

# WATERBODY DATA FORM

Centerline  Re-Route  Access Road  Ancillary Facility  Other:

Feature ID #: S7ALY001

Stream/Waterbody Name (if known): WHITE RIVER

Associated Wetland ID #:

Date: 7/5/08		Project Name & No.: Keystone XL-10623-007-803A		Milepost: 535.7		
Investigators: ROBSON/ LIGGETT- LINEBERGER		State/County: SD/ LYMAN		Quad Name: MOUTH OF LITTLE DOG CREEK		
Logbook No.: 2	Logbook Page No.: 24	Tract No.: ML-SD-LY-10360.0RV		Picture No.: S7ALY001_S		
<b>PHYSICAL ATTRIBUTES</b>						
<b>Waterbody Sketch Plan</b>						
Please include: Directional & North Arrow, Centerline, Length of feature, Distances from Centerline, Photo Locations and Survey corridor						
Angle of Crossing at Centerline:						
Waterbody Type	<input type="checkbox"/> Lake <input type="checkbox"/> Pond <input type="checkbox"/> Borrow Pit <input checked="" type="checkbox"/> River <input type="checkbox"/> Stream <input type="checkbox"/> Ag. Ditch <input type="checkbox"/> Other:					
Stream Flow	<input type="checkbox"/> Fast <input checked="" type="checkbox"/> Moderate <input type="checkbox"/> Slow <input type="checkbox"/> Very Slow <input type="checkbox"/> None		Flow type	<input checked="" type="checkbox"/> Perennial (Flows year round) <input type="checkbox"/> Seasonal (Continuous flow ≥ 3 months) <input type="checkbox"/> Intermittent (Flows <3 months) <input type="checkbox"/> Ephemeral (Flows only in response to rainfall)		
Subsurface Flow?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Unknown		Direction of Flow where it crosses CL: E (N, NE, E, SE, S, SW, W, NW)			
OHWM Width (ft.):	UNKNOWN		Sinuosity	<input type="checkbox"/> Straight <input checked="" type="checkbox"/> Meandering		
Stream Width (ft.)	Top of Bank (at crossing location): 500' +		Water Surface (at crossing location): 300' +			
Stream Depth (in.)	<input type="checkbox"/> 0-3 <input 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 checked="" 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 checked="" 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 type="checkbox"/> 0-2	<input type="checkbox"/> 2-4	<input type="checkbox"/> 4-6	<input type="checkbox"/> 6-8	<input checked="" type="checkbox"/> 8+
	Right:	<input type="checkbox"/> 0-2	<input type="checkbox"/> 2-4	<input type="checkbox"/> 4-6	<input type="checkbox"/> 6-8	<input checked="" 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

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**QUALITATIVE ATTRIBUTES**

<b>Water Appearance (check all that apply)</b>	Clear <input type="checkbox"/> Turbid <input type="checkbox"/> Sheen on surface <input type="checkbox"/> Floating algal mats <input type="checkbox"/> Water Color: Slightly Turbid <input type="checkbox"/> Very Turbid <input checked="" type="checkbox"/> Greenish color <input type="checkbox"/> Obvious surface scum <input type="checkbox"/> Other:
<b>Stream Substrate %</b>	Silts <b>X</b> Cobbles      Bedrock      Sands <b>X</b> Gravel Concrete      Muck      Vegetation: Other:      Explain:
<b>Aquatic Habitats (check all that apply)</b>	Sand Bar <input checked="" type="checkbox"/> Gravel Riffles <input type="checkbox"/> In-stream emergent plants: <input type="checkbox"/> Gravel Bar <input checked="" type="checkbox"/> Deep Pools <input type="checkbox"/> In-stream submerged plants: <input type="checkbox"/> Mud Bar <input checked="" type="checkbox"/> Bank root systems <input type="checkbox"/> Fringing Wetlands: <input type="checkbox"/> Undercut Banks <input type="checkbox"/> Overhanging trees/shrubs <input type="checkbox"/>
<b>Aquatic Organisms Observed (check all that apply)</b>	Waterfowl <input type="checkbox"/> Fish (adult) <input type="checkbox"/> Turtles <input type="checkbox"/> Other: Snakes <input type="checkbox"/> Fish (juvenile) <input type="checkbox"/> Frogs <input type="checkbox"/> Invertebrates:
<b>Riparian Zone</b>	Width of natural vegetation zone from edge of active channel out onto flood plain (FT): 500 + Circle vegetative layers: trees <input checked="" type="checkbox"/> shrubs <input checked="" type="checkbox"/> herbs <input type="checkbox"/> <input type="checkbox"/> Significant bare areas within riparian zone <input type="checkbox"/> Evidence of non-buffered concentrated flows
<b>Tributary is</b>	<input type="checkbox"/> Natural <input type="checkbox"/> Artificial (Man-Made) <input type="checkbox"/> Manipulated
<b>Channel Condition:</b>	Channelization or Braiding <input type="checkbox"/> Unnatural straightening <input type="checkbox"/> Downcutting <input type="checkbox"/> Dikes/Berms <input type="checkbox"/> Excessive bank erosion <input type="checkbox"/> Other
<b>Disturbances</b>	Livestock access to riparian zone <input type="checkbox"/> Manure in stream or on banks <input type="checkbox"/> Waste discharge pipes present <input type="checkbox"/> Other: FENCED ON LEFT BANK

Describe Habitat Characteristics, Aquatic & Terrestrial Diversity:	Habitat ID No.:
COTTONWOOD, RUSSIAN OLIVE ALONG BOTH BANKS	

Comments (e.g. pipeline crossing angle, construction constraints, erosion potential, existing disturbances, and meanders)
CL CROSSES STREAM AT RIGHT ANGLES. CL SURVEY ENDED AT LEFT BANK (ENTER LINE).
<b>STREAM QUALITY</b> High <input type="checkbox"/> Moderate <input type="checkbox"/> Low <input checked="" type="checkbox"/>