NORTH DAKOTA LIVESTOCK POLLUTION PREVENTION PROGRAM-PHASE IX

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NORTH DAKOTA LIVESTOCK POLLUTION PREVENTION PROGRAM-PHASE IX
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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 NDDA
North Dakota Department of Environmental Quality NDDEQ
NPS-Non-Point Source
NRCS-Natural Resource Conservation Service
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-IX (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 IX will be to focus efforts such as technical and financial assistance in the Lower Missouri River Basin. All watersheds for waterbodies that are listed on the 303(d) list due to recreational use impairments and/or waterbodies with approved TMDLs addressing recreational impairments will be targeted for installing Best Management Practices through the LP3 Program.

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:

FY 2021 Section 319 Funds Requested	*$ 639,160*
Match	*$ 426,106*
Total Project Cost	*$ 1,065,266*

PROGRAM-PHASE IX PROJECT IMPLEMENTATION PLAN
(LP3)

1.5 CONTINUATION PROJECT:

This PIP represents the continued efforts of the Livestock Pollution Prevention Program-Phase VIX (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 NDDEQ's 2018 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 recreation. Recreation use was assessed on 7,926 miles of rivers and streams in the state. Recreation use was fully supporting, fully supporting but threatened and not supporting on 1,352 miles, 3,231 miles and 3,279 miles, respectively. Pathogens (as reflected by E. coli 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 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 170 lakes and reservoirs in the state totaling 608,107 acres. Of this total, nine (9) lakes, representing 8,510 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-twenty-one (121) lakes and reservoirs totaling 573,157 acres were assessed as fully supporting recreation use. An additional 38 lakes and reservoirs totaling 26,439 acres were assessed as fully supporting, but threatened. Nutrient loading is also linked to the negative water quality trends these lakes are experiencing. If left unchecked, these lakes will degrade to the point where frequent algal blooms and/or excessive weed growth will negatively affect recreation.

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. **All watersheds for waterbodies that are listed on the 303(d) list due to recreational use impairments and/or waterbodies with approved TMDLs addressing recreational impairments will be targeted for installing Best Management Practices through the LP3 Program.**

There are over eight thousand two hundred and forty five beef operations in North Dakota with approximately fifty 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 nineteen years there are many operations that are in need of assistance and producer participation is rising.

The NDDEQ 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 NDDEQ. Those operations between 300999 AU and within1/4 mile of surface waters of the state must submit an application for a NDDEQ 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. Small AFO's, which are 300 or less AU, will also be targeted to implement Partial Manure Management Systems that install BMP such as clean water diversions, fencing, water tanks, cover crops, wells, windbreaks, etc. The plans developed for a Partial Manure Management System must include a livestock inventory; locations for winter feeding areas; BMP implementation schedule; nutrient management plan; and estimated BMP costs.

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 provide 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 livestock operations to nearby waterbodies. As a proactive program, these efforts will also be coordinated with the NDDEQ, to ensure the manure management systems installed under the LP3 Program Phase IX 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 IX 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-*preventing clean water from manure contamination*
- 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***.** *There are several BMPs cost shared with the implementation of a partial system which include water development, boundary fencing, and portable windbreak.*

Technical Assistance offered:

- Professional advice on manure management and containment procedures
- Site evaluation and recommendation of regulatory requirements
- Coordination to secure engineering assistance to design manure management systems
- Nutrient management planning

Summary of Past Accomplishments May 2006 to September 2020

- Forty-eight livestock containment systems permitted and cost shared.
- Thirty-six partial systems were cost shared and installed all in the past 5 years.
- There are 745 producers that have received technical assistance on the topic areas of nutrient management planning, project planning, and regulatory compliance through onsite visits with the livestock producer.
- Approximately 200 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 2020, the LP3 program is responsible for yearly load reductions of 846,071 pounds of nitrogen and 326,964 pounds of phosphorous into waters of the state.**
  These reductions were calculated using the Animal Feedlot Runoff Assessment Worksheet.

- Approximately 57,550 cattle occupy permitted manure management systems that were planned and installed with technical and financial assistance from the LP3 program.

- There were two manure containment systems installed the 2020 construction season already. There are plans for 2 more to be cost shared this season.

- The coordinator is also assisting with technical and engineering assistance on 2 other facilities which are being cost shared by NRCS and ND Stockmen's Association. The coordinator is technically 3 other producers that are expanding their operations.

- There are seven planned manure containment systems for the 2021 construction season.

The NDDA is proud of the fact that approximately 92% of the 319 funding received in the past 10 years has been spent directly on the implementation of Best Management Practices.

3.1 GOALS, OBJECTIVES & TASKS OF THE ND LP3 PROJECT PHASE IX 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, Stockmen's Association Environmental Services Program, NDSU Nutrient Management Program, NPS BMP Team, and NRCS.

The program offers technical assistance to all ND livestock producers upon their request. As funding is limited BMP funding is only eligible to producers/facilities that meet criteria of the ND 319 BMP Guidelines in reference to partial systems guidelines are provided and update yearly. Producers that receive funding for full containment systems must follow BMP Guidelines as well as the requirements of the NDDEQ AFO/CFO Program.

Goals

The Livestock Pollution Prevention Program (LP3) Phase IX is a continuation and expansion of the initial phase of the Dairy Pollution Prevention Program (DP3). To separate this project from the previous LP3 and DP3 phases, this stage of the LP3 project will be recognized as the ND Livestock Pollution Prevention Program-Phase IX. The majority of Phase IX efforts will focus on the implementation of BMPs; such as, manure containment systems. The goal for IX financially assist 3 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 with 319 funds. The NDDA would like to obtain at least 3 EQIP contracts through NRCS is this period. In the period following the

completion of Phase IX, additional phases will be initiated, if necessary, to accomplish the overall long-term goal of the project.

One of the primary goals for this phase is to decrease E. coli bacteria as well as nitrogen and phosphorous levels in the state's waters. By decreasing this loading, the recreational and aquatic uses will be protected and improved. The NDDA plans to decrease yearly nitrogen loading by an estimated 25,000 pounds and 8,000 pounds of yearly phosphorous loading at the end of this grant period. The Animal Feedlot Runoff Risk Index Worksheet (AFRRIW) will be used to estimate annual nutrient loading reductions for manure management systems planned and installed by the LP3 program.

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

Objective 1: Continue educating the state's livestock producers on issues including regulatory requirements, nutrient management, and manure containment by focusing efforts within impaired watersheds included on the 303(d) list with emphasis on the Lower Missouri River Basin. Provide technical assistance to all ND livestock producers that are interested in improving their operation to prevent livestock manure from polluting the state's waters. Deliver the necessary financial or technical assistance to 3 systems that reduces and/or prevents 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 1: Continue meeting with livestock producers at the site of their operation to explain 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: Conduct 30 site reviews with interested producers to identify options to improve manure management. These options may include recommendations for implementing a full containment system for a feedlot or a partial system for winter feeding area management.

Cost: State Funding and NRCS Grant

Task 2: Identify 6 producers that have interest in constructing a manure management system.

Product: A group of 6 operations that have serious water quality concerns.

Cost: Reflected in personnel/support budget

Task 3: Establish Conservation Plan contracts with the 3 producers that are eligible (2021=1 contract, 2022=1 contract, and 2023=1 contract). 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: Six manure containment system contracts, which will include Conservation Plans and Nutrient Management Plans. This product will include up to 5 installed manure containment systems and 1 partial system. The 319 LP3 grant will cost share 2 full containment systems and 1 partial system. EQIP will cost share 3 full containment systems.

Task 4: Install six manure containment systems. This product will include up to 5 installed full manure containment systems and 1 partial systems.

Product: 5 installed full manure containment systems and 1 partial system.

Cost: $440,000 319 Funding
$650,000 EQIP Funding

Task 5: Coordinate with the cooperating producer and if necessary with the NDDH to conduct periodic operation and maintenance reviews of completed systems during Phase IX.

Product: 6 properly managed Manure Containment Systems that will be kept in working order
Cost: Reflected in personnel/support budget

3.3 <u>MILESTONE TABLE FOR LP3</u>
SEE ATTACHMENT 1

<u>3.4 & 3.5 LEAD PROJECT SPONSOR –Appropriate Entity</u>

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 coordinator has seventeen years of extensive manure management system planning and installation experience
- The ND Dept. of Ag coordinator has twenty years of managing state and federal programs
- 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 NDDEQ.
- The ND Department of Agriculture will conduct inspections during construction, prior to cost share payments and periodically on 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 NDDEQ.

4.2 & 4.3 COOPERATING AGENCIES & ORGANIZATIONS

North Dakota Department of Environmental Quality

NDDEQ will be responsible for guidance in decision making throughout the life of the program. The NDDEQ will also be in charge of reviewing system designs and the overall facility permitting process. Management plans for partial systems will also be reviewed by the NDDEQ to determine cost share eligibility of planned BMP.

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). The North Dakota Department of Agriculture received a $237,000 grant to help provide technical and engineering assistance to livestock producers. The grant period of the funding received is October 2018-October 2021. The coordinator is in the process of writing a renewal grant that will fund the program from October 2021-October 2024.

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 LP3 coordinator is included as a member of a NDSU Nutrient Management/Livestock Waste Advisory Team.

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 Stockmen's Association Environmental Services Director

The ND Department of Agriculture and the ND Stockmen's Association will coordinate/cooperate to provide outreach to develop additional interest in the programs with livestock producers. The Stockmen's program focuses more on assisting feedlots and the LP3 program focuses more on assisting cow/calf operations. 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. 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 Management Specialists 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 and presented in the annual reports as estimated pollutant reductions.

6.0 NORTH DAKOTA LIVESTOCK POLLUTION PREVENTION PROGRAM_PHASE IX BUDGET

ATTACHMENT 2 & 3

MILESTONE TABLE FOR THE NORTH DAKOTA LIVESTOCK POLLUTION PREVENTION PROGRAM-Phase IX						
TASK/RESPONSIBLE ORGANIZATION	**OUTPUT**	**QUANTITY**	**YEAR 1**	**YEAR 2**	**YEAR 3**	
Task 1 Educate and provide technical assistance to interested producers Group 1,6,9	30 completed site reviews	30	10	10	10	
Task 2 Identify a group of interested producers Group 1,2,3,5,6	A group of 6 facilities that are interested in installing manure management practices	1 partial /5 full	1 full	2 full	1 partial/2 full	
Task 3 Establish Concservation Plans Group 1,2,3,5,6,8	6 conservation plans prepared to install systems	1 partial /5 full	1 full	2 full	1 partial/2 full	
Task 4 Install Manure Management Systems Group 1,2,3,5, and 9	6 manure management systems installed	1 partial /5 full	1 full	2 full	1 partial/2 full	
Task 5 Conduct annual reviews on installed systems Group 1,2,3	6 properly managed systems	1 partial /5 full	1 full	2 full	1 partial/2 full	
COOPERATING ORGANIZATIONS OR AGENCIES						
Group 1=	North Dakota Department of Ag					
Group 2=	North Dakota Department of Environmental Quality					
Group 3=	Natural Resources Conservation Service					
Group 4=	North Dakota State University Extension Service					
Group 5=	Best Management Practice Engineering Team					
Group 6=	Soil Conservation Districts					
Group 7=	Watershed Projects					
Group 8=	State Historical Society					
Group 9=	ND Stockmen's Association					

ATTACHMENT 1

ATTACHMENT 2

Section 319/Non-Federal Budget	Year 1	Year 2	Year 3	TOTAL	Inkind/Cash Match	319 Funds
PERSONNEL/SUPPORT* **						
1. Salaries*	$ 15,000	$ 43,950	$ 46,000	$ 104,950		$ 104,950
2. Fringe Benefits	$ 7,500	$ 20,210	$ 22,000	$ 49,710		$ 49,710
3. Travel	$ 2,500	$ 12,000	$ 13,000	$ 27,500		$ 27,500
4. Supplies						
5. Rent/Utilities	$ 200	$ 800	$ 900	$ 1,900		$ 1,900
5. Telephone/Postage	$ 300	$ 1,100	$ 1,200	$ 2,600		$ 2,600
6. Equipment**						
7. Other***						
8. Inkind****	$ 17,000	$ 52,040	$ 55,400	$ 124,440	$ 124,440	$ -
Subtotal	**$ 42,500**	**$ 130,100**	**$ 138,500**	**$ 311,100**	**$ 124,440**	**$ 186,660**

***Staffing and support costs are being supported with State funding, NRCS Funds, and Section 319 funds previously awarded to the LP3.**

Administration						
Fiscal Management Grant Specialist	**$ 2,500**	**$ 5,000**	**$ 5,000**	**$ 12,500**		**$ 12,500**
Inkind	**$ 1,667**	**$ 3,333**	**$ 3,333**	**$ 8,333**	**$ 8,333**	**$ -**
	$ 4,167	**$ 8,333**	**$ 8,333**	**$ 20,833**	**$ 8,333**	**$ 12,500**
BEST MANAGEMENT PRACTICES						
Systems	*350,000*	*350,000*	*33,333*	*733,333*	$ 293,333	$ 440,000
Subtotal	$ 350,000	$ 350,000	*33,333*	$ 733,333	$ 293,333	$ 440,000
Total	**$ 396,667**	**$ 488,433**	**$ 180,166**	**$ 1,065,266**	**$ 426,106**	**$ 639,160**

ATTACHMENT 3

BUDGET TABLE I FY 2021 LIVESTOCK POLLUTION PREVENTION PROGRAM PHASE IX

PART 1: FUNDING SOURCES	**Year 1**	**Year 2**	**Year 3**	**Total**
EPA SECTION 319 FUNDS				
1) FY 20 Funds	$ 238,000	$ 293,060	$ 108,100	$ 639,160
Subtotals	$ 238,000	$ 293,060	$ 108,100	$ 639,160
STATE/LOCAL MATCH				
1) ND Dept. of Agriculture-Assisting Employee Inkind Match				$ -
2) Livestock Producers-FA	$ 140,000	$ 140,000	$ 13,333	$ 293,333
3) Livestock Producers-BMP Inkind	$ 18,667	$ 55,373	$ 58,733	$ 132,773
Subtotals	$ 158,667	$ 195,373	$ 72,066	$ 316,666
Total Budget	**$ 396,667**	**$ 488,433**	**$ 180,166**	**$ 1,065,266**
OTHER FEDERAL FUNDS				
1) NRCS EQIP Funds	$ 200,000	$ 200,000	$ 200,000	$ 600,000
Subtotals	$ 200,000	$ 200,000	$ 200,000	$ 600,000

ATTACHMENT 4

*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