Sand Hill River Watershed District

	Water Resource of Concern				Targeting			Projects and Activities			
(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)	(I)	(J)	(K)	(L)
Local Resource Priority	Primary Water Resource of Concern	Primary Water Resource Category	Conventional Water Quality Impairments Y/N	Water Quality Concern	Scale of Activity Focus	Watershed: 8-Digit HUC	Sub-watershed: 12-Digit HUC (if known)	Project Activity Description	Water Plan Category	Primary Activity	Why is this activity important for the water resource?
1	Sand Hill River	River	Yes	The main cause for impairment within the Sand Hill River is an excessive amount of sediment. Elevated turbidity can affect drinking water quality and the ability of aquatic life to sustain healthy and viable populations.	Major Watershed	09020301		Install stream barbs to control erosion on the Sand Hill River.	Land and Water Treatment	Erosion Control Water	Stream barbs are an effective method to control erosion on bends in the river. Stream barbs redirect stream flow and disrupt the velocity gradient in the near bank region. This project will reduce direct bank sloughing into the Sand Hill River.

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	Plan Connection		Outputs			Budget		
(A)	(M)	(N)	(O)	(P)	(Q)	(R)	(S)	(T)
Local Resource Priority	Water Plan or TMDL Implementation Plan Priority Connection	Plan Type	Number of anticipated outputs	Number of outputs specifically identified at this time	Describe how these activities could be accomplished in a 3-year grant period.	Requested State Contribution for FY14-15 Biennium ($)	Potential Leveraged Funds ($)	Resource Management Budget($)
1	SHRWD Plan - Policy WQ-3: Use design criteria and performance standards to ensure appropriate BMPs for mitigating land use impacts to surface water resources. Action: Reduce erosion and sedimentation in watercourses. (Pg 36 Planning Region 2)	Watershed Disrict	5 Stream barbs	none	The project will be surveyed, designed and constructed within the 3 year contract.	$50,000	$12,500	$62,500

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2	Sand Hill River	Surface Water	Yes	The entire reach of the Sand Hill River in Planning Region 4 is listed on the MPCA's impaired waters list. The stressor causing impairment is turbidity and low dissolved oxygen. Aquatic life, consumption and recreation are the beneficial uses that are affected.	Major Watershed	09020301		Stabilize approximately 4,300 lineal ft. of the main outlet channel of an unnamed coulee discharging into the Sand Hill River. In addition, stabilize up to 5 lateral coulee segments to the main outlet channel all within Section 33 of Winger Township. Unnamed coulee is listed as a Public Waters Watercourse. General drop within the channel reach of interest is up to 30 ft.	Land and Water Treatment	Erosion Control Water	This project will stabilize the main outlet channel and various lateral coulee segments to reduce erosive activities, head cutting, sediment deposition into the Sand Hill River, and land loss. Existing soils are generally inorganic clays and silts, low to medium plasticity, and appear to possess average to slightly above average erosion susceptibility.

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2	Policy WQ-3 Use design criteria and performance standards to ensure appropriate BMPs for mitigating landuse impacts to surface water resources (PG 37 Planning Region 4). Goal: Facilitate the use of erosion and sediment control practices to reduce the impacts to channel stability, water quality, and wetlands from sedimentation. Policy ESC-1: Establish, develop, or endorse consistent methods, procedures, and criteria for erosion and sediment control. Policy ESC-2: Manage erosion and sediment delivery from agricultural lands in accordance with allowable levels. (Pg 42, Planning Region 4)	Watershed Disrict	Lateral coulee segments - Provide multiple culvert drop structures to two of the lateral coulee segments, combination of erosion control geosynthetics, rip rap drop structures and culvert drop structures to lateral coulee segments; Main Outlet Channel - combination of rip rap drop structures, geosynthetic lined channels, armored channels, reinforced vegetated swales, and channelization immediate to the area of the stabilization site.	2 segments of lateral coulee stabilization, remaining segments of lateral coulee stabilization, main outlet channel stabilization	The project will be surveyed, designed and constructed within the 3 year contract.	$400,000	$100,000	$500,000

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Local Resource Priority	Primary Water Resource of Concern	Primary Water Resource Category	Conventional Water Quality Impairments Y/N	Water Quality Concern	Scale of Activity Focus	Watershed: 8-Digit HUC	Sub-watershed: 12-Digit HUC (if known)	Project Activity Description	Water Plan Category	Primary Activity	Why is this activity important for the water resource?
3	Sand Hill River	Surface Water	Unknown	Polk CD 122 has been a problem for many years due to the erosion potential of the soils and steep topography. In addition, the existing assessment area is incapable of funding the solutions needed. The CD 122 system is vital to the area it serves. Concerning issues include: overbank flows damaging crops, wind and water erosion causing sedimentation problems.	Major Watershed	09020301		Polk County ditch 122 is located northwest of Fertile and has a drainage area of about 8 square miles, including the Fertile Airport. CD122 outlets into Kittleson Creek, which in turn outlets into the Sand Hill Ditch. This system is located in very erodible soils and on topography with a lot of elevation. Project involves stabilizing main outlet channel of eroding ditch. Grassed buffer strips, piped side inlets, and erosion control structures are several of the management measures being investigated. The upper 2.5 miles of ditch is currently undergoing stabilization using $300,000 of project funds from FEMA.	Land and Water Treatment	Conservation Drainage	Polk County ditch 122 is located northwest of Fertile and has a drainage area of about 8 square miles, including the Fertile Airport. CD122 outlets into Kittleson Creek, which in turn outlets into the Sand Hill Ditch. This system is located in very erodible soils and on topography with a lot of elevation. The use of erosion and sediment control practices reduces impacts to water quality from sedimentation and improves channel stability.
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3	Policy LDS-2: Use consistent technical standards, evaluation tools and performance measures for designing and evaluation the effects of agricultural drainage systems, including the adequacy of the outlet. (Pg34 Planning Region 2) Policy WQ-3: Use design criteria and performance standards to ensure appropriate BMPs for mitigating land use impacts to surface water resources. (Pg 36, Planning Region 2) Policy ESC-2 Manage erosion and sediment delivery from agricultural lands in accordance with allowable levels. Action: Install BMPs along waterways; Action: Implement agricultural and drainage BMPs along all drainage systems and promote land use changes. (Pg 41 Planning Region 2)	Watershed Disrict	1 Grade Stabilization, 700' Subsurface Drain	none	The project will be surveyed, designed and constructed within the 3 year contract.	$200,000	$50,000	$250,000
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6								
7								
8								
9								
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						Total Requested Biennial State Contribution ($)	Total Leveraged Funds ($)	Total Resource Management Budget ($)
						$650,000	$162,500	$812,500