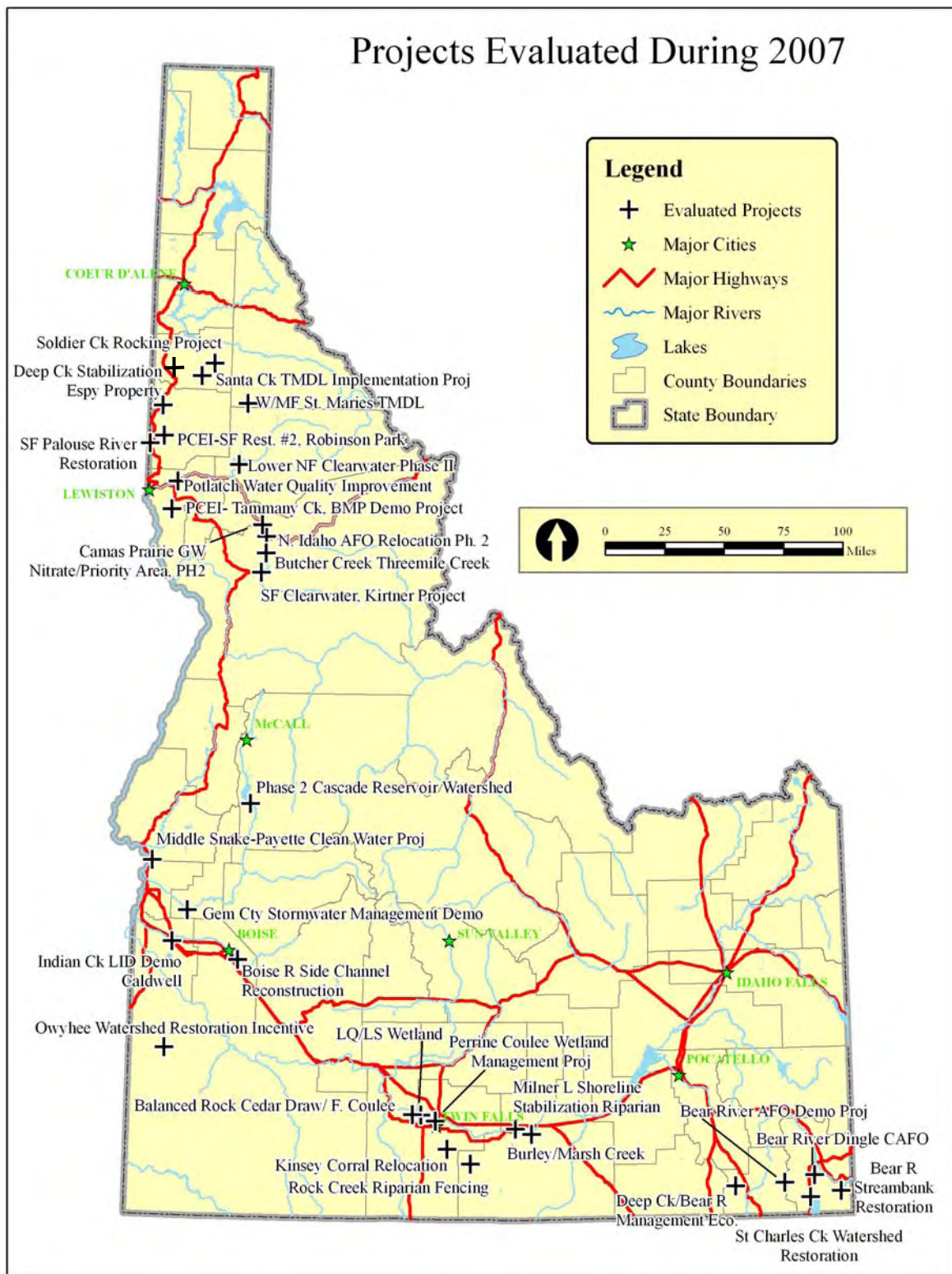


Figure 2. Locations of 31 nonpoint source projects evaluated during 2007.

Table 3. Active or recently completed nonpoint source projects field evaluated during the summer/fall of 2007.

Subgrant Number	Project Name	Comments	DEQ Region
S041	Kinsey Corral Relocation	The intent of this project was to eliminate a corral that was located in McMullen Creek, which is tributary to Rock Creek and the Snake River. The corral was rebuilt approximately one mile away from the original site, where it is completely isolated from surface water. Prior to this animal feeding operation (AFO) relocation project, Kinsey Corral was a major source of bacteria, sediment, and nutrients to surface water. This was a reevaluation to verify that BMPs continue to function properly.	Twin Falls
S069	North Idaho AFO Relocation Phase 2	The purpose of the North Idaho AFO Implementation Project is to implement BMPs on livestock feeding operations to work towards achieving the designated beneficial uses in the Clearwater, Palouse, Salmon, and Snake River watersheds. The member conservation districts of Division II of the Idaho Association of Soil Conservation Districts, in cooperation with the Idaho State Department of Agriculture, Idaho Soil Conservation Commission, and USDA Natural Resources Conservation Service, support the implementation of this project as part of the agricultural component within regional TMDL implementation plans. Phases 1 and 2 of this project, including over 20 AFO operations, remove cattle from creeks and bring water to cattle via wells, pumps and pipelines; or in some cases, simply prevent storm water runoff from passing through AFOs and into streams. This 2007 evaluation is a continuation of a previous (2004) evaluation and includes captioned photographs from both evaluations.	Lewiston
S079	Perrine Coulee Wetland Management Project	The purpose of this 2003 project is to capture a large portion of the irrigation return flow from the Main Perrine Coulee and remove the majority of sediment and nutrients via two settling ponds and associated wetlands before the water is returned to the Snake River. The evaluation conducted on July 10, 2007 was a follow-up investigation to see how the project is functioning after four years of use.	Twin Falls
S089	Balanced Rock Cedar Draw/F. Coulee	The intent of the project is to treat irrigation return flow prior to discharge to the upper Snake River. BMPs include a set of settling ponds and associated wetlands. Cedar Draw is a 303(d)-listed stream. This project was completed in July 2004. This evaluation is intended to verify that the project is still performing as designed. During our visit, we determined that the system is working as intended and that vegetation is well established along pond shorelines and in wetlands.	Twin Falls

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Subgrant Number	Project Name	Comments	DEQ Region
S095	Santa Creek TMDL Implementation Project	This project included two phases of work conducted over a five-year period along 5 miles of historically over-grazed land along Santa Creek. The intense stream bank stabilization included reducing bank slopes from near vertical to a 3:1 slope and hardscaping with rock and vegetative planting. This project is the main component of the Santa Creek TMDL implementation plan. The local Soil Conservation Commission office had received a report that the exclusionary fencing had been partially destroyed by elk and moose over the summer of 2007, thus allowing cattle free access to the project area. The goal of this year's evaluation was to check the condition of the project area and check Phase 2 work.	Coeur d'Alene
S104	Boise River Side Channel Reconstruction	This project, located at Harris Ranch in east Boise, is intended to improve water quality in the Lower Boise River. The Lower Boise River is a 303(d) water quality limited segment affected by nonpoint source activities that have affected flow alteration, sedimentation, temperature, and dissolved oxygen. The project aims to achieve water quality improvements by reestablishing a functioning riparian corridor. It will also restore spawning and rearing habitat for salmonid fishes with construction of a one mile long side channel adjacent to the Boise River. The project will provide fish passage from the Boise River to an area known as Barber Pool. This project is restoring connectivity between Barber Pool and the Boise River, which have been disconnected for nearly a century.	Boise
S106	Potlatch Water Quality Improvement	The Potlatch River and select tributaries are on the State of Idaho's 1998 303(d) list of impaired water bodies. The listed water quality parameters of concern include temperature, channel stability, sediment, bacteria, flow alteration, habitat alteration and nutrients. The Potlatch River TMDL was recently completed. BMPs include continuous direct seeding and erosion and sediment control structures. This project was first evaluated on August 23, 2005 during its early stages and was re-evaluated on June 29, 2007.	Lewiston
S110	Gem County Storm Water Management Demonstration	The purpose of this project is to develop a city and county ordinance relative to storm water runoff for suburban and developing lands. Components of the proposal include a land drainage inventory, public education, and the development of a BMP guidebook. The project also includes the design and installation of a zero surface water discharge demonstration storm water BMP designed to collect and treat a large area of storm water in a very shallow ground water environment. When the project was first visited on October 24, 2006, none of the above tasks had been completed. The project was re-evaluated on August 10, 2007 and August 23, 2007.	Boise

Subgrant Number	Project Name	Comments	DEQ Region
S123	South Fork Palouse River Restoration	The project included work in two areas in the watershed. One subproject involved a corral modification to exclude horses from a tributary to the South Fork of the Palouse River. The other subproject involved removal of an abandoned retaining wall. The old retaining wall (20 feet long by 10 feet deep by 9 inches thick) was located on the South Fork Palouse River. The retaining wall had caused a buildup of sediment within the channel and was unstable, starting to lean inward, and threatening to topple. Both projects were initially evaluated on July 12, 2006. This evaluation only included the corral modification and associated stream bank stabilization.	Lewiston
S126	LQ/LS Wetland	The intent of this project is to treat irrigation return flow by constructing seven settling ponds and associated wetlands. This project was completed in summer 2006 and officially closed on December 26, 2006. The intent of this evaluation is to check one year after completion to verify that it is still functioning properly. According to the final report, the project should be removing about 85% of the pollutants. During this evaluation, it was determined that the BMPs are being well maintained and are performing as intended.	Twin Falls
S130	Indian Creek LID Demonstration Caldwell	This project is a continuation of the incorporation of low impact development (LID) concepts into the City of Caldwell Indian Creek day-lighting and downtown redevelopment project. The project is a prime candidate for a "showcase" project reducing urban runoff within the Lower Boise River watershed. This work builds on existing efforts in the Indian Creek watershed, including the 2002 redevelopment design charette and Ecosystem Sciences' publication <i>Urban Ecology: Design Principles to Improve Environmental Quality, Lower Boise River Watershed</i> . Considerable work has been accomplished since the project was first visited on July 31, 2006.	Boise
S141	Owyhee Watershed Restoration Incentive	There are 20 subprojects within this vast, remote, countywide project. Subprojects involve stream rehabilitation through development of animal waste management plans and AFO relocations. The project also involves stream bank stabilization, irrigation water management plans and systems, and reduced nutrient loading to local waterways through the development of nutrient management plans. Some of the subprojects were evaluated on August 2, 2006 (see 8/2/26 evaluation). Several other subprojects were visited on August 7, 2007 and are described in this report.	Boise

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Subgrant Number	Project Name	Comments	DEQ Region
S142	PCEI-Tammany Creek, BMP Demonstration Project	The Tammany Creek Best Management Practices (BMP) Demonstration Project is designed under the guidance of Tammany Creek Total Maximum Daily Load (TMDL), the TMDL Implementation Plan, and the Tammany Creek Watershed Advisory Group (WAG) to improve water quality and riparian habitat. The project will serve as a highly visible BMP demonstration to raise citizen awareness and increase knowledge about restoring the water quality of Tammany Creek. BMPs include restoration techniques on approximately 1,000 feet of Tammany Creek south of Lewiston in Nez Perce County; these include restoring connection of the stream to a functional floodplain; resloping and stabilizing eroding stream banks; reestablishing a variable-width riparian buffer; fencing for livestock exclusion and stream bank protection; and constructing small swales, wetlands, and wet meadows.	Lewiston
S143	PCEI-SF Rest. #2, Robinson Park	This was a reevaluation of a project that was completed during the summer of 2006. Reevaluations are conducted to determine if BMPs are functioning as they were intended. Riparian restoration activities at the site of a former reservoir (now completely filled with sediment) include reducing in-stream erosion by stabilizing banks and reducing sediment delivery from upland erosion through filtration. The project is also designed to reduce excessive nutrient loading, reduce water temperatures, and improve riparian habitat. The restoration project is also providing flood mitigation and public safety improvements of what is now a very popular county park located just 3 miles northeast of Moscow, Idaho.	Lewiston
S144	Butcher Creek and Three Mile Creek	The purpose of this project is to implement agricultural BMPs, including buffer strips, livestock exclusionary fencing, and off-site water developments. This project will reduce nonpoint source loading of TMDL-listed pollutants and meet TMDL targets and Idaho water quality standards for Butcher and Three Mile Creeks and the South Fork of the Clearwater River. These agricultural BMPs will reduce soil erosion; decrease sediment delivery, nutrients and pathogens to stream channels; improve water infiltration and storage; increase shade; and improve habitat for fish and wildlife.	Lewiston

Subgrant Number	Project Name	Comments	DEQ Region
S145	Middle Snake-Payette Clean Water Project	The project area consists of 4 miles of drain ditch, servicing 2,300 acres of irrigated agricultural land and other rural land development. The entire Phase 1 project area that drains to the Snake River is approximately 3,230 acres in size. BMPs include irrigation water conveyance and sediment basins, sprinkler and surge irrigation systems, land leveling, nutrient management, and irrigation water management. To address contamination from livestock, BMPs include spring development, watering facilities with solar livestock water pump and pipeline, and installation of livestock exclusionary fencing.	Boise
S149	Lower North Fork Clearwater Phase II	This project, including numerous subprojects within the Lower North Fork Clearwater Watershed, is meeting its pollutant load reductions listed in the Lower North Fork Clearwater River Subbasin (LNFCRS) TMDL Implementation Plan by logging road reconstruction, road abandonment, and road obliteration. Other BMPs include reducing stream bank erosion, improving riparian and stream channel habitat, and decreasing bacteria loading to receiving waters by reducing livestock concentrations on streams and installing off-site water developments. BMPs also include continuation of good forest management of timber stands to better manage water temperature for fisheries.	Lewiston
S151	Bear River Stream Bank Restoration	This evaluation covered work to be accomplished along a 1,000-foot section of badly eroding stream bank along the Bear River. The project involved installing an estimated 500 feet of rock armor, 240 feet of riprap, and 140 feet of willow plantings. Restoring the stream bank and increasing the density and diversity of riparian plants will reduce the sediment load to the Bear River and Bear Lake. Removing cattle access to the river will allow the vegetation to reestablish itself with increased vigor. To enhance this project, the landowner has received continuous Conservation Reserve Program (CRP) status for the adjacent grazing land, which will eliminate future grazing and associated erosion.	Pocatello

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S169	Milner Lake Shoreline Stabilization Riparian	Approximately 0.3 mile of shoreline/stream bank along the south side of the Milner Reservoir segment of the Snake River is very vulnerable to wave erosion, resulting in large amounts of bank material sloughing off into the river annually. On the basis of historical topographic maps and aerial photographs, the bank was receding at rates as high as 12 feet per year, resulting in sediment entering the Snake River and economic loss to the landowner. Adjacent shoreline both upstream and downstream of the property has previously been treated with rock riprap and tree plantings, and is stable. Benefits derived from the project include a reduction in sedimentation and associated nutrients and bacteria. The creation of a vegetative filter strip is also helping filter nutrients and sediment that were previously being released from adjacent agricultural fields. This project was initially visited in 2006 and was revisited on July 11, 2007 to verify that BMPs continue to function as intended.	Twin Falls
S170	Phase 2 Cascade Reservoir Watershed	The water quality of Cascade Reservoir/Lake Cascade has been identified as impaired under section 303(d), due to violations of water quality standards for dissolved oxygen, nutrients, and pH. Nuisance algae growth resulting from excess phosphorus loading has impaired beneficial uses of the reservoir, specifically fishing, swimming, boating, and agricultural water supply. A 37% total phosphorus reduction has been determined to be necessary for the watershed in order to improve the water quality in Cascade Reservoir. BMPs to be implemented through this project include no-till farming, gravel application on dirt roads, storm water BMPs, and livestock exclusionary fencing. Subprojects visited during this evaluation include critical area plantings, riparian fencing on Boulder Creek, irrigation return flow pipeline, the site of a future storm water infiltration swale, and 1,400 feet of exclusionary fencing.	Boise
S171	Bear River AFO Demonstration Project	This project is supposed to focus on protection of riparian areas by excluding cattle from streams and providing upland watering facilities on tributaries to Bear River that have been hard hit by livestock grazing. The nutrient loads and sedimentation of 303(d)-listed water bodies would be reduced by installing BMPs such as corral berms, embankments, and relocating corrals. BMPs such as shrub and tree establishment and filter strips would restore the wildlife habitat along the Bear River and its tributaries, including Battle Creek, Mink Creek, and Strawberry Creek. This high priority evaluation had to be canceled because no action had been undertaken at the time of the scheduled evaluation. It has been reiterated to the Franklin Soil and Water Conservation District that time is running out on this important subgrant and work needs to get underway as soon as possible.	Pocatello

Subgrant Number	Project Name	Comments	DEQ Region
S178	West/Middle Fork St. Maries TMDL	The project will strive to meet its pollutant load reductions listed in the St. Joe/St. Maries TMDL through reducing sediment transport to streams and tributaries through rock on 3.4 miles of new and reconstructed road, bringing active logging roads up to the appropriate culvert standards, continuation of BMP effectiveness monitoring through photo documentation and sediment traps, field inspections, maintenance, and improving fish passage structures to address the goal of hydro-habitat modification.	Coeur d'Alene
S179	Burley/Marsh Creek	In 2000 DEQ established 25 areas in the state as nitrate priority areas based on population, ground water quality, the trend of nitrate analysis, and other beneficial uses of the ground water. The Burley/Marsh Creek area was ranked the third highest area of concern in the state. DEQ facilitated the development of a Cassia County Ground Water Quality Advisory Committee to develop a management plan to address the ground water degradation by nitrate. The Cassia County Ground Water Quality Management Plan was finalized in June 2004. Within the plan, as developed by local citizens, is the recommendation to work with agriculture to implement both nutrient and irrigation management. The major goal of this project is to reduce excessive leaching of nitrates past the crop root zone by developing nutrient management plans for producers through the University of Idaho soil sampling methodology in accordance with the NRCS Nutrient Management Standard. Although the project focus is on nutrient management, irrigation water management is also playing a significant role through the monitoring of crop water use and soil moisture status on selected fields. The information gained from cooperating landowners is an educational tool for all irrigators in the project area to demonstrate the feasibility and advantages of increasing water application efficiencies and irrigating to meet crop demands.	Twin Falls

Subgrant Number	Project Name	Comments	DEQ Region
S180	SF Clearwater, Kirtner Project	Activities at the Rylaarsdam property include the removal of cattle from the riparian area through livestock exclusionary fencing and a bridge access across the creek. Additional work includes off-stream watering, riparian restoration through resloping and stabilization of an estimated 2,800 feet of eroding stream bank, the redevelopment of an estimated 400 feet of low flow channel, and the planting of an estimated 42,000 square feet of variable riparian buffer. Wetland swales were installed to provide additional filtration potential and increase floodwater holding capacity. Bank stabilization includes the excavation and resloping of the stream bank and the installation of coir log and erosion control fabric. An estimated 42,000 square feet of variable riparian buffer was planted with native woody, herbaceous, and grass species. The riparian buffer now acts as a filter, reducing overland sediment flows while filtering nutrients and bacteria generated from upland land use practices. Filter strips have been shown to reduce sediment by 65%, total phosphorus by 85%, nitrogen by 70% and fecal coliform by 55%. In addition to acting as a filter for pollutants, the established riparian buffer is now providing shade, which reduces extreme summer temperatures.	Lewiston
S182	Deep Creek Stabilization, Espy Property	The Deep Creek Bank Stabilization Project was designed under the guidance of the Palouse River Tributaries Watershed Advisory Group and the Palouse River Tributaries TMDL, and represents early action activities that will be identified in the Palouse River Tributaries TMDL Implementation Plan. The project is located in the lower Deep Creek Watershed on private property and is considered a critical target area for sediment reduction and temperature due to the intensive impacts from agriculture, ranching, and residential development in the watershed. The proposed project will reduce erosion by stabilizing approximately 1,900 feet of stream bank. Stream banks were resloped, and approximately 28,500 square feet of variable riparian buffer was installed. Bank stabilization will reduce sediment loading to the Palouse River, and the re-growth of the riparian vegetation will provide shade to the creek, leading to a decrease in elevated summer water temperatures.	Lewiston
S183	Soldier Creek Rocking Project	The project will strive to meet its pollutant load reductions listed in the St. Joe/St. Maries TMDL. The St. Joe/St. Maries Watershed Advisory Group is currently developing the TMDL Implementation Plan. Actions already identified include implementing an aggressive road transportation management plan consisting of road rocking; installing ditches and properly sized fish-friendly culverts; and monitoring through photo documentation, field inspections, maintenance, and some on-site sediment collection monitoring.	Coeur d'Alene

Subgrant Number	Project Name	Comments	DEQ Region
S184	Camas Prairie GW Nitrate/ Priority Area, PH 2	The purpose of the project is to continue Phase 1 implementation of BMPs focused in the Camas Prairie Ground Water Priority Area. BMPs will identify problem areas through continued well sampling and will focus on reduction of nitrogen loading of the ground water aquifer on thousands of acres of Idaho's Camas Prairie through education about fertilizer application rates, wellhead protection, water use, consumption, and conservation. No-till and low-till farming techniques in this dry farming (non-irrigated) region of Idaho have been proven to reduce fertilizer demand while allowing more precipitation to be available for plant root uptake due to increased soil microorganisms and earthworm counts. This work will also improve water quality and fish habitat in the receiving surface waters of the Clearwater Basin, due to less surface runoff during storm events.	Lewiston
S188	Rock Creek Riparian Fencing	This project occurred on the Fifth Fork of Rock Creek and on Rock Creek. The project excludes livestock from surface water and thereby reduces pollutants, including sediment, phosphorus, and bacteria to Rock Creek and associated tributaries. The goal of this project is to provide an important step in the overall cleanup plan for the Rock Creek and the Snake River. The project is also enhancing fisheries, in particular the salmonids, and other aquatic species in Rock Creek and the Snake River. This project will benefit the threatened and endangered snails that exist at the confluence of Rock Creek and the Snake River by improving the riparian habitat and improving water quality.	Twin Falls
S189	St. Charles Creek Watershed Restoration	The area below Highway 89 in southeast Idaho experiences high-density winter livestock use as local ranchers bring their cattle from summer range in the adjacent Caribou National Forest into their privately owned ranches. Repeated spring through fall irrigation of these lands releases livestock manure into the St. Charles Creek watershed. The proposed project will eliminate this release over a 1,200 acre area while minimizing water quality impacts throughout the Big Creek, Spring Creek, and Little Creek branches of the lower St. Charles Creek Watershed.	Pocatello
S190	Bear River Dingle CAFO	This area has a high density of cattle winter feeding areas located along the Bear River. These areas are a source of sediment and nutrients, due to the density of cattle confined along the waterways. To protect newly planted riparian vegetation, cattle are being fenced off of the stream, and off-site watering is being provided for livestock. Corral berms are also being installed to keep any nutrients from leaving the confined feeding areas and entering the stream. The fencing will establish a riparian buffer, which will improve the wildlife habitat and reestablish a continuous grassy/woodland corridor along the Bear River.	Pocatello

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S191	Deep Creek/Bear River Management Eco.	This project is still in the planning stage. Although we toured part of the project site, no photographs were taken because no work has yet been accomplished in the field. The BMPs planned for this project will help control stream bed and bank soil erosion. BMPs include livestock exclusion fencing, revegetation, channel stabilization, large woody riparian plantings, and fish and wildlife habitat development. BMP work on adjacent agricultural uplands involves irrigation management, prescribed grazing, and pest management. Structural BMPs may include off-stream water facilities, sediment basins, filter strips, AFOs, animal waste management systems, off-stream watering facilities, and spring enhancement.	Pocatello