

WATERBODY DATA FORM

Centerline Re-Route Access Road Ancillary Facility Other:

Feature ID #: S7AME005

Stream/Waterbody Name (if known): WEST BRANCH NORCELLE CREEK

Associated Wetland ID #:

Date: 7/3/08	Project Name & No.: Keystone XL-10623-007-803A	Milepost: 419.9
Investigators: ROBSON/LIGGETT-LINEBERGER	State/County: SD/ MEADE	Quad Name: HOWES
Logbook No.: 1	Logbook Page No.: 151	Tract No.: ML-SD-ME-01160.000
		Picture No.: S7AME005_W

PHYSICAL ATTRIBUTES

Waterbody Sketch Plan

Please include: Directional & North Arrow, Centerline, Length of feature, Distances from Centerline, Photo Locations and Survey corridor



Waterbody Type	<input type="checkbox"/> Lake <input type="checkbox"/> Pond <input type="checkbox"/> Borrow Pit <input type="checkbox"/> River <input type="checkbox"/> Stream <input type="checkbox"/> Ag. Ditch <input type="checkbox"/> Other:					
Stream Flow	<input type="checkbox"/> Fast <input type="checkbox"/> Moderate <input type="checkbox"/> Slow <input checked="" type="checkbox"/> Very Slow <input type="checkbox"/> None		Flow type	<input type="checkbox"/> Perennial (Flows year round) <input type="checkbox"/> Seasonal (Continuous flow \geq 3 months) <input checked="" type="checkbox"/> Intermittent (Flows <3 months) <input type="checkbox"/> Ephemeral (Flows only in response to rainfall)		Direction of Flow where it crosses CL: (N, NE, E, SE, S, SW, W, NW)
Subsurface Flow?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Unknown					
OHWM Width (ft.):	4'		Sinuosity	<input type="checkbox"/> Straight <input checked="" type="checkbox"/> Meandering		
Stream Width (ft.)	Top of Bank (at crossing location):			Water Surface (at crossing location):		
Stream Depth (in.)	<input type="checkbox"/> 0-3 <input checked="" type="checkbox"/> 3-6 <input type="checkbox"/> 6-12 <input type="checkbox"/> 12-18 <input type="checkbox"/> 18-24 <input type="checkbox"/> 24-36 <input type="checkbox"/> 36-48 <input type="checkbox"/> 48-60 <input type="checkbox"/> 60+					
OHWM Indicator	<input checked="" type="checkbox"/> Clear natural line on bank		<input type="checkbox"/> Wrack line		<input type="checkbox"/> Shelving <input type="checkbox"/> Scour	
	<input type="checkbox"/> Abrupt plant community change		<input type="checkbox"/> Bent, matted or missing vegetation		<input type="checkbox"/> Wrested vegetation <input type="checkbox"/> Water staining	
	<input type="checkbox"/> Soil character changes		<input type="checkbox"/> Sediment deposition		<input type="checkbox"/> Sediment sorting	
	<input type="checkbox"/> Litter and debris		<input type="checkbox"/> Leaf litter disturbed		<input type="checkbox"/> Other:	
Bank Height (ft.) (looking downstream)	Left: <input checked="" type="checkbox"/> 0-2 <input type="checkbox"/> 2-4 <input type="checkbox"/> 4-6 <input type="checkbox"/> 6-8 <input type="checkbox"/> 8+					
	Right: <input type="checkbox"/> 0-2 <input checked="" type="checkbox"/> 2-4 <input type="checkbox"/> 4-6 <input type="checkbox"/> 6-8 <input type="checkbox"/> 8+					
Bank Slope (looking downstream)	Left: <input type="checkbox"/> 4:1 <input type="checkbox"/> 3:1 <input type="checkbox"/> 2:1 <input type="checkbox"/> 1:1 <input checked="" type="checkbox"/> Vertical					
	Right: <input type="checkbox"/> 4:1 <input type="checkbox"/> 3:1 <input type="checkbox"/> 2:1 <input type="checkbox"/> 1:1 <input checked="" type="checkbox"/> Vertical					

Date: 7/3/08	Project Name & No.: Keystone XL-10623-007-803A	Milepost: 419.9
--------------	--	-----------------

QUALITATIVE ATTRIBUTES

Water Appearance (check all that apply)	Clear <input checked="" type="checkbox"/> Turbid <input type="checkbox"/> Slightly Turbid <input type="checkbox"/> Very Turbid <input type="checkbox"/> Other:	Sheen on surface <input type="checkbox"/> Greenish color <input type="checkbox"/>	Floating algal mats <input type="checkbox"/> Obvious surface scum <input type="checkbox"/>	Water Color: CLEAR	
Stream Substrate %	Silts Cobbles Bedrock Sands Gravel Concrete Muck X Other: Explain:				
Aquatic Habitats (check all that apply)	Sand Bar <input type="checkbox"/> Gravel Riffles <input type="checkbox"/> Gravel Bar <input type="checkbox"/> Deep Pools <input type="checkbox"/> Mud Bar <input type="checkbox"/> Bank root systems <input checked="" type="checkbox"/> Undercut Banks <input type="checkbox"/> Overhanging trees/shrubs <input type="checkbox"/>	In-stream emergent plants: <input type="checkbox"/> In-stream submerged plants: <input type="checkbox"/> Fringing Wetlands: <input type="checkbox"/>			
Aquatic Organisms Observed (check all that apply)	Waterfowl <input type="checkbox"/> Fish (adult) <input type="checkbox"/> Turtles <input type="checkbox"/> Snakes <input type="checkbox"/> Fish (juvenile) <input type="checkbox"/> Frogs <input type="checkbox"/>	Other: Invertebrates: NONE			
Riparian Zone	Width of natural vegetation zone from edge of active channel out onto flood plain (FT): 500 Circle vegetative layers: trees <input type="checkbox"/> shrubs <input type="checkbox"/> herbs <input checked="" type="checkbox"/> <input type="checkbox"/> Significant bare areas within riparian zone <input type="checkbox"/> Evidence of non-buffered concentrated flows				
Tributary is	<input type="checkbox"/> Natural <input type="checkbox"/> Artificial (Man-Made) <input checked="" type="checkbox"/> Manipulated IMPOUNDMENT UPSTREAM				
Channel Condition:	Channelization or Braiding <input checked="" type="checkbox"/>	Unnatural straightening <input type="checkbox"/>	Downcutting <input checked="" type="checkbox"/>	Dikes/Berms <input type="checkbox"/> Excessive bank erosion <input type="checkbox"/>	Other
Disturbances	Livestock access to riparian zone <input checked="" type="checkbox"/> HORSES Waste discharge pipes present <input type="checkbox"/>		Manure in stream or on banks <input type="checkbox"/> Other:		

Describe Habitat Characteristics, Aquatic & Terrestrial Diversity: SMOOTH BROME ALONG STREAM (BANK SLOPES) ; WESTERN WHEATGRASS IN FLOOD PLAIN SOME GREEN ASH IN FLOOD PLAIN	Habitat ID No.:
---	-----------------

Comments (e.g. pipeline crossing angle, construction constraints, erosion potential, existing disturbances, and meanders) STREAM CROSSES ENTIRE WIDTH OF CORRIDOR
--

STREAM QUALITY High <input type="checkbox"/> Moderate <input type="checkbox"/> Low <input checked="" type="checkbox"/>
