CLEAN WATER ACT
SECTION 319 NONPOINT SOURCE POLLUTION PROGRAM
EDUCATION/TECHNICAL ASSISTANCE PROJECT
INTERIM FINAL REPORT

FY-2009

TMDL DEVELOPMENT AND WATERSHED PLANNING PROJECT

UTAH DIVISION OF WATER QUALITY

By

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EXECUTIVE SUMMARY

PROJECT TITLE: TMDL Development and Watershed Planning Project

	FY-2009
Total Budget	$862,818
Total EPA 319 Grant	$517,691
Total Expenditures of EPA 319 Funds	$517,691
Total Section 319 Match Accrued (State Revenue	$345,691
Total Expenditures	$848,500

SUMMARY ACCOMPLISHMENTS

Technical assistance provided by locally based watershed coordinators is critical to promote the timely implementation of high priority water quality projects identified in approved Total Maximum Daily Load studies. Also, tracking and reporting of completed projects by local coordinators is essential for evaluating the environmental benefits of the 319 program, attainment of or progress towards TMDL endpoints, and communicating those results to the local community.

Funding has shifted over the course of the project as local sponsors with adequate resources have assumed a large part of the management responsibilities required for each position. In FY-2009 ten full time watershed coordinator positions were funded using Section 319 funding. These positions include:

- Upper Bear River
- Bear Lake
- Middle/Lower Bear River
- Lower Weber River
- Uinta Basin
- Jordan River
- West Colorado River Basin
- San Pitch River
- Middle/Lower Sevier River
- Upper Sevier River

These positions are sponsored by local entities such as Conservation Districts, an Inter-State Commission (Bear Lake), County Government (Jordan R.), Utah State University Extension (Middle/Lower Bear R.), and a non-profit organization (UACD – West Colorado R). Local coordinators work in close collaboration with many state and federal agencies under the direction of these local sponsors and the Division of Water Quality. Their job descriptions focus on promoting and assisting in watershed planning efforts, developing high priority implementation

projects, reporting on their effectiveness, and tracking progress towards attainment of TMDL endpoints.

The specific products of this project from the individual coordinator positions are too voluminous to summarize here but are provided in the appendix to this interim final report. Quantifiable deliverables such as pollutant load reduction and number of conservation plans developed are reported in the specific 319 implementation project reports and annual coordinator reports provided in the appendix.

1.0 INTRODUCTION

Utah has approved TMDLs in each of the State's major river basins for a variety of water quality impairments including nutrients, dissolved solids, metals, sediment, and bacteria. Approximately half of these impairments have been attributed to agricultural sources in rural areas. Therefore, agricultural producers have a significant opportunity to assist in the improvement of Utah's water quality by reducing agricultural sources of pollution.

The Utah Division of Water Quality supports a voluntary, incentive-based approach to encourage landowners and producers to implement best management practices that improve and protect water quality. Critical to the success of this approach is a high level of trust between the funding agency and individual landowners. Landowners often fear that participating in government-sponsored programs will jeopardize their property rights or incur additional regulatory controls.

Essentially all of the approved TMDLs developed in Utah have been accomplished through a locally led watershed planning effort. This is considered a vital component in the Division's efforts to restore the beneficial uses of impaired waters. Adoption of water quality goals and TMDL endpoints by local stakeholders is the first step towards restoring impaired waters.

During the planning process all of the sources and causes of impairments to water quality are evaluated and incorporated into the plans. It is imperative that local stewards are involved in the identification of significant pollutant sources as well as their allocation among the various sources. Only through this process will local stewards recognize and take ownership of their watershed plans and accept responsibility for controlling pollutants of concern.

The next essential component for implementation of best management practices (BMPs) is the availability of financial assistance for projects that do not directly benefit the local cooperator. Typically, projects are most effective when funding is provided from a variety of sources to achieve common objectives. Multiple funding partners help distribute the cost of projects among agencies with limited resources, provide additional assistance in the planning, implementation and tracking of projects, and helps ensure their long term maintenance.

A final component, the purpose of this technical assistance project, is to provide the locally based technical assistance and leadership required to ensure the implementation of BMPs identified in approved TMDLs and 9 element watershed plans. This project provides the technical resources required to develop proposals, coordinate local activities, and assist in the

solicitation of high priority projects, track implementation, and report on progress towards attainment of water quality goals. A detailed description of job duties with examples is provided below:

TECHNICAL AND ADMINISTRATIVE SUPPORT

- Provide technical and administrative support to locally led watershed committees in development and implementation of watershed management plans and approved TMDLs.
    - Activities under this responsibility include:
        - Assist in planning & coordination of TMDL and water quality improvement activities.
        - Provide technical and administrative support to local watershed committees.
        - Direct development and modification of watershed plans to meet TMDL goals, endpoints and other water quality targets.
        - Assist in planning and conducting local watershed meetings.
        - Attend all relevant local and DWQ sponsored meetings.
        - Coordinate activities and information transfer between stewards and relevant management / funding agencies.

INFORMATION AND EDUCATION

- Provide essential information to local watershed stakeholders about current regulations concerning water quality, the availability and procurement of funding and the development of effective BMPs to address water quality impairments.
    - Activities under this responsibility include:
        - Developing, compiling and delivering educational materials to stewards.
        - Making presentations at local watershed meetings, county council meetings, civic groups, etc.
        - Organizing or participating in workshops or conferences.
        - Producing watershed newsletters, articles, and other outreach materials.

FUNDING PROPOSALS

- Assist local watershed groups and individuals in developing funding proposals to implement BMPs to abate all significant sources of pollutants and implement goals identified in TMDLs.
    - Activities under this responsibility include:
        - Research available funding sources for watershed projects including application procedures and requirements.
        - Develop funding proposals in coordination with local watershed committees
        - Facilitate and coordinate local in-kind matching funds to support grant proposals
        - Actively participate in project selection process to ensure attainment of TMDL goals.

IMPLEMENTATION

- Lead, facilitate, plan and develop implementation projects that assure attainment of TMDL goals identified by the State and local watershed stewards.
    - Activities under this responsibility include:
        - Identify and solicit landowners to implement water quality projects to abate pollutants of concern and achieve TMDL endpoints.
        - Provide technical assistance to plan, design and implement appropriate BMPs.
        - Coordinate available financial and technical resources to achieve maximum benefit to water quality.

MONITORING

- Coordinate and assist water quality monitoring activities directed toward demonstrating the achievement of TMDL endpoints, water quality standards and other environmental indicators of watershed health.
    - Activities under this responsibility include:
        - Identify appropriate monitoring locations associated with project sites to assess results.
        - Research and conduct appropriate monitoring and assessment techniques to evaluate reductions of the pollutants of concern.
        - Assist other resource management staff in collecting, analyzing and reporting water quality monitoring data.

TRACKING AND REPORTING

- Complete tracking and reporting of implementation activities described above to meet state and federal requirements.
    - Activities under this responsibility include:
        - Compile and report information on all nonpoint source implementation projects within the watershed associated with the reduction of nitrogen, phosphorus and sediment and other pollutants of concern contained in TMDLs.
        - Provide required tracking, mid-year, annual and final reports for grant projects including the GRTS tracking system.

This project is focused on the following areas where approved TMDLs have been developed and are being implemented:

- Upper Bear River
- Bear Lake
- Middle/Lower Bear River
- Weber River
- Uintah Basin
- Jordan River
- West Colorado River Basin
- San Pitch River

- Middle/Lower Sevier River
- Upper Sevier River

This priority is subject to change pending on going needs and negotiations with local watershed committees and sponsors.

Technical training and a forum for sharing information between local coordinators and partner agencies is provided through the Utah Watershed Coordinating Council formed prior to the beginning of this project. The Watershed Council meets 3 times per year and is co-chaired by the Division of Water Quality and an elected representative from the Council. Membership in the Council is open to all locally led, watershed based committee chairpersons or their delegated representative including local watershed coordinators financially supported through this project.

2.0 PROJECT GOALS, OBJECTIVES AND ACTIVITIES

The goal of this project is to fund local watershed coordinator positions in critical watersheds with approved TMDLs to plan, implement and report on nonpoint source reduction projects.

All of the essential activities and tasks needed to assure the planning and implementation of NPS projects are integrated into the work plans for individual watershed coordinators. Essential objectives/tasks for watershed coordinators include the following:

1. Coordinate locally led planning efforts in cooperation with relevant partners in support of the development and implementation of TMDLs.

2. Develop proposals to acquire funding to implement BMPs to reduce nonpoint sources of pollutants identified in approved TMDLs.

3. Provide information and education to local watershed stewards regarding water quality concerns, best management practices and the availability of funding to implement BMPs.

4. Provide required reporting elements related to all nonpoint source projects for input into the GRTS tracking system and to provide mid-year and annual reports for nonpoint source project areas.

5. Gather and report information on load reductions for all Section 319 projects implemented within the watershed that support the reduction of identified pollutants of concern contained in TMDLs as well as nitrogen, phosphorus and sediment.

6. Facilitate the implementation of the goals and objectives identified in TMDLs to assure the attainment of identified endpoints.

7. Provide technical assistance in the design, planning and implementation of projects to improve water quality.

8. Provide technical and administrative support to local watershed committees in the development and implementation of 9-element watershed based management plans associated with approved TMDLs.

9. Coordinate and assist in water quality and other resource monitoring activities directed toward demonstrating the environmental improvements of 319 implementation projects, achievement of TMDL endpoints, water quality standards and other environmental indicators of watershed,stream, riparian, and wetland health.

These positions, including salary, benefits and travel, are funded wholly or in part with 319 monies. The Division of Water Quality provides the required match through other expenses incurred by the project with DWQ staff support and others types of in-kind match such as analysis costs of water quality samples.

Watershed coordinators reside within the watershed and have an integral understanding of existing conditions and the measures required to achieve established TMDL endpoints. The Division of Water Quality establishes work tasks to be performed through a contractual process. Local watershed/project sponsors directly supervise coordinator positions to perform these tasks and seek input from DWQ staff to evaluate performance. If deficient performance is identified payment of reimbursement requests are withheld until they are adequately addressed and deemed acceptable by DWQ staff.

Specific activities of the local watershed coordinators are too numerous to provide here and are provided in the appendix accompanying this report.

2.1 Planned and Actual Milestones, Products, Completion Dates

Milestones, products and completion dates are included in the appendix of individual coordinator's annual reports at the end of this report. For reference the following table is provided for local coordinator's to report on their individual milestones, activities and completion dates submitted to the Division within their semi-annual and annual reports.

OBJECTIVES/TASKS ACCOMPLISHMENTS

Objective	Task	Results Achieved	Current Status
Objective 1 – Technical and Administrative Support	Task 1 – Assist in planning and coordination of TMDL and water quality improvement activities		
	Task 2 – Provide technical and administrative support to local watershed committees.		
	Task 3 - Assist in developing/modifying plans to meet TMDL goals, endpoints and other water quality targets		
	Task 4 - Assist in planning and conducting local watershed meetings		
	Task 5 - Attend all local and DWQ sponsored meetings		
	Task 6 – Coordinate activities and transfer of information between watershed committee and relevant agencies		
Objective 2 – Information and Education	Task 7 – Develop, compile and deliver educational materials to stewards		
	Task 8 – Make presentations of watershed information to watershed committees, county councils, civic groups, etc.		
	Task 9 - Participate in relevant water quality workshops and conferences		
	Task 10 - Conduct local workshops		
	Task 11 – Produce watershed newsletters		
Objective 3 – Acquire Project Funding	Task 12 - Report to watershed committee on available funding opportunities		
	Task 13 - Develop and submit proposals for funding in coordination with local watershed committees		
	Task 14 - Coordinate local in-kind matching funds to support grant proposals		
	Task 15 – Actively participate in the project selection process to ensure attainment of TMDL goals		
Objective 4 – Project Implementation	Task 16 - Identify and solicit landowners to implement water quality projects and achieve TMDL endpoints		
	Task 17 – Provide technical assistance to plan, design and implement appropriate BMPs		
	Task 18 – Coordinate available financial and technical resources to achieve maximum benefit to water quality		
Objective 5 – Implementation Monitoring	Task 19 – Identify appropriate monitoring locations associated with project implementation sites to assess results		
	Task 20 – Research and conduct appropriate monitoring and assessment techniques to evaluate reductions of the pollutants of concern identified in TMDLs		
	Task 21 – Assist other resource management staff in collecting, analyzing and reporting monitoring data.		
Objective 6 – Implementation Tracking and Reporting	Task 22 – Compile and report information on all nonpoint source projects associated with the pollutants of concern		
	Task 23 – Provide required tracking, mid-year, annual and final reports for grant projects including the GRTS tracking system		

2.2 Evaluation of Goal Achievement And Relationship To The State NPS Management Plan

This project is ongoing and has evolved over time with a higher level of involvement and direction from Division of Water Quality staff to ensure water quality objectives and tasks are accomplished in a timely manner. The Division is excited with the progress and achievements realized through this project. A much higher proportion of high priority projects are being implemented in TMDL watersheds and water quality objectives are increasingly being raised to the forefront of local conservation priorities through the efforts of local watershed coordinators supported by this project.

This project supports the goals of the State NPS Management Plan by providing the technical resources to promote and foster local leadership in developing 9 element watershed plans, implement TMDLs and achieve water quality restoration objectives.

2.3 Supplemental Information

Contact information and areas of responsibility for local watershed coordinators are available through the internet on two websites including the USU Extension's Water Quality website at www.extension.usu.edu/waterquality/htm/coordinating_council and the Utah Watershed Coordinating Council at www.utahwatersheds.com/contact.htm.

3.0 LONG TERM RESULTS IN TERMS OF BEHAVIOR MODIFICATION, STREAM/LAKE QUALITY, GROUND WATER, AND/OR WATERSHED PROTECTION CHANGES

This project has not directly measured behavior modification or changes in water quality. These tasks are instead included in individual project implementation plan final reports that local watershed coordinators are responsible for separately reporting on.

4.0 BEST MANAGEMENT PRACTICES (BMPS) DEVELOPED AND/OR REVISED

Not applicable (demonstration projects only).

5.0 MONITORING RESULTS FOR DEMONSTRATION PROJECTS

Effective immediately the local watershed coordinators will be more involved and responsible for the monitoring taking place in their watersheds. This includes the monitoring of BMPs that have been installed, as well as the monitoring that will be required for TMDL and watershed planning.

6.0 PUBLIC INVOLVEMENT AND COORDINATION

The success of this project is dependent on the cooperation and participation of many federal, state and local agencies and private organizations and individual stakeholders. This cooperative

effort is required to achieve long lasting and meaningful changes for the benefit of improving water quality.

6.1 State Agencies

Several state agencies and organizations play a critical role in the success of this project, these agencies include:

Utah Division of Water Quality – Administrate project grant and individual coordinator contracts, technical training on water quality restoration and load reduction estimation techniques, monitoring methods, and assistance with implementation of project proposals and reporting.

Utah Department of Agriculture and Food (up to FY 2011, DWQ has assumed these tasks thereafter) – Provide contracting, information and education, and GRTS data entry.

Utah Division of Wildlife Resources – Provide technical assistance and financial support for riparian and upland restoration projects.

Utah State University Cooperative Extension Service – Provide information and education services to local watershed planning efforts and BMP monitoring guidance.

Utah Association of Conservation Districts – Provide administrative assistance to Conservation Districts and engineering services.

6.2 Federal Agencies

Environmental Protection Agency – Provided planning guidance, project review, and financial assistance through the CWA 319 program.

Natural Resources Conservation Service – Provided office space for several local coordinator positions, training on conservation planning and BMP implementation, and financial assistance for implementation through EQIP program.

Federal Land Management Agencies (Forest Service and Bureau of Land Management) – Provided technical and financial assistance on projects occurring on public lands.

6.3 Local Governments, Industry, Environmental

There are several local governments and organizations that play a critical role in the success of this project.

Conservation Districts – Provided local sponsorship and leadership on watershed planning and identification of high priority implementation projects.

Salt Lake County – Provided local sponsorship, leadership, financial and technical support for the Jordan River Watershed Coordinator position.

Garfield County – Provided partial financial assistance for the Upper Sevier Watershed Coordinator position.

Snyderville Basin Water Reclamation Facility – Provided partial financial assistance for the Upper Weber Watershed Coordinator position.

7.0 ASPECTS OF THE PROJECT THAT DID NOT WORK WELL

The most challenging aspect of this project has been retaining highly trained and effective coordinators. The watershed coordinator positions are initially entry level but the incumbents quickly obtain highly marketable skills and experience. Due to the fixed budget and soft funding provided by this project the Division of Water Quality and local sponsors are unable to compete with the more secure, long-term/permanent positions offered by other federal, state, and local agencies.

8.0 FUTURE ACTIVITY RECOMMENDATIONS

To address the challenges presented by short-term incumbency within the Watershed Coordinator positions, i.e. less than one year, several strategies must be employed. A strategy that has worked well in a few watersheds and will be given higher priority in the future is to recruit candidates with strong ties to the local community. Local ties not only help in keeping incumbents for the longer term but also help increase their acceptance and level of influence among stakeholders.

Another strategy that we anticipate will help are the partnerships for funding with other local agencies and organizations to increase the available funding for salary and benefits such as those with Garfield County for the Upper Sevier Coordinator and Snyderville Basin Water Reclamation for the Upper Weber Coordinator. Soliciting and obtaining local support for these positions helps invest the community more in the work they do and ultimately in keeping effective Coordinators in place over the life of the long-term projects they are responsible for implementing, tracking and reporting on.

9.0 APPENDIX OF LOCAL WATERSHED COORDINATOR ANNUAL REPORTS

FY-2009

Following are selected summaries of Local Watershed Coordinator implementation activities and recent estimates of nonpoint source load reductions as found in the FY-2009 annual report.

San Pitch River
Thomas H. Shore, San Pitch River Watershed Coordinator

April 1, 2009 to Dec 31, 2009
Improve pasture condition and management to reduce runoff and sources of salinity:

Cooperator completed drilling a well for water improvement and pasture management. He also installed a water trough.
Cooperator completed 12 acres of pasture seeding with introduced grasses and forbs for upland pasture management. He is in the process of completing cross fencing for cattle management.

Replace flood irrigation with efficient and effective irrigation practices and to reduce water usage and runoff from saline soils:

Cooperator installed a wheel-line and put 15.4 acres under sprinkler- irrigation immediately adjacent to the San Pitch River.
Cooperator completed their irrigation project on 15 acres. They replaced flood irrigation by installing risers and each installed a "Big Gun" irrigation system in their respective fields as specified in the plans completed by the UACD Engineer.
Graveyard Irrigation project has been approved by Utah Water Resources, engineering plans have been completed and stamped by the NRCS. Cooperator is in the process of getting bids for construction. He plans to have construction underway by the end of August 2009.

Improve the stability of stream channel and enhance the riparian corridor to reduce sediment loading to the river and its tributaries:

Watershed Coordinator submitted grant proposal for Non-Point source funds (State revolving fund) to supplement stream project. The first $50,000 was given the Sanpete Conservation District. Verbal commitment has been received from water quality for the next $100,000 increment.
Two stream projects have been designed by the UACD engineer (Bob Irons and Gary Richards respectively) and are scheduled to be completed this year.
Cooperator is in the process of getting bids for stream restoration on their stream project. NRCS is in the process of completing the final design. Phase I of this project is scheduled to be completed this year.

Inform and educate the public concerning non-point source pollution and improving water quality within the watershed:

Watershed Education Day was held on April 7, 2009 at Snow College for the North Sanpete and South Sanpete School Districts. This involved 18 presenters and a total of 418 fourth-grade students. At least one elementary principal from Gunnison Elementary attended for the entire day as well as some parents who were helping the teachers with the students.

Jan 1, 2009 to April 1, 2009

Improve pasture condition and management to reduce runoff and sources of salinity: Cooperator is in the process of drilling a well for a water improvement. Well driller has drilled 300 ft, but needs to drill a little bit further to get flowing water.
Replace flood irrigation with efficient and effective irrigation practices and to reduce water usage and runoff from saline soils: Watershed Coordinator and NRCS engineer completed on-the-ground survey for the Graveyard Irrigation project. Construction is scheduled to begin in the next couple of weeks.

Improve the stability of stream channel and enhance the riparian corridor to reduce sediment loading to the river and its tributaries: Watershed Coordinator submitted grant proposal for Non-Point source funds (State revolving fund) to supplement stream project. Verbal commitment from water quality for the first increment of funding requested.

Inform and educate the public concerning non-point source pollution and improving water quality within the watershed: Watershed Education Day is scheduled for April 7, 2009 at Snow College for the North Sanpete and South Sanpete School Districts. This involves 18 presenters and a total of 418 fourth-grade students that are scheduled to attend.

Watershed Group published a request for proposals and will meet on April 2, 2009 to allocate remaining grant funds to projects.
UACD Engineer has now completed plans for irrigation project. Project is scheduled to begin when weather breaks. UACD engineer is now in the process of completing engineering design for the Seeley irrigation project.

July 1, 2008 to December 31, 2008

San Pitch Watershed Coordinator Position was filled on September 2, 2008. Effort was immediately centered on spending out old funds and getting engineering completed for projects that have been delayed.

Improve upland management practices to reduce sediment and nutrient runoff to the river and its tributaries: Cooperator installed 3392 feet of pipeline and two water troughs to implement pasture management in priority upland areas.

Improve pasture condition and management to reduce runoff and sources of salinity: There were two pasture improvement projects completed in priority areas:

(1) Cooperator built 1650 feet of cross fencing for pasture management and completed 30 acres of pasture seeding.

(2) Cooperator completed 33 acres of spraying undesirable weeds and 33 acres of tillage and planting for pasture improvement.

UACD Engineer has completed the final design for two stream improvement projects, and the stream alteration permits are in place. These stream projects are scheduled to be completed this coming field season. UACD Engineer is also working on completing the final design for irrigation project, and a complex irrigation system, including a reservoir, for the Seeley Group. NRCS Engineer is completing the final design for two complex stream improvement projects. These stream projects are scheduled to be completed this coming field season.
All of the FY 03 money has now been spent and the FY 03 projects are all completed to the extent the projects will be completed.

Project Title	*Funding Yr*	*Funding Amount*	*Pollutant of Concern*	*BMPs*	*% Compl.*
04-1264	*2003*	*$113,300*	*Sediment Nutrients*	*580-Stream Protection 4650 Feet*	*100%*
05-1645	*2004*	*$200,000*	*Sediment Nutrients*	*580-Stream Protection 1000 Feet*	*91%*
06-1025	*2005*	*$225,000*	*Sediment Nutrients*	*---*	*1%*
07-1031	*2006*	*$200,000*	*Sediment Nutrients*		*0%*
08-1217	*2007*	*$153,000*	*Sediment Nutrients*		*0%*
09-1060	*2008*	*$118,000*	*Sediment Nutrients*		*0%*

Bear River
James D. Bowcutt, Middle and Lower Bear River Watershed Coordinator

Currently in the Bear River Watershed I am working to implement 6 projects that are related to water quality. These consist of 3 animal feeding Operations and 3 stream bank projects. I am also writing nutrient management plans for the three animal feeding operations. Of the 6 projects I am working on five of them have been funded by EQIP as well. I have several other Cooperators that are waiting for more funds to become available in the 2010 funding year

I have also focused on education and outreach heavily in the watershed. These outreach activities include storm drain awareness projects. We have placed over 800 storm drain markers throughout Cache County. We have conducted a water quality survey in Cache County

and will begin an education outreach project with the remaining funds in the grant. I have also been working with several agencies to create natural resource field days in both Cache and Box Elder Counties. These field days will be used to educate local 4th graders about watersheds and other natural resources.

Project Title	*Funding Yr*	*Funding Amount*	*Pollutant of Concern*	*BMPs*	*% Complete*	*Load Reduction*
Ropaleto Project	*2007*	*EQIP- $26,121* *319- $13,060*	*DO/ phosphorous*	*Willow transplanting/ Stream channel stabilization/ Stream Bank fencing*	*75%*	*7.9 lbs/year of P* *41.3 lbs/year BOD* *11.2 tons/year Sediment*
Kim Wilson	*2008*	*EQIP- $52,273* *319- $31,364*	*DO/ phosphorous*	*Stream Bank Stabilization*	*60%*	*4.5 lbs/year P* *23.6 lbs/year BOD* *6.4 tons/ year Sediment*
Robert Drollette	*2008*	*EQIP- $59,743*	*DO/ phosphorous*	*Manure Storage and nutrient management plan*	*40%*	*327 lbs/year of P* *5824 lbs/year*
Cold Water Ranch	2009	319- $25,170	DO/ Phosphorus	Riparian fencing	0%	8.4 lbs/year of P 12 tons/year sediment
Paul Parker	2009	EQIP- $185,137 319- $46,285	DO/ phosphorus	Manure management and storage	0%	4949 lbs/yr P 9202 lbs/yr BOD
Roy Andreasen	2009	EQIP- $17,148 319- $5,540	DO/ Phosophorus	Manure management and storage	0%	543 lbs/yr P 16,488 lbs/yr BOD

Upper Bear River
NAME: Taylor Payne, Upper Bear River Watershed Coordinator

The Upper Bear River Watershed has made furthering progress towards water quality. During this reporting period a Cooperator has installed a water well on his 50 acre hay and beef operation that borders the Bear River. This project was planned to reduce erosion, sediment, and nutrient loading. The water well is part of a planned watering trough system that will exclude livestock from access to the Bear River. Information and education money was also

used as part of the tracking for the Upper Bear River Project.

There are currently projects that are planned or being planned which will contribute to water quality in the watershed. A cooperator is currently in the process of securing the property he owns on the southern end of Bear Lake along the Big Spring Creek for a conservation easement. With the completion of this project, it is a goal of his to continue managing his sheep ranch and small farm operations while allowing public access to the surrounding scenic landscape of the property he possesses. He is currently rebuilding his sheep handling facility and plans to build water troughs to facilitate the removal of the animals' direct access to Big Spring Creek. Other upland range projects are proposed that will focus on reducing the effects of erosion and degraded riparian zones from grazing livestock. The New Canyon Grazing Allotment will be committed to build 2.5 miles of new fence that is projected to improve grazing management and improve riparian zones. This allotment along with 6 other grazing allotments are planning to graze according to a scientifically structured grazing plan covering a 150,000 acre area. Almost all of the previously described projects have been planned according to NRCS specifications and technical assistance was provided from employees of NRCS, UACD and the Rich Conservation District. All described projects have been or will be funded through NRCS-EQIP, 319 Water Quality Money, and personal match dollars from the producers.

Project Title	*Funding Yr*	*Funding Amount*	*Pollutant of Concern*	*BMPs*	*% Complete*	*Load Reduction*
Robert Hoffman	*FY 08*	*$1840.20*	*Sediment, Nutrient Loading*	*Off-site watering facilities*	*15%*	*No recordable reduction Because of project infancy.*
Contract #02-1675	*FY 01*	*50.00*			*100% complete*	

Price/San Rafael River
Daniel R. Gunnell, West Colorado Watershed Coordinator

1. Scofield Reservoir: Informational sign has been placed at Scofield Reservoir. Dumpster project is complete! Carbon County paid for the asphalt and railing to complete the project. Mapped and identified Scofield landowners on streams entering the reservoir to begin restoration/rehabilitation work. Restroom facilities and a parking lot will soon be realized. DWR plans to begin stream rehabilitation work on Muddy Creek.
2. Price River Enhancement: Met with NRCS and CD representatives to encourage landowner contacts and sign-ups for federal programs. Completed an Archeological study on a two mile section of the Price River. An additional 2 miles of the Price River have been treated for invasive Russian olive and tamarisk. The Carbon Country Club agreed to allow cottonwood and willow harvesting from their premise.

3. Electric Lake: Obtained a UWCC grant for informational signage pertaining to the zebra mussel infestation at Electric Lake. The sign was designed with the assistance of NRCS and the DWR. Signs were installed by a group of volunteers as an earth day project.
4. County fair: set up booth on water quality for Carbon County fair; assisted with CWMA booth at Emery County fair.
5. Irrigation Water Management: conducted workshop as part of the Economic Development Summit and to assist landowners in water management. Personally met with landowners to help with specific water management issues. Planned, conducted and trained in 2 IWM workshops. 22 landowners attended. Assisted with an IWM Management grant with NRCS to do on-farm irrigation training and reporting.
6. River Network River Rally: On behalf of the UWCC, attended the Rally in Baltimore Maryland where various presentations were given on storm water, riparian work, stream rehabilitation, the Clean Water Act and Anti-degradation.
7. The mini grant from DWQ to conduct a survey of the community living in the Price River Watershed is being finalized with Jack Wilbur.
8. Assisting Carbon County with their master plan – watershed items.
9. AFO/CAFO – continue working with 1 landowner on projects that need to be completed. Assisted the farm bureau with the AFO/CAFO inventory.

Project Title	*Funding Yr*	*Funding Amount (actual 319 spent)*	*Pollutant of Concern*	*BMPs*	*% Complete*	*Load Reduction*
Scofield Res. PIP						
Waste Transfer Station	*2004*	*$25,869.09*	*Phosphorus*	*Solid Waste*	*100%*	*50 kg*
Grazing management	*2006*	*Carbon County to fund on their property. Also Spur Bay*	*Phosphorus*	*Grazing management*	*50%*	
Parking, toilet, 2 waste bins	*2004, 2005, 2006*	*Carbon County has agreed to install at least one toilet*	*Phosphorus*	*Solid Waste*	*0%*	
West Colorado Watershed PIP						

Salinity control	*Through 2007 (on-farm)*	*$15,062,828 from EQIP, Basin States and private*	*TDS*	*Improved irrigation*	*50%*	*62,084 tons per year*
Reduce canal and later ditch seepage	*Through 2007*	*$35,700 Wellington & Carbon canals*	*TDS 378.75 tons*	*Improved irrigation*	*40%*	*In addition to tons listed above*
Stream bank, riparian restoration	*Ongoing*	*2 mile project $113,763 Price River Russian olive removal.*	*TDS*	*Stream restoration*	*2%*	*On going monitoring*
IWM workshops,	*ongoing*	*Paid by Conservation District, Extension & UACD*	*TDS*	*I&E*	*100% 2 workshops in 2007 and 2 workshop in 2008 2 workshops in 2009*	
Livestock and Wildlife mgt.	*ongoing*	*UPCD, GIP applications*	*TDS*	*Grazing management*	*10%*	

Upper Sevier River
Wallace S. Dodds, Upper Sevier Watershed Coordinator

Project Title	*Funding Yr*	*Funding Amount*	*Pollutant of Concern*	*BMPs*	*% Complete*	*Load Reduction*
Old hatch Project	*2008*	*$50,000.00 funded through TWG program*	*Phosphorous Sediment*	*Installation of several rock barbs and one rock vane to slow river flow through a high gradient straight stretch. Willow and veg planting as well. Riparian planting completed this*	*100% Several large cut banks were sloped at a 2 to 1. this will reduce sediment input to the river system immensly*	*Phosphorous reduction will be 20 kg/yr Sediment reduction will be 200 tons/year*

				fall.		
Gleaves riparian restoration	*2005*	*$50,000.00*	*Phosphorous Sediment*	*Rest treated area from grazing for two years. High intense low term grazing thereafter.*	*90% All riparian work completed need to finish planting uplands and some trees and shrubs need to be planted.*	*Phosphorous reduction 45 kg/yr sediment reduction 170 tons/yr.*
Heaton riparian project. Frog Pond bend	*2009*	*$70,000.00*	*Phosphorous Sediment*	*Fence 5000 feet of river frontage to establish proper grazing practices.*	*20% Walked river with gps unit, plan is complete have gotten landowner approval. Project will start fall 09*	*Phosphorous reduction 30 kg/yr sediment reduction 190 tons/yr.*
BLM South Canyon five mile fuels reduction project Phase II	*2008*	*Unknown*	*Sediment control*	*2,500 acres of Piinion Juniper infested land was clear cut.This is the second phase of a three phase project.*	*100%*	
Upper Sevier Stream Enhancement #833	*2007/08*	*$14,200.00*	*Sediment Phosphorous*	*3,500 feet of stream vegetated and fenced. 900 bare root shrubs planted.*	*100%*	*Phosphorous reduction 35 kg/yr Sediment reduction 150 tons/yr*
Robert Brown fish habitat project.	*2007*	*$15,902.00*	*Sediment Phosphorous*	*Installation of 2,500 feet of riparian fencing. Bank*	*100%*	*Phosphorous reduction 20 kg/yr Sediment*

				sloping and re-vegetation on same stretch		*reduction 50 tons/yr*
Kingston Irrigation company Pipeline	*2008*	*$225,000.00*	*Sediment Phosphorous*	*Implementation of water management BMPs. Installed 11,600 feet of underground pipe to convert from flood irrigation.*	*50% of the pipe and fittings are installed.*	
East Fork SR Enhancement #831	*2008*	*$60,677.00*	*Sediment Phosphorous*	*Installed 900 cubic yards of rock, 4,700 feet of fence, several bare root trees and shrubs. 3,500 feet of stream length improved.*	*100%*	*Sediment reduction is 150 tons/yr phosphorous 30 kg/yr*
Project #833 East Fork SR Enhancement	*2008*	*300,000.00*	*Sediment Phosphorous*	*Installed 4,000 cubic yards of rock, 5 logging truck loads of logs, 5.5 miles of riparian fence. Vertical eroding banks sloped and re-vegetated. Project included 12 private landowners and covered 2.5 continuous miles.*	*50%*	*Sediment reduction 375 tons/yr Phosphorous 100 kg/yr*

Middle and Lower Sevier River
Lynn Koyle, Middle and Lower Sevier River Watershed Coordinator

10/1/08 to 12/31/08

WF Ranches-AFO project was completed 11/10/08, and operating well. All pay vouchers were sent in. All BMP's were reported in Toolkit as required. The project really looks good and will greatly reduce the nutrient loading to the Sevier River. Have pictures of project from beginning to end of construction.

The photos of the Sevier River Helicopter Flight are back. I am working with Lee Woolsey/NRCS to get them set up and organized so we can start doing an evaluation of them for future planning. The still photo's are really good and will show good detail on the river.

1/1/09 to 3/31/09
No river or riparian projects have been worked on this quarter. I have been working on getting things completed and ready to put out a Request for Proposal to finish writing and editing the Watershed Management Plan for the Lower and Middle Sevier River. The Request for Proposal was sent out March 2, 2009, with the proposals due back by March 13, 2009. We received 5 proposals. An evaluation form was filled out on each bidder by I and Carl Adams from Division of Water Quality. It was decided that the contract would be awarded to Cirrus Ecological Solutions from Logan, Ut. I am in the process of getting a contract signed and set up.
The photo's that were taken by helicopter are all back. I have been putting together an Index of the photo's from Piute Reservoir to the area South of Delta, Ut. We are in the process of putting together a team to do an evaluation of the Aerial Photo's to determine future Riparian and river work. It is planned to do this evaluation during the week July 6 to 10. Also I have started on an index for the Otter Creek drainage from Koosharem Reservoir to Otter Creek Reservoir.

4/1/09 to 6/30/09
We are getting real close to having the Watershed Management Plan completed. Cirrus Ecological Solutions from Logan, Ut. was awarded the contract for this program. We have had several meetings and phone conferences with them to get the information that is needed. I have sent out information surveys to get material for the plan, not a big response as of yet. The material they have put together so far looks like we will come out with a real good product.

The River bank restorations that were installed last year have healed really well. Also the work done on the animal feeding operation that was completed looks really good.

There are several river restoration projects planned for the near future, however the EQIP funds that many were planning on didn't materialize. We will have to go to other sources for funding to match the 319 funds, perhaps using the State SRF funding or ARDL loans.

All the map indexes for the still photos from the helicopter flight on the Sevier River have been completed to be used during the Sevier River evaluation that will take place during the week of July 6-10, 2009 by using the SVAP and PFC procedures.

A Match time ledger was developed to track time spent by the watershed cooperators to be used to match the 319 money.

Project Title	*Funding Yr*	*Funding Amount*	*Pollutant of Concern*	*BMPs*	*% Compl*	*Load Reduction*

					ete	
R.Porter Group	*2006*	*$5,071.50*	*TDS*	*Rock Barb. & Rip Rap, Willow plant*	*100%*	*N-168 lbs P-40 lbs Sed-43 ton*
C. Foreman	*2006*	*$28,730.63*	*TDS*	*Rock Barb & Rip Rap, Willow plant*	*100 %*	*N-118 lbs P-46 lbs Sed-87 ton*
D. Fautin	*2006*	*$33,062.72*	*TDS*	*Rock barb, Rip rap*	*100%*	*N-24 lbs P-9 lbs Sed-18 ton*
WF Farms	*2006*	*Actual cost $14,484.24*	*Nutrients*	*Corral Relocation, stock water lines, troughs & berm.*	*100%*	*N-3,968 lbs P-1,907 lbs*
Mgt.Plan	***2008***	***$51,790.00***	***Admin. Mgt. Plan***	***Complete Mgt. Plan for the Sevier River***	***65%***	***Admin***

Jordan River
Marian L. Hubbard, Jordan River Watershed Coordinator

The Water Resource Planning and Restoration Program of Salt Lake County is currently engaged in several restoration and planning efforts.

Restoration Projects:
This year (2009), with the use of the SVWRF SRS Funds and County match funds, Salt Lake County is looking to construct an overland flow wetland complex for improvement of water quality in the 8600 South Storm Drain that discharges into the Jordan River. This is currently in the design phase with MWH Engineering.

With the use SVWRF SRF Funds, 319 Funds, and County match, restoration is planned for along 8600 south to 9000 South of the Jordan River. This is a continuation of the 206 Projects, therefore designs are completed and Right of Way (ROW) is almost finalized. Construction is planned to start Fall 2009.

In 2008, Salt Lake County received $1.5 million in grant funds from the EPA for a large-scale ecosystem restoration project along the Jordan River between 6400 South and 7800 South (East Bank)-approximately 7000 linear feet. This is part of the Bingham Junction Project; therefore Salt Lake County has been working collaboratively with EPA, DEQ, USGS, UTA, and Midvale City. Currently J.U.B. Engineering is developing the design and construction is planned for Fall 2009. It is anticipated that there will be enough funds for restoration on the West bank of the Jordan River in 2010.

In 2009, Salt Lake County partnered with Salt Lake City and received ARRA funds for Jordan River Restoration at 4 different sites between 561 South and 2100 South respectively to enhance water quality, restore bank stability, and reduce sediment load to the River. Salt Lake County also received ARRA funds for Jordan River restoration between 104th South and 132nd South.

June 2009, Salt Lake County revegetated, via RBI landscaping company, three Jordan River restoration sites.

Planning:
In August 2009, the Water Resources Planning and Restoration Program finalized the Water Quality Stewardship Plan (WaQSP) for Salt Lake County. The WaQSP identified 15 priority recommendations for this planning cycle, which Salt Lake County is in the process of implementing. These recommendations focus on water quality and quantity, and also restorations projects in the Salt Lake Countywide watershed. Furthermore, Salt Lake County continues an extensive public involvement and outreach effort. This includes the Salt Lake Countywide Watershed Symposium, the bi-annual Watershed Watch Newsletter, informational table events throughout the year, and the Jordan River Watershed Council. WaQSp planning implementation includes:

Watershed Water Quality Model (2009)- With the use of SVWRF SRS Funds and County match, the development of a computer based water quality model that will assist future watershed planning and implementation efforts throughout Salt Lake County. This is currently in the development phase with the help of Stantec Consulting.

Flow and Water Quality Data Collection (2009)- With the use SVWRF SRS Funds and County match, installation of 5 new flow and water quality monitoring stations (Bingham Creek, dry Creek, Midas Creek, Corner Canyon Creek, and Rose Creek) that will be used to calibrate the Watershed Water Quality Model and monitor watershed health. The gages are in the design and development phase.

Sample instream water quality during storm events (2009)- Collecting instream water quality data allows an assessment of stormwater impacts to receiving waters. A pilot sampling will be performed on Millcreek this year.

Macroinvertebrate Sampling (2009)-With the coordination and assistance of the Utah Division of Water Quality, sample sites throughout the Salt Lake Countywide Watershed to assess water quality.

Also, in conjunction with the WaQSP, Salt Lake County completed the Stream Function Index (SFI). The SFI is a monitoring tool to measure the effectiveness of implementation. It measures chemical, biological, physical, and social conditions of the watershed. The final report is anticipated to be out in August 2009.

Project Title	*Funding Yr*	*Funding Amount*	*Pollutant of Concern*	*BMPs*	*% Complete*
JR Draper Restoration Project (11400 to 12300 South)	*2006-2009*	*$300,000*	TSS, TDS	*Grading, Protection, Irrigation, Mulching,*	*100*

				Re-veg	
JR Riverton Restoration Project (Riverton Wetland Park)	*2007-2009*	*$250,000*	TSS, TDS	*Grading, Protection, Irrigation, Re-veg*	*100*
JR Riverton Restoration Project (Oxbow Jail)	*2007-2009*	*$222,000*	TSS, TDS	*Grading, Protection, Irrigation, Re-veg*	*100*
2009 Salt Lake Countywide Water Quality Stewardship Plan (WaQSP)	*2006-2008*	*$698,470*	*TDS, DO, E. Coli, TSS, TP, TN, Temperature, Zinc, Copper*	*N/A*	*100*
SFI/EHI Assessments of streams and River within SLCo	*2007-2009*	*N/A*	*TDS, DO, E. Coli, TSS, TP, TN, Temp, Zinc, Copper*	N/A	*90*
Watershed Symposium	*2009*	*$17,000*	*TDS, DO, E. Coli, TSS, TP, TN, Temp, Zinc, Copper*	N/A	*75*
Development of Watershed Water Quality Model	*2009*	*$300,000*	*TDS, DO, TSS, TP, TN, Temperature*	*N/A*	*20*
Flow and Water Quality Data Collection Gages	*2009*	*$257,000*	Temperature, TDS, TSS, Nitrogen, Phosphorous, BOD, DO, Algal Growth, *Total or Fecal Coliform*	N/A	*10*
Jordan River-8600 South Constructed Wetlands	*2009*	*$795,410*	*TDS, DO, E. Coli, TSS, TP, TN, Temp, Zinc, Copper*	Constructed Wetland	*10*
Jordan River Restoration (8600 S. to 9000 S.)	*2009*	*$362,000*	*TSS, TDS*	Grading, Protection, Irrigation, Mulching, Re-veg	*15*
Bingham Junction Ecosystem Restoration	*2008-2010*	*$1,500,000*	*TSS, TDS, Arsenic, Lead*	Grading, Protection, Irrigation,	*20*

				Mulching, Re-veg	
Salt Lake City-Jordan River Restoration (4 sites between 561 South and 2100 South)	*2009-2010*	*$577,500*	*TSS, TDS*	Grading, Protection, Irrigation, Mulching, Re-veg	*20*
Jordan River Restoration (3 sites between 104th South and 132nd South)	*2009-2010*	*$484,200*	*TSS, TDS*	Grading, Protection, Irrigation, Mulching, Re-veg	*20*
Sample instream water quality during storm events	*2009-2010*	*$15,000*	*TDS, DO, E. Coli, TSS, TP, TN, Temp, Zinc, Copper*	N/A	*5*
Macroinvertebrate Sampling	*2009-2010*	*$26,000*	*TDS, DO, E. Coli, TSS, TP, TN, Temp, Zinc, Copper*	N/A	*20*

Uinta Basin
Chad McDonald, Uinta Basin Watershed Coordinator

I have been in this position since April 13, 2009 and hopefully I am making progress. I have rewritten and reassessed the Pot Creek, Matt Warner, and Calder Reservoir PIPs. This has involved finding new stakeholders and building relationships on trust not authority with some of the persons involved in this watershed. Consequently I had to make some sacrifices in order to move forward more effectively. The 2010 PIP for this same watershed has been completed. Unfortunately, due to turn over in this position local knowledge of the potential benefits of the 319 program are limited and skeptical. However, I am presently designing the Community Watershed Planning Program to focus on outreach with community leaders.

As my degree is in Watershed Management, I am continuing with technical training and assessment. I will be attending SVAP and a partnership building conference in the next couple of months. I am also reassessing the potential for establishing a basin wide watershed partnership as well as more active outreach strategies focused on field education. In the next year, I hope to expand watershed protection and restoration efforts to at least four sub sheds of the Uintah Basin. These include items such as:

- *Riparian restoration throughout the basin with a focus on Brush Creek;*
- *Tribal outreach within the Uintah River Basin to address salinity and invasive species;*

- *Upper Duchesne and Strawberry River basins to focus on fisheries restoration and*
  Salinity;
- *And Pariette Draw for implementation of a selenium and boron TMDL with riparian restoration*

Project Title	*Funding Yr*	*Funding Amount*	*Pollutant of Concern*	*BMPs*	*% Complete*	*Load Reduction*
MWCR	*2008*	*$64,500*	*Phosphorous*	*yes*	*20*	

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