APPENDIX 3: ENVIRONMENTAL EVALUATION

U.S. Department of Agriculture Natural Resources Conservation Service NRCS-CPA-52 4/2013 **ENVIRONMENTAL EVALUATION WORKSHEET**	**A. Client Name:** Dickey-Sargent Irrigation District **B. Conservation Plan ID #** (as applicable): **Program Authority** (optional): PL-566
D. Client's Objective(s) (purpose): Increase the available water supply by reducing the seepage and evaporation losses from the existing canal system. Reduce energy and maintenance costs. Improve surface and groundwater quality by reducing pesticide use for weed control. Reduce human drowning risk from open canals.	**C. Identification #** (farm, tract, field #, etc. as required): Sections 31-33 of 131-59, Sections 3-10, 15-22, and 27-30 of 130-59, Sections 13,24 &25 of 130-60 in Dickey county ND.

E. Need for Action:	**H. Alternatives**		
	No Action √ if RMS ☐	***Alternative 1*** √ if RMS ☑	***Alternative 2*** √ if RMS ☐
Existing irrigation canal system is 40 years old, is oversized and is experiencing evaporation losses and seepage losses due to the brittle liner condition and muskrat damage. The existing canal system is an inefficient use of irrigation water with inefficient energy use. Canal maintenance requires significant costs and herbicide application to control algae which affects wetlands, ground and surface water quality. Open canals pose risks of drowning for humans and wildlife.	The canal liner will continue to deteriorate causing increased seepage losses, increased loss of herbicide to groundwater, increased maintenance costs and increasing energy inefficiencies. Open canal will remain a safety hazard for humans and wildlife.	Replace the existing open canal with 5.4-miles of 36-54" buried, pressurized pipeline (will require 0.7-miles of 12" buried pipeline for drainage). The 3 booster pump stations would be decommissioned and the lift station would be refurbished to act as a single pump station for the entire system, with 8 vertical turbine pumps on VFDs, with new control systems. Need for fish screen retrofits would be determined during the watershed planning process. The wasteway west of the south booster pump station would remain in use for fall drainage of the pipeline. All open canal sections would be filled with material from the adjacent embankments; that land would be converted to cropland or planted to perennial vegetation, except what would be field access roads. This alternative provides the highest level of seepage reduction, eliminates evaporation losses, has the longest lifespan, lowest operation and maintenance costs and eliminates the safety concerns with having an open irrigation canal. This alternative also eliminates the use of herbicides to control algae in the canal reducing surface and groundwater contamination. Energy efficiencies will improve by retrofitting or replacing outdated and oversized pumps, motors and control systems. This alternative provides additional irrigation water to increase crop yields and also increases crop acreage over the canal. Alternative will eliminates some bridges/culverts that are over the canal which will be a benefit for large farm equipment that currently has to detour around the narrow crossings. Conservation Practices would include: 342 Critical Area Planting, 430 Irrigation Pipeline, 462 Precision Land Forming/Smoothing, 484 Mulching, 512 Pasture/Hayland Planting, 533 Pumping Plant.	Reconstruct a smaller canal section, with a composite liner consisting of concrete underlain by geosynthetic membrane. The current over-sized canal would be reconstructed to a smaller section, to minimize lining project cost, evaporative losses, and sediment deposition/algae issues. Total canal length is 34,076 ft. Total length to be lined (excludes concrete sections at check structures, flumes, siphons) is 33,496 ft. All 3 booster pump stations, check structures, bridges, siphons, and flumes would remain in operation however pumps, motors, and controls would need replacement in the next 10-15 years (without federal assistance) when they become nonfunctional. The wasteway west of the south booster pump station would remain in use for fall drainage of the canal. The PL-566 project would involve substantially narrowing the canal section and largely removing the adjacent embankments; that land would be converted to cropland or planted to perennial vegetation, except for what would be an access road for maintenance. Maintenance costs reduced over No Action, but not as much as Alternative 1. Open canal will remain a safety hazard for humans and wildlife. Conservation Practices would include: 342 Critical Area Planting, 428 Irrigation Ditch Lining, 462 Precision Land Forming and Smoothing, 484 Mulching.

Resource Concerns

In Section "F" below, analyze, record, and address concerns identified through the Resources Inventory process.
(See FOTG Section III - Resource Planning Criteria for guidance).

F. Resource Concerns and Existing/ Benchmark Conditions (Analyze and record the existing/benchmark conditions for each identified concern)	**I. Effects of Alternatives**					
	No Action		***Alternative 1***		***Alternative 2***	
	Amount, Status, Description *(Document both short and long term impacts)*	**√ if does NOT meet PC**	**Amount, Status, Description** *(Document both short and long term impacts)*	**√ if does NOT meet PC**	**Amount, Status, Description** *(Document both short and long term impacts)*	**√ if does NOT meet PC**
SOIL: *EROSION*						
Sheet, Rill & Wind Erosion Soils in the watershed are dominated by fine sandy loam textured soils (40%). 24% of soils are considered HEL soils. Irrigation is sometimes beneficial in controlling erosion by facilitating quick cover. HEL fields are following a conservation plan.	No change in erosion	☑ NOT meet PC	Temporary increases in wind and water erosion are possible during construction. Canal filling and leveling may result in greater unsheltered distances making fields more susceptible to wind erosion. Additional erosion control measures such as field windbreaks, reductions in tillage, herbaceous wind barriers or cover crops may be needed in some fields. Overall increase in soil returned to it's natural function as lined canal is replaced by land suitable for vegetation.	☑ NOT meet PC	Temporary increases in wind and water erosion are possible during construction which will require 3 years as opposed to 1 year for alternative 1. Canal filling and leveling may result in greater unsheltered distances making fields more susceptible to wind erosion. Additional erosion control measures such as field windbreaks, reductions in tillage, herbaceous wind barriers or cover crops may be needed in some fields. Increased soil returned to it's natural funtion, but less than alt. 1.	☑ NOT meet PC
		☐ NOT meet PC		☐ NOT meet PC		☐ NOT meet PC

SOIL: *SOIL QUALITY DEGRADATION*						
No resource concern identified		☐ NOT meet PC		☐ NOT meet PC		☐ NOT meet PC
		☐ NOT meet PC		☐ NOT meet PC		☐ NOT meet PC
WATER: *EXCESS / INSUFFICIENT WATER*						
Insufficient (Inefficient use of irrigation water) Seepage and evaporation are reducing irrigation efficiency.	Losses to due seepage will continue to increase over time. Evaporation losses will remain constant. Losses are projected at 68,770 ac-ft for 2028-2078.	☑ NOT meet PC	Losses to evaporation and seepage will be effectively eliminated in the project reach.	☐ NOT meet PC	Losses due to seepage and evaporation will be reduced. Losses are projected at 4,567 ac-ft for 2028-2078.	☐ NOT meet PC
WATER: *WATER QUALITY DEGRADATION*						
Pesticides transported to surface and ground waters The canal sits above the Oakes Aquifer. Herbicide is applied to control vegetation in canal which is experiencing seepage. Both groundwater and surface water are at risk due to condition and management of the canal. The canal is not within the Oakes Source Water Protection Area. Groundwater flow direction is southwest. 17 of the 175 total wells in the Oakes Aquifer have had pesticide detections since 1992 (ND DEQ. Bentazon (a common herbicide used in corn) has been detected in groundwater wells. Canal is treated annually with herbicides to conrol algae.	Seepage will continue to increase, increasing the potential to contaminate groundwater. Herbicide application will likely remain at current levels or increase slightly continuing the surface and ground water contamination risk.	☑ NOT meet PC	Seepage and herbicide application will be eliminated in the project reach. Increase in irrigated acres will increase cropland pesticides slightly, thus partially offsetting the benefits gained from reduced herbicide leaching and runoff into surface water.	☑ NOT meet PC	Seepage and canal herbicide application would be substantially reduced, but not eliminated. The narrower, deeper, concrete lined canal will be less prone to algal growth. Over time concrete lining will begin to crack and minor damage from roots/animals to the underlying geomembrane liner will also occur. Minor increase in irrigated acres will increase cropland pesticides slightly, thus partially offsetting the benefits gained from reduced herbicide leaching and runoff into surface water.	☑ NOT meet PC
Excess nutrients in surface and ground waters From 1992 to 2017, the percentage of wells in the Oakes aquifer exceeding the nitrate maximum contaminant level has ranged between 1 and 6.	Fertilizer use is not expected to increase. However, general water chemistry has increased in both cations and anions over time in the Oakes Aquifer.	☑ NOT meet PC	Fertilizer use would increase slightly with increased acres brought into production. This increases the risk to ground and surface waters slightly.	☑ NOT meet PC	Fertilizer use would increase slightly with increased acres brought into production. This increases the risk to ground and surface water quality.	☑ NOT meet PC

F. Resource Concerns and Existing/ Benchmark Conditions (Analyze and record the existing/benchmark conditions for each identified concern)	I. (continued)					
	No Action		*Alternative 1*		*Alternative 2*	
	Amount, Status, Description *(Document both short and long term impacts)*	**√ if does NOT meet PC**	**Amount, Status, Description** *(Document both short and long term impacts)*	**√ if does NOT meet PC**	**Amount, Status, Description** *(Document both short and long term impacts)*	**√ if does NOT meet PC**
AIR: *AIR QUALITY IMPACTS*						
Emissions of Greenhouse Gases (GHGs) Aging and inefficient pumps are contributing to GHG's.	No significant change in GHG is expected.	☐ NOT meet PC	No significant change in GHG is expected.	☐ NOT meet PC	No significant change in GHG is expected.	☐ NOT meet PC
Emissions of Particulate Matter (PM) and PM Precursors No particulate emissions from exposed soil.	No change in particulate emissions	☐ NOT meet PC	Potential for dust and wind eroded soil during construction. Construction will be completed in one field season.	☐ NOT meet PC	potential for dust and wind eroded soil during construction. Construction is expected to take 3 years. This alternative has more emission risk than alternative 1.	☐ NOT meet PC
PLANTS: *DEGRADED PLANT CONDITION*						
Undesirable plant productivity and health Irrigation efficiency is not optimal due to seepage and evaporation losses from the canal. Plants are not reaching optimal growth. (See Appendix 5)	Plant productivity will continue to decline due to increasing losses of irrigation efficiency. (See Appendix 5)	☐ NOT meet PC	Irrigation efficiency will move closer to optimal levels resulting in best yield improvements (given limited water supply) for irrigated crops. (See Appendix 5)	☐ NOT meet PC	Irrigation efficiency will increase, resulting in yield improvements (given limited water supply) for irrigated crops. Slightly less yield benefits than alternative 1. (See Appendix 5)	☐ NOT meet PC
No resource concern identified		☐ NOT		☐ NOT		☐ NOT
ANIMALS: *INADEQUATE HABITAT FOR FISH AND WILDLIFE*						
Habitat degradation Existing canal encourages muskrat and small reptiles. Trapping attempts are made to control muskrats with limited success, to protect the existing canal liner. The canal presents a hazard for mammals and fish which become trapped. It is also a barrier for habitat continuity. The canal is a water source for birds. The canal is not a significant source of water to downstream wetlands as it is only drained once in the fall. Fish are screened from the James River to the canal. There are a few personal accounts of fish present in the canal - the source is unknown, the condition and effectiveness of the fish screen is unknown but would be evaluated under the full watershed plan.	No changes to habitat. Muskrats will continue to invade the canal and result in increased control efforts. Some personal accounts of fish presence in the canal - if the source is an ineffective fish screen, increased entrapment of fish in the canal system is possible. Source could be stocking or release by private citizens.	☐ NOT meet PC	The artificial open water habitat for muskrats and reptiles will be eliminated and replaced primarily with terrestrial habitat which will provide some food and shelter for mammals and birds. The continuity of cropland habitats and traveling corridors will increase. Physical hazard for mammals will be eliminated. The condition of the fish screen will be evaluated and replaced if in poor condition, thus preventing fish from entrapment into the irrigation system.	☐ NOT meet PC	This option will discourage muskrat populations adjacent to the canal given they could not burrow through 6" reinforced concrete. The safety hazard will increase given that flow will be deeper and faster, with smoother sideslopes that would be more difficult for wildlife to climb out of. There will be no changes to the fish screen, therefore fish entrapment is still possible compared with alternative 1. There will be little to no effect for wildlife corridors. The canal will have less benefit to birds and other wildlife compared with the existing canal. The gain of terrestrial habitat for this alternative will be less than alternative 1.	☐ NOT meet PC

ANIMALS: *LIVESTOCK PRODUCTION LIMITATION*						
No resource concern identified		☐ NOT meet PC		☐ NOT meet PC		☐ NOT meet PC
		☐ NOT meet PC		☐ NOT meet PC		☐ NOT meet PC
ENERGY: *INEFFICIENT ENERGY USE*						
Equipment and facilities The irrigation canal currently utilizes 1 lift station and 3 booster pump stations, all with vertical turbine pumps. These are 40 years old and not operating at high efficiencies	Energy inefficiencies will continue to decline with the aging pump stations.	☐ NOT meet PC	This alternative will improve energy efficiency with modern infrastructure. Additional analysis during the full watershed plan will be completed to evaluate if increased efficiencies will lead to energy savings given the higher head pumps that will be in use.	☐ NOT meet PC	This option will result in no changes to pumps and therefore no changes in energy efficiency.	☐ NOT meet PC
No resource concern identified		☐ NOT meet PC		☐ NOT meet PC		☐ NOT meet PC
HUMAN: *ECONOMIC AND SOCIAL CONSIDERATIONS*						
Land Use Currently land use includes extensive canal system.	No change in land use.		This alternative is estimated to add approximately 67 acres of land suitable for cropping, haying or wildlife land use.		This alternative is estimated to add approximately 45.6 acres for cropping, haying or wildlife land use.	
Capital The canal and pump stations have high O&M costs, which are continuing to increase salary expenses for overtime as well as equipment and materials costs.	O&M costs will continue to increase. A need for pump replacement is expected which will increase costs in the future. Crop yields will continue to decrease over time as seepage loss from the canal continues to increase. Economic analysis indicates a comparative loss in revenue, due to increased O&M and decreased crop yields, as an average loss of $1.12 million as compared to current conditions.		Capital costs to implement the PL-566 project are estimated at $11.3 million, which with O&M costs include equate to an average annual cost of $ 342,129. Increased crop yields and reduced O&M costs generate projected average annual benefits of $ 645,296. This option has a benefit cost ratio of 1.9:1.		Capital costs to implement the PL-566 project are estimated at $20.8 million, which with O&M costs include equate to an average annual cost of $ 751,487. Increased crop yields and reduced O&M costs generate projected average annual benefits of $282,184. This option has a benefit cost ratio of 0.38:1.	
Public Health and Safety Open canal is a physical safety hazard for humans and wildlife. Canal seepage has potential for groundwater contamination.	No change in physical hazard. Increasing potential to contaminate groundwater. Hazard of drowning to the public and DSID maintenance personnel continues to exist.		The physical safety hazard of the open canal is completely eliminated except for the inlet and outlet sections of the open canal. Groundwater contamination hazard is mostly eliminated.		The physical safety hazard is increased due to faster velocity, deeper flow in the canal. The groundwater contamination hazard is mostly eliminated.	

Special Environmental Concerns: Environmental Laws, Executive Orders, policies, etc.

In Section "G" complete and attach Environmental Procedures Guide Sheets for documentation as applicable. Items with a "●" may require a federal permit or consultation/coordination between the lead agency and another government agency. In these cases, effects may need to be determined in consultation with another agency. Planning and practice implementation may proceed for practices not involved in consultation.

G. Special Environmental Concerns (Document existing/ benchmark conditions)	**J. Impacts to Special Environmental Concerns**					
	No Action		***Alternative 1***		***Alternative 2***	
	Document all impacts (Attach Guide Sheets as applicable)	√ if needs further action	Document all impacts (Attach Guide Sheets as applicable)	√ if needs further action	Document all impacts (Attach Guide Sheets as applicable)	√ if needs further action
●Clean Air Act *Guide Sheet FS1 FS-2* North Dakota has no identified non-attainment areas.	No Effect	☐	No Effect	☐	No Effect	☐
●Clean Water Act / Waters of the U.S. *Guide Sheet Fact Sheet* The western boundary of the AOI is the James River; Bear Creek is a major tributary upstream of the AOI. The James River from Bear Creek to the ND-SD state line has no listed impairments under 303(d) of the Clean Water There are numerous fresh water emergent wetlands within the AOI intersected by large and small drains. The canal intersects natural wetland areas disrupting their hydrology. There is no evidence canal seepage has caused observable changes to the hydrology of adjacent wetlands.	No Effect No change to wetland impacts.	☐	May Effect The new pipeline construction will directly impact A 0.14 ac. wetland which will be mitigated by purchasing credits. Four wetlands adjacent to the canal will be avoided and protected with a silt fence. A 404 permit may be needed if wetland is considered a WOTUS. Project outlets into 5030 ft of excavated canal, which outlets into an excavated pond before another 1894 of channel and into a PEM1Cd/L2ABGd wetland complex. Project will result in slight reduction to the quantity of water discharged in the fall and entering the large PEM1Cd/lake wetland downstream.	☑	May Effect Alternative will not directly impact any wetlands. Four wetlands adjacent to the canal will be avoided and protected with a silt fence. which will need mitigation. A 404 permit may be needed. Project outlets into 5030 ft of excavated canal, which outlets into a pond before another 1894 of channel and into a PEM1Cd/L2ABGd wetland complex. Alternative will result in slight changes to quantity of water discharged in the fall and entering large PEM1Cd/lake wetland downstream.	☑
●Coastal Zone Management *Guide Sheet Fact Sheet* Not applicable in North Dakota.		☐		☐		☐
Coral Reefs *Guide Sheet Fact Sheet* Not applicable in North Dakota.		☐		☐		☐
●Cultural Resources / Historic Properties *Guide Sheet Fact Sheet*	No change to Cultural Resource Impacts	☐	May Effect A Class I Literature Search was completed. 5 architectural structures, 15 historic sites and 4 archaeological sites were identified. All noted cultural resources will be avoided if the project moves forward. The project proposed as designed would have No Effects to Historic Properties. A Class III survey would be completed as part of an EA or EIS.	☑	May Effect A Class I Literature Search was completed. 5 architectural structures, 15 historic sites and 4 archaeological sites were identified. All noted cultural resources will be avoided if the project moves forward. The project proposed as designed would have No Effects to Historic Properties. A Class III survey would be completed as part of an EA or EIS.	☑
●Endangered and Threatened Species *Guide Sheet Fact Sheet*	No changes to T&E species	☐	May Effect USFWS Ipac determined alternative May Effect, not likely to adversely effect NLEB, due to 0.1 acres of shelterbelt removal and potential removal of bridges. No effect to Dakota Skipper	☑	No changes to T&E species	☐
Environmental Justice *Guide Sheet Fact Sheet* Four geographic block groups are within the area. No groups differed significantly in low income or minority demographics.	No Effect	☐	No Effect Alternative does not effect EJ demographic groups.	☐	No Effect Alternative does not effect EJ demographic groups	☐

●Essential Fish Habitat *Guide Sheet* *Fact Sheet* Not applicable in North Dakota.		☐		☐		☐
Floodplain Management *Guide Sheet* *Fact Sheet* The James River and Bear Creek Tributary are water sources for the project and have active floodplains.	No Effect No change to the floodplain	☐	No Effect Direct impacts of the alternative are not within the 100 year floodplains and will not significantly change the hydrology of the floodplains	☐	No Effect Direct impacts of the alternative are not within the 100 year floodplains and do not significantly change the hydrology of the floodplains	☐
Invasive Species *Guide Sheet* *Fact Sheet* Documented presence of Zebra Mussels, Bighead, Silver Carp, Common Carp and Grass Carp in the James River. Several noxious weeds are commonly present in this region including Canada thistle, musk thistle and Absinthe Wormwood. Dickey County also lists Downy Brome as noxious.	No Effect No change to any invasive species.	☐	May Effect No change to invasive fish species. Temporary land disturbance may leave unvegetated areas vulnerable to noxious weeds. Timely reseeding and critical area plantings will be needed in disturbed areas.	☑	May Effect No change to invasive fish species. Temporary land disturbance may leave unvegetated areas vulnerable to noxious weeds. Timely reseeding and critical area plantings will be needed in disturbed areas.	☑
●Migratory Birds/Bald and Golden Eagle Protection Act *Guide Sheet* *Fact Sheet* No known eagle nests are in the area. Migratory birds are present in the AOI.	No Effect No change to eagle habitat or migratory bird habitat.	☐	No Effect There are no trees in the APE of sufficient height to provide nesting to bald eagles. Possible temporary impacts to migratory birds during construction.	☐	No Effect There are no trees of sufficient height to provide nesting to bald eagles. Possible temporary impacts to migratory birds during construction.	☐
Natural Areas *Guide Sheet* *Fact Sheet* The Dakota Lake National Wildlife Refuge is in the project area. The area is privately owned, however is waterfowl is protected by USFWS waterfowl easements.	No Effect No change to natural areas	☐	No Effect The alternative is not within the easement of the refuge but does eventually outlet into the refuge. The alternative does not significantly effect the hydrology of the easement. The alternative will reduce herbicides entering the refuge.	☐	No Effect The alternative is not within this easement of the refuge, but does eventually outlet into the easement. The alternative does not significantly effect the hydrology of the easement. The alternative will reduce herbicides entering the refuge.	☐
Prime and Unique Farmlands *Guide Sheet* *Fact Sheet*	No Effect No temporary disturbance of prime farmland. No gain or loss of prime farmland.	☐	No Effect Small areas of land mapped as prime farmland are present in the lateral drain/pipeline areas, however these areas are currently not cropable due to existing roads and field drains. No changes are expected to prime farmland.	☐	No Effect No prime farmland lost or gained either temporarily or permanently as a result of alternative.	☐
Riparian Area *Guide Sheet* *Fact Sheet* The western boundary of the AOI is the James River; Bear Creek is a major tributary upstream of the AOI. There are numerous fresh water emergent wetlands within the AOI intersected by large and small drains.	No Effect No changes to riparian areas.	☐	May Effect Direct impacts of the alternative will not impact any natural riparian habitat. The alternative does not directly impact any river riparian areas. Small wetlands affected by the project are surrounded by cropland or introduced grasslands. The larger downstream wetland riparian habitat may benefit from the reduction in herbicides.	☑	No Effect Direct impacts of the alternative will not impact any natural riparian habitat. The alternative does not directly impact any river riparian areas. Small wetlands affected by the project are surrounded by cropland or introduced grasslands.	☐
Scenic Beauty *Guide Sheet* *Fact Sheet* No Scenic Beauty areas are obvious in the AOI.		☐		☐		☐

•Wetlands *Guide Sheet* *Fact Sheet* There are numerous fresh water emergent wetlands within the AOI intersected by large and small drains.	No Effect No changes to wetlands	☐	The new pipeline construction in this alternative will directly impact A 0.14 ac. wetland which will be mitigated by purchasing credits. Four wetlands adjacent to the canal will be avoided and protected with a silt fence. A 404 permit may be needed if wetland is considered a WOTUS. Alternative outlets into 5030 ft of excavated canal, which outlets into an excavated pond before another 1894 of channel and into a PEM1Cd/L2ABGd wetland complex. Alternative will result in slight reduction to the quantity of water discharged in the fall and entering the large PEM1Cd/lake wetland downstream.	☑	Alternative will not directly impact any wetlands. Four wetlands adjacent to the canal will be avoided and protected with a silt fence. which will need mitigation. A 404 permit may be needed. Project outlets into 5030 ft of excavated canal, which outlets into a pond before another 1894 of channel and into a PEM1Cd/L2ABGd wetland complex. Alternative will result in slight changes to quantity of water discharged in the fall and entering large PEM1Cd/lake wetland downstream.	☑
•Wild and Scenic Rivers *Guide Sheet* *Fact Sheet* Not applicable on private lands in North Dakota		☐		☐		☐

K. Other Agencies and Broad Public Concerns	***No Action***	***Alternative 1***	***Alternative 2***
Easements, Permissions, Public Review, or Permits Required and Agencies Consulted.	No Effect	A USACE 404 permit may be required.	A USACE 404 permit may be required.
Cumulative Effects Narrative (Describe the cumulative impacts considered, including past, present and known future actions regardless of who performed the actions)	No Effect	Alternative may result in increased water usage permits as increased irrigation efficiency is gained.	Alternative may result in increased water usage permits as increased irrigation efficiency is gained.
L. Mitigation (Record actions to avoid, minimize, and compensate)	No Mitigation needed.	The need for mitigation is expected for .14 acres of wetland. This may be possible within the alternative project area or by purchasing wetland credits.	No need for wetland mitigation is expected.
M. Preferred Alternative √ preferred alternative	☐	☑	☐
Supporting reason		This alternative provides the highest level of seepage reduction, eliminates evaporation losses, has the longest lifespan, lowest construction cost, lowest operation and maintenance costs, generates highest crop yield/revenues, and eliminates the safety concerns with having an open irrigation canal. This alternative also eliminates the use of herbicides to control algae in the canal reducing surface and groundwater contamination. Energy use is reduced by retrofitting or replacing outdated and oversized pumps, motors and control systems. This alternative provides additional irrigation water to increase crop yields and also increases crop acreage over the canal. Alternative will eliminates some bridges/culverts that are over the canal and restrict movement of farm equipment.	
N. Context (Record context of alternatives analysis)	local	regional	regional
The significance of an action must be analyzed in several contexts such as society as a whole (human, national), the affected region, the affected interests, and the locality.			

O. Determination of Significance or Extraordinary Circumstances

Intensity: Refers to the severity of impact. Impacts may be both beneficial and adverse. A significant effect may exist even if the Federal agency believes that on balance the effect will be beneficial. Significance cannot be avoided by terming an action temporary or by breaking it down into small component parts.

If you answer ANY of the below questions "yes" then contact the State Environmental Liaison as there may be extraordinary circumstances and significance issues to consider and a site specific NEPA analysis may be required.

Yes	No	
☐	☑	• Is the preferred alternative expected to cause significant effects on public health or safety?
☐	☑	• Is the preferred alternative expected to significantly affect unique characteristics of the geographic area such as proximity to historic or cultural resources, park lands, prime farmlands, wetlands, wild and scenic rivers, or ecologically critical areas?
☐	☑	• Are the effects of the preferred alternative on the quality of the human environment likely to be highly controversial?
☐	☑	• Does the preferred alternative have highly uncertain effects or involve unique or unknown risks on the human environment?
☐	☑	• Does the preferred alternative establish a precedent for future actions with significant impacts or represent a decision in principle about a future consideration?
☐	☑	• Is the preferred alternative known or reasonably expected to have potentially significant environment impacts to the quality of the human environment either individually or cumulatively over time?
☑	☐	• Will the preferred alternative likely have a significant adverse effect on ANY of the special environmental concerns? Use the Evaluation Procedure Guide Sheets to assist in this determination. This includes, but is not limited to, concerns such as cultural or historical resources, endangered and threatened species, environmental justice, wetlands, floodplains, coastal zones, coral reefs, essential fish habitat, wild and scenic rivers, clean air, riparian areas, natural areas, and invasive species
☐	☑	• Will the preferred alternative threaten a violation of Federal, State, or local law or requirements for the protection of the environment?

P. To the best of my knowledge, the data shown on this form is accurate and complete:

In the case where a non-NRCS person (e.g. a TSP) assists with planning they are to sign the first signature block and then NRCS is to sign the second block to verify the information's accuracy.

Signature (TSP if applicable)	Title	Date
Rita H. Sveen	Watershed Planner	6/23/2023
Signature (NRCS)	**Title**	**Date**

If preferred alternative is not a federal action where NRCS has control or responsibility and this NRCS-CPA-52 is shared with someone other than the client then indicate to whom this is being provided.

The following sections are to be completed by the Responsible Federal Official (RFO)

NRCS is the RFO if the action is subject to NRCS control and responsibility (e.g., actions financed, funded, assisted, conducted, regulated, or approved by NRCS). These actions do not include situations in which NRCS is only providing technical assistance because NRCS cannot control what the client ultimately does with that assistance and situations where NRCS is making a technical determination (such as Farm Bill HEL or wetland determinations) not associated with the planning process.

Q. NEPA Compliance Finding (check one)

The preferred alternative:		Action required
☐	1) is **not a federal action** where the agency has control or responsibility.	Document in "R.1" below. No additional analysis is required
☐	2) is a federal action **ALL** of which is **categorically excluded** from further environmental analysis **AND** there are **no extraordinary circumstances as identified in Section "O".**	Document in "R.2" below. No additional analysis is required
☐	3) is a federal action that has been **sufficiently analyzed** in an existing Agency state, regional, or national NEPA document **and** there are no predicted significant adverse environmental effects or extraordinary circumstances.	Document in "R.1" below. No additional analysis is required.
☐	4) is a federal action that has been sufficiently analyzed in another Federal agency's NEPA document (EA or EIS) that addresses the proposed NRCS action and its' effects **and has been formally adopted by NRCS**. NRCS is required to prepare and publish its own Finding of No Significant Impact for an EA or Record of Decision for an EIS when adopting another agency's EA or EIS document. **(Note: This box is not applicable to FSA)**	Contact the State Environmental Liaison for list of NEPA documents formally adopted and available for tiering. Document in "R.1" below. No additional analysis is required
☑	5) is a federal action that has **NOT** been sufficiently analyzed or may involve predicted significant adverse environmental effects or extraordinary circumstances and may require an EA or EIS.	Contact the State Environmental Liaison. Further NEPA analysis required.

R. Rationale Supporting the Finding

R.1 Findings Documentation	
R.2 Applicable Categorical Exclusion(s) **(more than one may apply)**	
7 CFR Part 650 *Compliance With NEPA*, subpart 650.6 *Categorical Exclusions* states prior to determining that a proposed action is categorically excluded under paragraph (d) of this section, the proposed action must meet six sideboard criteria. See NECH 610.116	

I have considered the effects of the alternatives on the Resource Concerns, Economic and Social Considerations, Special Environmental Concerns, and Extraordinary Circumstances as defined by Agency regulation and policy and based on that made the finding indicated above.

S. Signature of Responsible Federal Official:

RICHARD WEBB Digitally signed by RICHARD WEBB Date: 2023.06.23 13:57:49 -05'00'	State Resource Conservationist	6/23/2023
Signature	**Title**	**Date**

Additional notes

An Environmental Assessment is needed to fully evaluate environmental impacts.

United States Department of the Interior

FISH AND WILDLIFE SERVICE
North Dakota Ecological Services Field Office
3425 Miriam Avenue
Bismarck, ND 58501-7926
Phone: (701) 250-4481 Fax: (701) 355-8513

In Reply Refer To:
Project code: 2023-0089363
Project Name: DSID IPac

June 05, 2023

Subject: Consistency letter for 'DSID IPac' for specified federally threatened and endangered species and designated critical habitat that may occur in your proposed project area consistent with the North Dakota Determination Key (DKey) for project review and guidance for federally listed species.

Rita Sveen:

The U.S. Fish and Wildlife Service (Service) received on **June 05, 2023** your effects determination for the 'DSID IPac' (the Action) using the North Dakota DKey for project review and guidance for federally-listed species within the Information for Planning and Consultation (IPaC) system. The Service developed this system in accordance with the Endangered Species Act of 1973 (ESA) (87 Stat. 884, as amended; 16 U.S.C. 1531 et seq.).

Based on your answers and the assistance of the Service's North Dakota DKey, you made the following effect determination(s) for the proposed Action:

Species	**Listing Status**	**Determination**
Dakota Skipper (*Hesperia dacotae*)	Threatened	No effect

Thank you for informing the Service of your "No Effect" determinations for this project. No further consultation/coordination for this project is required for these species.

In addition to the species listed above, the following species and/or critical habitats may also occur in your project area and **are not** covered by this conclusion:

- Monarch Butterfly *Danaus plexippus* Candidate
- Northern Long-eared Bat *Myotis septentrionalis* Endangered

The Service recommends that your agency contact the North Dakota Ecological Services Field Office or re-evaluate the project in IPaC if: 1) the scope, timing, duration, or location of the proposed project changes, 2) new information reveals the action may affect listed species or designated critical habitat; 3) a new species is listed or critical habitat designated. If any of the

above conditions occurs, additional consultation with the North Dakota Ecological Services Field Office should take place before project changes are final or resources committed.

Bald and Golden Eagle Protection Act(BGEPA): The following resources are provided to project proponents and consulting agencies as additional information. Bald and golden eagles are not included in this section 7(a)(2) consultation and this information does not constitute a determination of effects by the Service.

The Service developed the National Bald Eagle Management Guidelines to advise landowners, land managers, and others who share public and private lands with Bald Eagles when and under what circumstances the protective provisions of the BGEPA may apply to their activities. The guidelines should be consulted prior to conducting new or intermittent activity near an eagle nest. This document may be downloaded from the following site: https://www.fws.gov/media/national-bald-eagle-management-guidelines-0

To determine if your proposed activity is likely to take or disturb Golden or Bald Eagles, please call our office at 702-250-4481 for further review.

If the recommendations detailed in the National Bald Eagle Management Guidelines cannot be followed, you may apply for a permit to authorize removal or relocation of an eagle nest in certain instances. The application form is located at http://www.fws.gov/forms/3-200-72.pdf.

Action Description
You provided to IPaC the following name and description for the subject Action.

1. Name

DSID IPac

2. Description

The following description was provided for the project 'DSID IPac':

> PIFR for converting open lined irrigation canals to either smaller concrete canals or buried pipeline. Some of the buried pipeline is in a new location.

The approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/@46.07750525,-98.0941909860683,14z

QUALIFICATION INTERVIEW

1. Is your project a federal project or have a federal nexus (funded, permitted or other authorization by a federal agency)?

   Yes

2. Does your project consist solely of interior or exterior rehabilitation and renovations of existing residential, commercial buildings and public facilities?

   Note: These activities may involve exterior painting, replacement of doors, windows, siding or roofing.

   No

3. Does your project consist solely of work done within the existing footprint of a building such as electrical, heating plumbing, basement and foundation repairs?

   No

4. Does your project consist solely of additions onto an existing structure?

   No

5. Does your project consist solely of renting or purchasing existing buildings?

   No

6. Does your project consist solely of demolition of structures within Incorporated City Boundaries?

   No

7. Does your project consist solely of repair or replacement of existing parking lots, sidewalks, roads or other paved or graveled surfaces?

   No

8. Does your project consist solely of repair or replacement or upgrading playground equipment?

   No

9. Is your project a wind farm?

   No

10. Is your project a new construction on an existing residential infill lot within Incorporated City Boundaries?

    No

11. [Semantic] Does the action area intersect the Dakota Skipper area of influence?

    Automatically answered
    Yes

12. Is the project area on disturbed land (e.g. urban areas, previously cropped areas, non-native haylands, pasture or other grassland that is dominated by non-native species, or in areas where trees or shrubs predominate)?

    Yes

IPAC USER CONTACT INFORMATION

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United States Department of the Interior

FISH AND WILDLIFE SERVICE
North Dakota Ecological Services Field Office
3425 Miriam Avenue
Bismarck, ND 58501-7926
Phone: (701) 250-4481 Fax: (701) 355-8513

In Reply Refer To:
Project code: 2023-0089363
Project Name: DSID IPac

June 06, 2023

Federal Nexus: yes
Federal Action Agency (if applicable): Department of Agriculture

Subject: Federal agency coordination under the Endangered Species Act, Section 7 for 'DSID IPac'

Dear Rita Sveen:

This letter records your determination using the Information for Planning and Consultation (IPaC) system provided to the U.S. Fish and Wildlife Service (Service) on June 06, 2023, for 'DSID IPac' (here forward, Project). This project has been assigned Project Code 2023-0089363 and all future correspondence should clearly reference this number. **Please carefully review this letter. Your Endangered Species Act (Act) requirements may not be complete.**

Ensuring Accurate Determinations When Using IPaC

The Service developed the IPaC system and associated species' determination keys in accordance with the Endangered Species Act of 1973 (ESA; 87 Stat. 884, as amended; 16 U.S.C. 1531 et seq.) and based on a standing analysis. All information submitted by the Project proponent into the IPaC must accurately represent the full scope and details of the Project. Failure to accurately represent or implement the Project as detailed in IPaC or the Northern Long-eared Bat Rangewide Determination Key (DKey), invalidates this letter.

Determination for the Northern Long-Eared Bat

Based upon your IPaC submission and a standing analysis completed by the Service, your project has reached the determination of "May Affect, Not Likely to Adversely Affect" the northern long-eared bat. Unless the Service advises you within 15 days of the date of this letter that your IPaC-assisted determination was incorrect, this letter verifies that consultation on the Action is complete and no further action is necessary unless either of the following occurs:

- new information reveals effects of the action that may affect the northern long-eared bat in a manner or to an extent not previously considered; or,

- the identified action is subsequently modified in a manner that causes an effect to the northern long-eared bat that was not considered when completing the determination key.

15-Day Review Period

As indicated above, the Service will notify you within 15 calendar days if we determine that this proposed Action does not meet the criteria for a “may affect, not likely to adversely affect” (NLAA) determination for the northern long-eared bat. If we do not notify you within that timeframe, you may proceed with the Action under the terms of the NLAA concurrence provided here. This verification period allows the identified Ecological Services Field Office to apply local knowledge to evaluation of the Action, as we may identify a small subset of actions having impacts that we did not anticipate when developing the key. In such cases, the identified Ecological Services Field Office may request additional information to verify the effects determination reached through the Northern Long-eared Bat DKey.

Other Species and Critical Habitat that May be Present in the Action Area

The IPaC-assisted determination for the northern long-eared bat does not apply to the following ESA-protected species and/or critical habitat that also may occur in your Action area:

- Dakota Skipper *Hesperia dacotae* Threatened
- Monarch Butterfly *Danaus plexippus* Candidate

You may coordinate with our Office to determine whether the Action may affect the species and/or critical habitat listed above. Note that reinitiation of consultation would be necessary if a new species is listed or critical habitat designated that may be affected by the identified action before it is complete.

If you have any questions regarding this letter or need further assistance, please contact the North Dakota Ecological Services Field Office and reference Project Code 2023-0089363 associated with this Project.

Action Description
You provided to IPaC the following name and description for the subject Action.

1. Name

DSID IPac

2. Description

The following description was provided for the project 'DSID IPac':

> PIFR for converting open lined irrigation canals to either smaller concrete canals or buried pipeline. Some of the buried pipeline is in a new location.

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DETERMINATION KEY RESULT

Based on the answers provided, the proposed Action is consistent with a determination of “may affect, but not likely to adversely affect” for the Endangered northern long-eared bat (*Myotis septentrionalis*).

QUALIFICATION INTERVIEW

1. Does the proposed project include, or is it reasonably certain to cause, intentional take of the northern long-eared bat or any other listed species?

   Note: Intentional take is defined as take that is the intended result of a project. Intentional take could refer to research, direct species management, surveys, and/or studies that include intentional handling/encountering, harassment, collection, or capturing of any individual of a federally listed threatened, endangered or proposed species?

   No

2. Do you have post-white nose syndrome occurrence data that indicates that northern long-eared bats (NLEB) are likely to be present in the action area?

   Bat occurrence data may include identification of NLEBs in hibernacula, capture of NLEBs, tracking of NLEBs to roost trees, or confirmed acoustic detections. With this question, we are looking for data that, for some reason, may have not yet been made available to U.S. Fish and Wildlife Service.

   No

3. Does any component of the action involve construction or operation of wind turbines?

   Note: For federal actions, answer ‘yes’ if the construction or operation of wind power facilities is either (1) part of the federal action or (2) would not occur but for a federal agency action (federal permit, funding, etc.).

   No

4. Is the proposed action authorized, permitted, licensed, funded, or being carried out by a Federal agency in whole or in part?

   Yes

5. Is the Federal Highway Administration (FHWA), Federal Railroad Administration (FRA), or Federal Transit Administration (FTA) funding or authorizing the proposed action, in whole or in part?

   No

6. Are you an employee of the federal action agency or have you been officially designated in writing by the agency as its designated non-federal representative for the purposes of Endangered Species Act Section 7 informal consultation per 50 CFR § 402.08?

   Note: This key may be used for federal actions and for non-federal actions to facilitate section 7 consultation and to help determine whether an incidental take permit may be needed, respectively. This question is for information purposes only.

   Yes

7. Is the lead federal action agency the Environmental Protection Agency (EPA) or Federal Communications Commission (FCC)? Is the Environmental Protection Agency (EPA) or Federal Communications Commission (FCC) funding or authorizing the proposed action, in whole or in part?

   No

8. Is the lead federal action agency the Federal Energy Regulatory Commission (FERC)?

   No

9. Have you determined that your proposed action will have no effect on the northern long-eared bat? Remember to consider the effects of any activities that would not occur but for the proposed action.

   If you think that the northern long-eared bat may be affected by your project or if you would like assistance in deciding, answer “No” below and continue through the key. If you have determined that the northern long-eared bat does not occur in your project’s action area and/or that your project will have no effects whatsoever on the species despite the potential for it to occur in the action area, you may make a “no effect” determination for the northern long-eared bat.

   Note: Federal agencies (or their designated non-federal representatives) must consult with USFWS on federal agency actions that may affect listed species [50 CFR 402.14(a)]. Consultation is not required for actions that will not affect listed species or critical habitat. Therefore, this determination key will not provide a consistency or verification letter for actions that will not affect listed species. If you believe that the northern long-eared bat may be affected by your project or if you would like assistance in deciding, please answer “No” and continue through the key. Remember that this key addresses only effects to the northern long-eared bat. Consultation with USFWS would be required if your action may affect another listed species or critical habitat. The definition of Effects of the Action can be found here: https://www.fws.gov/media/northern-long-eared-bat-assisted-determination-key-selected-definitions

   No

10. Does the action area contain any caves (or associated sinkholes, fissures, or other karst features), mines, rocky outcroppings, or tunnels that could provide habitat for hibernating northern long-eared bats?

    No

11. Does the action area contain or occur within 0.5 miles of (1) talus or (2) anthropogenic or naturally formed rock crevices in rocky outcrops, rock faces or cliffs?

    No

12. Is suitable summer habitat for the northern long-eared bat present within 1000 feet of project activities?
    (If unsure, answer "Yes.")

    Note: If there are trees within the action area that are of a sufficient size to be potential roosts for bats (i.e., live trees and/or snags ≥3 inches (12.7 centimeter) dbh), answer "Yes". If unsure, additional information defining suitable summer habitat for the northern long-eared bat can be found at: https://www.fws.gov/media/northern-long-eared-bat-assisted-determination-key-selected-definitions

    Yes

13. Will the action cause effects to a bridge?

    Yes

14. Will the proposed action result in the cutting or other means of knocking down, bringing down, or trimming of any trees suitable for northern long-eared bat roosting?

    Note: Suitable northern long-eared bat roost trees are live trees and/or snags ≥3 inches dbh that have exfoliating bark, cracks, crevices, and/or cavities.

    Yes

PROJECT QUESTIONNAIRE

Enter the extent of the action area (in acres) from which trees will be removed - round up to the nearest tenth of an acre. For this question, include the entire area where tree removal will take place, even if some live or dead trees will be left standing.

0.1

In what extent of the area (in acres) will trees be cut, knocked down, or trimmed during the inactive (hibernation) season for northern long-eared bat? **Note:** Inactive Season dates for spring staging/fall swarming areas can be found here: https://www.fws.gov/media/inactive-season-dates-swarming-and-staging-areas

.1

In what extent of the area (in acres) will trees be cut, knocked down, or trimmed during the active (non-hibernation) season for northern long-eared bat? **Note:** Inactive Season dates for spring staging/fall swarming areas can be found here: https://www.fws.gov/media/inactive-season-dates-swarming-and-staging-areas

0

Will all potential northern long-eared bat (NLEB) roost trees (trees ≥3 inches diameter at breast height, dbh) be cut, knocked, or brought down from any portion of the action area greater than or equal to 0.1 acre? If all NLEB roost trees will be removed from multiple areas, select 'Yes' if the cumulative extent of those areas meets or exceeds 0.1 acre.

No

Enter the extent of the action area (in acres) from which all potential NLEB roost trees will be removed. If all NLEB roost trees will be removed from multiple areas, entire the total extent of those areas. Round up to the nearest tenth of an acre.

.1

For the area from which all potential northern long-eared bat (NLEB) roost trees will be removed, on how many acres (round to the nearest tenth of an acre) will trees be allowed to regrow? Enter '0' if the entire area from which all potential NLEB roost trees are removed will be developed or otherwise converted to non-forest for the foreseeable future.

0

Will any snags (standing dead trees) ≥3 inches dbh be left standing in the area(s) in which all northern long-eared bat roost trees will be cut, knocked down, or otherwise brought down?

No

Will all project activities by completed by April 1, 2024?

No

IPAC USER CONTACT INFORMATION

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