NORTH DAKOTA LIVESTOCK POLLUTION PREVENTION PROGRAM-PHASE III

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APPENDIX A

AFOS-Animal Feeding Operation
AU-Animal Unit
BMP-Best Management Practice
CAFOS-Confined Animal Feeding Operation
DP3-Dairy Pollution Prevention Program
EPA-Environmental Protection Agency
EQIP-Environmental Quality Incentive Program
HUC-Hydrologic Unit Code
LP3-Livestock Pollution Prevention Program
NDDA-North Dakota Department of Agriculture
NDDH-North Dakota Department of Health
NPS-Non-Point Source
NRCS-Natural Resource Conservation Service
RC&D-Resource Conservation and Development
SCD-Soil Conservation District
WRB-Water Resource Board

PROJECT PROPOSAL SUMMARY PAGE
PART 1.0

PROJECT TITLE NAME:
North Dakota Livestock Pollution Prevention Program-Phase III (LP3)

NAME AND ADDRESS OF LEAD PROJECT SPONSOR/SUBGRANTEE:
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PROJECT TYPES:
Waste management/watershed

WATERBODY TYPES:
Lakes, Rivers, Streams, Groundwater, Wetlands

NPS CATEGORY:
Agriculture

TMDL STATUS:
Statewide Project will focus on water-bodies on the 303(d) list

PROJECT AREA:
Statewide

SUMMARIZATION OF MAJOR GOALS:
This funding request is a continuation of the Livestock Pollution Prevention Program. The LP3 Program is a voluntary pollution prevention program designed to identify, reduce or eliminate any release of livestock waste into surface or ground water. Surface waters are potentially protected "three times over": 1) directly, where surface water exists within the boundaries of a farm; 2) indirectly, where wastes would run off the farm property to reach surface water; and 3) indirectly, where ground waters are hydraulically connected to surface waters, whether on or off the farm property. There are five major river basins in the state of North Dakota which are Upper Missouri River (Lake Sakakawea), Lower Missouri River (Lake Oahe), Souris River, James River, and Red River. The primary efforts of the Livestock Pollution Prevention Program Phase III will be to focus efforts such as technical and financial assistance in the Lower Missouri River Basin. The specific watersheds to be targeted in this basin include the Heart River, Knife River, Beaver Creek, and Cannonball River.

The primary goal of the North Dakota Department of Agriculture's Livestock Pollution Prevention Program (LP3) is to bring awareness of regulatory requirements to the state's

livestock producers and to help coordinate the installation of Best Management Practices (BMPs) at facilities discharging livestock waste into the waters of the state. The long-term goal of the project is to prevent/eliminate water quality impairments associated with the majority of the medium and small AFO's in the state.

PROJECT SUMMARY:

The Livestock Pollution Prevention Program plan is to continue to:

- Provide financial and technical assistance to install Best Management Practices on those livestock operations impacting the water quality of our state
- Meet and educate livestock producers regarding livestock waste pollution and formulate solutions
- Work with smaller producers to create alternative methods and solutions to decrease livestock pollution through the installation of partial containment systems and adopting more advanced feeding management techniques
- Focus efforts in watersheds that have impaired waters

Budget Summary:

Current FY 2014 funds	*$*	*479,300*
Match	*$*	*319,553*
Total Project Cost	*$*	*798,833*

NORTH DAKOTA LIVESTOCK POLLUTION PREVENTION PROGRAM-PHASE III PROJECT IMPLEMENTATION PLAN **(LP3)**

1.5 CONTINUATION PROJECT:

This PIP represents the continued efforts of the Livestock Pollution Prevention Program-Phase III (LP3) and the expansion of those efforts to address manure management issues for all types of livestock feeding operations statewide. See Summary of Past Accomplishments in the Project Description on pages 7 and 8.

2.0 STATEMENT OF NEED

A significant emphasis has been placed on livestock confinement waste management and enforcement of the Clean Water Act throughout North Dakota and the United States during the past several years. The Clean Water Act includes prohibition of discharges of pollutants to waters of the United States. Manure from animal feeding operations (AFO's) has been identified as a major contributor to the impairment of water quality in many of the watersheds of North Dakota, according to the North Dakota Department of Health's 2012 Integrated Water Quality Assessment Report. The improper management of a livestock operation can cause many long term impacts to the beneficial uses of the state's waters. The primary uses that are most impacted are drinking water and recreational water bodies. Recreation use was assessed on 7,232 miles of rivers and streams in the state. Recreation use was fully supporting, fully supporting but threatened and not supporting on 1,549 miles, 3,780 miles and 1,902 miles, respectively. Pathogens (as reflected by E. coli and fecal coliform bacteria) are the primary cause of recreation use impairment in North Dakota. Other factors affecting the use of the state's rivers and streams for recreation would be eutrophication from excessive nutrient loading, resulting in nuisance algae and plant growth. The primary sources of E. coli and fecal coliform bacteria contamination are animal feeding operations and riparian area grazing.

Major sources of nutrient loading to the state's lakes and reservoirs are erosion and runoff from cropland; runoff from animal feeding operations (e.g., concentrated livestock feeding and wintering operations); and hydrologic modifications. Hydrologic modifications, such as wetland drainage, channelization and ditching, increase the runoff and delivery rates to lakes and reservoirs, in effect increasing the size of a lake's watershed.

Recreation use (e.g., swimming, waterskiing, boating, sailing, sunbathing) was assessed for 159 lakes and reservoirs in the state totaling 683,409 acres. Of this total, four (4) lakes, representing 6,308 acres, were assessed as not supporting use for recreation. The primary cause of use impairment is excessive nutrient loading, which results in nuisance algal blooms and noxious aquatic plant growth. One-hundred-fifty-five (155) lakes and reservoirs totaling 677,100 acres were assessed as fully supporting recreation use. Of these, 37 lakes and reservoirs totaling 17,460 acres, were assessed as threatened.

The Livestock Pollution Prevention Program is critical to the water quality of North Dakota. The program provides onsite education to livestock producers regarding the importance of preventing

livestock waste from entering the waters of our state. The program also assists producers with technical information in regards to bringing their operations into compliance with environmental regulations and installing containment systems on those operations discharging pollutants. **There are five major river basins in the state of North Dakota which are Upper Missouri River (Lake Sakakawea), Lower Missouri River (Lake Oahe), Souris River, James River, and Red River. The primary efforts of the Livestock Pollution Prevention Program Phase III will be to focus efforts such as technical and financial assistance in the Lower and Upper Missouri River Basins. The specific watersheds to be targeted in these basins include Heart River, Knife River, Beaver Creek, and Cannonball River.**

There are over ten thousand beef operations in North Dakota with approximately seventy-five hundred operations with less than two hundred head of cows and approximately twenty-five hundred operations with more than two hundred cows. It would be impossible to report the numbers of operations that are with ¼ mile of waters of the state without conducting aerial or county by county surveys on location of operations. From field observations by the LP3 Coordinator in the past thirteen years there are many operations that are in need of assistance and producer participation is rising.

The NDDH is responsible for implementing North Dakota's Rules and Regulations for the Control of Pollution from Certain Livestock Enterprises (see North Dakota Administrative Code (NDAC) Chapter 33-16-03). The rules and regulations require concentrated feeding operations, or any livestock operation that is impacting a water of the state, to be reviewed and approved by the NDDH. EPA has granted this responsibility to the NDDH. Those operations between 300-999 AU and within1/4 mile of surface waters of the state must submit an application for a NDDH state permit. At this time, the installation of full containment systems on operations between 300-999 AU is a major priority of the Livestock Pollution Prevention Program. As well as the small AFO's which are operations with less than 300 AU to be targeted for assistance installing partial systems such as clean water diversions, and relocating feeding areas. The partial system application must include a system design, nutrient management plan and compliance/installation schedule. Producer efforts to meet the state and federal laws will undoubtedly increase demands on funding sources such as Section 319.

Information and Education (I&E) programs are essential to convince livestock producers to practice proper nutrient application methods and to install containment systems if needed. The North Dakota Department of Agriculture relies on the NDSU Manure Management Specialists to producer those services. The role of the LP3 coordinator is technically assist producers by completing onsite environmental assessments of livestock operations to determine if there is water pollution concern from the livestock production area. If there is a concern the LP3 coordinator will try to convince the producer to install a containment system and aid the producer with cost share assistance from the LP3 program.

3.0 PROJECT DESCRIPTION

The ultimate purpose of this program is to protect and/or improve the quality of the waters of the state by reducing or preventing the transport of pollutants associated with manure from the

state's livestock operations to nearby waterbodies. As a proactive program, these efforts will also be coordinated with the NDDH, to ensure the manure management systems installed under the LP3 Program Phase III will assist cooperating livestock producers to comply with current state livestock manure management rules. In general, the state's livestock producers are concerned about water quality and recognize that improved manure management on their operations can benefit water quality. However, time and financial resources are the most common limiting factors preventing many producers from completely addressing their manure management concerns. Consequently, there remains a need to deliver a program that will provide the technical and financial assistance needed for design planning and system construction. To address this need, Phase III of the LP3 Program will deliver the following types of assistance:

Best Management Practices to be installed and the benefits to water quality:

- Clean water diversions-*prevention of clean water from coming in contact with livestock waste*
- Livestock Waste Containment Systems-*prevention of livestock waste from entering surface or groundwater*
- Partial Systems-- *will minimize the accumulation of livestock manure in confined feeding areas, improve manure utilization; and eliminate feeding in or near riparian corridors*

Technical Assistance offered:

- Professional advice on manure management and containment procedures
- Site evaluation and recommendation of regulatory requirements
- Nutrient management planning

Summary of Past Accomplishments May 2001 to September 2013

- Forty-four waste utilization plans were completed and 11 were cost shared.
- Five septic systems were installed with cost share assistance.
- Forty-four livestock containment systems permitted and cost shared.
- Twenty-four partial systems were cost shared and installed all in the past 3 years.
- There are 566 producers that have received technical assistance on the topic areas of nutrient management planning, project planning, and regulatory compliance through on-site visits with the livestock producer.
- Approximately 500 livestock producers educated about manure management through workshops, informational meetings, conferences, and tours.
- The NDDA nominated Ole and Jessica Johnson for the EPA Region 8 Environmental Stewardship Award which they were awarded in 2006. The LP3 program cost shared their manure containment system in 2006.

- As of September 2013, the LP3 program is responsible for yearly load reductions of 1,031,216 pounds of nitrogen and 335,869 pounds of phosphorous into waters of the state.

- Approximately 44,000 cattle occupy permitted manure management systems with assistance from the LP3 program.

- There are three manure containment systems to be installed in the 2013 construction season.

- There are four planned manure containment systems for the 2014 construction season.

The NDDA is proud of the fact that approximately 86.7% of the 319 funding received in the past 13 years has been spent directly on the implementation of Best Management Practices.

3.1 GOALS, OBJECTIVES & TASKS OF THE ND LP3 PROJECT PHASE III

Long Term Project Goals

The LP3 is designed to provide educational, technical, and financial assistance to livestock producers and help them install manure management systems and develop comprehensive nutrient management plans on their specific operations. The successful implementation and maintenance of these practices will prevent or reduce the release of livestock waste into the waters of our state. The final goal is to bring the majority of the small to medium livestock operations in compliance with the assistance of other programs such as the 319 watershed projects, Stockman's Association Environmental Services Program, NDSU Nutrient Management Program, Sheyenne James RC&D, and NRCS.

In general, high priority will be those facilities that are the major contributors of livestock runoff. A ranking process using the NDSU Extension Service AFO Evaluation Worksheet (Attachment 1) will be used to make the determination. Specific criteria used in the worksheet is proximity to a blue line stream, number of animal units, number of days animals are confined to lots or housing, flooding frequency, and groundwater proximity concerns. AFO's with a score above 50 points are considered high priorities.

Goals

The Livestock Pollution Prevention Program (LP3) Phase III is a continuation and expansion of the initial phase of the DP3. To separate this project from the previous LP3 and DP3 projects, this stage of the LP3 project will be recognized as the ND Livestock Pollution Prevention Program-Phase III. A majority of Phase III efforts will focus on the implementation of BMPs; such as, manure containment systems. The goal for Phase III is to financially assist 30 of the state's livestock producers with the implementation of the BMP's needed to improve manure management, and assist them in meeting current state and federal livestock manure management rules and regulations. In order to install 30 manure management systems, additional funding will be needed to accomplish this goal. In the period following the completion of Phase III, additional phases will be initiated, if necessary, to accomplish the overall long-term goal of the project.

One of the goals for this phase is to decrease nitrogen and phosphorous levels in the state's waters. By decreasing this loading, the recreational, aquatic and drinking water uses will be

protected and improved. The NDDA plans to decrease yearly nitrogen loading by 75,000 pounds and 30,000 pounds of yearly phosphorous loading at the end of this grant period based upon the Animal Feedlot Runoff Risk Index Worksheet (AFRRIW).

3.2 OBJECTIVES: NORTH DAKOTA DEPARTMENT OF AGRICULTURE'S LIVESTOCK POLLUTION PREVENTION PROGRAM-PHASE III

Objective 1: Continue educating the state's livestock producers on issues including regulatory requirements, nutrient management, and manure containment with focusing efforts within impaired watersheds included on the 303(d) list with emphasis on Missouri River Basin.

Task 1: Conduct bi-annual press releases to encourage interest in program. Create and distribute new program brochures. Coordinator will individually educate livestock producers on site about the program, regulatory requirements, manure containment and application practices.

Product: Livestock producers will be well informed about manure containment and utilization. Livestock producers of the state will have adequate education to properly implement Best Management Practices on their operations which will result in the proper field application and containment of their livestock manure. 2 press releases a year throughout life of grant.

Task 2: Work with NDSU Extension Agents, Soil Conservation District and Natural Resource Conservation Staff in the Cannonball, Heart, Beaver Creek and Knife River drainages to advertise the program by including LP3 brochures with their periodic newsletters to producers annually. Participate in local livestock-based workshops.

Product: Approximately 800 livestock producers in priority watersheds will be well informed by mailings about manure containment and utilization. Approximately 150 livestock producers throughout these watersheds will have adequate education to properly implement Best Management Practices on their operations which will result in the proper field application and containment of their livestock manure. One mailing for each watershed for the first 4 years of the grant and one workshop per watershed per year for each year of the grant for total of 5 workshops.

Objective 2: Provide technical assistance to all ND livestock producers that are interested in improving their operation to prevent livestock pollution from polluting the state's waters. Deliver the necessary financial or technical assistance to the 23 systems with greater than 50 priority points based upon the worksheet in the appendix and/or within a ½ mile of a water-body to reduce and/or prevent the off-site transport of pollutants associated with livestock manure and assist the cooperating

producers in meeting current state rules and regulations. Continue to provide technical assistance to all the livestock producers that request assistance.

Task 3: Continue meeting with livestock producers at the site of their operation to explain to the producers about the LP3 program, AFO/CAFO regulations and what they need to do to meet full compliance. Continue making follow up visits and contact to those producers who have expressed further interest in planning Best Management Practices on their operations which may include clean water diversions and manure containment systems.

Product: Livestock producers who are willing to make changes to their management of their facility to improve water quality. The goal is to develop a group of 23 producers that are interested in installing manure management systems. The goal is to complete 100 site reviews during the grant period.

Cost: Reflected in personnel/support budget

Task 4: A prioritization worksheet will be completed for each AFO that is interested in BMP funding to determine management needs and to establish a ranking score for comparison with other AFOs involved in the LP3 program. Please see Prioritization Worksheet (Attachment 1).

Product: An identified group of 23 operations that have serious water quality concerns, with an alternate list if any of the initial producers are not interested.

Cost: Reflected in personnel/support budget

Task 5: Establish Conservation Plan contracts with the 23 producers that were selected from the ranking sheets FY14 funds (2014=5 contracts, 2015=5 contracts, 2016=5 contracts, 2017=4 contracts and 2018=4 contracts). This will include securing engineering services, submitting cultural resource reviews, coordinating with engineering firms to complete design and construction, coordinating bid process, and coordinating construction. This task includes working with NRCS to assist producers in securing EQIP contracts.

Product: Twenty-three manure containment system contracts, which will include Conservation Plans and Nutrient Management Plans. This product will include up to 6 installed manure containment systems and 17 partial systems. The 319 LP3 grant will cost share 1 full containment system and 7 partial systems and EQIP will cost share 5 full containment systems

Cost: $ 238,498/$950,000 319 Funding/EQIP Funding

Task 6: Coordinate with the cooperating producer and if necessary with the NDDH to conduct periodic operation and maintenance reviews of completed systems during Phase III for the duration of the project.

Product: 23 properly managed Manure Containment Systems (full and partial) that will be kept in working order

Cost: Reflected in personnel/support budget

3.3 MILESTONE TABLE FOR LP3
SEE ATTACHMENT 2

3.4 & 3.5 LEAD PROJECT SPONSOR –Appropriate Entity

The North Dakota Department of Agriculture is the appropriate entity to coordinate and implement the Livestock Pollution Prevention Program because:

- The ND Dept. of Ag is a livestock friendly agency
- The ND Dept. of Ag is able to offer the program statewide
- The ND Dept. of Ag has a working relationship with the livestock producers
- The ND Dept. of Ag offers its services to all livestock producers

3.6 Operation and Maintenance Reviews

- The Department of Agriculture will monitor construction agreements between contractors and participants.
- Specific waste management designs and parameters will be reviewed and approved by the NDDH.
- The ND Department of Agriculture will conduct yearly onsite inspections of completed projects to insure proper maintenance is being completed.

4.0 COORDINATION PLAN

4.1 Lead Project Sponsor

North Dakota Department of Agriculture

NDDA is the lead project sponsor of the Livestock Pollution Prevention Program. Responsibilities include overall program and fiscal administration to implement all tasks. The NDDA will be responsible for monitoring the progression of tasks and submitting annual and final project reports to EPA through the NDDH.

4.2 & 4.3 COOPERATING AGENCIES & ORGANIZATIONS

North Dakota Department of Health

NDDH will be responsible for guidance in decision making throughout the life of the program. The NDDH will also be in charge of reviewing system designs and the overall facility permitting process. To assist the program, the NDDH will be part of the advisory committee.

Natural Resources Conservation Service
NRCS will provide additional technical assistance to accomplish water quality concerns along with the use of their financial assistance programs. They also will assist the LP3 Coordinator in identifying high priority operations. The NRCS will continue to provide LP3 participants with cost share assistance through the Environmental Quality Incentives Program (EQIP).

North Dakota State University Extension Service
NDSU Extension Service will provide educational services through the NDSU Nutrient Management Educational Support Program. The specialists will also provide additional technical assistance to LP3 participants. Finally, the specialist will be included as a member of a Nutrient Management/Livestock Waste Advisory Team.

North Dakota Milk Producer's Association
The North Dakota Milk Producers Association is supporting the program; the program provides an opportunity for NDMPA to be proactive in protecting the waters of the state. The NDMPA will provide the NDDA with producer feedback and ideas on how to better serve the dairy producers of North Dakota.

Best Management Practice Engineering Team
The BMP Team will provide the LP3 participants with engineering assistance statewide.

Soil Conservation Districts
SCDs will assist in providing LP3 with identification of interested producers and high priority operations in their county. These organizations are crucial for the implementation of tour and promoting the LP3 Program on a local level.

North Dakota Dairy Coalition
The NDDC will assist in advertising the program to producers across the state and will spread a proactive message to dairy producers to participate in the LP3 program and begin the compliance process.

North Dakota Stockmen's Association Environmental Services Director
The ND Department of Agriculture has entered into an agreement with the ND Stockmen's Association to coordinate an outreach to develop additional interest in the programs with livestock producers. Both coordinators will offer technical and financial assistance.

319 Watershed Projects
Most 319 Watershed Projects also provide financial and technical assistance to livestock producers within their designated watersheds. To prevent duplication of effort, the LP3 focuses its attention on livestock feeding areas outside the active 319 Watershed Projects (reference Attachment 6). In the event, a producer within an active watershed project requests assistance from LP3, the LP3 coordinator contacts the local watershed coordinator and provides the request to them. If the local watershed coordinator asks for assistance with the request, the LP3 will provide financial and/or technical to the extent necessary.

4.4 COORDINATION OF THE PROGRAM

LP3 will coordinate with cooperating agencies such as Stockmen's Association, NRCS, NDSU Extension's Manure and 319 watershed coordinators to promote and financially and technically

assist with the installment of BMPs on livestock operations from a statewide perspective One area of concentration for the program is assisting livestock facilities located outside watershed project areas where Section 319 funding is not available. The coordinator will refer interested producers to watershed coordinators when facility is located in their project area. The coordinator visits with other 319 coordinators periodically to ensure that efforts are not duplicated on respective facilities.

5.0 EVALUATION AND MONITORING PLAN

The LP3 project will use the Animal Feedlot Runoff Risk Index Worksheet (Attachment 5) to estimate nitrogen and phosphorus load reductions resulting from the applied BMP. The estimated potential benefits of the installed manure management systems will be quantified with the worksheet will be presented in the annual reports as estimated pollutant reductions.

6.0 NORTH DAKOTA LIVESTOCK POLLUTION PREVENTION PROGRAM PHASE I BUDGET

ATTACHMENT 3 & 4

ATTACHMENT 1

LIVESTOCK CONCENTRATION AREA PRIORITIZATION WORKSHEET

Purpose

The purpose of this worksheet is to provide a preliminary process for the evaluation of potential water quality impacts associated with livestock concentration and/or winter feeding areas with less than 1000 animal units (AU). Application of the worksheet should be limited to the evaluation/comparison of pollution potential between multiple facilities and/or the evaluation of individual facilities during the initial planning stages. Information and priority rankings included in the worksheet will not provide a definitive answer regarding ND Department of Health (NDDH) permit requirements. Instead, the information and priority rankings should only be used as a guide for the distribution of financial and technical assistance and/or the evaluation of a facility's potential water quality impacts. The final determination of the NDDH permit requirements for a facility will need to be addressed on a case-by case basis by NDDH personnel.

General Information

Type of livestock (List all types):_____
_____

Number of each livestock type:_____
_____

Briefly describe the type of facility, including size of concentration area; time periods when livestock are present; manure management practices; feeding practices; water sources; etc.: _____
_____
_____
_____
_____
_____
_____

Evaluation

Evaluation Questions	Allowable Points	Actual Points
1) Type of concentration/feeding facility.		
____ Open lot (Does not include winter pastures)	5	_____
____ Total Confinement in a Building	3	_____
2) Peak number of animal units (AU) during the previous year. (Based on attached federal definitions).		
_____ 700 - 999 AU	10	_____
_____ 500 - 699 AU	8	_____
_____ 200 - 499 AU	5	_____
_____ < 200 AU	3	_____

* Note: If the facility has over 1000 AU, a manure management system for the facility must be approved by the NDDH. In addition, facilities with over 1000 AU are not eligible for Section 319 financial or technical assistance.

3) Total months, during a calendar year, the number of AU's fed and/or housed within the concentration area are greater than 25% of the peak concentrations indicated for question #2.

_____ 11-12 months	10	_____
_____ 8-10 months	8	_____
_____ 5-7 months	6	_____
_____ < 5 months	4	_____

4) Distance to the nearest "blue line" stream or other surface waterbody, based on the USGS quadrangle maps.

_____ Crosscut by or direct access to adjacent waterbody	15	_____
_____< ¼ mile	10	_____
_____ ¼ mile - ½ mile	6	_____
_____ ½ mile - 1 mile	4	_____
_____ > 1 mile	2	_____

5) Depth to aquifer or usable groundwater.

_____ < 5 feet	15	_____
_____ 5 - 15 feet	10	_____
_____ 16 - 25 feet	5	_____
_____ 26 - 35 feet	2	_____
_____ > 35 feet	0	_____

6) Based on the county Soil Survey, permeability of the **least** permeable soil layer overlying the aquifer or usable groundwater. (If aquifer/groundwater depth is >35 feet, enter 0.)

_____ > 2.0 inches/hour (e.g., sand)	12	_____
_____ 0.60 - 2.0 inches/hour	10	_____
_____ 0.20 - 0.60 inches/hour	5	_____
_____ 0.06 - 0.20 inches/hour (e.g., heavy clay)	0	_____

7) Total acreage above the concentration or feeding area that drains through the facility.

_____ > 25 acres	10	_____
_____ 10 - 25 acres	5	_____
_____ 5 - 10 acres	2	_____
_____ < 5 acres	1	_____

8) General topography between the facility and nearest surface waterbody.

_____ Direct access to the waterbody	15	_____
_____ Slopes > 4% and/or well defined drainage	10	_____
_____ Slopes < 4% and/or poorly defined drainage	1	_____

TOTAL SCORE_____

Facility Priority Ranking

The maximum allowable points for a facility cannot exceed 92. Specific priority rankings for a facility can be based on the actual score or the percent of the maximum score. Percent Maximum scores are determined by dividing the "Actual Score" by the "Maximum Allowable Points."

1) Total Actual Score / Maximum Allowable Points = Percent Maximum Score_____%

_____ / _____ = _____%

2) The range of "Actual Scores" and "Percent Maximum Scores" for determining the facility's priority ranking are as follows:

Priority	Actual Score	Maximum Score
High Priority	55 - 92	> 60%
Medium Priority	37 - 54	40% - 59%
Low Priority	14 - 36	< 40%

Priority Ranking:_____

Comments & Recommended Solutions:

_____
_____
_____
_____
_____
_____
_____
_____

FEDERAL ANIMAL UNIT DEFINITIONS

Animal Type	Animal Unit Equivalent
Beef Cattle & Heifers or Buffalo	1.0
Feeder Cattle	1.0
Lactating/Dry Dairy Cattle	1.43
Swine (> 55 lbs.)	0.40
Swine (< 55 lbs.)	0.10
Turkeys	0.0182
Chickens	0.01
Horses	2.0
Sheep or Lambs	0.10
Ducks	0.20

The total number of animal units (AU) is determined by multiplying the number of "head" by the "animal unit equivalent" for that animal type. For example, (800 Dairy Cattle) x (1.43) = 1,144 AU or (50,000 Turkeys) x (0.0182) = 910 AU

MILESTONE TABLE FOR THE NORTH DAKOTA LIVESTOCK POLLUTION PREVENTION PROGRAM-Phase III								
TASK/RESPONSIBLE ORGANIZATION	**OUTPUT**	**QUANTITY**	**YEAR 1**	**YEAR 2**	**YEAR 3**	**YEAR 4**	**YEAR 5**	
Task 1 Biannual press releases and distribute program brochures Group 1,3,4,7,9	Producers thatare well informed about manure containment and utilization through 10 press releases	10	2	2	2	2	2	
Task 2 Informational mailings to producers and paticipate in local workshops Group 1,3,4,7,9	Producers thatare well informed about manure containment and utilization through mails and 5 workshops	800 mailings and 150 producers attending workshops	200/30	200/30	200/30	200/30	200/30	
Task 3 Provide technical assistance to interested producers Group 1,3,7,9	The completion of 100 site visits which will lead to interested producers willing to make changes on their facilities	100	20	20	20	20	20	
Task 4 Evaluate and prioritize ranking sheet results Group 1,2,3,5,6	A group of prioritized facilities that are interested in installing manure management practices	17 partial/ 6 full	4 partial/ 1 full	3 partial/ 2 full	4 partial/ 1 full	3 partial/ 1 full	3 partial/ 1 full	
Task 5 Establish Concservation Plans Group 1,2,3,5,6,8	Installed manure containment systems	17 partial/ 6 full	4 partial/ 1 full	3 partial/ 2 full	4 partial/ 1 full	3 partial/ 1 full	3 partial/ 1 full	
Task 6 Conduct annual reviews on installed systems Group 1,2,3	Properly managed systems	17 partial/ 6 full	4 partial/ 1 full	3 partial/ 2 full	4 partial/ 1 full	3 partial/ 1 full	3 partial/ 1 full	
COOPERATING ORGANIZATIONS OR AGENCIES								
Group 1=	North Dakota Department of Ag							
Group 2=	North Dakota Department of Health							
Group 3=	Natural Resources Conservation Service							
Group 4=	North Dakota State University Extension Service							
Group 5=	Best Management Practice Engineering Team/Dakota Prairies RC&D/South Central RC&D							
Group 6=	Soil Conservation Districts							
Group 7=	Watershed Projects							
Group 8=	State Historical Society							
Group 9=	ND Stockmen's Association							

ATTACHMENT 2

ATTACHMENT 3

BUDGET TABLE I FY 14 LIVESTOCK POLLUTION PREVENTION PROGRAM PHASE III

PART 1: FUNDING SOURCES	**2014**	**2015**	**2016**	**2017**	**2018**	**Total**
EPA SECTION 319 FUNDS						
1) FY 14 Funds	$ 37,653	$ 233,991	$ 73,472	$ 67,952	$ 66,232	$ 479,300
Subtotals	$ 37,653	$ 233,991	$ 73,472	$ 67,952	$ 66,232	$ 479,300
OTHER FEDERAL FUNDS						
1) NRCS EQIP Funds	$ 190,000	$ 190,000	$ 190,000	$ 190,000	$ 190,000	$ 950,000
Subtotals	$ 190,000	$ 190,000	$ 190,000	$ 190,000	$ 190,000	$ 950,000
STATE/LOCAL MATCH						
1) ND Dept. of Agriculture-Assisting Employee Inkind Match	$ 500	$ 2,000	$ 2,000	$ 2,000	$ 2,000	$ 8,500
2) ND State Water Commision Funds	$ 11,269	$ 5,661	$ 8,648	$ 11,635	$ 14,821	$ 52,034
3) ND State ERP Funds		$ 25,000	$ 25,000	$ 25,000	$ 25,000	$ 100,000
4) Livestock Producers-FA	$ 13,333	$ 123,333	$ 13,333	$ 6,667	$ 2,333	$ 158,999
5) Livestock Producers-BMP Inkind	$ -	$ -	$ -	$ -	$ -	$ -
Subtotals	$ 25,102	$ 155,994	$ 48,981	$ 45,302	$ 44,154	$ 319,533
Total Budget	**$ 252,755**	**$ 579,985**	**$ 312,453**	**$ 303,254**	**$ 300,386**	**$ 1,748,833**

ATTACHMENT 4

Section 319/Non-Federal Budget	2014	2015	2016	2017	2018	TOTAL	Inkind/Cash Match	319 Match
PERSONNEL/SUPPORT* **								
1. Salaries*	$ 9,700	$ 15,700	$ 18,700	$ 21,700	$ 25,000	$ 90,800		$ 90,800
2. Fringe Benefits	$ 3,978	$ 16,592	$ 17,272	$ 17,952	$ 18,632	$ 74,426		$ 74,426
3. Travel	$ 3,000	$ 12,500	$ 13,000	$ 13,500	$ 14,000	$ 56,000		$ 56,000
4. Supplies	$ 250	$ 1,200	$ 1,400	$ 1,600	$ 1,800	$ 6,250		$ 6,250
5. Rent/Utilities	$ -	$ -	$ -	$ -	$ -	$ -		$ -
5. Telephone/Postage	$ 600	$ 2,500	$ 2,600	$ 2,700	$ 2,800	$ 11,200		$ 11,200
6. Equipment**	$ 50	$ 200	$ 200	$ 200	$ 200	$ 850		$ 850
7. Other***	$ 75	$ 300	$ 300	$ 300	$ 300	$ 1,275		$ 1,275
8. Inkind****	$ 11,769	$ 32,661	$ 35,648	$ 38,635	$ 41,821	$ 160,534	$ 160,534	$ -
Subtotal	**$ 29,422**	**$ 81,653**	**$ 89,120**	**$ 96,587**	**$ 104,553**	**$ 401,335**	**$ 160,534**	**$ 240,801**

***Salary is supplemented by State funding**
****Equipment expenses may include such items as field equipment**
*****Other expenses may include dues, fees, and ect**
******Inkind match is generated by expended state funds,fellow assisting employee time/salary and BMP inkind match**

BEST MANAGEMENT PRACTICES

Livestock Waste Containment Systems	$ 33,333	*308,333*	*33,333*	*16,667*	*5,832*	*397,498*	$ 158,999	$ 238,499
Subtotal	$ 33,333	308,333	$ 33,333	*16,667*	*5,832*	$ 397,498	$ 158,999	$ 238,499
Total	**$ 62,755**	**389,986**	**$ 122,453**	**$ 113,254**	**$ 110,385**	**$ 798,833**	**$ 319,533**	**$ 479,300**

ATTACHMENT 5

*North Dakota Animal Feedlot Runoff Risk Index Worksheet

Landowner:		**Weather Station:**	
Location:		**HUC:**	
Planner:		**Precipitation:**	#N/A
Date:			

Lot Description:				
Planning Scenario:	**Before**	**After**	**Before**	**After**
Lot Size (Sq. Ft.):				
Surface Type:				
Animal Type:				
No. of Animals:				
Avg. Weight:				
Days Confined:				
Sq.Ft./Animal:				
Feedlot Features				
Runoff Containment				
Distance to Water				
% Slope				
Vegetation				
Clean H_20 Diversion				
Index and Risk Level				
Index:				
Risk Level:				
Manure Management and Conservation Practices				
Haul/Scrape Frequency				
Practices to be implemented				
Loading Calculations				
Fresh Manure (tons)				
Total N Available (lbs)				
Total P Available (lbs)				
Total BOD_5 Available (lbs)				
Precipitation Factor				
Lot Surface Factor				
Risk Factor				
Total N Loading (lbs)				
Total P Loading (lbs)				
Total BOD_5 Loading (lbs)				

*Modified from Utah to fit North Dakota. Individual high risk features should be evaluated and conservation practices applied where possible. All runoff from a 25-year, 24-hour storm event must be contained on the lot.

Practices that might be implemented:

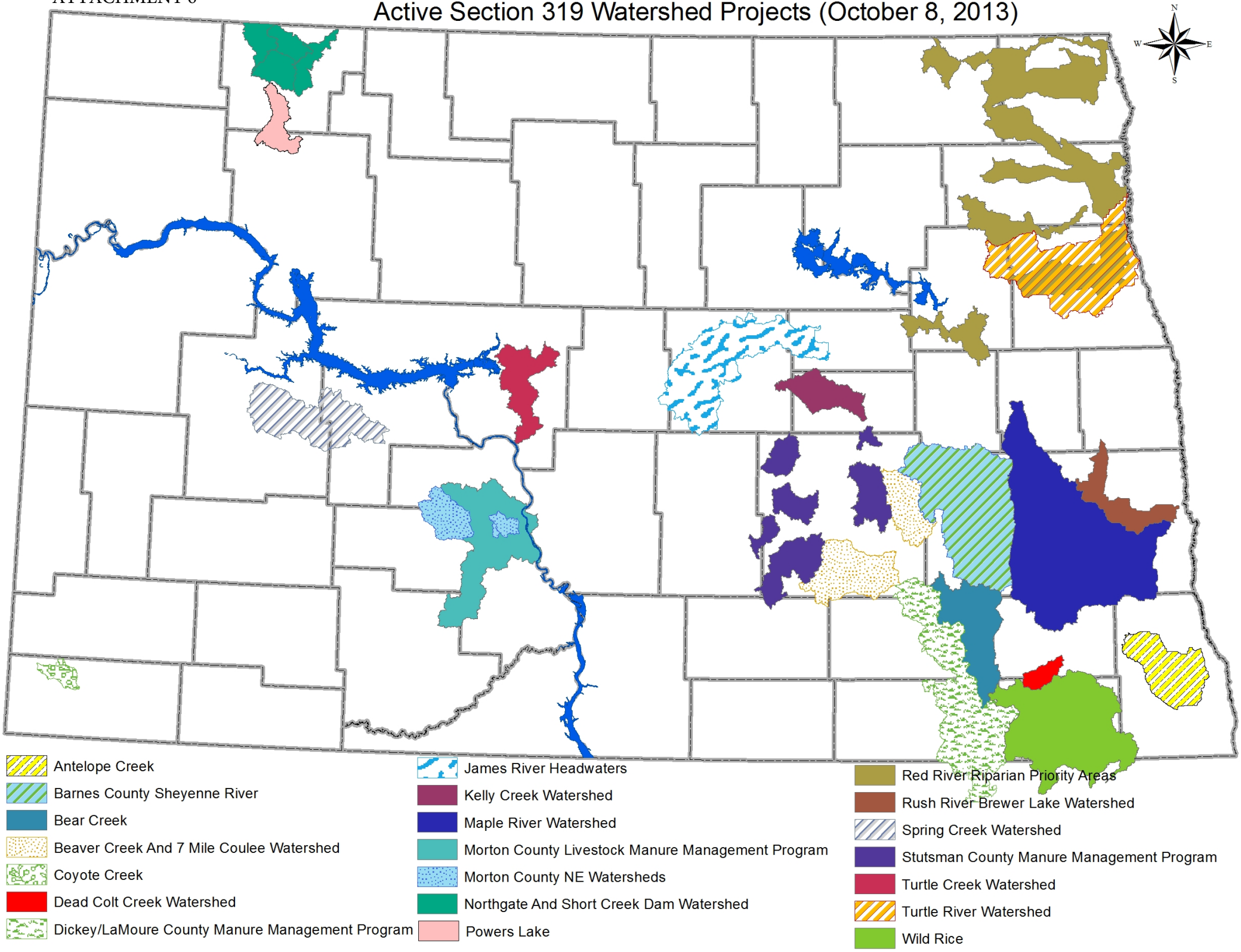
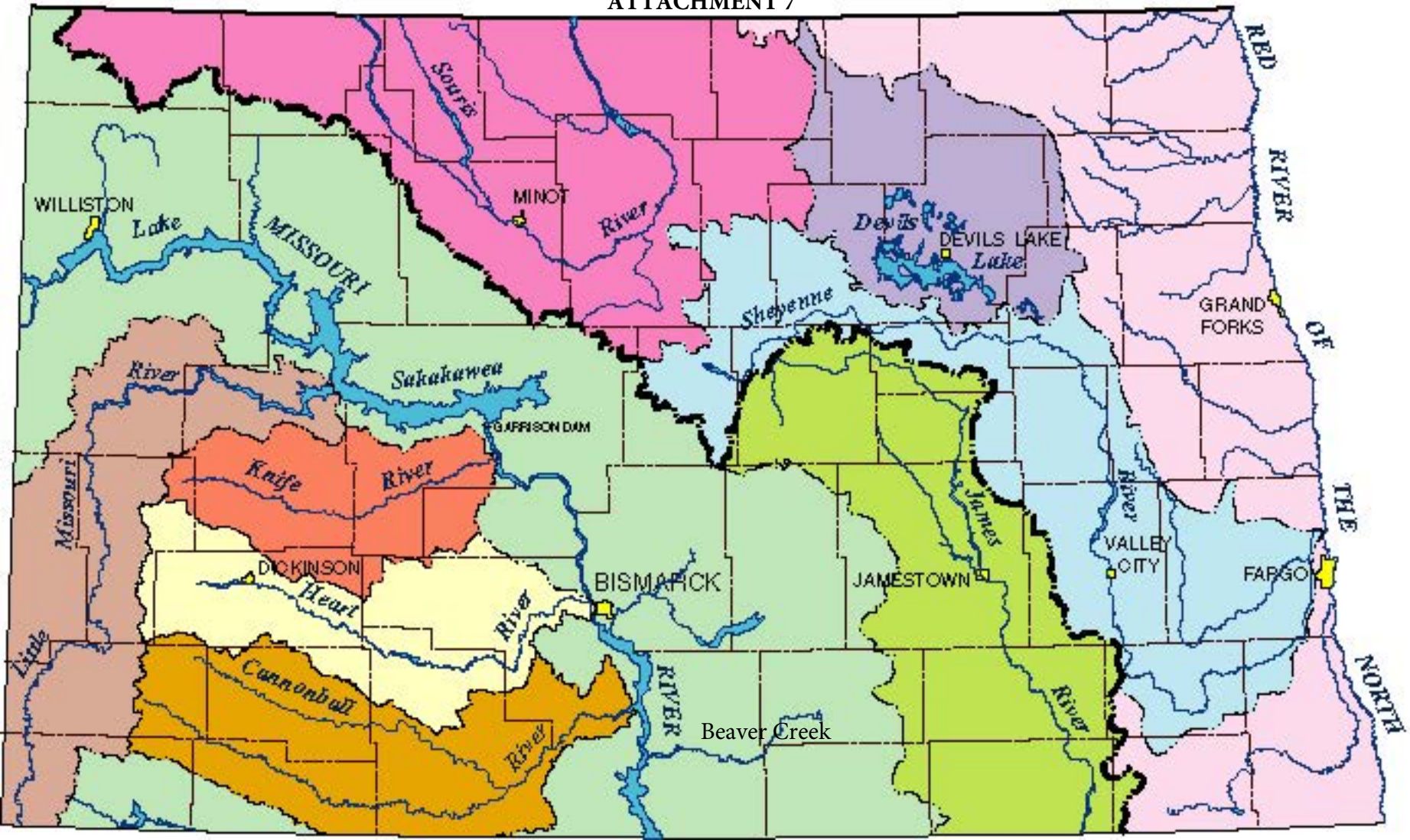
Move Lot
Regrade Lot
Build Storage
Increase Storage

Install Dike
Install Diversion
Increase Sq.Ft./Animal

Install Filter Strip
Roof Runoff System
Change Hauling Frequency

ATTACHMENT 6

Active Section 319 Watershed Projects (October 8, 2013)



ATTACHMENT 7