NONPOINT SOURCE 319(h) PROJECT PROGRESS REPORT FORM

Version 1.5

Federal Fiscal Year of project: 2008 **TODAY'S DATE:** 10/15/2008

HAS THE WORKPLAN BEEN AMENDED SINCE THE LAST GRTS REPORT?: ☒ Yes ☐ No

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Please select which reporting period.

MIDYEAR REPORT?: ☐ **ANNUAL REPORT?:** ☒ **QUARTERLY REPORT?:** ☐

PROJECT TITLE: Belle Fourche River Watershed Management

REPORT DATES: FROM: 9/30/07 **TO:** 9/30/08

STATE NAME: South Dakota

ADDRESS: 1839 5th Avenue

ADDRESS:

CITY: Belle Fourche **STATE:** SD **ZIP:** 57717

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FAX: **EMAIL:** timreich@rushmore.com

PREPARED BY: Matt Stoltenberg

MILESTONES COMPLETED

BMP Milestone Information

BMP	Unit	Total Expected	Total Implemented
Grazing Management	Acres Grazing/Rangeland/Riparian/CRP	9000	4553
Irrigation Water Management	LF Lining	3200	4000
Irrigation Water Management	LF Pipelines	4000	638
Irrigation Water Management	Model	1	1
Irrigation Water Management	Real-Time Stage Control Units	25	25
Irrigation Water Management	Sprinkler Systems	10	26
Water Quality Monitoring	None Defined		

NOTE: To add text TAB to the shaded area and type or cut/paste text. You may type or cut/paste as much text as you like. The box will expand.

OVERALL PROJECT ACCOMPLISHMENTS

The Belle Fourche River Watershed Management and Project Implementation Plan Segment III Amendment is on task and on budget. Much of this amendment has concentrated on producer implementation projects in the watershed.

The Segment III Amendment requested additional funding for producer implementation projects, including sprinkler irrigation systems and range riparian improvement projects. In addition to implementation projects, one graduate student from South Dakota State University (SDSU) was funded to complete a 2-year study designed to quantify rainfall infiltration rates and sediment loss associated with runoff. Additional funds for future grant writing and public education and outreach were granted as well.

Irrigation implementation projects have led to increased water delivery efficiency and decreased sediment transport on over 2,000 acres. Range riparian improvements resulted in improvements on over 159,000 total acres, including 20,000 riparian acres. Public outreach included booths at county fairs, field and home shows, quarterly meetings, and watershed tours.

The table below outlines the funds budgeted, utilized, and remaining in the Segment III Amendment.

Segment III - EPA 319	Consultant	BFID	Producer	Totals	Funds Utilized	Funds Remaining
Objective 1. Implement BMPs Recommended in the Belle Fourche River Watershed TMDL						
Task 1. Reduce Nonused Water						
1a. 27 Stage Control Automation Projects	$76,000.00	$292,800.00		$368,800.00	$358,601.40	$10,198.60
1b. Phase II of Canal Operational Model	$160,591.00	$16,900.00		$177,491.00	$162,380.94	$15,110.06
1c. Line and Pipe Open Canals and Laterals						
1d. Install Sprinkler Systems			$300,000.00	$300,000.00	$290,366.23	$9,633.77
Task 2. Complete and Install Riparian Vegetation Improvements						
2. Grazing/Rangeland/Riparian Management	$253,142		$495,542.00	$748,684.00	$562,197.22	$186,486.78
Objective 2. Conduct Public Outreach, Complete Essential Water Quality Monitoring, and Write Reports						
Task 3. Conduct Public Outreach Program, Monitor Water Quality and Write Reports						
3. Public Education and Outreach, Monitor Water Quality, Write Reports	$133,825.00			$133,825.00	$100,652.74	$33,172.26
Other Watershed Improvement Projects						
Total	**$623,558.00**	**$309,700.00**	**$795,542.00**	**$1,728,800.00**	**$1,474,198.53**	**$254,601.47**

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OBJECTIVES/TASKS ACCOMPLISHMENTS

The 2008 Segment III Amendment provided additional cost share for producer irrigation improvements.

To date in this funding segment, implementation on the Belle Fourche Irrigation District)BFID) resulted in the installation of five automated check gates (two real-time and three stand alone), four automated head gates (four real-time) , equipment to monitor flow at nine flow measurement structures (nine real-time), and equipment to convert two previously automated stand-alone checks to real-time.

The BFID also installed over 600 feet of pipeline and 2,600 feet of lining and is currently lining approximately 1,400 feet of the Inlet Canal.

Seventeen sprinkler irrigation systems, partially funded through 319, have been installed or are in the process of being installed to replace flood irrigated systems. In addition to this, approximately 34,470 feet of pipeline have been installed, delivering water to sprinklers and flood irrigation systems. Within the last year, Segment III Amendment provided funding for eight sprinkler systems and 17,341 feet of pipe that will be installed by June 2009. This will result in increased water delivery efficiency and decreased sediment transport on over 2,000 acres.

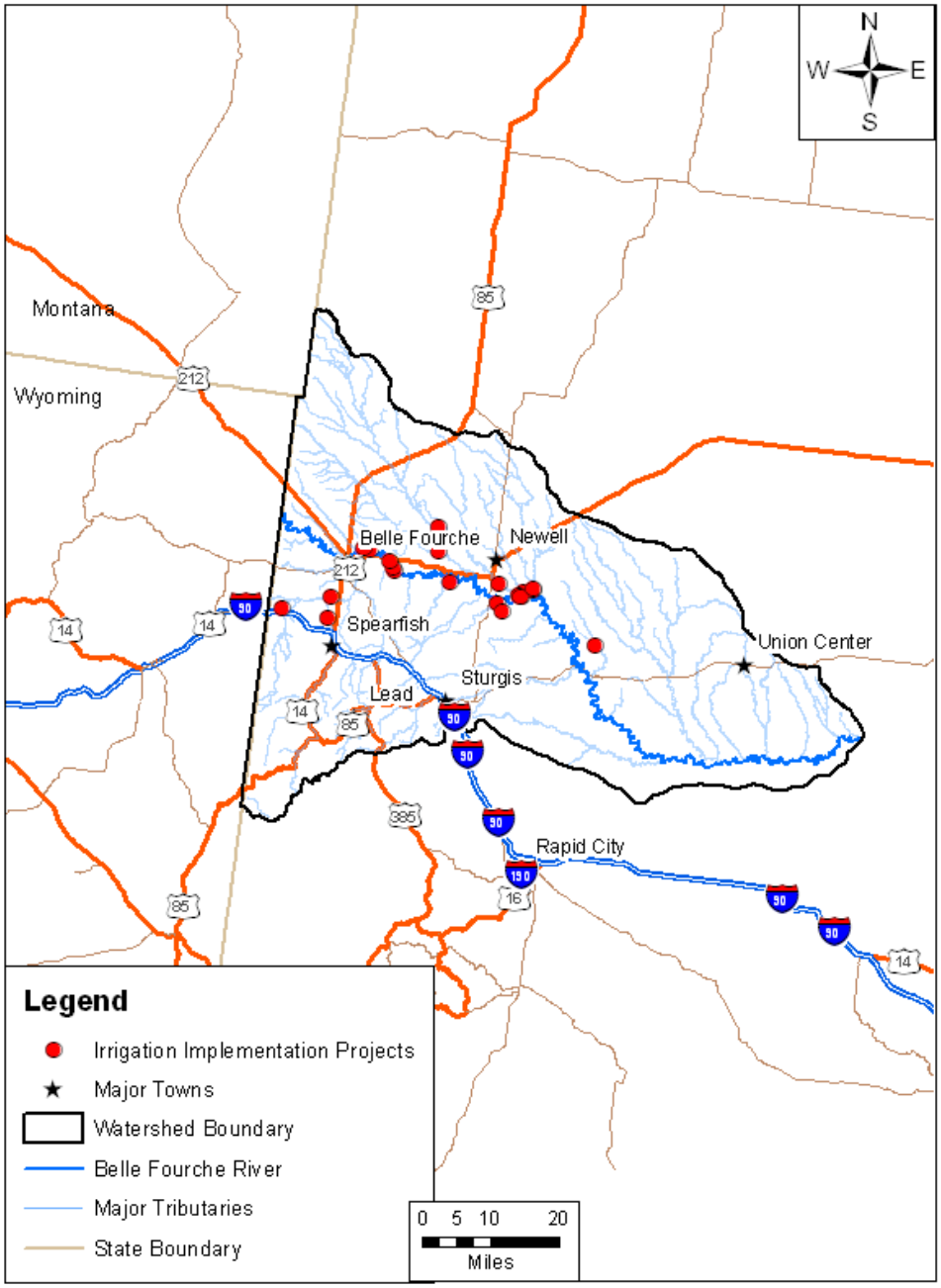

Figure 1. Location of producer irrigation improvement projects funded with Segment III implementation funds.

TASK 2. COMPLETE AND INSTALL RIPARIAN VEGETATION IMPROVEMENTS - This task is on schedule and will be complete by June 2009.

The 2008 Segment III Amendment provided additional cost share for riparian improvement projects and funding an SDSU graduate student to finalize a rangeland sediment study in the watershed.

Resource inventories for various ranches located throughout the watershed are currently being conducted. Planning of livestock grazing systems that focus on riparian health is being used in conjunction with implementation projects to obtain total suspended solids (TSS) reductions. Implementation projects installed or in progress have resulted in range improvement on approximately 159,000 acres, including approximately 20,000 riparian acres. This includes improvements installed or in progress on 96,000 total acres and an estimated 12,500 riparian acres during the last funding year. Actual riparian acres are not reflected in the "Tracker" to this date. An assessment is in progress that is inventorying an accurate number of riparian acres that have been implemented. These numbers will be reported in the "Tracker" when complete. Total practices planned to this date include 333,446 feet of pipe, 52 tanks, 7 wells, 8 pumping stations, and 14,300 feet of fence for riparian corridor protection and rotational grazing. Practices in progress or completed within the last funding year include 177,610 feet of pipe, 35 tanks, 4 wells, and 5 pumping stations. Projects are on schedule to be completed by June 2009.

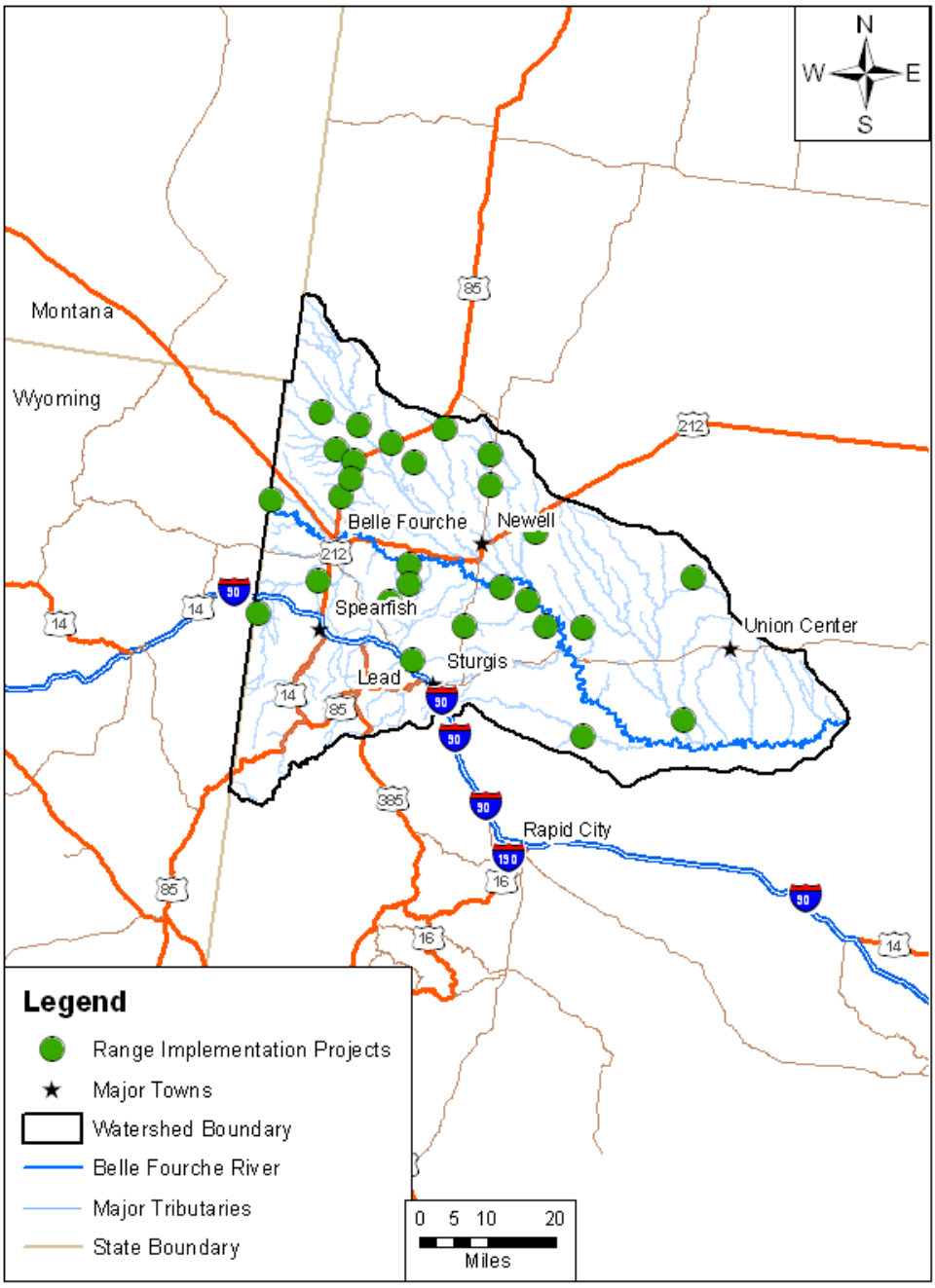

Figure 2. Location of producer range riparian improvement projects funded with Segment III implementation funds.

Figure 3. Example of off-stream livestock watering tank implemented with Segment III implementation funds.

In addition to riparian vegetation improvement, a graduate student from SDSU was funded to complete a 2-year study designed to quantify rainfall infiltration rates and sediment loss associated with runoff. Results from this study are expected in a thesis format by June 2009.

OBJECTIVE 2. CONDUCT PUBLIC OUTREACH PROGRAM, MONITOR WATER QUALITY, AND WRITE REPORTS

TASK 3. PUBLIC EDUCATION AND OUTREACH, MONITOR WATER QUALITY, AND WRITE REPORTS - This task is on schedule and will be complete by October 2008.

There have been several public outreach activities completed. The Belle Fourche Watershed Partnership Web site is currently being maintained. The Web site is available at <www.bellefourchewatershed.org>. The Partnership has also presented project accomplishments, lessons learned, and plans at the BFID annual meeting, Newell Field and Home Show, Butte/Lawrence County Fair, Eastern South Dakota Water Conference, Black Hills Hydrology Conference, Belle Fourche Capital for a Day, and also in front of the South Dakota Conservation Commission. Quarterly scheduled meetings are held that are open to the public discussing Partnership business. In addition to activities listed above, the Partnership hosted a

tour in August 08 showcasing some of the successful projects carried out. Attendees included state and local government officials and federal and state agency employees.

Figure 4. August watershed tour conducted by the Belle Fourche River Watershed.

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CONCLUSIONS

The project is on schedule and on budget.

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Please select the pollutant, and then enter the numerical amount, units, and whether it is a TMDL related pollutant. Click in gray areas for dropdown list.
NOTE: If Nitrogen and/or Phosphorus are chosen, units must be lbs/yr. If Sedimentation is chosen, units must be in tons/yr.

Pollutant Type *	Pollutant Reduction Target	Current Year Pollutant Reduction	Cumulative Pollutant Reduction Achieved (Numerical)	Units	TMDL yes/no
POLLUTANTS:					
ADDITIONAL POLLUTANTS:					
SUSPENDED SOLIDS	29,153	14,142	38,116	Tons	YES

Wetlands/Streambanks/Shorelines

Please select the appropriate item as it relates to the project or task. For this reporting period there should be an actual (when available) positive numerical value for each selection

- ☐ Wetlands Restored
- ☐ Wetlands Created
- ☐ Streambank and Shoreline Protection
- ☐ Stream Channel Stabilization

Description	Current Year	Cumulative Total	Units
Wetlands Restored			Acres
Wetlands Created			Acres
Streambank and Shoreline Protection			Feet
Stream Cannel Stabilization			Feet