SECTION 319 NONPOINT SOURCE POLLUTION CONTROL PROGRAM

WATERSHED PROJECT FINAL REPORT

Lower James River Implementation Project – Segment 3

Sponsor

James River Water Development District

David Kringen

July 2015

Photo courtesy of SD Game, Fish & Parks

This project was conducted in cooperation with the State of South Dakota and the United States Environmental Protection Agency, Region 8

Grant # C-9998185-09 and C-9998185-12

EXECUTIVE SUMMARY

PROJECT TITLE: Lower James River Implementation Project – Segment 3

SECTION 319 GRANT NUMBERS: C-9998185-09, C-9998185-12

PROJECT START DATE: 10 May 2012 PROJECT COMPLETION DATE: 31 Jul 2015

FUNDING:

Funding Sources	Original	Additional Amended	Actual Expenditures
Federal			
EPA 319 Grant 12	$281,000		$126,826
EPA 319 Grant 09		$74,834	$74,834
State			
CWFCP	$75,000		$75,000
CWSRF	$100,000		$83,454
Other Federal	$496,935		$563,508
Local	$254,747		$1,514,029
Total:	$1,044,174	$74,834	$2,437,651

GRANT AMENDMENTS: 2

SUMMARY OF ACCOMPLISHMENTS

The goal of the Lower James River Implementation Project is to restore and protect the water quality of the James River and its watershed. In order to obtain this goal, the Lower James Project has continued to implement the installation of Best Management Practices (BMPs), which began during Segment 2 of this project targeting sources of sediment, nutrients, and fecal coliform bacteria. An education and information outreach campaign that began during the Segment 1 of this project also continued through Segment 3.

The James River Water Development District is the sponsor of the watershed project. The initial Segment 3 project grant became effective on May 10, 2012. With amendments and additional funding, this Segment of the project continued through July 31, 2015. The objectives of this project segment (summarized) were:

1. Install Best Management Practices in critical areas to reduce sediment, nutrient, and fecal coliform bacteria loadings to the Lower James River.
2. Provide BMP and project information to 5,000 watershed residents, landowners, and members of stakeholder organizations to inform them on project activities and BMP installation, and maintain local support and involvement.
3. Monitor progress and project management to evaluate project water quality changes, attain project goals, and meet required administrative and reporting procedures.

BMPs installed under Objective 1 included practices such as seeding of perennial vegetation on crop ground, wetland restoration, grassed waterways, filter strips, animal waste management systems (AWMS), grazing plans, riparian exclusion, and shoreline stabilization.

Information and education activities under Objective 2 included newsletter articles, table-top display development, flyer and pamphlet development, public meetings, website updates, and project updates. Examples can be found in Appendix B of this report.

For Objective 3, project progress and expenses were documented using the online SD NPS Project Management System (or BMP Expense Tracker). Grants Reporting & Tracking System (GRTS) reports were completed on an annual basis showing target/milestone progress and project status. Water quality monitoring occurred on Dawson Creek (Bon Homme Co.) and Pierre Creek (Hanson Co.) in 2013 and 2014 respectively.

Based on the STEPL and FLGR computer-modeled nutrient reduction estimates, a phosphorus reduction of 8,121 lbs/yr were realized from project activities implemented through July 2015. Nitrogen and sediment reductions were estimated at 36,728 lbs/yr and 1,230 tons/yr respectively. The N and P load reductions were accomplished primarily through improvements to feeding operations within the Lower James River watershed, while sediment reductions came primarily from riparian management.

Because STEPL and FLGR estimates are on-site reductions and not necessarily delivered reductions, it is difficult to estimate a percent reduction delivered to the James River from BMP installation. Future water quality sampling and/or an update to the AnnAGNPS computer model may help determine if designated beneficial uses and water quality targets are being met.

In July 2012, the James River Water Development District board members approved $50,000 to initiate the JRWDD Enhanced CRP program. The program was designed to provide a one-time, up-front, incentive payment equal to 40% of the overall CRP base-rate payment for certain Continuous CRP practices deemed important to improving water quality within the James River watershed. CRP practices that qualified included: CP8A (Grass Waterways), CP21 (Filter Strips), CP22 (Riparian Buffer), CP29 (Marginal Pastureland Wildlife Habitat Buffer), and CP30 (Marginal Pastureland Wetland Buffer). Shortly after approval however, Continuous signups were interrupted due to Congressional delays in passing a new Food Security Act (aka Farm Bill). Continuous CRP Signup 44 ended September 30, 2013 and Continuous CRP Signup 46 did not begin until June 9, 2014 (Signup 45 was a general signup between May 20 & June 14, 2013). The Enhanced CRP program is now being utilized and the JRWDD board increased the incentive payment from 40% to 75% in September 2014.

ACKNOWLEDGEMENTS

The Lower James River Implementation Project would like to thank all those involved with the Segment 3 portion of the watershed restoration effort. The efforts of all those involved from the following organizations are greatly appreciated and have been essential to the success of the project.

James River Water Development District (JRWDD)

United States Environmental Protection Agency (EPA)

South Dakota Department of Environment and Natural Resources (SD DENR)

United States Department of Agriculture Natural Resources Conservation Service (USDA NRCS)

United States Department of Agriculture Farm Service Agency (USDA FSA)

United States Fish and Wildlife Service (USFWS)

South Dakota Game, Fish & Parks

Pheasants Forever

Local area farmers, ranchers, and landowners

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INTRODUCTION

The Lower James River watershed lies entirely within the Level III Ecoregion of the Northern Glaciated Plains in southeastern South Dakota. The watershed encompasses 2,558,800 acres within the 12 counties of Aurora, Bon Homme, Davison, Douglas, Hanson, Hutchinson, Jerauld, Kingsbury, McCook, Miner, Sanborn, and Yankton (Figure 1). The Lower James River Watershed, Hydraulic Unit 10160011, begins just south of Huron and flows southward, converging with the Missouri River at the City of Yankton. The James River is a perennial stream with its tributaries ranging from intermittent to perennial. The streams in the watershed contribute loadings of pathogens, nutrients, and suspended solids related to snowmelt or rainfall events. The headwaters of the James River begin in North Dakota flowing through the communities of New Rockford and Oakes, North Dakota. The River then crosses the state line into South Dakota and flows southward near Aberdeen and Huron, entering the Lower James Watershed just south of Huron.

The James River basin has a sub-humid, continental climate characterized by pronounced season differences in temperature, precipitation, and other climatic variables. Temperature varies from the northern to the southern end of the basin. High mean temperatures are slightly cooler in the northern region of the basin with Mitchell having a high mean temperature in July of 86.4 degrees Fahrenheit and a low mean temperature in January of 4.4 degrees Fahrenheit. Yankton, at the southern end of the watershed, has a high mean temperature in July of 89.1 degrees Fahrenheit and a low mean temperature in January of 6.4 degrees Fahrenheit.

There are approximately 29 incorporated cities and 30 unincorporated towns, villages, and populated centers within the Lower James River watershed area. The city of Mitchell at the north end of the watershed has the largest population with 15,254 residents. The second largest city is Yankton with a population of 14,454. The population of the watershed is rural in nature with 20,773 residents listed as rural not living on farms, 6,208 as rural living on farms, and 16,111 as urban (USDA-NRI 2009). Table 1 lists the cities with populations of over 500 in the watershed. Many of these municipalities have discharge permits.

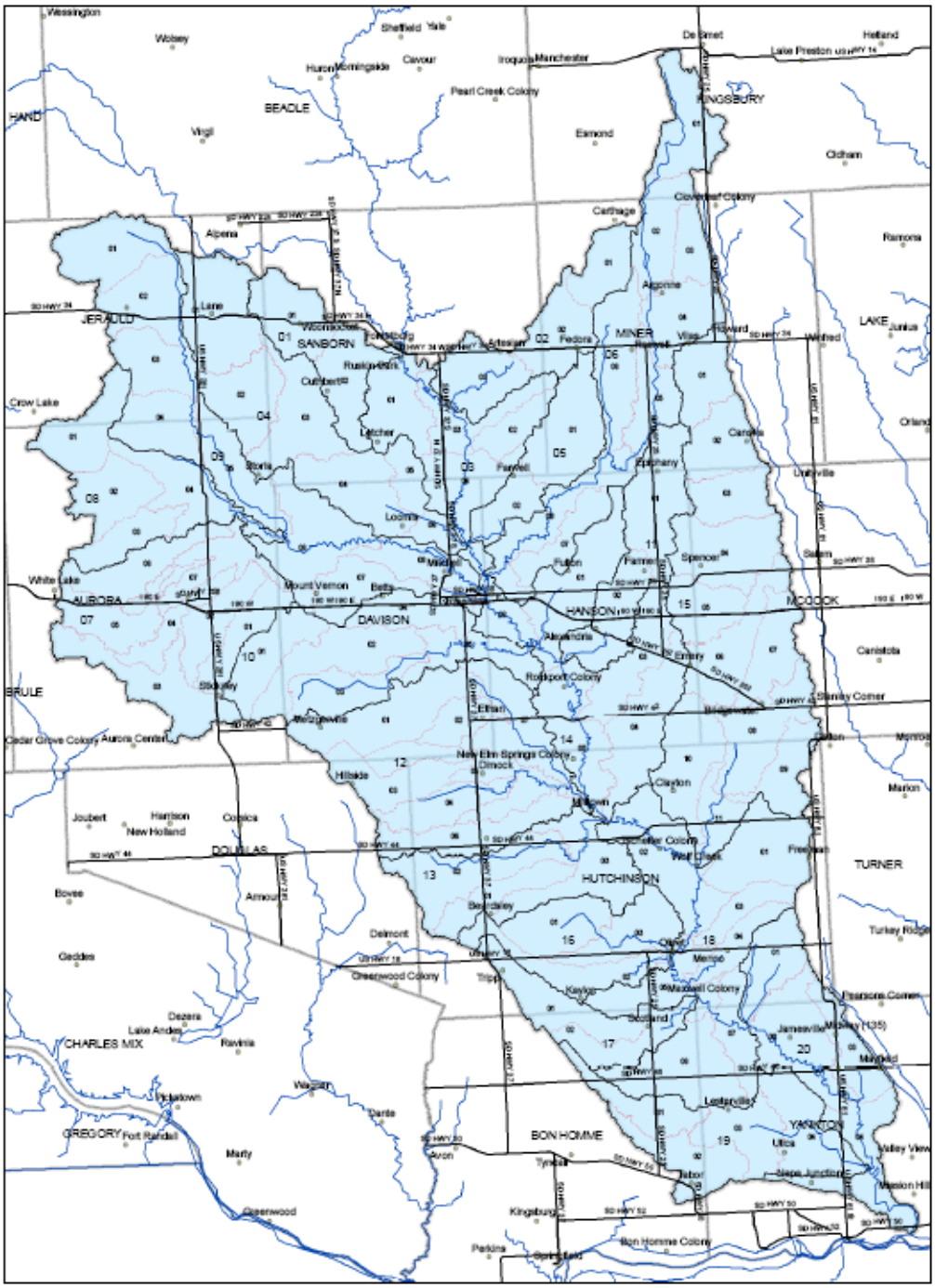
Table 1. Cities with a Population of Over 500 in the Lower James River Basin.

City	County	Population
Mitchell	Davison	15,254
Yankton	Yankton	14,454
Parkston	Hutchinson	1,508
Freeman	Hutchinson	1,306
Wessington Springs	Jerauld	956
Scotland	Bon Homme	841
Plankinton	Aurora	707
Woonsocket	Sanborn	655
Tripp	Hutchinson	647
Alexandria	Hanson	615
Menno	Hutchinson	608

U.S. Census Bureau 2010 Census

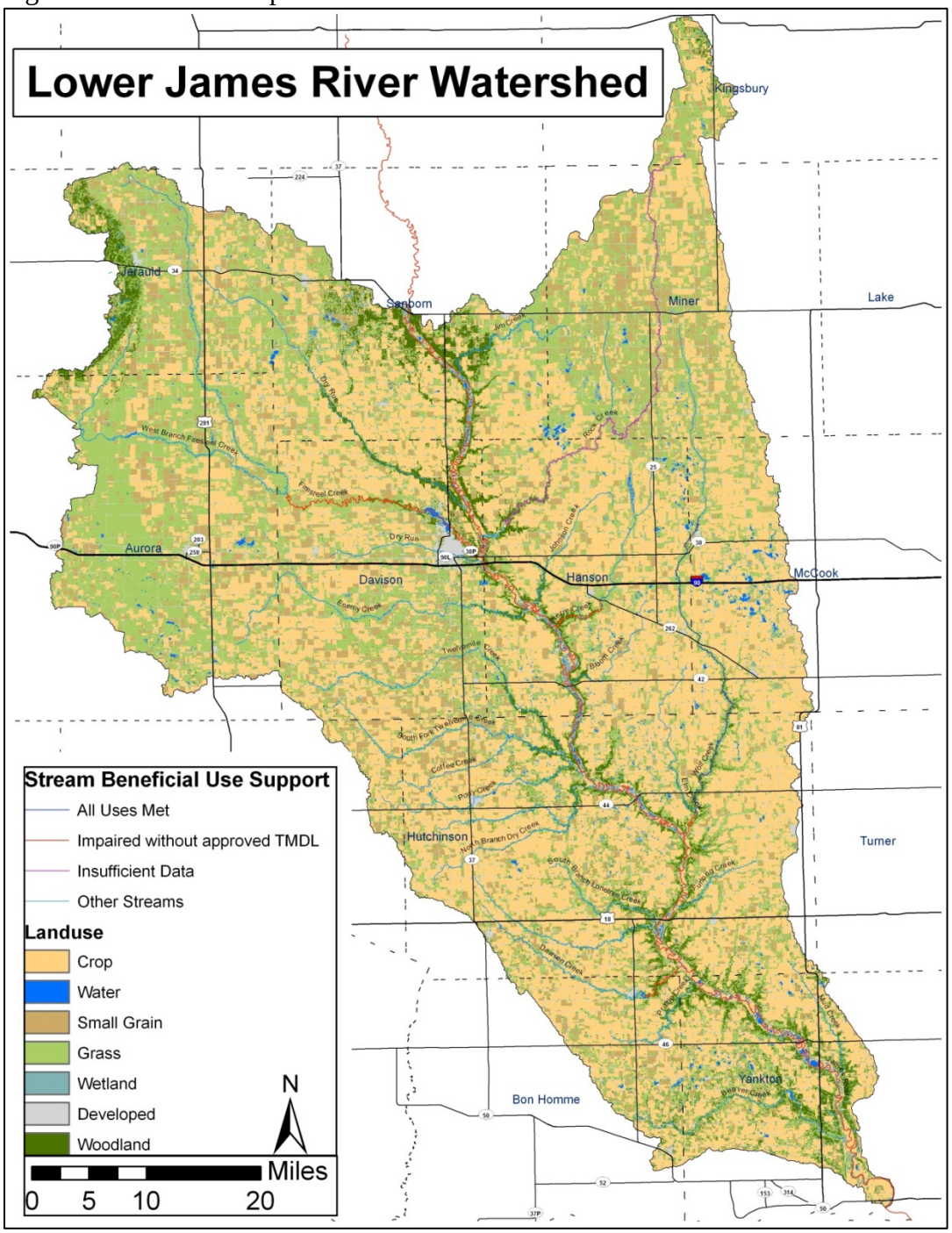
Predominant soils within the Lower James River watershed consist of deep, well drained, and moderately well drained, nearly level, loamy, and silty soils and have a mesic temperature regime. They formed in glacial till on the uplands, loamy soils over sand and gravel on the outwash plains, and clayey and silty soils formed in alluvium on the floodplains and low terraces. The soils have medium to high fertility and moderated to high organic matter content. The available water capacity is high and permeability is moderate to moderately slow. Runoff is slow to medium, and the hazard of erosion is slight; however, the drainage patterns are better defined adjacent to tributaries.

Figure 1. Lower James Watershed Basin HU 10160011.



The dominant land use is cultivated cropland comprised of corn, soybeans, grain sorghum, and sunflowers. Cropland productivity is largely ranked as good. Areas not suitable for row crop farming are utilized as pasture, range, and hay land. The use limitations of the soils for crops are slight, which results in a large percentage of the watershed being used for intensive crop production (Figure 2). Maintaining fertility and tilth is the main concern of management; however, this results in the application of chemicals, fertilizers, and animal manures. While the Lower James basin is well suited to farming, it has resulted in the impairment of waterbodies where land uses are not managed well to reduce pollution.

Figure 2. Land Use Map for the Lower James River Watershed.



The overall objective of the implementation project is to restore and protect the water quality of the Lower James River and its watershed; specifically to reduce sediments, nutrients, and fecal coliform bacteria loadings to the stream. Field investigations and analysis have found water quality characteristic that have exceeded EPA standards with dissolved oxygen, biological oxygen demand, total coliform bacteria, fecal coliform bacteria, total suspended solids, total phosphorous, nitrogen, and total alkalinity.

The beneficial uses of streams, lakes, and reservoirs in the Lower James River watershed as listed by SD-DENR Integrated Report for 2010 are listed in Table 2.

Table 2. Beneficial Uses for Targeted Water Bodies.

Water Body	From	To	Beneficial Uses	County
Beaver Lake - L2			6,7,8,9	Yankton
Dawson Creek -R1	James River	Lake Henry	6,8,9,10	Bon Homme
Enemy Creek	Enemy Creek	S18-T103N-R60W	6,8	Davison
Enemy Creek - North Fork	Enemy Creek	S36-T103N-R61W	6,8	Davison
Firesteel Creek -R3	James River	Confluence with West Fork Firesteel Creek	1,4,8,9,10	Davison
James River -R16	Sand Creek	Interstate 90	5,8,9,10	Sanborn
James River -R7	Interstate 90	Yankton County Line	5,8,9,10	Hutchinson
James River -R8	Yankton County Line	Missouri River	5,8,9,10	Yankton
Lake Hanson -L16			6,7,8,9	Hanson
Lake Mitchell -L22			1,4,7,8,10	Davison
Menno Lake -L20			5,7,8,9	Hutchinson
Pierre Creek -R20	James River	S11-T102N-R58W	8,9,10	Hanson
Rock Creek -R21	S9-T103N-R59W	Headwaters	9,10	Miner
Twin Lakes -L35			5,7,8,9	Sanborn
Wilmarth Lake -L37			4,7,8,9	Aurora
Wolf Creek -R27	Wolf Creek Colony	S5-T103N-R56W	6,8,9,10	McCook
Wolf Creek -R29	Wolf Creek Colony	Mouth	6,8,9,10	Hutchinson

From *2010 South Dakota Integrated Report for Surface Water Quality Assessment*.

Numerical Key to Beneficial Uses listed in Table 2:

(1) Domestic water supply waters;
(2) Coldwater permanent fish life propagation waters;
(3) Coldwater marginal fish life propagation waters;
(4) Warm water permanent fish life propagation waters;
(5) Warm water semi-permanent fish life propagation waters;
(6) Warm water marginal fish life propagation waters;
(7) Immersion recreation waters;
(8) Limited contact recreation waters;
(9) Fish and wildlife propagation, recreation, and stock watering waters;
(10) Irrigation waters; and
(11) Commerce and industry waters.

The *2014 South Dakota Integrated Report for Surface Water Quality Assessment* lists the impaired water bodies with the beneficial uses impaired and the cause for the impairment; shown in Table 3. The location of the impaired water bodies are shown in Figure 3.

Table 3. Lower James River Water 303(d) Segments and Sources of Impairment.

Water Body – Map ID	Assessment Unit Identification (AUID)	Beneficial Use Impaired	Listed Cause
Dawson Creek – R1	SD-JA-R-DAWSON_01	Limited Contact Recreation (8)	Fecal Coliform *Escherichia coli*
Firesteel Creek - R3	SD-JA-R-FIRESTEEL_01	Limited Contact Recreation (8) Warmwater Permanent Fish Life (4)	*Escherichia coli* Cause Unknown
James River - R13	SD-JA-R-JAMES_09	Warmwater Semi-Permanent Fish Life (5)	Total Suspended Solids
James River – R14	SD-JA-R-JAMES_10	Warmwater Semi-Permanent Fish Life (5)	Total Suspended Solids
James River – R15	SD-JA-R-JAMES_11	Warmwater Semi-Permanent Fish Life (5)	Total Suspended Solids
		Limited Contact Recreation (8)	Fecal Coliform *Escherichia coli*
Lake Mitchell – L24	SD-JA-L-MITCHELL_01	Immersion Recreation (7) Limited Contact Recreation (8) Warmwater Permanent Fish Life (4)	Chlorophyll-*a* Chlorophyll-*a* Chlorophyll-*a*
Pierre Creek – R19	SD-JA-R-PIERRE_01	Limited Contact Recreation (8)	Fecal Coliform *Escherichia coli*
Twin Lakes - L37	SD-JA-L-TWIN_01	Immersion Recreation (7) Limited Contact Recreation (8) Warmwater Permanent Fish Life (4)	Chlorophyll-*a* Chlorophyll-*a* Chlorophyll-*a*
Wilmarth Lake – L39	SD-JA-L-WILMARTH_01	Warmwater Permanent Fish Life (4)	pH
Wolf Creek – R23	SD-JA-R-WOLF_01	Limited Contact Recreation (8)	*Escherichia coli*
Wolf Creek - R24	SD-JA-R-WOLF_02	Limited Contact Recreation (8)	Fecal Coliform *Escherichia coli*

From *2014 South Dakota Integrated Report for Surface Water Quality Assessment*

Figure 3. Impaired Water Bodies within the Lower James River Basin.

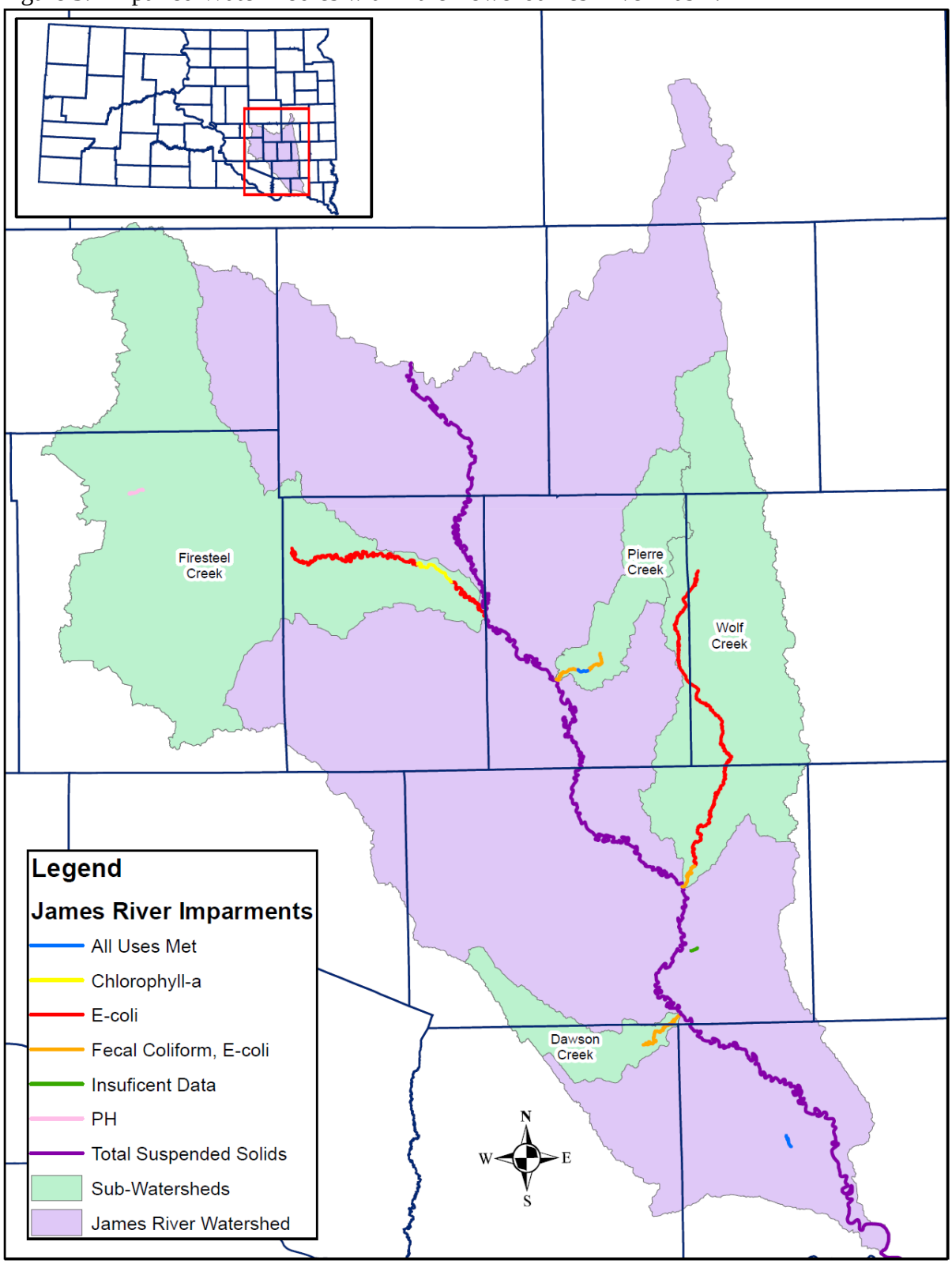


Table 4. Estimated BMPs Implemented by Project Segment.

BMP Estimate	Estimate of Acres/Practices needed	Estimate of Acres/Practices Completed In:		
		Segment 1 (1 Jun 08 – 31 Dec 10)	Segment 2 (30 Jun 09 – 31 Jul 12)	Segment 3 (10 May 12 – 31 Jul 15)
Cropland Management BMPs: Conservation tillage, conversion of cropland to grassland (seeding), filter strips, grassed waterways, wetland restoration	**50,000 ac.**	**0**	**43 ac.**	**49 ac.**
Grassland Management BMPs: Rotational grazing systems, riparian buffers, stream bank stabilization, water development, riparian management	**18,500 ac.**	**0**	**6,242 ac.**	**1,590 ac.**
Animal Waste Management Systems:	**75**	**0**	**4**	**3**
Animal Waste Facility Feasibility Study	100	3	2	3
Animal Waste Mgt. System (Construction)	75	0	3	3
Animal Nutrient Management Plans	75	0	2	3

An estimate of Best Management Practices (BMPs) needed to restore waterbodies within the watershed to their beneficial use is shown in Table 4. The practices needed to be installed are based on the findings from the Lower James River Assessment Project. A more detailed estimate can be seen in the Lower James River Watershed Implementation Project – Segment 1 Final Report.

The objectives for the Lower James River Watershed Implementation Project – Segment 1 included: (1) Develop a project implementation plan (PIP) for the lower James River watershed; (2) Provide assistance to landowners to complete two animal waste feasibility studies, construct one feedlot; and (3) Complete an outreach and information campaign. While no actual BMP implementation occurred during Segment 1, three AWMS Feasibility Studies were conducted at that time, which lead to construction during Segment 2.

During Segment 2, approximately 84% of the 6,242 acres reported under Grassland Management were listed as NRCS Prescribed Grazing acres in the Seg 2 Final Report. Tracking of the Prescribed Grazing acres that were "planned and applied" by NRCS throughout the Lower James watershed was not attempted during Segment 3.

Prescribed Grazing is generally defined as:

- a rotational grazing system which ensures that livestock forage demand is balanced with forage supply,
- has planned periods of growing season rest within grazing units,
- and season-of-use is alternated between years.

PROJECT GOALS, OBJECTIVES, AND ACCOMPLISHMENTS

The goal of the Lower James River Implementation Project is to restore and protect the water quality of the James River and its watershed. Objectives used to reach this goal include:

Objective 1. Install Best Management Practices (BMPs) in critical areas to reduce sediment, nutrient, and fecal coliform bacteria loadings to the Lower James River.

Task 1. Plan and implement riparian area BMPs. Provide assistance to landowners with installation of priority BMPs on riparian area cropland and grasslands in the watershed that reduce fecal coliform bacteria, nutrient, and sediment loadings. BMPs will be installed with landowner investments along with USDA programs (EQIP/CRP/WHIP) and 319 funds. Funds from the 319 grant for BMP planning and implementation will be targeted to critical cells associated with riparian areas identified in the watershed assessment and towards BMPs where other cost-share is not available.

Product 1: Cropland BMPs on 250 acres.

Accomplishment: Cropland BMPs implemented under Product 1 (filter strips, grassed waterways, wetland restoration, etc.) are traditionally installed through the USDA CRP, CREP, and EQIP programs. Load reduction estimates for Product 1 can be seen in Table 13.

Table 5. Filter Strips Applied on Cropland during Segment 3.

No.	County	Assessment Unit Identification (AUID)	Practice Code	Acres
1	Hanson	SD-JA-R-JAMES_10	CP22	9.0
2	Hutchinson	SD-JA-R-JAMES_11	CP21	16.8
3	Hutchinson	SD-JA-R-JAMES_10	CP21	1.9
4	Yankton	SD-JA-R-JAMES_11	CP21	4.4
TOTALS				32.1

Table 6. Grass Waterways Applied on Cropland during Segment 3.

No.	County	Assessment Unit Identification (AUID)	Practice Code	Acres
1	Aurora	SD-JA-R-FIRESTEEL_01	CP8A	6.8
2	Davison	SD-JA-R-FIRESTEEL_01	CP8A	1.4
3	Hanson	SD-JA-R-JAMES_10	CP8A	4.4
4	Hutchinson	SD-JA-R-JAMES_10	CP8A	4.0
TOTALS				16.6

Product 2: Grassland Management BMPs on 250 acres.

Grassland management systems will be designed and installed on 500 acres of riparian grasslands to reduce fecal coliform, nutrient, and sediment loading. Technical assistance for system planning will be requested from the SD Grassland Management and Planning Project and project Natural Resources Conservation Service (NRCS) field offices. BMPs will be implemented using funds from federal programs (EQIP, Continuous CRP), landowners, and 319 funds. BMPs planned to be installed include: livestock exclusion, land use agreements, planned grazing systems, fencing, pipelines, tanks, ponds, stream bank stabilization, and rural water hook-ups. Use of 319 funds to implement grazing system BMPs will be targeted to riparian grasslands along the James River and its major tributaries and to areas identified as critical cells during the assessment, and where other sources of cost-share are not available.

Accomplishment: During this Segment of the Lower James River Implementation Project, 194 acres of riparian pasture/rangeland were enrolled into the Continuous CRP program. CRP livestock exclusion practices used immediately adjacent and parallel to streams, lakes, or other permanent water bodies include:

- CP22 (Riparian Buffer)
- CP29 (Marginal Pastureland – Wildlife Habitat Buffer)
- CP30 (Marginal Pastureland – Wetland Buffer)

Table 7. CRP/RAM Applied on Riparian Grassland during Segment 3.

No.	County	Assessment Unit Identification (AUID)	Practice Code	Acres
1	Aurora	SD-JA-R-FIRESTEEL_01	CP29	26.5
2	Aurora	SD-JA-R-FIRESTEEL_01	CP29	8.5
3	Aurora	SD-JA-R-FIRESTEEL_01	CP30	10.6
4	Davison	SD-JA-R-JAMES_10	CP30	24.5
5	Hanson	SD-JA-R-JAMES_10	CP30	16.2
6	Hanson	SD-JA-R-JAMES_10	CP30	9.2
7	Hanson	SD-JA-R-ROCK_01_USGS	CP30	8.5
8	Hanson	SD-JA-R-ROCK_01_USGS	CP30	4.9
9	Hutchinson	SD-JA-R-WOLF_01	CP22	1.6
10	Hutchinson	SD-JA-R-JAMES_10	CP30	20.3
11	Jerauld	SD-JA-R-FIRESTEEL_01	CP30	20.3
12	Jerauld	SD-JA-R-JAMES_09	CP30	33.7
13	Yankton	SD-JA-R-JAMES_11	CP30	9.5
TOTALS				194.3

Load reduction estimates for Product 2 can be seen in Table 13.

Other notable grassland projects where the Lower James Watershed Project was directly involved include a number of rotational grazing system projects in or near priority areas within the James River watershed. EPA 319 funds were typically used for items such as water development and cross-fence (Table 8).

Table 8. Planned Grazing Systems and Associated Acres.

No.	County	Assessment Unit Identification (AUID)	Acres
1	Hanson	SD-JA-R-JAMES_10	310
2	Hanson	SD-JA-R-JAMES_10	124
3	Hanson	SD-JA-R-JAMES_10	163
4	Hutchinson	SD-JA-R-WOLF_01	217
5	Yankton	SD-JA-R-JAMES_11	155
6	Yankton	SD-JA-R-JAMES_11	427
TOTALS			1,396

Streambank/Shoreline Stabilization

During this Segment of the project four streambank/shoreline stabilization projects were completed within the James River watershed. Hutchinson County completed a bank stabilization project in 2012 along the James River in Sweet Township (97N-57W) going upstream from a county bridge. Here high flows in recent years were eroding the bank and threatening bridge pillars. There were 135 linear feet of streambank stabilized with rock rip-rap to prevent further erosion.

Figure 4. Before & After of Hutchinson County Bridge Stabilization Project, 2012.

At the same time, a Hutterite Colony stabilized an additional 2,225 linear feet upstream from the same bridge to prevent further bank erosion.

Figure 5. Hutterite Colony Stabilization Project, 2012.

In 2013, one other Hutterite Colony in Hutchinson County completed a 2,500 LF rock rip-rap stabilization project along the west bank of James River in Wittenberg North Township (99N-58W).

The City of Mitchell completed another shoreline stabilization project on Lake Mitchell, Davison County in 2014 installing approximately 250 linear feet of concrete block matting along the lake shoreline north of the spillway. The matting was used to replace failing rock and wire baskets (gabions) that were installed around the lake in the 1980s.

Figure 6. Lake Mitchell Stabilization Project, 2014.

Task 2. Provide assistance to landowners to implement animal waste management systems (AWMS).

Product 3:

- Complete two (2) animal waste management system feasibility studies
- Complete the design and installation of two (2) animal waste management systems
- Complete two (2) nutrient management plans (NMP)

Assistance is provided using the services of private consultants and/or the Ag Nutrient Management Team to complete feasibility studies based on a priority evaluation and ranking by the project steering committee. The feasibility studies, AWMS installation, and NMPs will be from this project, landowner contributions, USDA cost-share programs (EQIP), and other state support such as the Consolidated Water Facilities Construction Program. The cost of needed cultural resources surveys will be borne by the primary project funder, and are part of the cost of an AWMS installation when they are this project's responsibility.

A Comprehensive Nutrient Management Plan, or CNMP, is a conservation plan unique to animal feeding operations. Each CNMP must include Environmental Compliance for the planned system and may be comprised of six possible elements:

1. Manure and Wastewater Handling and Storage
2. Land Treatment Practices
3. Nutrient Management (planned for three future years)
4. Record Keeping
5. Feed Management (optional, as needed)
6. Other Utilization Options – for manure not applied to land (optional, as needed)

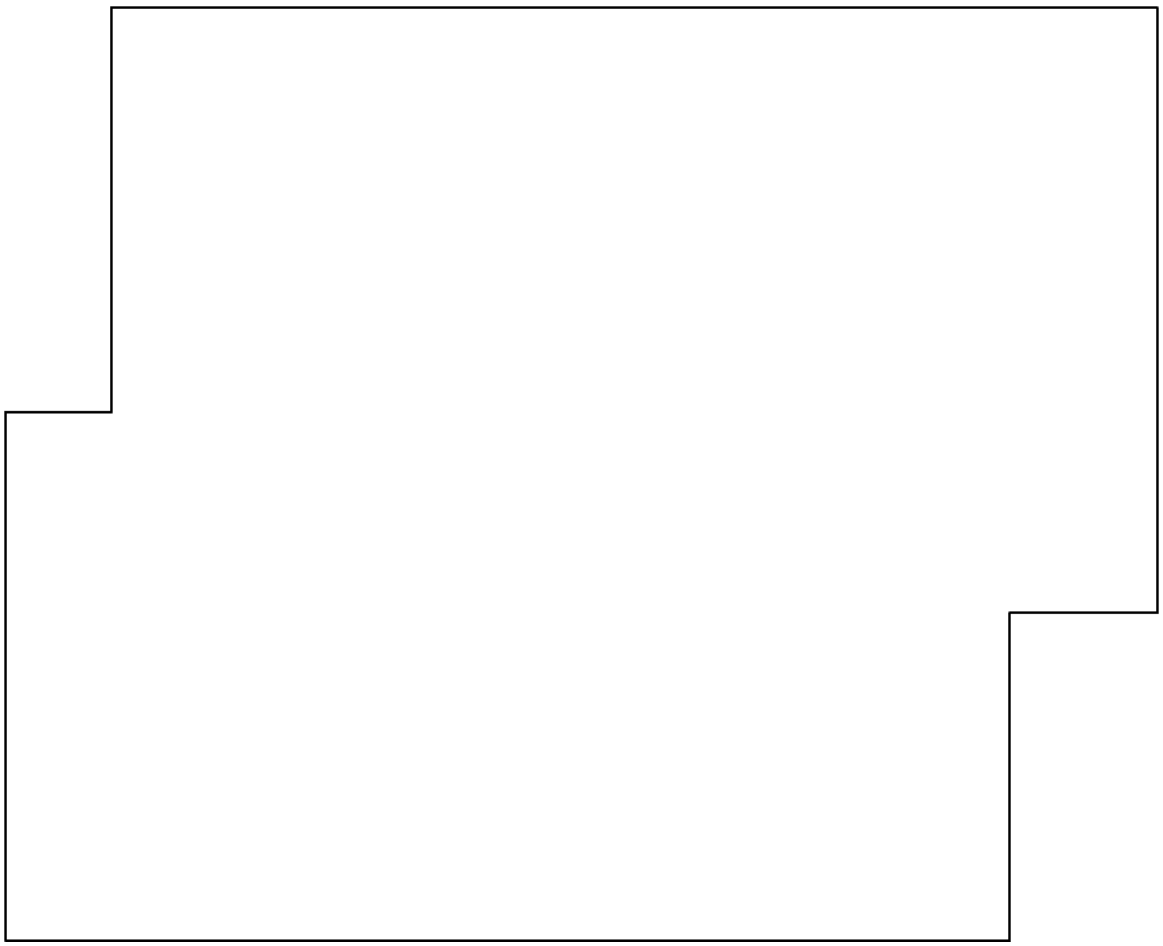
Accomplishment: During this Segment of the project, three (3) CNMPs were planned and implemented through the NRCS Agricultural Nutrient Management Team for animal feeding areas within the Lower James River watershed along with construction of three (3) AWMS. Construction of the first AWMS occurred within the Pierre Creek watershed, which is currently listed as an impaired water body for fecal coliform and *E. coli* bacteria (see Table 3). Construction of the second and third AWMS occurred within the Twelve Mile Creek watershed in Davison County and the South Branch Dry Creek watershed in Hutchinson County. Neither creek is specifically listed as impaired in the latest SD Integrated Report for Surface Water Quality Assessment, but lie within the section of the James River watershed (SD-JA-R-JAMES_10) that is listed as impaired for total suspended solids (TSS). A feasibility assessment/report was also completed for each AWMS by the NRCS Agricultural Nutrient Management Team during initial discussions and planning.

Table 9. CNMP Implementation & AWMS Construction during Segment 3 Project Period.

Type of Operation	County	Watershed	Assessment Unit Identification (AUID)	Result
Beef	Hanson	Pierre Creek	SD-JA-R-PIERRE_01	AWMS for 999 AU; NRCS CNMP sign-off 12/18/2014
Beef	Davison	Twelve Mile Creek	SD-JA-R-JAMES_10	AWMS for 600 AU; NRCS CNMP sign-off 12/19/2014
Beef	Hutchinson	South Branch Dry Creek	SD-JA-R-JAMES_10	AWMS for 300 AU; NRCS CNMP sign-off 1/23/2015

Load reduction estimates for Product 3 can be seen in Table 13.

Figure 7. Before & After of Deep Pit Monoslpe Barn, Pierre Creek Watershed, 2014.



Objective 2. Provide BMP and project information to 5,000 watershed residents, landowners, and members of stakeholder organizations to inform them on project activities and BMP installation, and maintain local support and involvement.

Task 4. Complete an outreach and information campaign.

Assistance will be provided to James River Water Development District and project partners to develop and implement an outreach/information campaign that informs project residents of opportunities for involvement in the project and the project progress. Priority activities planned include a minimum of one newsletter each year and maintenance of the web site with current project information. Project staff will partner with area media to complete news releases, and be available to partner organizations for presentations on project activities.

Product 5: Newsletters and web site maintenance

Accomplishment: A number of methods were used for I & E outreach efforts during this portion of the watershed project; examples of which can be seen in Appendix B of this report. The Appendix includes newsletters, newspaper articles, mass mailing flyers and brochures, public meeting notices, etc. which have been used during Segment 3.

In addition, project personnel have made dozens of contacts through on-site visits with landowners, and have met regularly with partners such as the different NRCS offices and staff within the watershed to keep them abreast of opportunities that may be available.

Figure 8. Barn Tour of Deep Pit Monoslope Facility, June 2015.

Objective 3. Monitoring progress and project management to evaluate project water quality changes to attain project goals and meet required administrative and reporting procedures (monitoring and project progress reports).

Task 5. Monitoring water quality through water sampling related to BMP installation and after storm events to assess changes in water quality from BMPs and from the initial watershed assessment sampling. Project staff will collect water samples related to installation of animal waste systems to evaluate before and after water quality changes and related to storm events at the outlets of creeks (Pierre, Dawson, and Wolf, etc.) for testing at the State Lab. Testing will be completed related to total suspended solids, fecal coliform bacteria, and E. Coli. Sampling will be completed utilizing technical assistance from the SD DENR and following procedures established in the "Standard Operating Procedures for Field Samplers, Volumes I & II, Tributary and In-Lake Sampling Techniques", State of SD, 2005.

Product 6. Water quality monitoring to monitor project impacts

Accomplishment: Extreme drought conditions in the Midwest limited opportunities for water quality sampling in 2012. However, some limited monitoring was completed in 2013 and 2014 on Dawson Creek and Pierre Creek respectively.

Figure 9. Water Quality Monitoring Sites, Dawson Creek Watershed, 2013.

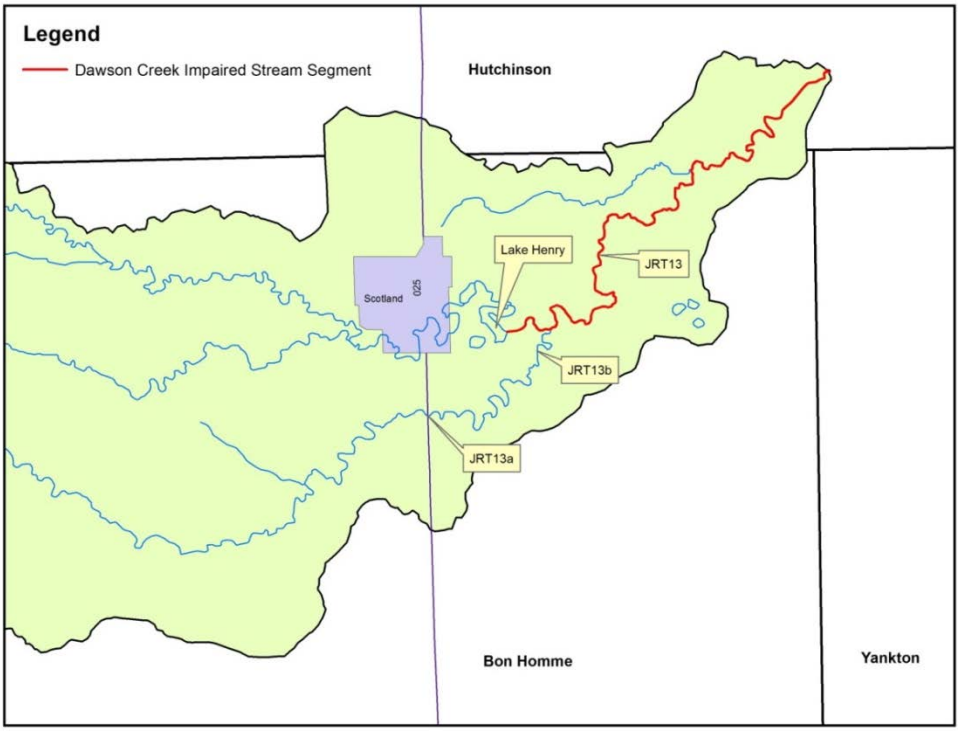


Table 10. *E. coli* Grab Samples, Dawson Creek, 2013.

Date	*Escherichia coli* (colonies / 100 ml)		
	JRT13	JRT13a	JRT13b
7 May 2013	162		
14 May 2013	1,300		
22 May 2013	>2,420		
28 May 2013	>4,840 >4,840 (r)		
4 Jun 2013	>24,200		
11 Jun 2013	19,900		
18 Jun 2013	7,270		
25 Jun 2013	6,490 4,350 (r)	1,530	
2 Jul 2013	5,480 10,500 (r)	727	15,500 11,200 (r)
9 Jul 2013	14,100	2,280	
16 Jul 2013	7,700 9,210 (r)	24,800 34,500 (r)	749 839 (r)

(r) denotes replicate

The Dawson Creek Impaired Stream Segment from Lake Henry to the James River does not support its Beneficial Use designation for Limited Contact Recreation (LCR). The Listed Cause is from fecal coliform bacteria and *Escherichia coli*. The standard for LCR is 1,000 colonies per 100 mL (mean) / 2,000 colonies per 100 mL (single sample) for fecal coliform bacteria and 630 (mean) / 1,178 (single sample) for *E. coli*. A portion of the elevated *E. coli* counts for Dawson Creek are thought to be the result of a number of discharges from a swine feeding operation within the watershed above Site JRT13a. The producer has since begun working with NRCS to control runoff from both of his swine and cattle operations.

Figure 10. Water Quality Monitoring Site, Pierre Creek Watershed, 2014.

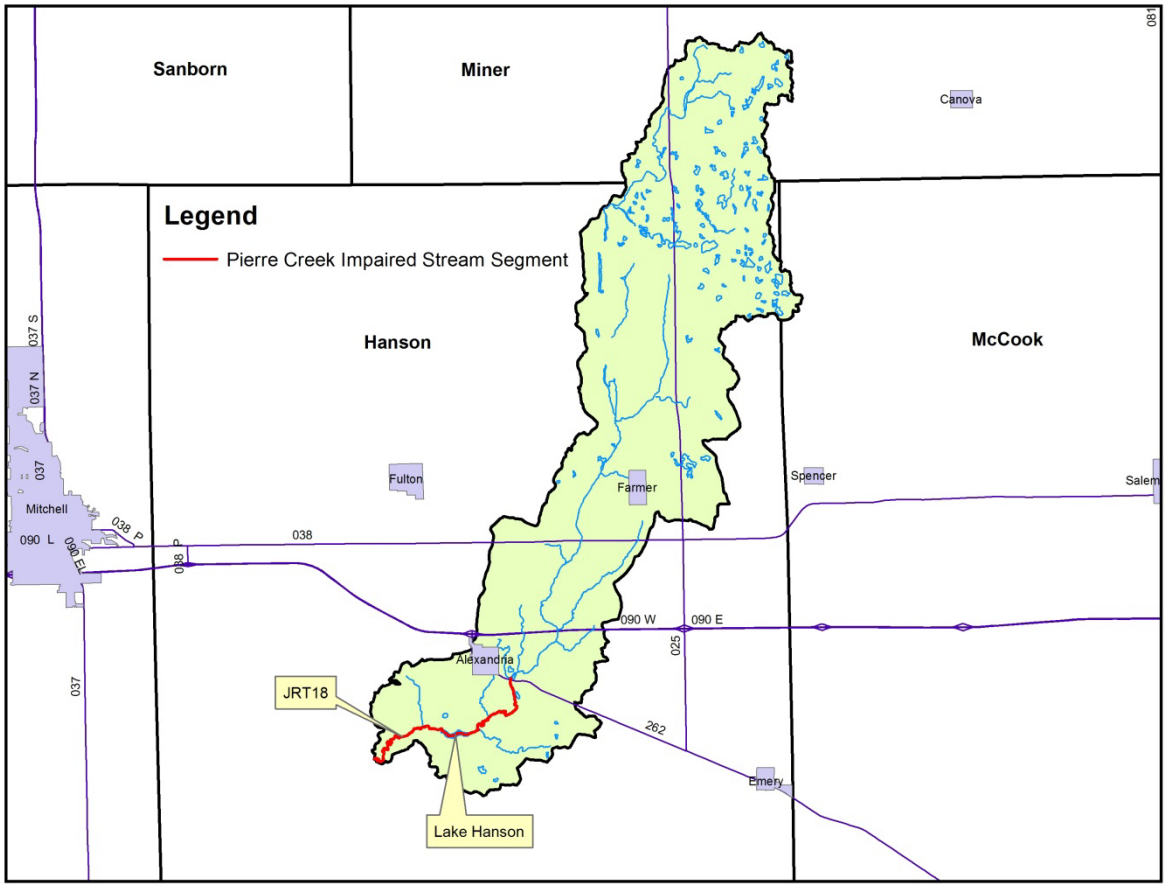


Table 11. Grab Samples at Site JRT18, Pierre Creek, 2014.

Date	E. coli (colonies / 100 ml)	Fecal coliform (colonies / 100 ml)
5/14/2014	88.2	40
5/21/2014	2,420	1,500
5/28/2014	2,240	1,000
6/4/2014	663	400

The Pierre Creek Impaired Stream Segment from S11, T102N, R58W to the James River does not support its Beneficial Use designation for Limited Contact Recreation (LCR). The Listed Cause is from fecal coliform bacteria and *Escherichia coli*. Standards are same as listed above for LCR. Grab samples were taken prior to a new sediment sampling method for bacterial analysis attempted by SD DENR on 6/4/2014.

Task 6. Prepare and submit reports using the prescribed format(s) as required by the project sponsor and partners.

Product 7: Semi-annual and annual GRTS reports, monthly and final project reports.

The reports are to include:

1. Semi-annual (April) and annual (October) reports
   The semi-annual and annual reports will be submitted to DENR in a format that meets the GRTS reporting requirements. The reports will include information on:
   - estimated load reductions for BMPs installed utilizing AnnAGNPS and STEPL models,
   - locations and land use where BMPs have been installed and/or utilizing a GIS layered land use location mapping system,
   - narrative description of project activities, and
   - a planned versus accomplished milestone comparison.
2. Monthly progress reports to the project sponsor and co-sponsors. These reports will be submitted electronically or by attendance at sponsor meetings.
3. Final Report. The final report, prepared following the format provided by DENR, will include a narrative summary of progress toward reaching project goals and objectives to improve water quality in the Lower James River Watershed, milestone and budget comparison pictures of project activities, and maps showing the location of completed BMPs. AnnAGNPS, STEPL, and GIS will be used to estimate project load reduction accomplishments and current land use status in the watershed.

Accomplishment: Completed.

Project progress and expenses were documented using the on-line SD NPS Project Management System (aka BMP Expense Tracker). Grants Reporting and Tracking System (GRTS) reports were completed either on an annual or semi-annual basis showing target/milestone progress and nutrient load reductions. Progress reports to the project sponsor were made bi-monthly during each board meeting. The final report, prepared by the project coordinator, was completed during July 2015 and fulfills the final report requirement.

PLANNED AND ACTUAL MILESTONES

Table 12. Segment 3 Planned Versus Completed Project Activities.

Objective/Task/Product	Planned	Actual
Objective 1. BMP Implementation		
Task 1. Riparian Area BMPs		
Prod. 1. Cropland BMP	250 ac.	49
Prod. 2. Grassland BMP	250 ac.	1,590
Task 2. Animal Waste Management Systems		
Prod. 3. AWMS		
Feasibility Studies	2	3
Nutrient Management Plans	2	3
System Construction	2	3
Objective 2. Information Outreach		
Task 3. I & E Activities		
Prod. 4. Newsletters & Web Site Development		
Newsletters	2	2+
Web Site Maintenance	2 yrs	3
Objective 3. Project Monitoring & Reporting		
Task 4. WQ Monitoring		
Prod. 5. WQ Monitoring	14 samples	34
Task 5. Project Reporting		
Prod. 6. Prepare and submit reports		
Semi-annual reports	-	-
Annual report	3	3
Final report	1	1
Monthly reports	-	38

MONITORING AND EVALUATION RESULTS

Table 13. Load Reduction Summary by Product.

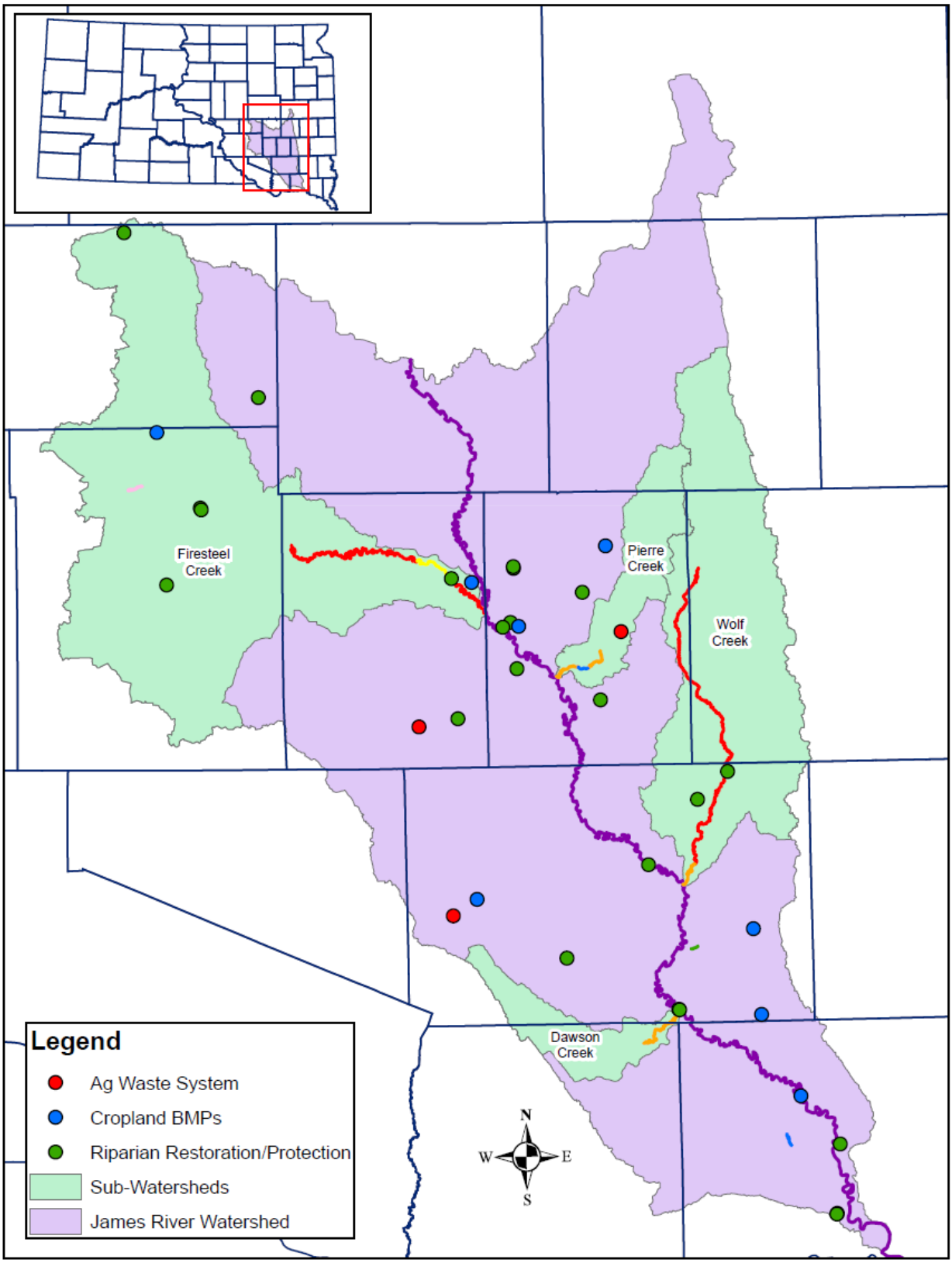
Product	N Reduction (lbs/yr)	P Reduction (lbs/yr)	Sediment Reduction (tons/yr)	Fecal Load Reduction (CFU)
Prod. 1. Riparian Cropland	2,957.3	863.3	525.5	-
Prod. 2. Grassland Management				
CRP/RAM	2,487.6	320.1	134.7	-
Rotational Grazing	1,817.8	307.7	172.9	-
Shoreline Stabilization	-	-	361.0	-
Prod. 3. AWMS	29,464.8	6,629.5	35.7	2.04E+12
TOTALS	36,727.5	8,120.6	1,229.8	

Load reduction estimates come from the STEPL (Spreadsheet Tool for the Estimation of Pollutant Load v. 4.0) and FLGR (Feedlot Grazing) computer models. Nitrogen and phosphorus reduction estimates come from STEPL while sediment and fecal load reductions are generated from the LFGR model. Load estimates are on-site reductions and not necessarily delivered reductions.

Table 14. Load Reduction Summary by Assessment Unit Identification (AUID).

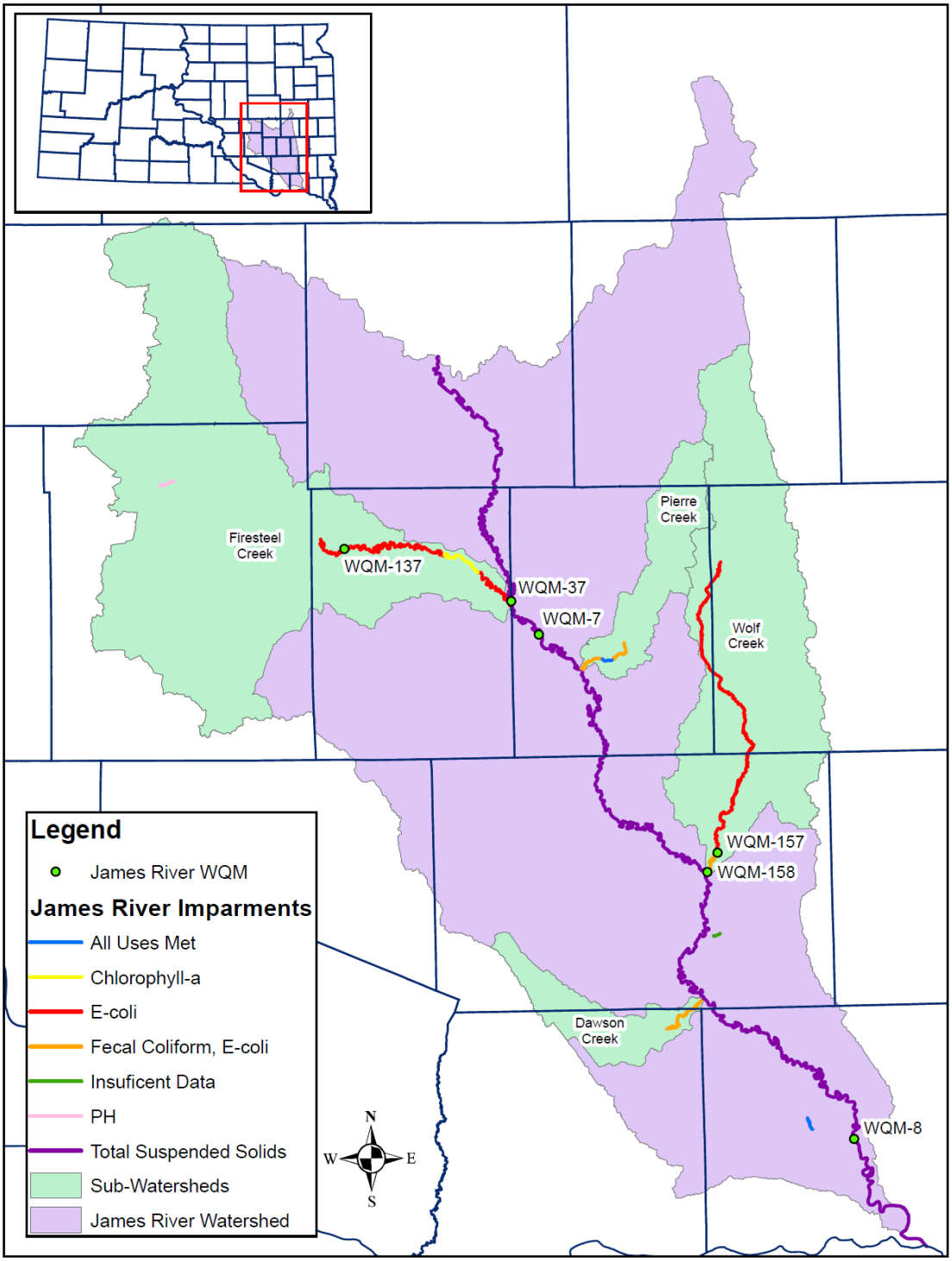
AUID	N Reduction (lbs/yr)	P Reduction (lbs/yr)	Sediment Reduction (tons/yr)	Fecal Load Reduction (CFU)
SD-JA-R-FIRESTEEL_01	1,569.1	295.1	140.9	-
SD-JA-R-JAMES_10	17,347.2	3,893.3	755.2	1.12E+12
SD-JA-R-JAMES_11	1,767.7	407.3	263.0	-
SD-JA-R-PIERRE_01	15,117.0	3,401.3	16.1	9.22E+11
SD-JA-R-ROCK_01_USGS	429.6	53.2	21.2	-
SD-JA-L-TWIN_01	165.1	24.0	11.7	-
SD-JA-R-WOLF_01	331.8	46.4	21.7	-
TOTALS	36,727.5	8,120.6	1,229.8	2.04E+12

Figure 11. Segment 3 Project BMP Locations.



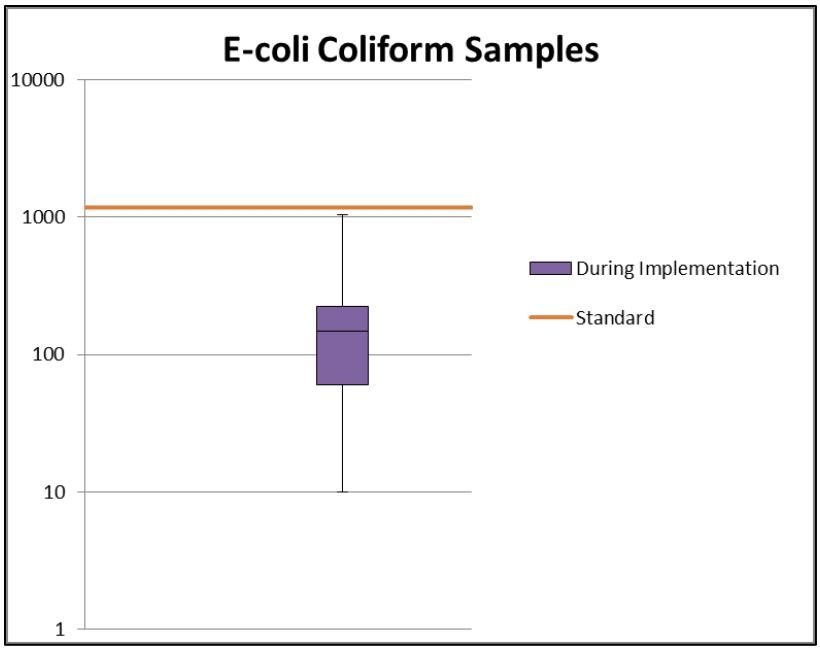
Water quality monitoring was conducted on Firesteel Creek, three segments of the James River, and two segments of Wolf Creek through the SD DENR's ambient water quality monitoring stations. The monitoring sites can be found in Figure 12 below. Samples taken between 2003 and 2008 are considered "Pre-Implementation" and those taken from 2009-2014 as "During Implementation" for comparison purposes in the following segment.

Figure 12. James River Basin Water Quality Monitoring Sites.



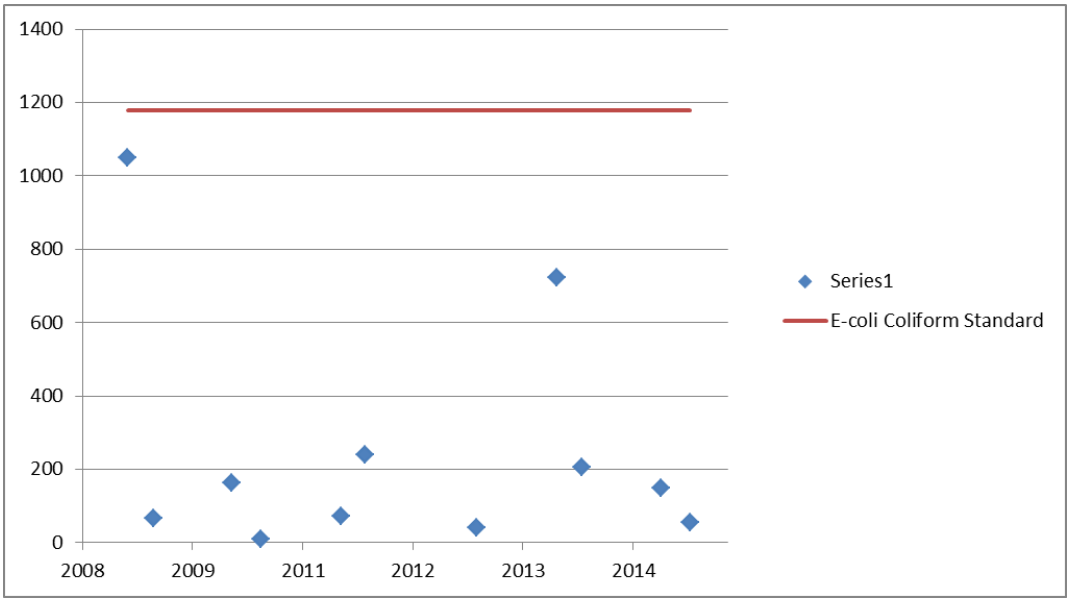
Firesteel Creek WQM 137: Firesteel was previously listed in the SD DENR 2010 Integrated Report (IR) as impaired for *E. coli* and Total Dissolved Solids. It's currently listed in the 2014 IR as threated for *E. coli*. The standard for *E. coli* on Firesteel Creek is 1,178 CFU. No samples were taken during the "pre-implementation" time period. The median *E. coli* sample in the plot below is 148 CFU.

Figure 13. Firesteel *E. coli* During Implementation Whisker and Box Plot.



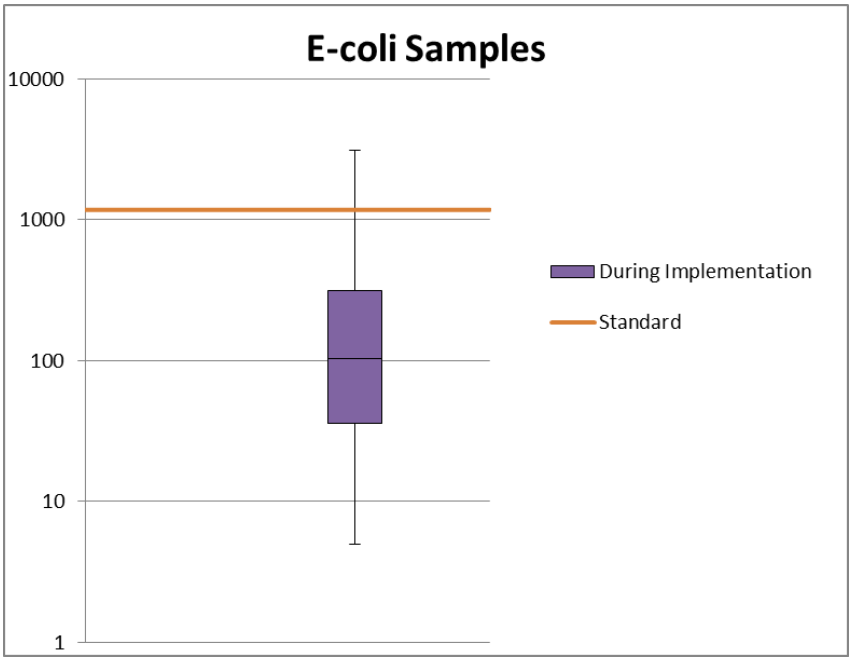
All *E. coli* samples from 2009 through August of 2014 taken at the Firesteel Creek WQM site are shown in Figure 14.

Figure 14. Firesteel *E. coli* Samples.



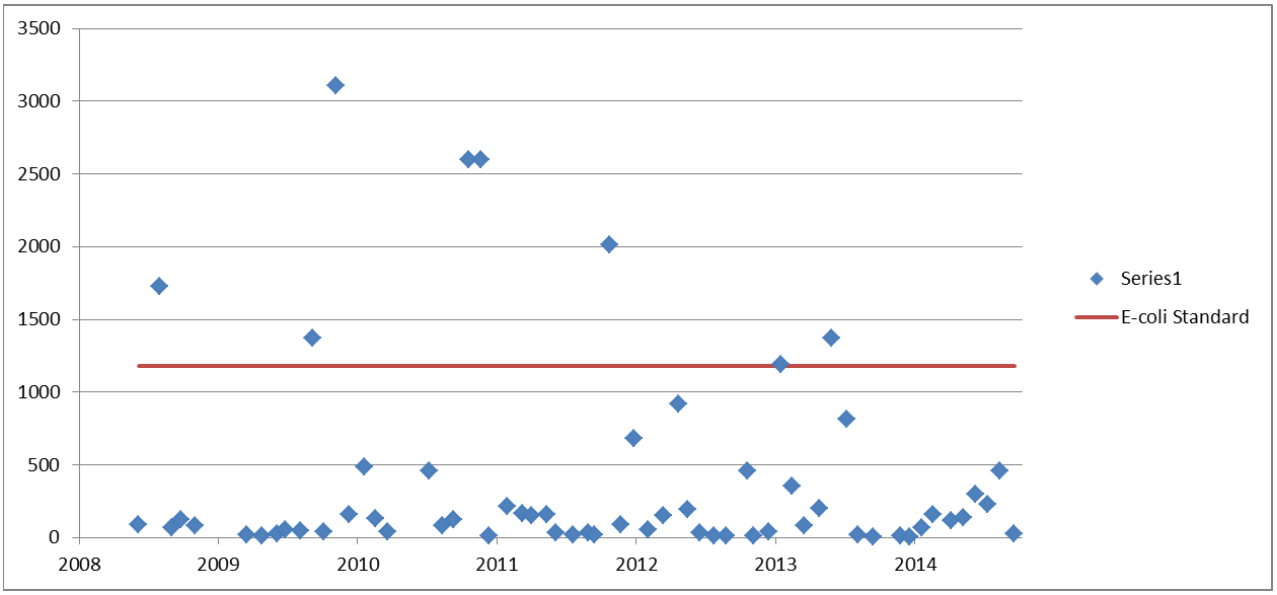
Wolf Creek Segment_01 WQM 157: Wolf Creek Segment_01 was not listed as impaired in the 2010 IR, but is currently listed as impaired for *E. coli* in the 2014 IR. The standard for *E. coli* on Wolf Creek is 1,178 CFU. No samples were taken during the "pre-implementation" time period. The median *E. coli* sample in the plot below is 120 CFU.

Figure 15. Wolf Creek Segment_01 *E. coli* During Implementation.



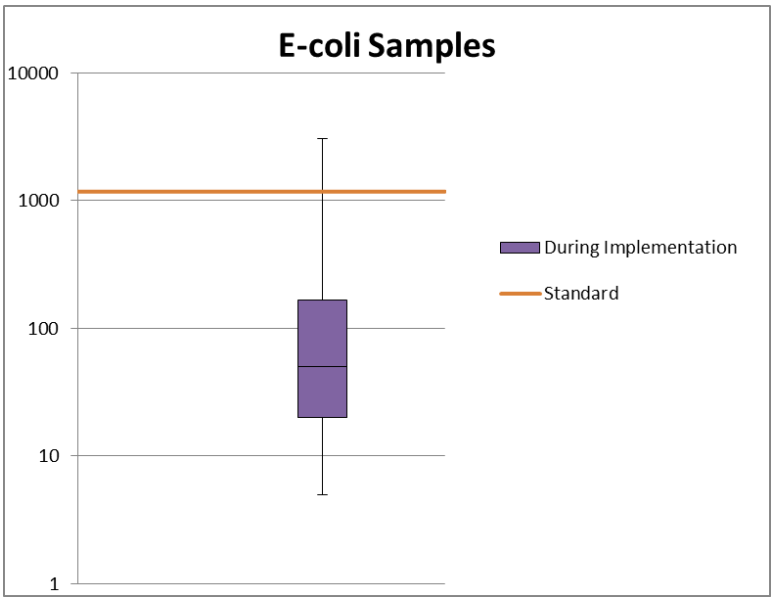
All *E. coli* Samples from 2009 through December of 2014 taken at the Wolf Creek Segment_01 WQM site are shown in Figure 16. From 2009 to 2014 about 12% of the samples have exceeded the *E. coli* Standard.

Figure 16. Wolf Creek Segment_01 *E. coli* Samples.



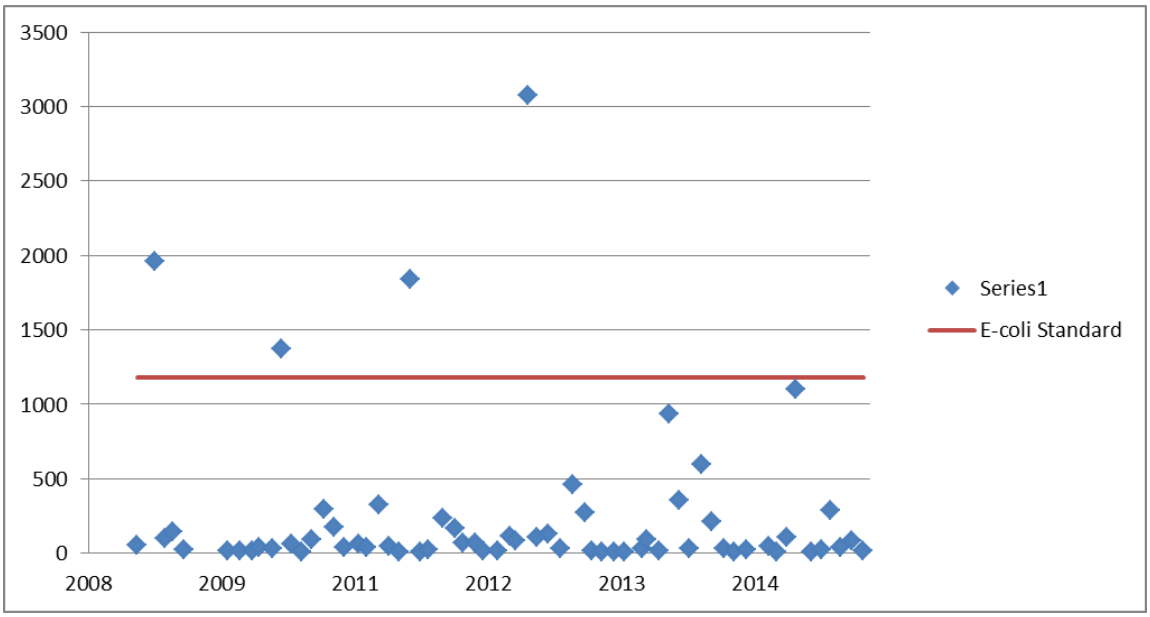
Wolf Creek Segment_02 WQM 158: Wolf Creek Segment_02 was listed as impaired for Total Suspended Solids (TSS) in the 2010 IR, but is currently listed as impaired for Fecal Coliform and *E. coli* in the 2014 IR. The standard for *E. coli* on Wolf Creek is 1,178 CFU. No samples were taken during the "pre-implementation" time period. The median *E. coli* sample in the plot below is 52 CFU.

Figure 17. Wolf Creek Segment_02 *E. coli* During Implementation.



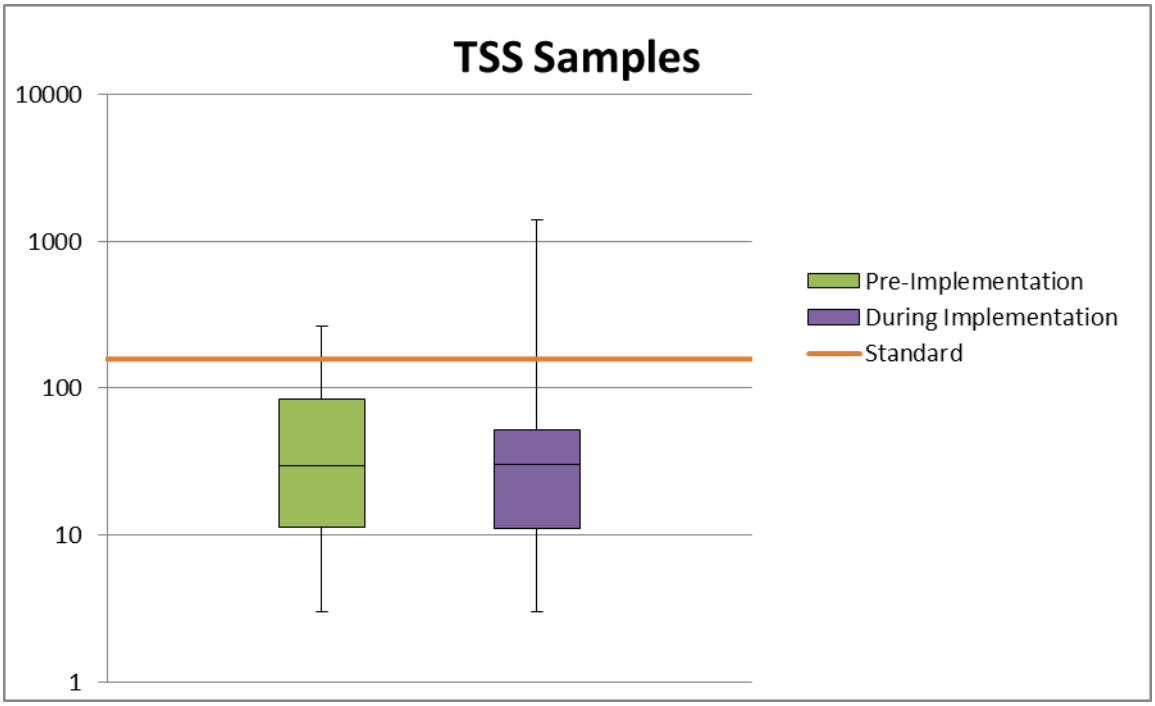
All *E. coli* samples from 2009 through December of 2014 taken at the Wolf Creek Segment_02 WQM site are shown in Figure 18. From 2010 to 2014, about 5% of the samples have exceeded the *E. coli* standard.

Figure 18. Wolf Creek Segment_02 *E. coli* Samples.



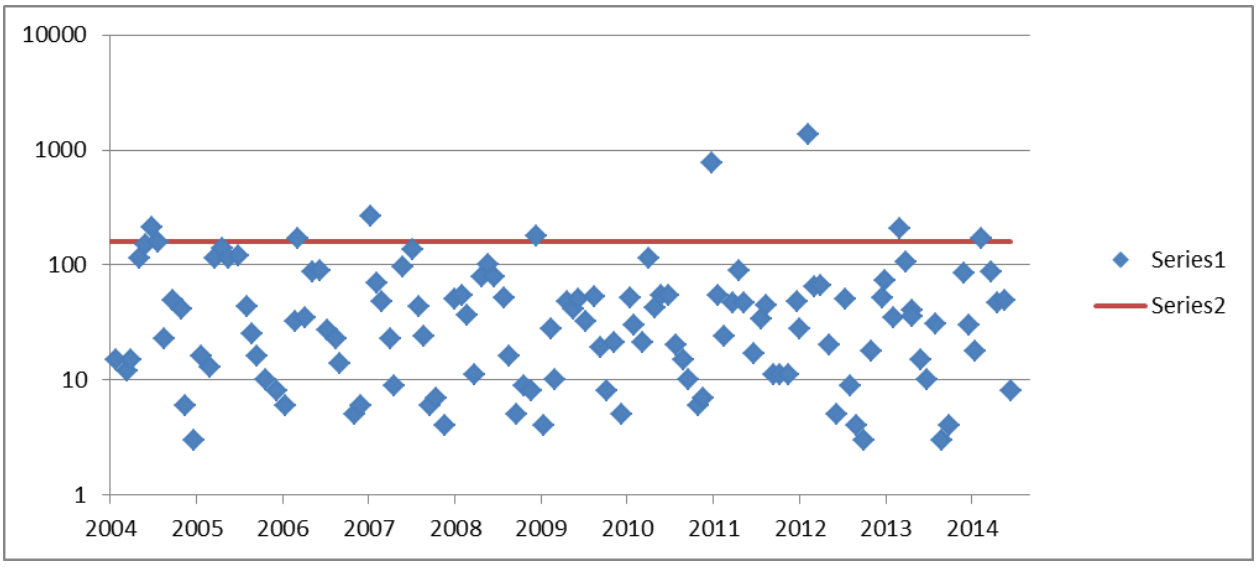
The standard for TSS on Wolf Creek is 158 mg/l. The median value for "during implementation" (31 mg/l) remained about the same as the "pre-implementation" (30mg/l) time period.

Figure 19. Wolf Creek Segment_02 TSS During Implementation.



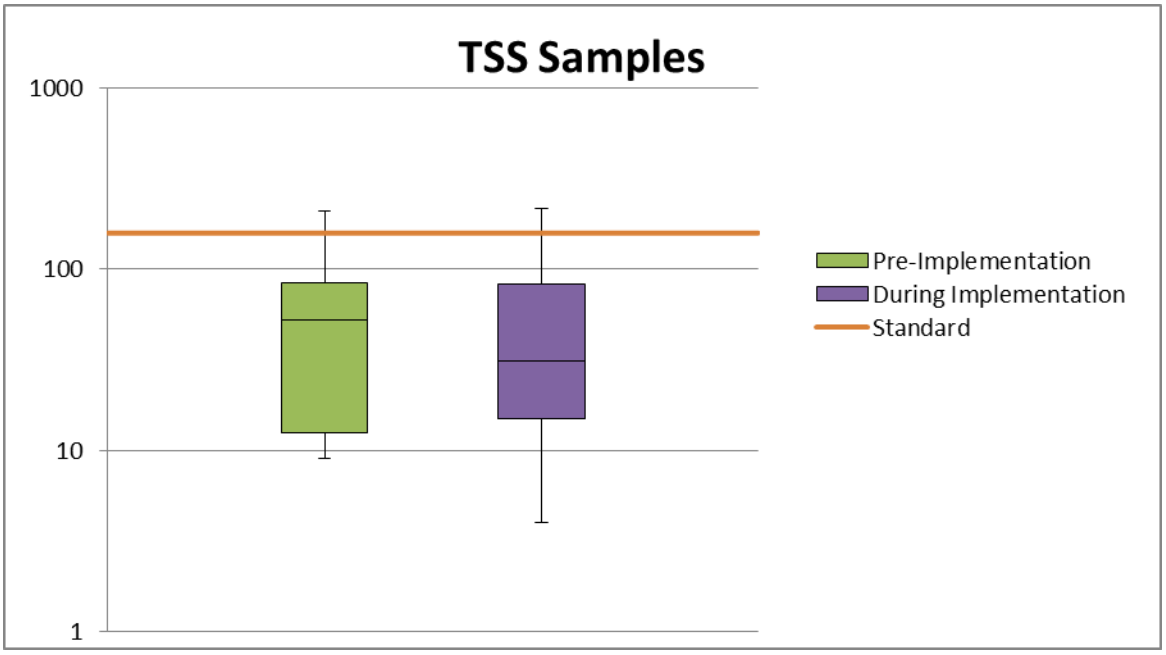
All TSS samples from 2004 through December of 2014 taken at the Wolf Creek Segment_02 WQM site are shown in Figure 20. From 2010 to 2014, about 7% of the samples have exceeded the TSS Standard.

Figure 20. Wolf Creek Segment_02 TSS Samples.



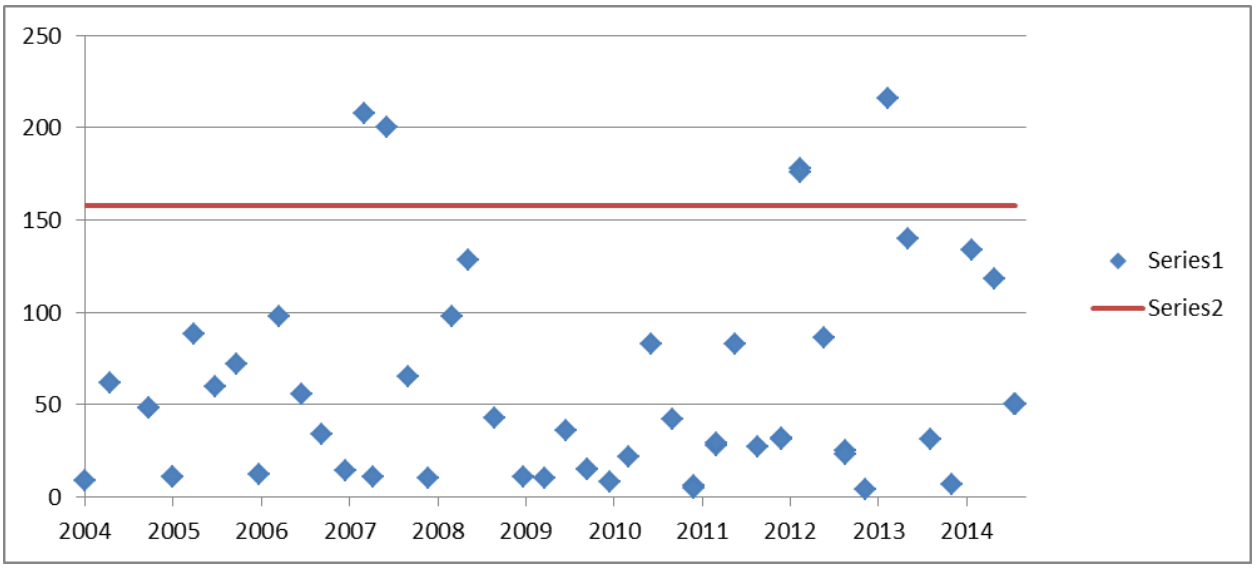
James River Segment_09 WQM 37: James River Segment_09 is listed as impaired for Total Suspended Solids (TSS). The standard for TSS on The James River is 158 mg/l. The median value dropped from 52 mg/l to 31 mg/l during the two time periods as seen in the figure below.

Figure 21. James River Segment_09 TSS Pre vs. During Implementation.



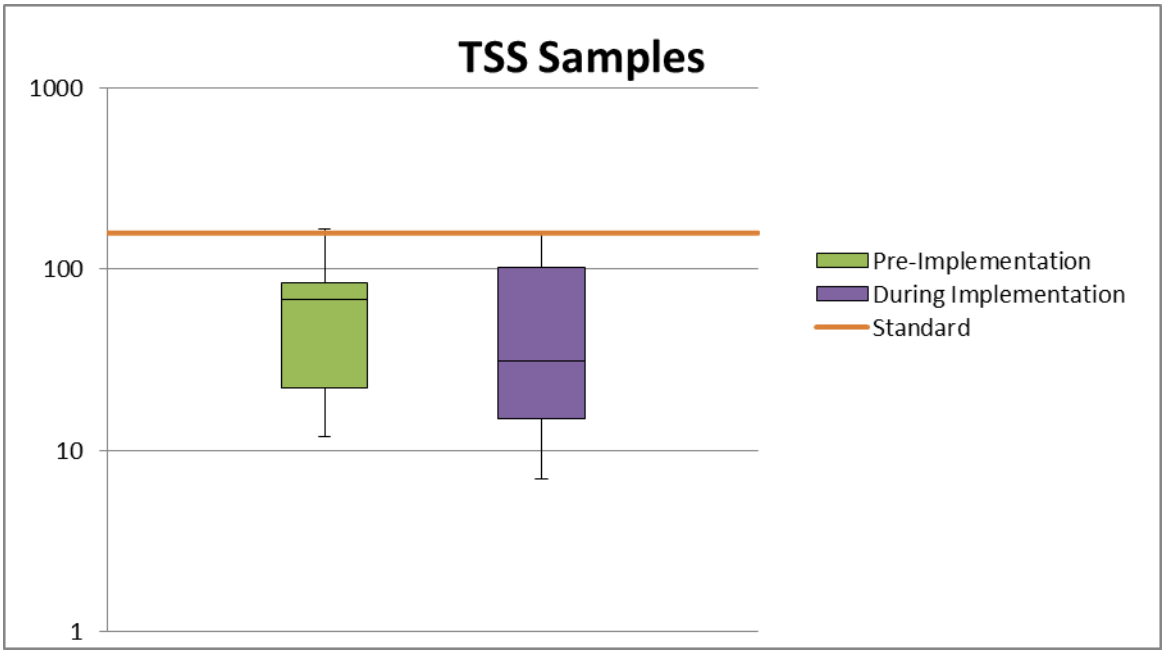
All TSS Samples from 2004 through November of 2014 taken at the James River Segment_09 WQM site are shown in Figure 22. From 2010 to 2014, about 12% of the samples have exceeded the TSS Standard.

Figure 22. James River Segment_09 TSS Samples.



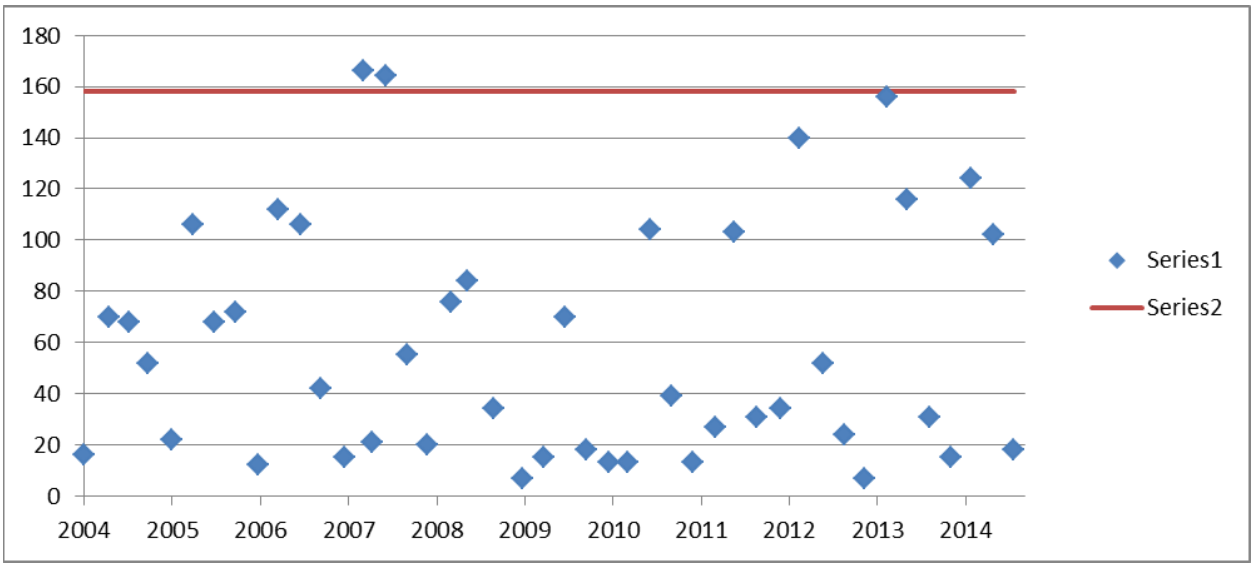
James River Segment_10 WQM 7: James River Segment_10 is listed as impaired for TSS. The standard for TSS on the James River is 158 mg/l. The median value dropped from 68 mg/l to 31 mg/l during the two time periods as seen in the figure below.

Figure 23. James River Segment_10 TSS Pre vs. During Implementation.



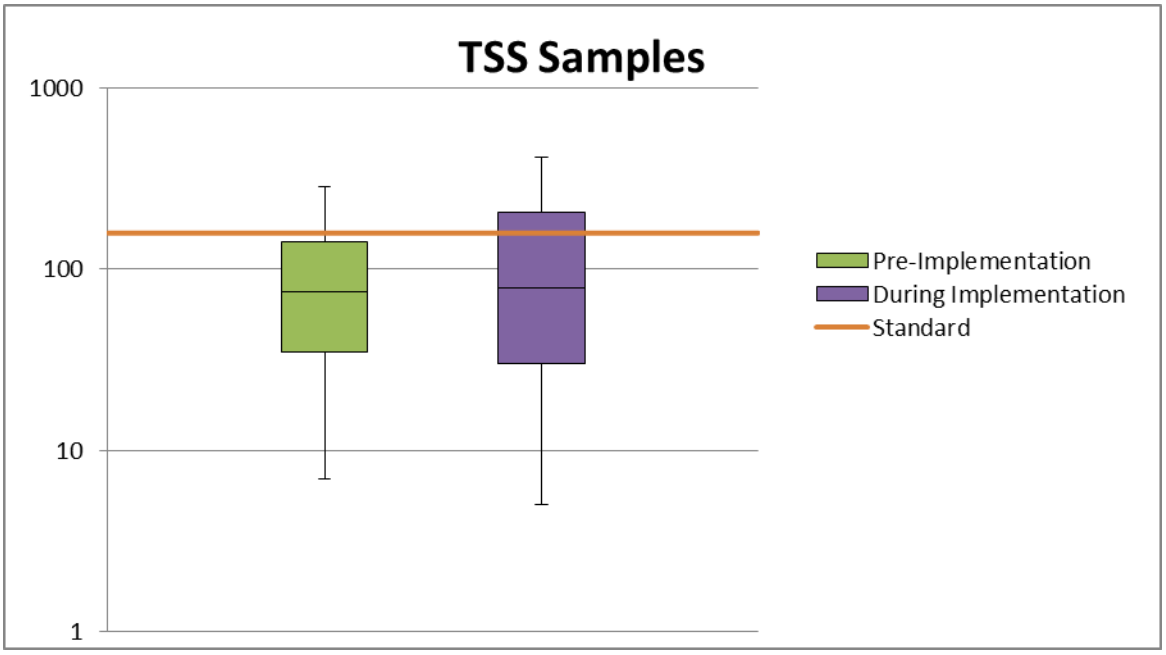
All TSS Samples from 2004 through November of 2014 taken at the James River Segment_10 WQM site are shown in Figure 24. From 2010 to 2014, no samples have exceeded the TSS standard.

Figure 24. James River Segment_10 TSS Samples.



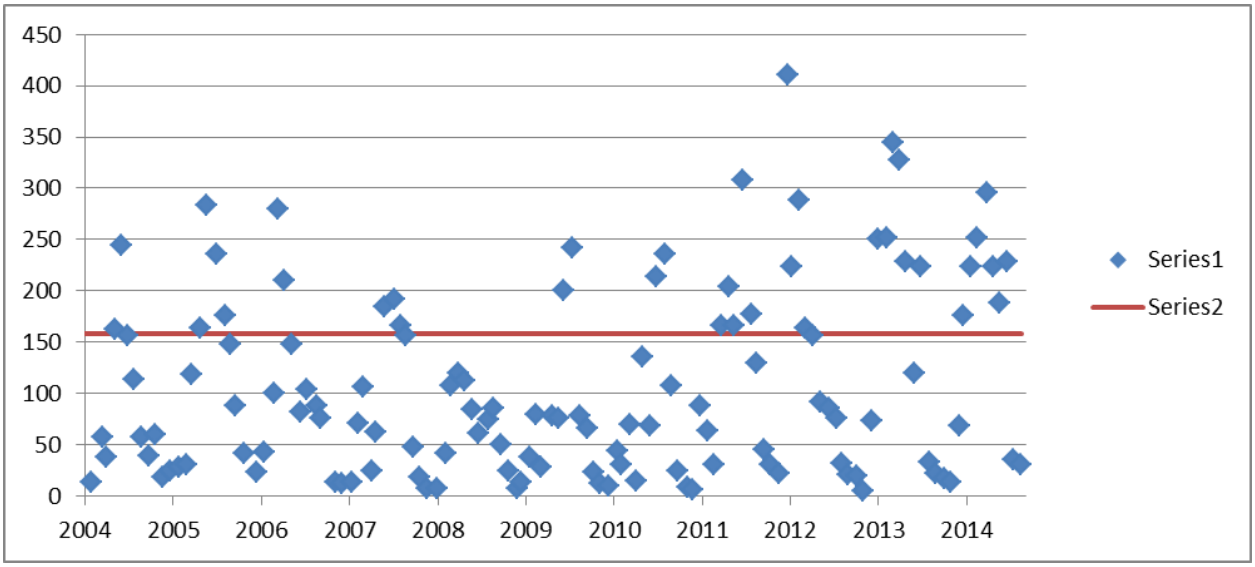
James River Segment_11 WQM 8: James River Segment_11 was listed as impaired for TSS and threated for Fecal Coliform in the 2010 IR. It is currently listed as impaired for TSS in the 2014 IR. The standard for TSS on the James River is 158 mg/l. The median value for During Implementation (78 mg/l) remained about the same as the Pre-Implementation value (75mg/l).

Figure 25. James River Segment_11 TSS Pre vs. During Implementation.



All TSS Samples from 2004 through December of 2014 taken at the James River Segment_11 WQM site are shown in Figure 26. From 2010 to 2014, about 40% of the samples have exceeded the TSS Standard.

Figure 26. James River Segment_11 TSS Samples.



COORDINATION EFFORTS

The James River Water Development District served as the main sponsor of the watershed project. District staff includes a district manager, a co-manager/CFO, and a project coordinator supervised by a Board of Supervisors. The district coordinated project activities, reported on progress, vouched for grant funds, and provided record keeping services. Coordination efforts with other agencies are described below.

STATE AGENCIES

South Dakota Department of Environment and Natural Resources (SD DENR) for Clean Water Act Section 319, Clean Water State Revolving Fund (CWSRF), and Consolidated Water Facilities Construction Program (CWFCP). CWFCP grant was used for the construction of animal waste management systems within the Lower James River watershed.

South Dakota Game, Fish & Parks (SD GF&P) for technical and financial assistance for Best Management Practice (BMP) implementation.

USDA

USDA Natural Resources Conservation Service (NRCS) and Farm Service Agency (FSA) for technical and financial assistance for BMP installation through the Conservation Reserve Program (CRP) and the Environmental Quality Incentive Program (EQIP)

South Dakota Nutrient Management Team. Nutrient management planning and design assistance for animal waste management systems. Team funded through NRCS and the South Dakota Association of Conservation Districts (SDACD).

OTHER FEDERAL

US Environmental Protection Agency (EPA) Clean Water Act Section 319 grants awarded through SDDENR for project personnel, I & E activities, and BMP installation.

US Fish & Wildlife Service (USFWS) for technical and financial assistance for Best Management Practice (BMP) implementation.

OTHER

South Dakota Association of Conservation Districts (SDACD) for financial assistance for the SD Nutrient Management Team.

City of Mitchell for financial assistance towards BMP installation, in-lake activities, and shoreline stabilization projects within the Firesteel Creek/Lake Mitchell subwatershed.

Pheasants Forever

Landowners/operators who participated by contributing in-kind and cash match through the installation of watershed BMPs.

ASPECTS OF THE PROJECT THAT DID NOT WORK WELL

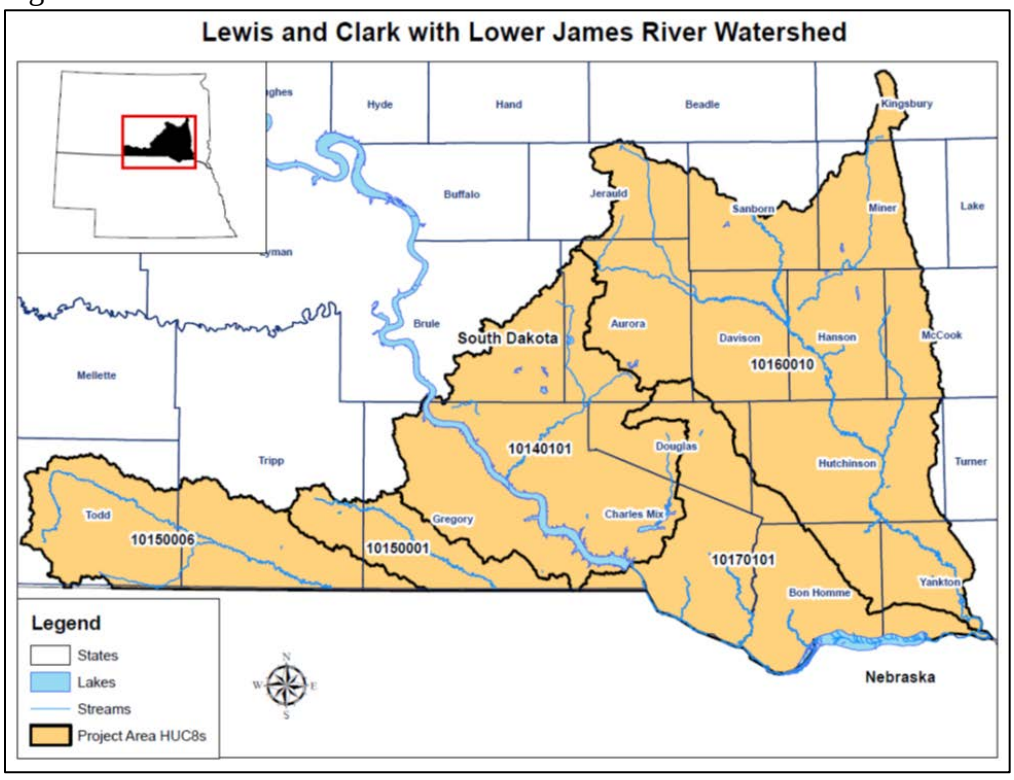
An attempt was made to target all Dawson Creek watershed producers by hosting an Open House in Scotland, SD in August 2014. A number of speakers were lined up to give short presentations on different conservation practices and programs available to Dawson Creek watershed producers. An announcement was sent asking for an R.S.V.P by a certain date; however, no reservations were made and the open house was cancelled.

RESULTS AND FUTURE ACTIVITY RECOMMENDATIONS

Based on the STEPL computer-modeled nutrient reduction estimates, a phosphorus reduction of 8,121 lbs/yr was realized from project activities implemented through July 2015. Nitrogen and sediment reductions were estimated at 36,728 lbs/yr and 1,230 tons/yr respectively. The N and P load reductions were accomplished primarily through improvements to feeding operations throughout the watershed, while sediment reductions came primarily from riparian management.

During the May 2015 Regular Board of Directors Meeting, the James River Water Development District agreed, in principle, to become the project sponsor of the Lewis & Clark Watershed Project. Additionally, it was also agreed to merge the Lewis & Clark project with the Lower James River Watershed Project in order to continue EPA319 BMP implementation within both watersheds. Other sources are also being investigated as the JRWDD recently presented a pre-proposal for funding through the new USDA Regional Conservation Partnership Program (RCPP). Through RCPP, NRCS and state, local and regional partners coordinate resources to help producers install and maintain conservation activities in selected project areas. Partners leverage RCPP funding in project areas and report on the benefits achieved.

Figure 27. Lewis & Clark / Lower James River Watersheds.



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APPENDIX A

EPA 319 PROJECT BUDGETS

Lower James River Implementation Project – Segment 3. Initial budget.

ITEM	Year 1	Year 2	Total	319-EPA	USDA	LOCAL	State		JRWDD
	2012-2013	2013-2014			EQIP/WHIP/CRP	Producers, CDs, etc.	CWFCP	CWSRF	
Personnel Support									
Project Coordinator/Project Staff (2 FTE)	$92,285	$92,285	$184,570	$147,723				$25,000	$11,847
Payroll Tax	$6,850	$6,850	$13,700	$8,220					$5,480
Health Insurance includeing Dental & Eye	$9,334	$9,334	$18,668	$18,668					
Workman's Comp.	$1,000	$1,000	$2,000	$2,000					
Retirement (6%)	$5,537	$5,537	$11,074	$11,074					
Supplies/Equipment:									
Office Supplies	$500	$500	$1,000	$1,000					
Postage	$450	$450	$900						$900
Cell Phone Service	$480	$480	$960						$960
Computer Internet Service/Phone @ $125/month	$1,500	$1,500	$3,000	$3,000					
Office Space with furniture; 2 locations @ $375/month	$4,500	$4,500	$9,000	$3,000					$6,000
Travel:									
Vehicle: 16,250 miles per yr @ $0.37 per mile	$6,000	$6,000	$12,000	$12,000					
Lodging/Meals/supplies: 12 per year @ $100 each	$1,200	$1,200	$2,400						$2,400
Administration:	$21,600	$21,600	$43,200						$43,200
Subtotal: Personnel Support	**$151,236**	**$151,236**	**$302,472**	**$206,685**	**$0**	**$0**	**$0**	**$25,000**	**$70,787**
Objective 1: Best Management Practice Implementation									
Task 1: Cropland/Grassland BMP Implementation									
Product 1: Cropland BMPs - 250 acres									
Filter strips, waterways, diversions, seeding, wetland restoration	$17,500	$17,500	$35,000		$26,250	$8,750			
Product 2: Riparian Grassland Management BMPs - 250 acres									
Land use agreements, water development, streambank stabilization, fence, etc.	$175,000	$175,000	$350,000	$36,158	$202,685	$25,000	$48,657	$37,500	
Task 2: Animal Waste Management Systems (AWMS)									
Product 3: Animal Waste Management Systems (AWMS)									
Feasibility Studies: 2 @ $19,000 each	$19,000	$19,000	$38,000		$38,000				
Nutrient Management Plans: 2 @ $2,500 each	$2,500	$2,500	$5,000		$5,000				
System Construction: 2 @ $250,000 each	$250,000	$250,000	$500,000	$36,157	$225,000	$140,000	$51,343	$37,500	$10,000
Subtotal: BMP Implementation	**$464,000**	**$464,000**	**$928,000**	**$72,315**	**$496,935**	**$173,750**	**$100,000**	**$75,000**	**$10,000**
Objective 2: Informational Outreach									
Task 3: Information Campaign (9000 contacted)									
Product 4: Newsletters & web site maintenance									
Newsletters: 2 @ $400/yr. and Web site maintenance 2 yrs. @ $250/yr.	$650	$650	$1,300	$1,090					$210
Subtotal: Informational Outreach	**$650**	**$650**	**$1,300**	**$1,090**					**$210**
Objective 3: Project Monitoring and Reporting									
Task 4 : Water Quality Monitoring/Evaluation									
Product 5: 14 water quality samples/testing/evaluation @ $65 each	$455	$455	$910	$910					
Task 5: Project Reports for EPA, DENR, and Partners.									
Product 6: Semi-annual, annual, final, and monthly reports (24)									
Subtotal: Water Quality Sampling and Project Reports:	**$455**	**$455**	**$910**	**$910**					
Total Project Cost:	**$616,341**	**$616,341**	**$1,232,682**	**$281,000**	**$496,935**	**$173,750**	**$100,000**	**$100,000**	**$80,997**
Match:									
Ineligible Match: Federal and/or Project Allocated			**$496,935**		**$496,935**				
Match: Project Totals For Match			**$735,747**	**$281,000**		**$173,750**	**$100,000**	**$100,000**	**$80,997**
Match Percentages:				**38.2%**		**23.6%**	**13.6%**	**13.6%**	**11.0%**

Lower James River Implementation Project – Segment 2. First amendment budget.

ITEM	Year 1	Year 2	Total	319-EPA	USDA	LOCAL	State		JRWDD	
	2012-2013	2013-2014			EQIP/WHIP/CRP	Producers, CDs, etc.	CWFCP	CWSRF	cash	in-kind
Personnel Support										
Project Coordinator/Project Staff (2 FTE)	$92,285	$92,285	$184,570	$110,745				$20,000	$53,825	
Payroll Tax	$6,850	$6,850	$13,700	$8,220				$1,500	$3,980	
Health Insurance including Dental & Eye	$9,334	$9,334	$18,668	$11,200				$2,000	$5,468	
Workman's Compensation	$1,000	$1,000	$2,000	$1,200				$250	$550	
Retirement (6%)	$5,537	$5,537	$11,074	$6,645				$1,250	$3,179	
Supplies/Equipment:										
Office Supplies	$500	$500	$1,000	$1,000						
Postage	$450	$450	$900	$900						
Computer Internet Service/Phone @ $125/month	$1,500	$1,500	$3,000	$3,000						
Office Space with furniture: $1,625 per yr x 2 yrs	$1,625	$1,625	$3,250	$3,250						
Travel:										
Vehicle: 16,250 miles per yr @ $0.37 per mile	$6,000	$6,000	$12,000	$12,000						
Lodging/Meals/supplies: 12 per year @ $100 each	$1,200	$1,200	$2,400	$2,400						
Administration: $2,000 per month x 24 months	$24,000	$24,000	$48,000							$48,000
Subtotal: Personnel Support	**$150,281**	**$150,281**	**$300,562**	**$160,560**	**$0**	**$0**	**$0**	**$25,000**	**$67,002**	**$48,000**
Objective 1: Best Management Practice Implementation										
Task 1: Cropland/Grassland BMP Implementation										
Product 1: Cropland BMPs - 250 acres										
Filter strips, waterways, diversions, seeding, wetland restoration	$21,250	$21,250	$42,500	$7,500	$26,250	$8,750				
Product 2: Riparian Grassland Management BMPs - 250 acres										
Land use agreements, water development, streambank stabilization, fence, etc.	$175,000	$175,000	$350,000	$60,564	$164,436	$50,000	$37,500	$37,500		
Task 2: Animal Waste Management Systems (AWMS)										
Product 3: Animal Waste Management Systems (AWMS)										
Feasibility Studies: 2 @ $19,000 each	$19,000	$19,000	$38,000		$38,000					
Nutrient Management Plans: 2 @ $2,500 each	$2,500	$2,500	$5,000		$5,000					
System Construction: 2 @ $300,000 each	$300,000	$300,000	$600,000	$125,000	$225,000	$175,000	$37,500	$37,500		
Subtotal: BMP Implementation	**$517,750**	**$517,750**	**$1,035,500**	**$193,064**	**$458,686**	**$233,750**	**$75,000**	**$75,000**	**$0**	**$0**
Objective 2: Informational Outreach										
Task 3: Information Campaign (9000 contacted)										
Product 4: Newsletters & web site maintenance										
Newsletters: 2 @ $400/yr. and Web site maintenance 2 yrs. @ $250/yr.	$650	$650	$1,300	$1,300						
Subtotal: Informational Outreach	**$650**	**$650**	**$1,300**	**$1,300**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**
Objective 3: Project Monitoring and Reporting										
Task 4 : Water Quality Monitoring/Evaluation										
Product 5: 14 water quality samples/testing/evaluation @ $65 each	$455	$455	$910	$910						
Task 5: Project Reports for EPA, DENR, and Partners.										
Product 6: Semi-annual, annual, final, and monthly reports (24)										
Subtotal: Water Quality Sampling and Project Reports:	**$455**	**$455**	**$910**	**$910**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**
Total Project Cost:	**$669,136**	**$669,136**	**$1,338,272**	**$355,834**	**$458,686**	**$233,750**	**$75,000**	**$100,000**	**$67,002**	**$48,000**
Match:										
Ineligible Match: Federal and/or Project Allocated			**$458,686**		**$458,686**					
Match: Project Totals For Match			**$879,586**	**$355,834**		**$233,750**	**$75,000**	**$100,000**	**$115,002**	
Match Percentages:				**40.5%**		**26.6%**	**8.5%**	**11.4%**	**13.1%**	

Lower James River Implementation Project – Segment 2. Actual expenditures.

ITEM	319-EPA	USDA	LOCAL	State		JRWDD		Total
		EQIP/WHIP/CRP	Producers, CDs, etc.	CWFCP	CWSRF	cash	in-kind	
Personnel Support								
Project Coordinator/Project Staff (2 FTE)	$98,526				$25,167	$55,673		$179,365
Supplies/Equipment:								$0
Office Supplies	$613							$613
Postage	$201							$201
Computer Internet Service/Phone @ $125/month	$3,420							$3,420
Office Space with furniture: $1,625 per yr x 2 yrs	$5,224							$5,224
								$0
Travel:	$5,493							$5,493
Administration: $2,000 per month x 24 months							$62,823	$62,823
Subtotal: Personnel Support	**$113,476**	**$0**	**$0**	**$0**	**$25,167**	**$55,673**	**$62,823**	**$257,139**
Objective 1: Best Management Practice Implementation								
Task 1: Cropland/Grassland BMP Implementation								
Product 1: Cropland BMPs - 250 acres								
Filter strips, waterways, diversions, seeding, wetland restoration						$8,079		$8,079
Product 2: Riparian Grassland Management BMPs - 250 acres								
Land use agreements, water development, streambank stabilization, fence, etc.	$13,565		$16,098	$132	$34,104	$106,357		$170,255
Task 2: Animal Waste Management Systems (AWMS)								
Product 3: Animal Waste Management Systems (AWMS)								
Feasibility Studies: 2 @ $19,000 each	$4,422		$1,842	$1,105				$7,370
System Construction: 2 @ $300,000 each	$68,939	$563,508	$1,263,156	$73,763	$24,184			$1,993,550
Subtotal: BMP Implementation	**$86,926**	**$563,508**	**$1,281,096**	**$75,000**	**$58,288**	**$114,436**	**$0**	**$2,179,254**
Objective 2: Informational Outreach								
Task 3: Information Campaign (9000 contacted)								
Product 4: Newsletters & web site maintenance								
Newsletters: 2 @ $400/yr. and Web site maintenance 2 yrs. @ $250/yr.	$575							$575
Subtotal: Informational Outreach	**$575**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$575**
Objective 3: Project Monitoring and Reporting								
Task 4 : Water Quality Monitoring/Evaluation								
Product 5: 14 water quality samples/testing/evaluation @ $65 each	$683							$683
Task 5: Project Reports for EPA, DENR, and Partners.								
Product 6: Semi-annual, annual, final, and monthly reports (24)								
Subtotal: Water Quality Sampling and Project Reports:	**$683**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$683**
Total Project Cost:	**$201,660**	**$563,508**	**$1,281,096**	**$75,000**	**$83,454**	**$170,109**	**$62,823**	**$2,437,651**
Match:								
Ineligible Match: Federal and/or Project Allocated		**$563,508**						
Match: Project Totals For Match	**$355,834**		**$233,750**	**$75,000**	**$83,454**	**$232,932**		**$1,874,143**
Match Percentages:	**19.0%**		**12.5%**	**4.0%**	**4.5%**	**12.4%**		

APPENDIX B

INFORMATION & EDUCATION

JRWDD INCENTIVE PROGRAM

The James River Water Development District has recently come up with a CRP incentive program to enhance certain Continuous CRP practices in the hope to improve water quality in the creeks and streams within the James River watershed. To quality, an offerings needs to be adjacent to a USGS Topographic Map "blue-line", quality for CCRP, and be in a township in your county where JRWDD has taxing authority. Basically, it is a one-time, up-front, 40% incentive payment of the CRP base-rate for your county for certain CCRP practices. The practices that are available for the JRWDD Enhance CRP Program include:

CP8A (grassed waterway)
CP21 (filter strips)
CP22 (riparian buffer)
CP 29 (marginal pastureland-wildlife habitat buffer)
CP30 (marginal pastureland-wetland buffer)

While CP21, CP22, CP29 and CP30 need to be adjacent to a "blue-line", we will look at any CP8A possibilities on a case-by-case– basis.

There is a landowner agreement we have come up with, the Enhanced CRP Program guidelines and a JRWDD Directors Map that shows the counties and townships within each county where this particular program would be available. For the Lower James River portion, this includes all of Davison, Hanson, Hutchinson and Yankton Counties and part of Aurora and Miner Counties.

For more information on the program, contact you local NRCS Office.

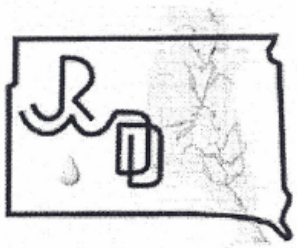
CRP RELEASED

The Federal Government has released CRP acres for either haying or grazing. If you are interested in haying CRP acres you need to sign up at your local FSA Office. The cost of haying or grazing CRP acres is 10% of the yearly payment. You will be allowed to harvest 50% of the acre of that particular field. You must cut the hay and leave 6 to 8 inches of stubble. If you wish to graze those acres you must leave 25% of the crop there when you finish grazing. You must have the owners signature to hay or graze any CRP acres. For more information, contact your local FSA office. The office number for Hutchinson County is 605-928-4020, est. 2. They will be happy to assist you.

FABRIC FOR 2013

If you are thinking about planting trees and putting fabric down too, you need to make those plan early. We are very low on 10-foot wide fabric and it takes nearly a year for delivery. We have about 50 rolls on hand today and when they are gone that will be it for 2013. NOW is the time to tell us if you will be needing 10-wide fabric. I have a few companies that still make 10 ft. -wide fabric and I need to place your order now. It also appears that I could have some Grant Funds available for tree planting and fabric for 2013. However, those funds go fast and it will be on a first come, first serve basis.

Be happy with what you have while you pursue all that you want.



James River Water Development District
Enhanced CRP Program

The James River Water Development District (JRWDD) recently approved $50,000 for a CRP incentive program to enhance certain Continuous CRP practices with the hope of improving water quality in the creeks and streams within the James River watershed. The JRWDD Enhanced CRP Program consists of a one-time, up-front, 40% incentive payment of the CRP base-rate for the following Continuous CRP practices:

CP8A (Grassed Waterway)
CP21 (Filter Strip)
CP22 (Riparian Buffer)
CP29 (Marginal Pastureland – Wildlife Habitat Buffer)
CP30 (Marginal Pastureland – Wetland Buffer)

Contact your local NRCS Office to see if you qualify for the JRWDD Enhancement CRP Program

Riparian Grazing

LOWER JAMES RIVER IMPLEMENTATION PROJECT

Dave Kringen, Watershed Coordinator
West Havens Plaza
721 West Havens Avenue
Mitchell, SD 57301
Phone: (605) 990-5353
Cell: (605) 999-0077
Email: dkringen@mitchelltelecom.net

JAMES RIVER WATER DEVELOPMENT DISTRICT

Dave Bartel, District Manager
251 4th Street SW
Huron, SD 57350
Phone: (605) 352-0600
Cell: (605) 350-7507
E-mail: davebartel@midconetwork.com

SOUTH DAKOTA GRASSLAND COALITION

Judge Jessop, Project Coordinator
PO Box 401
Presho, SD 57568
Phone: (605) 895-2301
Cell: (605) 280-0127
Email: jjessop@sdconservation.org

A riparian area is the transitional zone between land and water environments. A healthy riparian area is extremely important to water quality as it will trap sediment, reduce erosion, and store nutrients. Examples of riparian areas include floodplains, streambanks, lakeshores, and wetlands.

Healthy riparian areas are vital to water quality.

Livestock overgrazing in riparian areas can have negative impacts and may accelerate erosion and sedimentation, change streamflow, increase fecal bacteria and nutrient transport, and destroy aquatic habitats. While fencing to deny cattle access is the preferred option for streambank protection, total exclusion may not always be the best solution in every situation.

The installation of an off-stream water source away from a waterbody can have significant impacts on livestock use of a streamside and foster water quality improvements. In one study (Sheffield 1997), cattle were observed to drink from an alternative water supply 92% of the time, compared to the time which they spent drinking from the stream. Cattle use of the stream area for all activities, including drinking, was reduced by 51% when an off-stream water source was made available. An off-stream water source can be an effective practice for reducing the loss of sediment and sediment-bound pollutants without resorting to streambank fencing. Contact your local NRCS office or watershed project for more information.

Sheffield, R. E. 1997. Off-stream water sources for grazing cattle as a stream bank stabilization and water quality BMP. Transactions of the ASAE 40(3): 595-604.

April 2013

JAMES RIVER WATER DEVELOPMENT DISTRICT

Enhanced CRP Program

JAMES RIVER WATER DEVELOPMENT DISTRICT

Dave Bartel, District Manager
251 4th Street SW
Huron, SD 57350
Phone: (605) 352-0600
Cell: (605) 350-7507
E-mail: davebartel@midconetwork.com

LOWER JAMES RIVER IMPLEMENTATION PROJECT

Dave Kringen, Watershed Coordinator
West Havens Plaza
721 West Havens Avenue
Mitchell, SD 57301
Phone: (605) 990-5353
Cell: (605) 999-0077
Email: dkringen@mitchelltelecom.net

The James River Water Development District recently approved a grant to enhance certain Continuous CRP practices with the hope of improving water quality in the creeks and streams of the James River watershed. The JRWDD Enhanced CRP Program consists of a one-time, up-front, 40% incentive payment of the CRP base-rate in addition to your regular CRP payment for the practices listed below. Contact your local NRCS office or the JRWDD for more information.

CP8A — Grass Waterways
A grassed waterway is a constructed vegetated channel within a cropland field where water tends to concentrate and flow off the field. The waterway is shaped or graded and seeded with suitable vegetation to carry surface water at a non-erosive velocity to a stable outlet.

CP21 — Filter Strips
A filter strip is a band of vegetation used to limit sediment, nutrients, pesticides, and other contaminants from entering water bodies. Filter strips are typically located on cropground immediately adjacent and parallel to streams, wetlands, lakes, or other permanent water bodies.

CP22 — Riparian Buffer
A riparian forest buffer is an area of trees and shrubs located immediately adjacent and parallel to streams, lakes, wetlands, or other permanent water bodies. Riparian buffers can be located on either cropland or marginal pastureland.

CP29 — Marginal Pastureland Wildlife Habitat Buffer
Offered acreage must be on pastureland immediately adjacent to perennial or seasonal streams, or other permanent water bodies such as a lake or pond. Primary vegetation for the site should be a mix of grasses, shrubs, and forbs.

CP30 — Marginal Pastureland Wetland Buffer
Offered acreage must be on pastureland immediately adjacent to perennial or seasonal streams, wetlands, or other permanent water bodies.

Photos courtesy of USDA NRCS

June 2013

James River board hears river flow complaints

Some say releases from the north aren't working

By ROSS DOLAN
The Daily Republic

YANKTON — Slower water releases from North Dakota and a better way to handle field drainage were among issues tackled by the James River Water Development District Thursday during a regional meeting at Yankton's Best Western Kelly Inn.

Yankton farmer Harold Klimisch told U.S. Army Corps of Engineers representatives Kellie Bergman and Tim Temeyer they need to slow down flows to the James River from the Pipestem and Jamestown reservoirs in North Dakota.

"We're getting drowned out and and we didn't get rain," said the angry Klimisch, who said releases from the north are once

See RIVER, Page A6

Ross Dolan/Republic

James River Water Development District Manager Dave Bartel gestures to where the James River continues to follow an earlier channel used by the Missouri River.

THE DAILY REPUBLIC ■ FRIDAY, JULY 12, 2013

RIVER—

Continued from Page A1

again threatening crops on land he owns near the James River north of Yankton.

"The plan isn't working," Klimisch said. "There needs to be a change somewhere."

Bergman, chief of water control for the Omaha District, of the U.S. Army Corps of Engineers, and Tim Temeyer, a hydrologist for the Corps, said plans are to continue releasing 900 cubic feet per minute of water to the James until July 22 and then cut back flows to 600 cubic feet per minute. All flood storage would be evacuated at Jamestown reservoir by late July and at Pipestem by early September.

"We start releasing flows as soon as we have room downstream," Bergman said.

JRWDD Manager Dave Bartel and others, however, wondered why flows couldn't be slowed until later in season.

"Pipestem doesn't have any way to control for irrigation," Temeyer said, noting that flood control, and not irrigation, is a Corps priority.

"It's a very complex issue," Temeyer said, acknowledging that what's good for North Dakota may not be good for South Dakota.

Any change in releases would require an allocation of storage study that would be a lengthy process.

JRWDD Director Randy Grismer said the Corps needs to do a better job of explaining its storage policies so South Dakotans can have some confidence in how decisions are made.

Flow up on the James

U.S. Geological Survey Chief of Hydrologic Studies Dan Driscoll told his audience that the 150 stream gauges around the state show water flows have increased in South Dakota since 1993.

"There's been a significant upward trend in flows detected by steam gauges," he said. "A general increase in annual precipitation has been the most obvious reason for the uptick for at least half the stream gauges," Driscoll said, but other factors could also play a part.

"It would take a more rigorous analysis to explain the trends," he said.

Land-use factors, such as the increase in drain tile projects throughout the state, could also be among factors contributing to higher water flows, said Driscoll, "But that's very much an unknown."

Drainage projects

East Dakota Water Development District Manager Jay Gilbertson said a July 1 meeting of the state Regional Watershed Advisory Task Force in Pierre determined the state must consider five areas for the future for ongoing drainage issues.

There must be: mandatory mediation of disputes to avoid tying up courts; standardized disclosure of new projects; an inventory of water management assets; research funding for best practices; and the creation of water management districts. House Bill 1001 addresses many of the issues, Gilbertson said. The legislation would make water development districts into water management districts.

"Under this concept management issues would be handled at the watershed scale and not the county level," Gilbertson explained. That approach would do a better job of taking into account the downstream impacts of drainage projects, he said.

New deferred grazing program

Lower James River Watershed Coordinator Dave Kringen said there will be a 10 a.m. July 18 meeting at his office, 721 E. Havens Plaza, Mitchell, about a new watershed program.

Under the program, landowners will be paid up to $30 per acre, per year in one-time up-front payments for not allowing grazing in defined riparian, or streamside, areas during certain times of the year.

The program's aim is to prevent erosion that could potentially damage water quality. More information is available at 990-5353.

In other business the board:

■ Approved up to $6,000 to repair a dam on property owned by JoAnn Auch southeast of Menno at 43608 287th St. Bartel determined the dam, while eight miles above the James River, was still a good JRWDD project because the repair will stop large amounts of sediment from washing into the river. Adjacent landowners also favored the repair, he said. The repairs will include patching the dam and installing an overflow tube, to keep high water from washing out the dam in the future.

■ Approved up to $100,000 to install rip-rap on three bridges in Spink County. The repairs will keep the bridges from washing out.

■ Approved $1,700 for wood pile cleanup, also in Spink County.

■ Approved a preliminary budget of $958,000 for 2014.

Project Area Map

The Lower James River Deferred Grazing Program is available to producers along priority stream segments within the Lower James River watershed. Priority stream lengths may include all or portions of the following: James River, Firesteel Creek, Pierre Creek, Wolf Creek, and Dawson Creek.

For More Information, Contact:

Lower James River Implementation Project

Dave Kringen
Watershed Coordinator
West Havens Plaza
721 West Havens Avenue
Mitchell, SD 57301
Phone: (605) 990-5353
Cell: (605) 999-0077
Email: dkringen@mitchelltelecom.net

James River Water Development District

Dave Bartel
District Manager
251 4th Street SW
Huron, SD 57350
Phone: (605) 352-0600
Cell: (605) 350-7507
Email: davebartel@midconetwork.com

Or your local USDA Natural Resources Conservation Service office

Lower James River

Deferred Grazing Program

Restoring and protecting our water resources through locally led conservation

Lower James River Implementation Project

What is a Riparian Area?

A riparian area is the transitional zone between land and water environments. A healthy riparian area is extremely important to water quality as it will trap sediment, reduce erosion, and store nutrients. Examples of riparian areas include floodplains, streambanks, lakeshores, and wetlands.

Livestock overgrazing in riparian areas can have negative impacts and may accelerate erosion and sedimentation, change streamflow, increase fecal bacteria and nutrient transport, and destroy aquatic habitats. A deferred grazing plan is designed to keep livestock out of these environmentally sensitive areas for a portion of the year, improve the condition of your pasture, and improve the water quality within the James River watershed.

Deferred Grazing Program

The Lower James River Deferred Grazing Program allows producers an opportunity to set aside grassland acres along priority stream segments within the Lower James River watershed in order to improve water quality, but still keep those acres in production.

Program Highlights

- Enrolled landowners receive $30/acre/year of contract, with payment to be made in-full during the 1st year of participation.
- No grazing allowed from April 1 - September 30; however, enrolled acres can be hayed if a minimum vegetative cover of 4 - 6 inches is maintained.
- Acres under contract can be grazed from October 1 - March 31 if a minimum vegetative cover of 4 - 6 inches is maintained.

- Choice of 10 or 15 year contract.
- Marginal pastureland within the 100-year floodplain is eligible for enrollment.
- Cost-share available for fencing and/or alternative water if needed.

This project is funded, in part, by a grant from the US EPA Section 319 Nonpoint Source Program administered through the SD Department of Environment and Natural Resources, and the James River Water Development District.

District Services

TREE PLANTING-
$3.60 RR for trees
$4.60 RR for shrubs
$400 minimum for tree plots

HANDPLANTS-
$2.00 bareroot stock + tax
$1.50 replants for previous year plantings + tax

FABRIC-
$8.91 RR – 6-foot wide fabric

FABRIC MATS-
4' x 4' fabric mat - $2.25 + tax
By the foot- $.50/foot for 6' wide fabric + tax.

FABRIC STAPLES- $0.10 each + tax.

TREE PROTECTORS W/STAKE
4' - $6.00 + tax

DEER REPELLENT (PLANTSKYDD) + tax
1 lb. Granular Shaker—$10.00
1 qt. Ready-to-Use Spray—$21.00
1 lb. Powder Concentrate—$27.00

CHEMICAL-WEED WIPER
$65.00 per hour plus $9.00 per acre for chemical (price will vary with market price)

CULTIVATION, TILLAGE and MOWING-
$65.00 per hour with a $65.00 minimum
Batwing Mower (15') - $75.00 per hour/$75.00 min.

GRASS DRILL -
Less than 14 acres - $275.00 minimum
15 -30 acres - $20.00 per acre
31 or more acres - $18.00 per acre
Davison County - $25.00 setup and travel
Out of County - $50.00 setup and travel

Lower James River Deferred Grazing Program

The Lower James River Implementation Project, in conjunction with the James River Water Development District, is now taking applications for the Lower James River Deferred Grazing Program. This grassland conservation program is an opportunity for landowners to set aside marginal pastureland within the 100-year floodplain of certain priority streams in the Lower James River watershed, while still keeping those acres in production. Enrolled landowners will receive $30/acre/year of contract, with payment to be made in-full during the 1st year of participation. No grazing is allowed from April 1 – September 30; however, enrolled acres can be hayed during that time if a minimum vegetative cover of 4 – 6 inches is maintained. Contracted acres can be grazed after September 30 if a minimum vegetative cover of 4 – 6 inches is maintained. Ten or fifteen year contracts will be offered to those interested in participating. Additional cost-share will be available for fencing and/or alternative water development if needed.

The Lower James River Deferred Grazing Program is available to producers along priority stream segments within the Lower James River watershed. These priority stream lengths may include all or portions of the following: the James River, Firesteel Creek, Pierre Creek, Wolf Creek, and Dawson Creek.

For more information contact:

Lower James River Implementation Project
West Havens Plaza
721 West Havens Avenue
Mitchell, SD 57301
(605) 990-5353

Or stop by your local USDA Natural Resources Conservation Service office.

Hutchinson Conservation District

415 N. Access Road
Menno, SD 57045
Phone: 605-387-5539

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PERMIT NO. 37

LOWER JAMES RIVER DEFERRED GRAZING PROGRAM

The Lower James River Implementation Project, In conjunction with the James River Water Development District, is now taking applications for the Lower James River Deferred Grazing Program. This grassland conservation program is an opportunity for landowners to set aside marginal pastureland within the 100-year floodplain of certain priority streams in the Lower James River watershed, while still keeping those acres in production. Enrolled landowners will receive $30/acre/year of the contract, with payment to be made in-full during the 1st year of participation. No grazing is allowed from April 1st to September 30th; however, enrolled acres can be hayed during that time if a minimum vegetative cover of 4 to 6 inches in maintained. Contracted acres can be grazed after September 30th if a minimum vegetative cover of 4 to 6 inches is maintained. Ten or fifteen year contracts will be offered to those interested in participating. Additional cost-share will be available for fencing and/or alternative water development if needed.

The Lower James River Deferred Grazing Program is available to producers along priority stream segments within the Lower James River Watershed. There priority streams lengths may include all or portions of the following; The James River, Firesteel Creek, Pierre Creek, Wolf Creek and Dawson Creek. For more information contact;

Lower James River Implementation Project
West Haven Plaza
721 West Havens Avenue
Mitchell, SD 57301
(605) 990-5353

or stop by your local USDA Natural Resources Conservation Service office.

Continued in next column

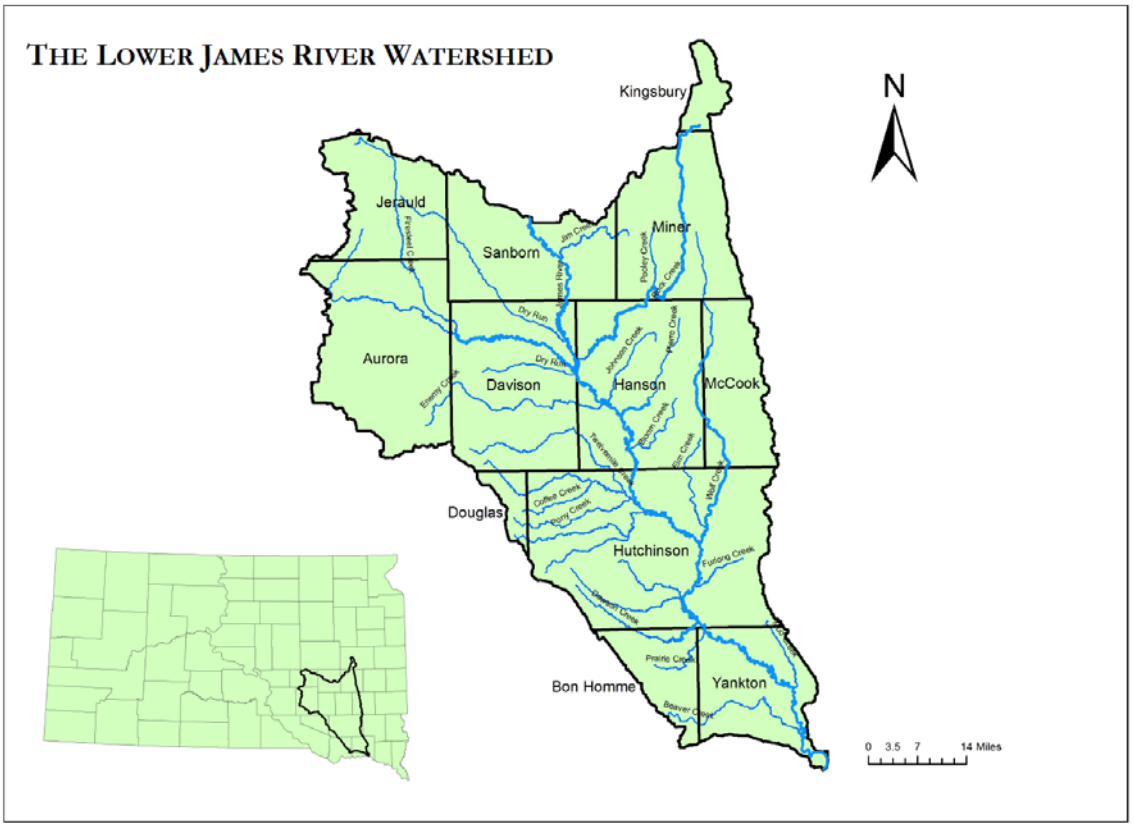
FALL TREE SPRAYING

It's been some time now that I have mentioned fall tree spraying. Perhaps that is due to all the fabric we lay now. Spraying of Princep is still available from our District, only there is not that much spraying that we do. We do have a few producers who do not purchase fabric, so we will make this chemical available to those customers. This chemical may also be sprayed around the base of the tree where there is a hole cut in the fabric where weeds do and will grow each year. When you spray Princep in the fall, after the first hard freeze, this will keep the weeds from growing through that slit next year. Want to give it a try? If you are interested just call our office at 387 -5539.

LOWER JAMES RIVER WATERSHED IMPLEMENTATION PROJECT

Photo courtesy of SD Game, Fish & Parks

The goal of the Lower James River Watershed Implementation Project is to restore and protect the water quality of the James River and its watershed by reducing non-point source pollutants through the installation of Best Management Practices (BMPs). The installation of BMPs will improve water quality in order to meet designated beneficial uses and, in turn; improve habitat for upland and aquatic species, and recreational opportunities of the water bodies located within the project area.



The Lower James River watershed and its associated priority stream segments. Priority stream lengths may include all or portions of: the James River, Firesteel Creek, Pierre Creek, Wolf Creek, and Dawson Creek.

What is a Riparian Area?

A riparian area is the transitional zone between land and water environments. A healthy riparian area is extremely important to water quality as it will trap sediment, reduce erosion, and store nutrients. Examples of riparian areas include floodplains, streambanks, lakeshores, and wetlands.

There are several programs available through the Lower James River Watershed Project and the James River Water Development District designed to protect these riparian areas. These include:

JAMES RIVER ENHANCED CRP PROGRAM

The JRWDD Enhanced CRP Program is an incentive program designed to encourage the enrollment or re-enrollment of certain USDA Continuous CRP (CCRP) practices used to improve water quality in the creeks and streams of the James River watershed. Landowners receive a one-time, up-front payment equal to 40% of the total CCRP base rate payment.

LOWER JAMES RIVER RIPARIAN AREA MANAGEMENT (RAM) PROGRAM

If eligible, landowners are encouraged to enroll land adjacent and parallel to a perennial stream or other waterbody in the USDA Continuous CRP program. Landowners can then enroll additional acres that do not qualify for CCRP into the RAM program, not to exceed 35% of the total CCRP acres. Land enrolled into the RAM program can be used to round out buffers and straighten fence lines.

LOWER JAMES RIVER DEFERRED GRAZING PROGRAM

Livestock overgrazing in riparian areas can increase sedimentation and nutrient transport, and destroy aquatic habitats. The Lower James Deferred Grazing Program allows producers an opportunity to set aside these environmentally sensitive areas within the Lower James River watershed in order to improve water quality, but still keep those acres in production. Highlights of the program include:

- No grazing allowed from April 1 - September 30; however, enrolled acres can be hayed after July 15 if a minimum vegetative cover of 4 - 6 inches is maintained.
- Acres under contract can be grazed after October 1 if a minimum vegetative cover of 4 - 6 inches is maintained.

Landowners can receive a rental payment, with options to summer hay and/or fall graze the riparian acres enrolled under the Lower James River Deferred Grazing Program.

Riparian Grazing

While fencing to deny livestock access is the preferred option for streambank protection, total exclusion may not always be the best solution in every situation. The installation of an off-stream water source away from a waterbody can have significant impacts on livestock use of a streamside and foster water quality improvements.

Livestock use of a stream can be significantly reduced when an off-stream water source is made available without having to resort to streambank fencing. Likewise, when riparian areas are included as part of a rotation, allowing vegetation time to rest and recover; even further water quality improvements can be realized compared to unrestricted access.

Manure Management

Animal feeding operations that do not properly contain and utilize their manure resources can have negative impacts on surface and ground water quality within the James River watershed. The Environmental Quality Incentives Program (EQIP) is the principal program of the USDA Natural Resources Conservation Service (NRCS) for delivering financial and technical assistance to private landowners interested in installing an Animal Waste Management System (AWMS). In addition to EQIP, funding may also be secured through the Lower James River Watershed Implementation Project to assist with overall costs.

Photo courtesy of SD Natural Resources Conservation Service

Photo courtesy of SD Department of Tourism

OPEN HOUSE MAY 3RD

Hanson Conservation District will be hosting an Open House at 260 10th Street on May 3rd

10am – 1pm

Lunch will be served

During our open house we will have several special guests available for you to talk to, with a special presentation at 11:00. Also Blaine Martin with Big Sioux Nursery will be here to show us the proper way to plant a flower garden.

Heidi Rients & Tammy Sommer – NRCS/USDA – conservation practices & programs
Lowell Den Besten – Dakota's Best Seed – New varieties for 2014
Doug Adams - Agronomy Plus – What are the best grasses for pastures and wildlife habitat
Nathan Kafer - Conservation & Forestry Division – Tree species, proper planting & pruning
Blaine Martian – Big Sioux Nursery – Garden designs, proper way to plant a flower garden
Dave Kringen – Project coordinator for the Lower James River Implementation Project
Mike Blaalid– Pheasants Forever
Andy Oxford– Rainfall Simulator Presentation at 11:00

The South Dakota Rainfall Simulator provides a "seeing is believing" demonstration of how practices such as no-till farming, cover crops, and prescribed grazing benefit soil health and improve the water cycle on cropland and rangeland across the state. No-till cropland and rangeland managed with prescribed grazing increase infiltration and reduce runoff and sedimentation. This demonstration includes discussion of topics such as infiltration, aggregate stability, soil structure, and the relationship of these properties to runoff, erosion, and water quantity.

Please join us, meet the staff, board members, and enjoy lunch and our Special guests. We are looking forward to the opportunity to serve you in any way we can.

Hope to see you on Saturday May 3rd

10am – 1pm

Project table-top exhibit displayed during Hanson CD Open House

Project table-top exhibit displayed during Davison CD Open House

LOWER JAMES RIVER WATERSHED PROJECT
West Havens Plaza
721 West Havens Avenue
Mitchell, SD 57301

DAWSON CREEK WATERSHED OPEN HOUSE

Chances are, if you are receiving this announcement, you either live and/or farm within the Dawson Creek/Lake Henry watershed. The Lower James River Watershed Project is hosting an Open House for all Dawson Creek watershed producers and residents at:

The Main Hideout
530 Main Street
Scotland, SD
Thursday, August 14th
1:30 p.m. — 3:00 p.m.

During our open house, we have lined up a number of speakers to give a short presentation on different conservation practices and programs available to Dawson Creek watershed producers. Scheduled to speak are:

John Lentz, SD NRCS Agricultural Nutrient Management Team
Mark Rohlfing, SD NRCS District Conservationist, Bon Homme County
Dave Kringen, Lower James River Watershed Project
Mike Blaalid, Farm Bill Biologist, Pheasants Forever, Inc.
Jeff Hemenway, SD NRCS Conservation Agronomist — Soil Health & Rainfall Simulator Presentation

Please join us to learn more about the technical and financial assistance that is available to you to help with any conservation needs or concerns you may have on your farm.

Please R.S.V.P. by Thursday, August 7th if you plan to attend. Contact Peg Haenfler, Bon Homme Conservation District, at 589-3232 Ext. 3.

Refreshments provided by the Bon Homme Conservation District

Enhanced CRP Program

JAMES RIVER WATER DEVELOPMENT DISTRICT

Dave Bartel, District Manager
251 4th Street SW
Huron, SD 57350
Phone: (605) 352-0600
Cell: (605) 350-7507
E-mail: davebartel@midconetwork.com

LOWER JAMES RIVER IMPLEMENTATION PROJECT

Dave Kringen, Watershed Coordinator
West Havens Plaza
721 West Havens Avenue
Mitchell, SD 57301
Phone: (605) 990-5353
Cell: (605) 999-0077
Email: dkringen@mitchelltelecom.net

The James River Water Development District is committed to improving water quality within the James River watershed through the Enhanced CRP Program available now for a number of USDA Continuous CRP practices. The JRWDD Enhanced CRP Program consists of a one-time, up-front, 75% incentive payment of the CRP base-rate in addition to your regular CRP payment for the practices listed below. Contact your local NRCS office or the JRWDD for more information.

CP8A — Grass Waterways
A grassed waterway is a constructed vegetated channel within a cropland field where water tends to concentrate and flow off the field. The waterway is shaped or graded and seeded with suitable vegetation to carry surface water at a non-erosive velocity to a stable outlet.

CP21 — Filter Strips
A filter strip is a band of vegetation used to limit sediment, nutrients, pesticides, and other contaminants from entering water bodies. Filter strips are typically located on cropground immediately adjacent and parallel to streams, wetlands, lakes, or other permanent water bodies.

CP22 — Riparian Buffer
A riparian forest buffer is an area of trees and shrubs located immediately adjacent and parallel to streams, lakes, wetlands, or other permanent water bodies. Riparian buffers can be located on either cropland or marginal pastureland.

CP29 — Marginal Pastureland Wildlife Habitat Buffer
Offered acreage must be on pastureland immediately adjacent to perennial or seasonal streams, or other permanent water bodies such as a lake or pond. Primary vegetation for the site should be a mix of grasses, shrubs, and forbs.

CP30 — Marginal Pastureland Wetland Buffer
Offered acreage must be on pastureland immediately adjacent to perennial or seasonal streams, wetlands, or other permanent water bodies.

Photos courtesy of USDA NRCS

September 2014

LOWER JAMES RIVER WATERSHED IMPLEMENTATION PROJECT

The goal of the Lower James River Watershed Project (sponsored by the James River Water Development District; Huron, SD) is to restore and protect the water quality of the James River and its watershed by reducing non-point source pollution through the installation of Best Management Practices (BMPs). BMPs are practices that have been determined to be the most effective and practical means of preventing or reducing the movement of sediment, nutrients, or other pollutants from the land to surface or ground water. The installation of BMPs will improve water quality in order to meet designated beneficial uses and, in turn; improve habitat for upland and aquatic species, and recreational opportunities of the water bodies located with the project area.

The Lower James River watershed includes drainage from 12 counties in southeast South Dakota and contains approximately 2.5 million acres (3,906 mi² or 10,350 km²).

The Lower James project generates the majority of its funding through Section 319 of the Clean Water Act, but can also benefit from other federal, state, and local dollars to cost-share the installation of BMPs throughout the watershed. Some of these additional funding sources can include the United States Department of Agriculture (USDA), the Consolidated Water Facilities Construction Program (State of SD), the Clean Water State Revolving Fund water quality grants (State of SD), the James River Water Development District (JRWDD), and local producer cash and in-kind match.

Typical BMPs installed through the Lower James River Watershed Project can include water development and cross-fence for rotational livestock grazing; buffer strip development on cropground and pastures along the creeks and streams within the Lower James River watershed to filter runoff; streambank stabilization projects; animal feeding operation improvements; as well as education and information outreach. Unique to the James River is the Enhanced CRP Program. This JRWDD-sponsored program is an incentive payment program designed to encourage the enrollment or re-enrollment of certain USDA Continuous CRP practices used to improve water quality in the creeks and streams of the James River watershed. Landowners then receive a one-time, up-front payment equal to 75% of the total CRP base rate payment from the JRWDD.

Sumary concerning Lower James River project that was included in an informational packet for the SD Governor's Capitol for a Day program in Parkston, Hutchinson Co. on August 27, 2014.

Project Area Map

The Lower James River Riparian Area Management (RAM) Program is available to producers along priority stream segments within the Lower James River watershed. Priority stream lengths may include all or portions of the following: James River, Firesteel Creek, Pierre Creek, Wolf Creek, and Dawson Creek.

For More Information, Contact:

Lower James River Implementation Project

Dave Kringen
Watershed Coordinator
West Havens Plaza
721 West Havens Avenue
Mitchell, SD 57301
Phone: (605) 990-5353
Cell: (605) 999-0077
Email: dkringen@mitchelltelecom.net

James River Water Development District

Dave Bartel
District Manager
251 4th Street SW
Huron, SD 57350
Phone: (605) 352-0600
Cell: (605) 350-7507
Email: davebartel@midconetwork.com

OR YOUR LOCAL USDA NATURAL RESOURCES CONSERVATION SERVICE OFFICE

Lower James River

Riparian Area Management Program

Restoring and protecting our water resources through locally led conservation

Lower James River Implementation Project

What is a Riparian Area?

A riparian area is the transitional zone between land and water environments. A healthy riparian area is extremely important to water quality as it will reduce sediment, nutrients, pesticides, and other materials in surface and shallow subsurface runoff. The establishment of riparian buffers play a key role in improving water quality in associated streams, rivers, and lakes.

If eligible, landowners are encouraged to enroll land adjacent and parallel to a perennial stream or other waterbody into the USDA Continuous Conservation Reserve Program (CCRP). Additional acres that do not qualify for CCRP can then be enrolled into the Lower James River Riparian Area Management (RAM) program, not to exceed 35% of the total CCRP acres. Examples may include the inside loop of a meandering stream or a land-locked corner, or to help straighten a fenceline.

Riparian Area Management Program

The Lower James River Riparian Area Management (RAM) Program allows landowners an opportunity to enroll additional acres that do not qualify for CCRP into the RAM program when establishing a buffer strip along stream segments within the Lower James River watershed in order to improve water quality.

Program Highlights

- Tracts must be actively grazed or cropped adjacent to a stream bank in order to qualify for CCRP/RAM.
- Rental rates for acres enrolled under the RAM program are determined using base rates established by the county USDA FSA for Continuous CRP.
- Choice of 10 or 15 year contract, to coincide with the CCRP contract.
- Landowners are expected to follow the same conservation plan for the enrolled RAM acres that was written for the corresponding CCRP contract.
- Landowners may also be eligible for a 75% incentive payment through the James River Water Development District Enhanced CRP Program, on only those acres enrolled in CCRP.
- Cost-share available for fencing and/or alternative water if needed.

This project is funded, in part, by a grant from the US EPA Section 319 Nonpoint Source Program administered through the SD Department of Environment and Natural Resources and the James River Water Development District.

District Services

TREE PLANTING-
$4.00 RR for trees
$4.60 RR for shrubs
$400 minimum for tree plots

HANDPLANTS-
$2.00 bareroot stock + tax
$1.50 replants for previous year plantings + tax

FABRIC-
$9.90 RR – 6-foot wide fabric

FABRIC MATS-
4' x 4' fabric mat - $2.25 + tax
By the foot- $.50/foot for 6' wide fabric + tax.

FABRIC STAPLES- $0.10 each + tax.

TREE PROTECTORS W/STAKE
4' - $6.00 + tax

DEER REPELLENT (PLANTSKYDD) + tax
1 lb. Granular Shaker—$10.00
1 qt. Ready-to-Use Spray—$21.00
1 lb. Powder Concentrate—$27.00

CHEMICAL-WEED WIPER
$65.00 per hour plus $9.00 per acre for chemical (price will vary with market price)

CULTIVATION, TILLAGE and MOWING-
$65.00 per hour with a $65.00 minimum
Batwing Mower (15') - $75.00 per hour/$75.00 min.

GRASS DRILL -
Less than 14 acres - $275.00 minimum
15 -30 acres - $20.00 per acre
31 or more acres - $18.00 per acre
Davison County - $25.00 setup and travel
Out of County—$50.00 setup and travel

Fabric Weed Barrier Girdling Trees

By Heidi Rients

Fabric weed barrier is becoming a problem in 3-5 year old plantings. All tree plantings should be checked each year to see if girdling is a possibility. If your trees/shrubs are close to the fabric it is suggested to cut a larger hole or in some instances removing the fabric completely to prevent girdling. Trees will actually die from girdling (cuts off source of nutrients that supports the tree) or the trunk becomes weakened and more susceptible to wind damage as they will not push the fabric out of their way.

Also, if your trees are in CRP or other cost shared programs you are responsible for proper maintenance of the planting. This includes replacing the missing trees/shrubs, maintaining an 85% survival rate, maintaining weed control between trees and rows, and cutting back the fabric to prevent girdling. Another option to consider is planting short statured native warm season grasses in between the tree rows for weed control.

JRWDD Increases Cost-Share Percentages

The James River Water Development District (JRWDD) recently approved a new Earth Dam policy in which they may offer up to 75% cost-share on the design, construction, or repair of earthen dams within the James River district boundary. The previous cost-share rate for small dam construction or repair was 50%. Contact Dave Bartel with the James River Water Development District at (605) 352-0600 or visit our website at www.jrwdd.com for more information on the Earth Dam program.

The JRWDD has also increased the incentive payment for its Enhanced CRP program designed to encourage the enrollment or re-enrollment of certain USDA Continuous CRP practices important to water quality within the James River district boundary. The Enhanced CRP program will now make a one-time, up-front payment equal to 75% of the total base-rate for the following CRP practices: CP8A (Grassed Waterways), CP21 (Filter Strips), CP22 (Riparian Buffer), CP29 (Marginal Pastureland Wildlife Habitat Buffer), and CP30 (Marginal Pastureland Wetland Buffer). The previous incentive payment for the Enhanced CRP Program was 40% of the CRP base-rate. Contact your local NRCS office or James River Water Development District at (605) 352-0600 for more information.

JRWDD Increases Cost-Share Percentages

By: Dave Kringen

The James River Water Development District (JRWDD) recently approved a new Earthen Dam policy in which they may offer up to 75% cost-share on the design, construction, or repair of earthen dams within the James River district boundary. The previous cost-share rate for small dam construction or repair was 50%. Contact Dave Bartel with the James River Water Development District at (605) 352-0600 or visit our website at www.jrwdd.com for more information on the Earth Dam program.

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USDA Unveils Key New Programs to Help Farmers Manage Risk

David Charles - County Executive Director

End of Direct Payments Represents One of the Most Significant Farm Policy Reforms in Decades

USDA Launches Education Efforts to Help Producers Choose New Program

WASHINGTON, Sept. 25, 2014 – U.S. Department of Agriculture (USDA) Secretary Tom Vilsack today unveiled highly anticipated new programs to help farmers better manage risk, ushering in one of the most significant reforms to U.S. farm programs in decades.

Vilsack also announced that new tools are now available to help provide farmers the information they need to choose the new safety net program that is right for their business.

"The 2014 Farm Bill represented some of the largest farm policy reforms in decades. One of the Farm Bill's most significant reforms is finally taking effect," said Vilsack. "Farming is one of the riskiest businesses in the world. These new programs help ensure that risk can be effectively managed so that families don't lose farms that have been passed down through generations because of events beyond their control. But unlike the old direct payment program, which paid farmers in good years and bad, these new initiatives are based on market forces and include county - and individual - coverage options. These reforms provide a much more rational approach to helping farmers manage risk." The new programs, Agricultural Risk Coverage (ARC) and Price Loss Coverage (PLC), are cornerstones of the commodity farm safety legislation. Both programs