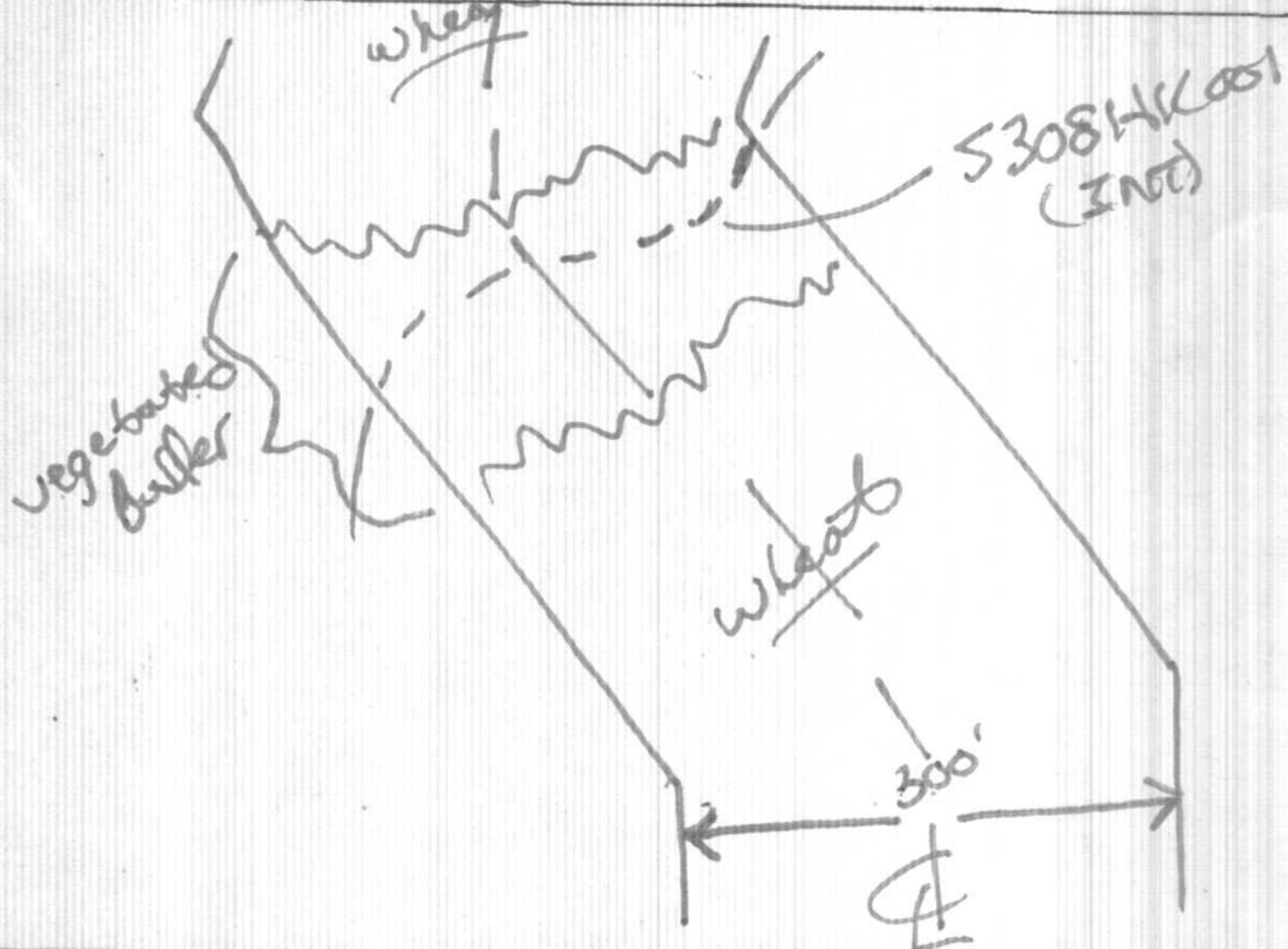


# Waterbody Data Form

☒ Centerline ☐ Re-Route ☐ Access Road ☐ Ancillary Facility ☐ Transmission Line ☐ Other

|                                 |                                |                                                           |                                            |
|---------------------------------|--------------------------------|-----------------------------------------------------------|--------------------------------------------|
| Centerline ID: <u>5308HK001</u> |                                | Project Designated Name: <u>KXL Pipeline</u>              |                                            |
| Date: <u>7-24-12</u>            | Client/Project Name:           |                                                           | Milepost Enter/Exit: <u>447.9 / 448.00</u> |
| Team: <u>308</u>                | State/County: <u>SD/Haakon</u> |                                                           | Quad Name:                                 |
| Logbook No.: <u>308</u>         | Logbook Page No.:              | Tract No.: <u>ML-SD-HK-00560.000 / ML-SD-HK-00620.000</u> |                                            |

Drawing (Please provide orientation arrow, all features identified, location to centerline, etc.)



|                                         |                                                                                                                                                                                                                                                                                                                                                   |
|-----------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Waterbody Type:                         | <input type="checkbox"/> Lake <input type="checkbox"/> Pond <input type="checkbox"/> Borrow Pit <input checked="" 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 type="checkbox"/> Very Slow <input checked="" type="checkbox"/> None                                                                                                                                                                         |
| Flow Type:                              | <input type="checkbox"/> Perennial (Flows year round) <input checked="" type="checkbox"/> Intermittent (Flows <3 month) <input type="checkbox"/> None<br><input type="checkbox"/> Seasonal (Continuous flow ≥ 3 months) <input type="checkbox"/> Ephemeral (Flows only in response to rainfall)                                                   |
| Direction of Flow:                      | <input type="checkbox"/> N <input type="checkbox"/> NE <input type="checkbox"/> E <input type="checkbox"/> SE <input type="checkbox"/> S <input type="checkbox"/> SW <input type="checkbox"/> W <input type="checkbox"/> NW <input checked="" type="checkbox"/> No Flow                                                                           |
| OHWM Width (ft.):                       | <u>8</u>                                                                                                                                                                                                                                                                                                                                          |
| Sinuosity:                              | <input type="checkbox"/> Braided <input checked="" type="checkbox"/> Meandering <input type="checkbox"/> Straight <input type="checkbox"/> N/A                                                                                                                                                                                                    |
| Stream Width (ft.):                     | <u>12</u> Water Surface (At Crossing Location)                                                                                                                                                                                                                                                                                                    |
| Stream Depth (ft.):                     | <input checked="" type="checkbox"/> 0 <input type="checkbox"/> 1-3 <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 type="checkbox"/> 36-48 <input type="checkbox"/> 48-60 <input type="checkbox"/> 60+                             |
| OHWM Indicators:                        | <u>vegetation matted down, absent</u>                                                                                                                                                                                                                                                                                                             |
| Bank Height (ft.): (Looking Downstream) | Left: <input type="checkbox"/> 0-2 <input type="checkbox"/> 2-4 <input checked="" type="checkbox"/> 4-6 <input type="checkbox"/> 6-8 <input type="checkbox"/> 8+<br>Right: <input type="checkbox"/> 0-2 <input type="checkbox"/> 2-4 <input checked="" 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 checked="" type="checkbox"/> 2:1 <input type="checkbox"/> 1:1 <input type="checkbox"/> Vertical<br>Right: <input type="checkbox"/> 4:1 <input type="checkbox"/> 3:1 <input checked="" type="checkbox"/> 2:1 <input type="checkbox"/> 1:1 <input type="checkbox"/> Vertical |



# Qualitative Attributes

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |  |  |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|
| <b>Water Appearance:</b><br><input type="checkbox"/> Clear <input type="checkbox"/> Turbid <input type="checkbox"/> Sheen on Surface <input type="checkbox"/> Floating Algal Mats<br><input type="checkbox"/> Slightly Turbid <input type="checkbox"/> Very Turbid <input type="checkbox"/> Greenish Color <input type="checkbox"/> Obvious Surface Scum<br><input checked="" type="checkbox"/> No Flow <input type="checkbox"/> Other:                                                                                                                                                                            |  |  |
| <b>Stream Substrate %:</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |  |  |
| <b>Aquatic Habitats:</b><br><input type="checkbox"/> Sand Bar <input type="checkbox"/> Gravel Riffle <input checked="" type="checkbox"/> In-stream Emergent Plant      % Cover: 30<br><input type="checkbox"/> Gravel Bar <input type="checkbox"/> Deep Pools <input type="checkbox"/> In-stream Submerged Plant      % Cover:<br><input type="checkbox"/> Mud Bar <input type="checkbox"/> Bank Root Systems <input type="checkbox"/> Fringing Wetlands      Characteristics:<br><input type="checkbox"/> Undercut Banks <input type="checkbox"/> Overhanging Trees/Shrubs <input type="checkbox"/> None          |  |  |
| <b>Aquatic Organisms Observed:</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |  |  |
| <b>Riparian Zone:</b><br>Width of Natural Vegetation Zone from Edge of Active Channel out to Flood Plain (ft): Left - 30      Right - 15<br>Vegetative Layers: <input checked="" type="checkbox"/> Herbs <input type="checkbox"/> Shrubs <input type="checkbox"/> Trees <input type="checkbox"/> Multiple<br>Significant Bare Areas Within Riparian Zone <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Unknown<br>Evidence Of Non-Buffered Concentrated Flows: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Unknown |  |  |
| <b>Tributary Condition:</b><br><input type="checkbox"/> Natural <input type="checkbox"/> Artificial (Man-Made) <input checked="" type="checkbox"/> Manipulated                                                                                                                                                                                                                                                                                                                                                                                                                                                     |  |  |
| <b>Channel Condition:</b><br><input type="checkbox"/> Channelization/Braiding <input type="checkbox"/> Unnatural Straightening <input type="checkbox"/> Downcutting<br><input type="checkbox"/> Dikes/Berms <input type="checkbox"/> Excessive Bank Erosion <input type="checkbox"/> N/A                                                                                                                                                                                                                                                                                                                           |  |  |
| <b>Disturbances:</b><br><input type="checkbox"/> Livestock Access to Riparian Zone <input type="checkbox"/> Manure In Stream or On Banks<br><input type="checkbox"/> Waste Discharge Pipes Present<br><input type="checkbox"/> Other:                                                                                                                                                                                                                                                                                                                                                                              |  |  |
| <b>Habitat Characteristics, Aquatic, and Terrestrial Diversity Description:</b><br>Habitat ID Number:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |  |  |
| <b>Comments:</b><br>Tributary appears to be an ag. drainage, which is heavily vegetated. Several deeper pools were observed which contain small pockets of water. Slope on left side is steep.                                                                                                                                                                                                                                                                                                                                                                                                                     |  |  |
| <b>Stream Quality:</b> <input type="checkbox"/> High <input type="checkbox"/> Moderate <input checked="" type="checkbox"/> Low                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |  |  |