

Waterbody Data Sheet

Description			
Project Name: Line 5 Relocation Project		Date: 2020-06-09	Waterbody Survey ID: sase1022e
State: Wisconsin	County/Parish: Ashland	USGS Waterbody Name: None	
Company: Enbridge	Crew Member Initials: DMP/ARK	Latitude: 46.406834	Longitude: -90.825081
Survey Type: <input type="checkbox"/> Centerline <input type="checkbox"/> Re-Route <input type="checkbox"/> Access Road <input type="checkbox"/> Facility <input type="checkbox"/> Other <i>(check one)</i>			
Waterbody Type: <input type="checkbox"/> River <input type="checkbox"/> Stream <input checked="" type="checkbox"/> Ditch <input type="checkbox"/> Swale <input type="checkbox"/> Canal <input type="checkbox"/> Other <i>(check one)</i>			
Water Appearance: <input checked="" type="checkbox"/> No Water <input type="checkbox"/> Clear <input type="checkbox"/> Turbid <input type="checkbox"/> Sheen on Surface <input type="checkbox"/> Surface Scum <input type="checkbox"/> Algal Mats <input type="checkbox"/> Other <i>(check one)</i>			
Existing Condition^a: <input checked="" type="checkbox"/> Highly Functional Stream <input type="checkbox"/> Moderately Functional Stream <input checked="" type="checkbox"/> Functionally Impaired Stream <i>(check one)</i>			
Feature Description: <input type="checkbox"/> Natural <input checked="" type="checkbox"/> Artificial, man-made <input type="checkbox"/> Manipulated <i>(check one)</i>			
Flow Regime: <input checked="" type="checkbox"/> Ephemeral <input type="checkbox"/> Intermittent <input type="checkbox"/> Perennial <input type="checkbox"/> Connecting Swale <i>(check one)</i>			
Sinuosity within Survey Corridor: <input checked="" type="checkbox"/> Straight <input type="checkbox"/> Meandering <i>(check one)</i>			
Description Notes: There was no flowing water during the survey.			
Measurements			
Depth of Water: <u> 0 </u> ft. N/A <input type="checkbox"/> Unknown <input type="checkbox"/>		Water Edge to Water Edge: <u> 0 </u> ft. N/A <input type="checkbox"/>	
OHWM Width: <u> 1 </u> ft.			
OHWM Indicator: <input checked="" type="checkbox"/> Clear line on bank <input type="checkbox"/> Shelving <input type="checkbox"/> Wrested vegetation <input type="checkbox"/> Scouring <input type="checkbox"/> Water staining <i>(check all that apply)</i>			
<input checked="" type="checkbox"/> Bent, matted, or missing vegetation <input type="checkbox"/> Wrack line <input type="checkbox"/> Litter and debris <input type="checkbox"/> Abrupt plant community change <input type="checkbox"/> Soil characteristic change			
Dominant Substrate: <input type="checkbox"/> Bedrock <input type="checkbox"/> Boulder <input checked="" type="checkbox"/> Cobble <input type="checkbox"/> Gravel <input type="checkbox"/> Sand <input checked="" type="checkbox"/> Silt/ clay <input type="checkbox"/> Organic <i>(check all that apply)</i>			
Observations			
Riparian Zone Present: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <i>(check one)</i>			
Vegetation Layers: <input checked="" type="checkbox"/> Trees <input checked="" type="checkbox"/> Saplings/Shrubs <input type="checkbox"/> Herbs <i>(check all that apply)</i>			
Dominant Bank Vegetation (list): Acer rubrum, Populus grandidentata, Cornus alba, Bromus inermis			
Aquatic Habitats (ex: submerged or emerged aquatic vegetation, overhanging banks/roots, leaf packs, large submerged wood, riffles, deep pools, etc.): No aquatic habitat was observed.			
Aquatic Organisms Observed (list): No aquatic organisms were observed.			
Disturbances (ex: livestock access, manure in waterbody, waste discharge pipes): The feature has been filled with rocks at the eastern end.			
Observation Notes: The ephemeral stream flows east through a roadside ditch. The feature is artificial and begins at wase1058e. The feature flows into sase1023e at the eastern end.			



sase1022e_S (across)



sase1022e_SE (downstream)



sase1022e_W (upstream)

Waterbody Data Sheet

Description			
Project Name: Line 5 Relocation Project		Date: 2020-06-09	Waterbody Survey ID: sase1024e
State: Wisconsin	County/Parish: Ashland	USGS Waterbody Name: None	
Company: Enbridge	Crew Member Initials: DMP/ARK	Latitude: 46.406780	Longitude: -90.824796
Survey Type: <input type="checkbox"/> Centerline <input type="checkbox"/> Re-Route <input type="checkbox"/> Access Road <input type="checkbox"/> Facility <input type="checkbox"/> Other <i>(check one)</i>			
Waterbody Type: <input type="checkbox"/> River <input type="checkbox"/> Stream <input checked="" type="checkbox"/> Ditch <input type="checkbox"/> Swale <input type="checkbox"/> Canal <input type="checkbox"/> Other <i>(check one)</i>			
Water Appearance: <input checked="" type="checkbox"/> No Water <input type="checkbox"/> Clear <input type="checkbox"/> Turbid <input type="checkbox"/> Sheen on Surface <input type="checkbox"/> Surface Scum <input type="checkbox"/> Algal Mats <input type="checkbox"/> Other <i>(check one)</i>			
Existing Condition^a: <input checked="" type="checkbox"/> Highly Functional Stream <input type="checkbox"/> Moderately Functional Stream <input checked="" type="checkbox"/> Functionally Impaired Stream <i>(check one)</i>			
Feature Description: <input type="checkbox"/> Natural <input checked="" type="checkbox"/> Artificial, man-made <input type="checkbox"/> Manipulated <i>(check one)</i>			
Flow Regime: <input checked="" type="checkbox"/> Ephemeral <input type="checkbox"/> Intermittent <input type="checkbox"/> Perennial <input type="checkbox"/> Connecting Swale <i>(check one)</i>			
Sinuosity within Survey Corridor: <input checked="" type="checkbox"/> Straight <input type="checkbox"/> Meandering <i>(check one)</i>			
Description Notes: There was no flowing water during the field survey.			
Measurements			
Depth of Water: <u> 0 </u> ft. N/A <input type="checkbox"/> Unknown <input type="checkbox"/>		Water Edge to Water Edge: <u> 0 </u> ft. N/A <input type="checkbox"/>	
OHWM Width: <u> 1 </u> ft.			
OHWM Indicator: <input checked="" type="checkbox"/> Clear line on bank <input type="checkbox"/> Shelving <input type="checkbox"/> Wrested vegetation <input type="checkbox"/> Scouring <input type="checkbox"/> Water staining <i>(check all that apply)</i>			
<input checked="" type="checkbox"/> Bent, matted, or missing vegetation <input type="checkbox"/> Wrack line <input type="checkbox"/> Litter and debris <input type="checkbox"/> Abrupt plant community change <input type="checkbox"/> Soil characteristic change			
Dominant Substrate: <input type="checkbox"/> Bedrock <input type="checkbox"/> Boulder <input checked="" type="checkbox"/> Cobble <input type="checkbox"/> Gravel <input type="checkbox"/> Sand <input checked="" type="checkbox"/> Silt/ clay <input type="checkbox"/> Organic <i>(check all that apply)</i>			
Observations			
Riparian Zone Present: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <i>(check one)</i>			
Vegetation Layers: <input checked="" type="checkbox"/> Trees <input checked="" type="checkbox"/> Saplings/Shrubs <input checked="" type="checkbox"/> Herbs <i>(check all that apply)</i>			
Dominant Bank Vegetation (list): Salix bebbiana, Populus tremuloides, Toxicodendron rydbergii, Cornus alba, Bromus inermis			
Aquatic Habitats (ex: submerged or emerged aquatic vegetation, overhanging banks/roots, leaf packs, large submerged wood, riffles, deep pools, etc.): No aquatic habitat was observed.			
Aquatic Organisms Observed (list): No aquatic organisms were observed.			
Disturbances (ex: livestock access, manure in waterbody, waste discharge pipes): The feature has been filled with rocks.			
Observation Notes: The feature flows west through a roadside ditch and drains into sase1023e.			



sase1024e_N (across)



sase1024e_W (downstream)



sase1024e_E (upstream)

Waterbody Data Sheet

Description			
Project Name: Line 5 Relocation Project		Date: 2020-06-09	Waterbody Survey ID: sase1023e
State: Wisconsin	County/Parish: Ashland	USGS Waterbody Name: None	
Company: Enbridge	Crew Member Initials: DMP/ARK	Latitude: 46.406584	Longitude: -90.825028
Survey Type: <small>(check one)</small> <input type="checkbox"/> Centerline <input type="checkbox"/> Re-Route <input type="checkbox"/> Access Road <input type="checkbox"/> Facility <input type="checkbox"/> Other			
Waterbody Type: <small>(check one)</small> <input type="checkbox"/> River <input checked="" type="checkbox"/> Stream <input type="checkbox"/> Ditch <input type="checkbox"/> Swale <input type="checkbox"/> Canal <input type="checkbox"/> Other			
Water Appearance: <small>(check one)</small> <input type="checkbox"/> No Water <input type="checkbox"/> Clear <input type="checkbox"/> Turbid <input checked="" type="checkbox"/> Sheen on Surface <input type="checkbox"/> Surface Scum <input type="checkbox"/> Algal Mats <input type="checkbox"/> Other			
Existing Condition^a: <small>(check one)</small> <input checked="" type="checkbox"/> Highly Functional Stream <input checked="" type="checkbox"/> Moderately Functional Stream <input type="checkbox"/> Functionally Impaired Stream			
Feature Description: <small>(check one)</small> <input checked="" type="checkbox"/> Natural <input type="checkbox"/> Artificial, man-made <input type="checkbox"/> Manipulated			
Flow Regime: <small>(check one)</small> <input checked="" type="checkbox"/> Ephemeral <input type="checkbox"/> Intermittent <input type="checkbox"/> Perennial <input type="checkbox"/> Connecting Swale			
Sinuosity within Survey Corridor: <small>(check one)</small> <input type="checkbox"/> Straight <input checked="" type="checkbox"/> Meandering			
Description Notes: The feature has standing water with a surface scum.			
Measurements			
Depth of Water: <u>0.5</u> ft. N/A <input type="checkbox"/> Unknown <input type="checkbox"/>		Water Edge to Water Edge: <u>2</u> ft. N/A <input type="checkbox"/>	
OHWM Width: <u>2</u> ft.			
OHWM Indicator: <small>(check all that apply)</small> <input checked="" type="checkbox"/> Clear line on bank <input type="checkbox"/> Shelving <input checked="" type="checkbox"/> Wrested vegetation <input type="checkbox"/> Scouring <input type="checkbox"/> Water staining <input checked="" type="checkbox"/> Bent, matted, or missing vegetation <input type="checkbox"/> Wrack line <input type="checkbox"/> Litter and debris <input type="checkbox"/> Abrupt plant community change <input type="checkbox"/> Soil characteristic change			
Dominant Substrate: <small>(check all that apply)</small> <input type="checkbox"/> Bedrock <input type="checkbox"/> Boulder <input type="checkbox"/> Cobble <input type="checkbox"/> Gravel <input type="checkbox"/> Sand <input checked="" type="checkbox"/> Silt/ clay <input type="checkbox"/> Organic			
Observations			
Riparian Zone Present: <small>(check one)</small> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No			
Vegetation Layers: <small>(check all that apply)</small> <input checked="" type="checkbox"/> Trees <input checked="" type="checkbox"/> Saplings/Shrubs <input type="checkbox"/> Herbs			
Dominant Bank Vegetation (list): Fraxinus nigra, Tsuga canadensis, Acer negundo, Circaea lutetiana, Ribes triste, Carex gracillima			
Aquatic Habitats (ex: submerged or emerged aquatic vegetation, overhanging banks/roots, leaf packs, large submerged wood, riffles, deep pools, etc.): Standing water and woody debris.			
Aquatic Organisms Observed (list): No aquatic organisms were observed.			
Disturbances (ex: livestock access, manure in waterbody, waste discharge pipes): The feature flows underneath a road through a culvert.			
Observation Notes: The ephemeral stream flows south to north through the survey corridor. There was standing water throughout the northern end and the feature was not flowing at the time of survey. The feature flows underneath a county road.			



sase1023e_W (across)



sase1023e_N (downstream)



sase1023e_S (upstream)

Waterbody Data Sheet

Description			
Project Name: Line 5 Relocation Project		Date: 2020-07-01	Waterbody Survey ID: sasd1020e
State: Wisconsin	County/Parish: Ashland	USGS Waterbody Name: UNT to Marengo River	
Company: Enbridge	Crew Member Initials: DMP/AGG	Latitude: 46.406739	Longitude: -90.826535
Survey Type: <input type="checkbox"/> Centerline <input type="checkbox"/> Re-Route <input type="checkbox"/> Access Road <input type="checkbox"/> Facility <input type="checkbox"/> Other <i>(check one)</i>			
Waterbody Type: <input type="checkbox"/> River <input checked="" type="checkbox"/> Stream <input type="checkbox"/> Ditch <input type="checkbox"/> Swale <input type="checkbox"/> Canal <input type="checkbox"/> Other <i>(check one)</i>			
Water Appearance: <input checked="" type="checkbox"/> No Water <input type="checkbox"/> Clear <input type="checkbox"/> Turbid <input type="checkbox"/> Sheen on Surface <input type="checkbox"/> Surface Scum <input type="checkbox"/> Algal Mats <input type="checkbox"/> Other <i>(check one)</i>			
Existing Condition^a: <input checked="" type="checkbox"/> Highly Functional Stream <input type="checkbox"/> Moderately Functional Stream <input checked="" type="checkbox"/> Functionally Impaired Stream <i>(check one)</i>			
Feature Description: <input type="checkbox"/> Natural <input checked="" type="checkbox"/> Artificial, man-made <input type="checkbox"/> Manipulated <i>(check one)</i>			
Flow Regime: <input checked="" type="checkbox"/> Ephemeral <input type="checkbox"/> Intermittent <input type="checkbox"/> Perennial <input type="checkbox"/> Connecting Swale <i>(check one)</i>			
Sinuosity within Survey Corridor: <input checked="" type="checkbox"/> Straight <input type="checkbox"/> Meandering <i>(check one)</i>			
Description Notes: There was no flowing water within the stream during the survey.			
Measurements			
Depth of Water: <u> 0 </u> ft. N/A <input type="checkbox"/> Unknown <input type="checkbox"/>		Water Edge to Water Edge: <u> 0 </u> ft. N/A <input type="checkbox"/>	
OHWM Width: <u> 1 </u> ft.			
OHWM Indicator: <input checked="" type="checkbox"/> Clear line on bank <input type="checkbox"/> Shelving <input type="checkbox"/> Wrested vegetation <input type="checkbox"/> Scouring <input type="checkbox"/> Water staining <i>(check all that apply)</i>			
<input checked="" type="checkbox"/> Bent, matted, or missing vegetation <input type="checkbox"/> Wrack line <input type="checkbox"/> Litter and debris <input type="checkbox"/> Abrupt plant community change <input type="checkbox"/> Soil characteristic change			
Dominant Substrate: <input type="checkbox"/> Bedrock <input checked="" type="checkbox"/> Boulder <input type="checkbox"/> Cobble <input type="checkbox"/> Gravel <input type="checkbox"/> Sand <input type="checkbox"/> Silt/ clay <input type="checkbox"/> Organic <i>(check all that apply)</i>			
Observations			
Riparian Zone Present: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <i>(check one)</i>			
Vegetation Layers: <input checked="" type="checkbox"/> Trees <input checked="" type="checkbox"/> Saplings/Shrubs <input checked="" type="checkbox"/> Herbs <i>(check all that apply)</i>			
Dominant Bank Vegetation (list): Vitis riparia, Cornus alba, Bromus inermis, Acer negundo			
Aquatic Habitats (ex: submerged or emerged aquatic vegetation, overhanging banks/roots, leaf packs, large submerged wood, riffles, deep pools, etc.): None.			
Aquatic Organisms Observed (list): None.			
Disturbances (ex: livestock access, manure in waterbody, waste discharge pipes): The feature has been filled with rocks.			
Observation Notes: The ephemeral stream flows east through a roadside ditch. The feature begins at the east end of wasd1047e and has been filled with rocks. The stream eventually leads to a larger intermittent stream.			



sasd1020e_S (across)



sasd1020e_SE (downstream)



sasd1020e_W (upstream)

Waterbody Data Sheet

Description			
Project Name: Line 5 Relocation Project		Date: 2020-07-08	Waterbody Survey ID: sasd1022p
State: Wisconsin	County/Parish: Ashland	USGS Waterbody Name: UNT to Marengo River	
Company: Enbridge	Crew Member Initials: AGG/DMP	Latitude: 46.406349	Longitude: -90.826521
Survey Type: <i>(check one)</i>	<input type="checkbox"/> Centerline <input type="checkbox"/> Re-Route <input type="checkbox"/> Access Road <input type="checkbox"/> Facility <input type="checkbox"/> Other		
Waterbody Type: <i>(check one)</i>	<input type="checkbox"/> River <input checked="" type="checkbox"/> Stream <input type="checkbox"/> Ditch <input type="checkbox"/> Swale <input type="checkbox"/> Canal <input type="checkbox"/> Other		
Water Appearance: <i>(check one)</i>	<input type="checkbox"/> No Water <input checked="" type="checkbox"/> Clear <input type="checkbox"/> Turbid <input type="checkbox"/> Sheen on Surface <input type="checkbox"/> Surface Scum <input type="checkbox"/> Algal Mats <input type="checkbox"/> Other		
Existing Condition^a: <i>(check one)</i>	<input checked="" type="checkbox"/> Highly Functional Stream <input type="checkbox"/> Moderately Functional Stream <input type="checkbox"/> Functionally Impaired Stream		
Feature Description: <i>(check one)</i>	<input type="checkbox"/> Natural <input type="checkbox"/> Artificial, man-made <input checked="" type="checkbox"/> Manipulated		
Flow Regime: <i>(check one)</i>	<input type="checkbox"/> Ephemeral <input type="checkbox"/> Intermittent <input checked="" type="checkbox"/> Perennial <input type="checkbox"/> Connecting Swale		
Sinuosity within Survey Corridor: <i>(check one)</i>	<input type="checkbox"/> Straight <input checked="" type="checkbox"/> Meandering		
Description Notes: The feature is a small perennial stream following through a swale with steep banks. The floodplain of the feature takes up the whole swale.			
Measurements			
Depth of Water: <u>0.5</u> ft. N/A <input type="checkbox"/> Unknown <input type="checkbox"/>		Water Edge to Water Edge: <u>4</u> ft. N/A <input type="checkbox"/>	
OHWM Width: <u>8</u> ft.			
OHWM Indicator: <i>(check all that apply)</i>	<input type="checkbox"/> Clear line on bank <input type="checkbox"/> Shelving <input type="checkbox"/> Wrested vegetation <input checked="" type="checkbox"/> Scouring <input type="checkbox"/> Water staining <input checked="" type="checkbox"/> Bent, matted, or missing vegetation <input type="checkbox"/> Wrack line <input type="checkbox"/> Litter and debris <input checked="" type="checkbox"/> Abrupt plant community change <input type="checkbox"/> Soil characteristic change		
Dominant Substrate: <i>(check all that apply)</i>	<input type="checkbox"/> Bedrock <input type="checkbox"/> Boulder <input type="checkbox"/> Cobble <input type="checkbox"/> Gravel <input checked="" type="checkbox"/> Sand <input checked="" type="checkbox"/> Silt/ clay <input type="checkbox"/> Organic		
Observations			
Riparian Zone Present: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <i>(check one)</i>			
Vegetation Layers: <input checked="" type="checkbox"/> Trees <input type="checkbox"/> Saplings/Shrubs <input checked="" type="checkbox"/> Herbs <i>(check all that apply)</i>			
Dominant Bank Vegetation (list): Fraxinus nigra, Impatiens capensis			
Aquatic Habitats (ex: submerged or emerged aquatic vegetation, overhanging banks/roots, leaf packs, large submerged wood, riffles, deep pools, etc.): Pools.			
Aquatic Organisms Observed (list): Insects.			
Disturbances (ex: livestock access, manure in waterbody, waste discharge pipes): There is a road culvert on the northern edge of the feature.			
Observation Notes: The floodplain is dominated by a near complete cover of Impatiens capensis. The canopy consists of almost exclusively black ash.			



sasd1022p_W (across)



sasd1022p_N (downstream)



sasd1022p_S (upstream)

Open Waterbody Data Sheet

Description			
Project Name: Line 5 Relocation Project		Date: 2020-07-02	Waterbody Survey ID: oasd1004
State: Wisconsin	County/Parish: Ashland	USGS Waterbody Name: None	
Company: Enbridge	Crew Member Initials: DMP/AGG	Latitude: 46.406233	Longitude: -90.816858
Survey Type: <i>(check one)</i>	<input type="checkbox"/> Centerline <input checked="" type="checkbox"/> Re-Route <input type="checkbox"/> Access Road <input type="checkbox"/> Facility <input type="checkbox"/> Other		
Waterbody Type: <i>(check one)</i>	<input checked="" type="checkbox"/> Stock Pond <input type="checkbox"/> Natural Pond <input type="checkbox"/> Fishing Pond <input type="checkbox"/> Lake <input type="checkbox"/> Other		
Water Appearance: <i>(check one)</i>	<input type="checkbox"/> No Water <input type="checkbox"/> Clear <input checked="" type="checkbox"/> Turbid <input type="checkbox"/> Sheen on Surface <input type="checkbox"/> Surface Scum <input type="checkbox"/> Algal Mats <input type="checkbox"/> Other		
Feature Quality: <i>(check one)</i>	<input type="checkbox"/> High <input checked="" type="checkbox"/> Moderate <input type="checkbox"/> Low		
Feature Description: <i>(check one)</i>	<input type="checkbox"/> Natural <input checked="" type="checkbox"/> Artificial, man-made <input type="checkbox"/> Manipulated		
Description Notes: The artificial stock pond is holding turbid water during the field survey.			
Measurements			
Depth of Water: <u> 3 </u> ft. N/A <input type="checkbox"/> Unknown <input type="checkbox"/>			
OHWM Indicator: <i>(check all that apply)</i>	<input checked="" type="checkbox"/> Clear line on bank <input type="checkbox"/> Shelving <input type="checkbox"/> Wrested vegetation <input type="checkbox"/> Scouring <input type="checkbox"/> Water staining <input type="checkbox"/> Bent, matted, or missing vegetation <input type="checkbox"/> Wrack line <input type="checkbox"/> Litter and debris <input checked="" type="checkbox"/> Abrupt plant community change <input type="checkbox"/> Soil characteristic change		
Dominant Substrate: <i>(check all that apply)</i>	<input type="checkbox"/> Bedrock <input type="checkbox"/> Boulder <input type="checkbox"/> Cobble <input type="checkbox"/> Gravel <input type="checkbox"/> Sand <input checked="" type="checkbox"/> Silt/ clay <input type="checkbox"/> Organic		
Observations			
Riparian Zone Present: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <i>(check one)</i>			
Vegetation Layers: <input checked="" type="checkbox"/> Trees <input checked="" type="checkbox"/> Saplings/Shrubs <input checked="" type="checkbox"/> Herbs <i>(check all that apply)</i>			
Dominant Bank Vegetation (list): Typha sp., Salix discolor, Populus tremuloides, Salix interior, Pinus strobus			
Aquatic Habitats (ex: submerged or emerged aquatic vegetation, overhanging banks/roots, leaf packs, large submerged wood, riffles, deep pools, etc.): Open water and emergent vegetation.			
Aquatic Organisms Observed (list): Aquatic insects, frogs.			
Disturbances (ex: livestock access, manure in waterbody, waste discharge pipes): The feature is an artificial stock pond located near a crop field.			
Observation Notes: The artificial stock pond is located in between a crop field and a road. The banks are densely vegetated.			



oasd1004_E



oasd1004_N



oasd1004_NW

Waterbody Data Sheet

Description			
Project Name: Line 5 Relocation Project		Date: 2020-05-19	Waterbody Survey ID: sasa1005p
State: Wisconsin	County/Parish: Ashland	USGS Waterbody Name: Brunswweiler River	
Company: Enbridge	Crew Member Initials: SBR/DGL	Latitude: 46.405042	Longitude: -90.812243
Survey Type: <i>(check one)</i>	<input checked="" type="checkbox"/> Centerline <input type="checkbox"/> Re-Route <input type="checkbox"/> Access Road <input type="checkbox"/> Facility <input type="checkbox"/> Other		
Waterbody Type: <i>(check one)</i>	<input checked="" type="checkbox"/> River <input type="checkbox"/> Stream <input type="checkbox"/> Ditch <input type="checkbox"/> Swale <input type="checkbox"/> Canal <input type="checkbox"/> Other		
Water Appearance: <i>(check one)</i>	<input type="checkbox"/> No Water <input type="checkbox"/> Clear <input checked="" type="checkbox"/> Turbid <input type="checkbox"/> Sheen on Surface <input type="checkbox"/> Surface Scum <input type="checkbox"/> Algal Mats <input type="checkbox"/> Other		
Existing Condition^a: <i>(check one)</i>	<input checked="" type="checkbox"/> Highly Functional Stream <input type="checkbox"/> Moderately Functional Stream <input type="checkbox"/> Functionally Impaired Stream		
Feature Description: <i>(check one)</i>	<input checked="" type="checkbox"/> Natural <input type="checkbox"/> Artificial, man-made <input type="checkbox"/> Manipulated		
Flow Regime: <i>(check one)</i>	<input type="checkbox"/> Ephemeral <input type="checkbox"/> Intermittent <input checked="" type="checkbox"/> Perennial <input type="checkbox"/> Connecting Swale		
Sinuosity within Survey Corridor: <i>(check one)</i>	<input type="checkbox"/> Straight <input checked="" type="checkbox"/> Meandering		
Description Notes: The Brunswweiler River is quick-moving, weakly meandering feature with a mostly cobble bottom.			
Measurements			
Depth of Water: <u>2</u> ft. N/A <input type="checkbox"/> Unknown <input type="checkbox"/>		Water Edge to Water Edge: <u>15</u> ft. N/A <input type="checkbox"/>	
OHWM Width: <u>25</u> ft.			
OHWM Indicator: <i>(check all that apply)</i>	<input checked="" type="checkbox"/> Clear line on bank <input checked="" type="checkbox"/> Shelving <input type="checkbox"/> Wrested vegetation <input type="checkbox"/> Scouring <input type="checkbox"/> Water staining <input checked="" type="checkbox"/> Bent, matted, or missing vegetation <input checked="" type="checkbox"/> Wrack line <input checked="" type="checkbox"/> Litter and debris <input type="checkbox"/> Abrupt plant community change <input checked="" type="checkbox"/> Soil characteristic change		
Dominant Substrate: <i>(check all that apply)</i>	<input type="checkbox"/> Bedrock <input type="checkbox"/> Boulder <input checked="" type="checkbox"/> Cobble <input checked="" type="checkbox"/> Gravel <input checked="" type="checkbox"/> Sand <input type="checkbox"/> Silt/ clay <input type="checkbox"/> Organic		
Observations			
Riparian Zone Present: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <i>(check one)</i>			
Vegetation Layers: <input checked="" type="checkbox"/> Trees <input checked="" type="checkbox"/> Saplings/Shrubs <input checked="" type="checkbox"/> Herbs <i>(check all that apply)</i>			
Dominant Bank Vegetation (list): Populus balsamifera, Poa pratensis, Cornus alba, Abies balsamea			
Aquatic Habitats (ex: submerged or emerged aquatic vegetation, overhanging banks/roots, leaf packs, large submerged wood, riffles, deep pools, etc.): Riffles, pools, gravel bars, and woody debris are present as potential habitat.			
Aquatic Organisms Observed (list): Minnows were observed.			
Disturbances (ex: livestock access, manure in waterbody, waste discharge pipes): Potential for polluted runoff from road and overpassing bridge that is outside the survey area.			
Observation Notes: The river has steep banks along the west side and flatter banks along the east side.			



sasa1005p_W (across)



sasa1005p_N (downstream)



sasa1005p_S (upstream)

Waterbody Data Sheet

Description			
Project Name: Line 5 Relocation Project		Date: 2020-05-19	Waterbody Survey ID: sasa1007e
State: Wisconsin	County/Parish: Ashland	USGS Waterbody Name: UNT to Brunswailer River	
Company: Enbridge	Crew Member Initials: SBR/DGL	Latitude: 46.404595	Longitude: -90.811087
Survey Type: <i>(check one)</i>	<input checked="" type="checkbox"/> Centerline <input type="checkbox"/> Re-Route <input type="checkbox"/> Access Road <input type="checkbox"/> Facility <input type="checkbox"/> Other		
Waterbody Type: <i>(check one)</i>	<input type="checkbox"/> River <input checked="" type="checkbox"/> Stream <input type="checkbox"/> Ditch <input type="checkbox"/> Swale <input type="checkbox"/> Canal <input type="checkbox"/> Other		
Water Appearance: <i>(check one)</i>	<input checked="" type="checkbox"/> No Water <input type="checkbox"/> Clear <input type="checkbox"/> Turbid <input type="checkbox"/> Sheen on Surface <input type="checkbox"/> Surface Scum <input type="checkbox"/> Algal Mats <input type="checkbox"/> Other		
Existing Condition^a: <i>(check one)</i>	<input type="checkbox"/> Highly Functional Stream <input checked="" type="checkbox"/> Moderately Functional Stream <input type="checkbox"/> Functionally Impaired Stream		
Feature Description: <i>(check one)</i>	<input checked="" type="checkbox"/> Natural <input type="checkbox"/> Artificial, man-made <input type="checkbox"/> Manipulated		
Flow Regime: <i>(check one)</i>	<input checked="" type="checkbox"/> Ephemeral <input type="checkbox"/> Intermittent <input type="checkbox"/> Perennial <input type="checkbox"/> Connecting Swale		
Sinuosity within Survey Corridor: <i>(check one)</i>	<input type="checkbox"/> Straight <input checked="" type="checkbox"/> Meandering		
Description Notes: The feature is an ephemeral stream with no water present at the time of survey. The stream flows into a larger intermittent feature.			
Measurements			
Depth of Water: <u>N/A</u> ft. <input checked="" type="checkbox"/> N/A <input type="checkbox"/> Unknown		Water Edge to Water Edge: <u>N/A</u> ft. <input checked="" type="checkbox"/> N/A	
OHWM Width: <u>5</u> ft.			
OHWM Indicator: <i>(check all that apply)</i>			
<input type="checkbox"/> Clear line on bank <input checked="" type="checkbox"/> Shelving <input type="checkbox"/> Wrested vegetation <input type="checkbox"/> Scouring <input type="checkbox"/> Water staining <input checked="" type="checkbox"/> Bent, matted, or missing vegetation <input type="checkbox"/> Wrack line <input checked="" type="checkbox"/> Litter and debris <input type="checkbox"/> Abrupt plant community change <input type="checkbox"/> Soil characteristic change			
Dominant Substrate: <i>(check all that apply)</i>			
<input type="checkbox"/> Bedrock <input type="checkbox"/> Boulder <input type="checkbox"/> Cobble <input type="checkbox"/> Gravel <input checked="" type="checkbox"/> Sand <input type="checkbox"/> Silt/ clay <input type="checkbox"/> Organic			
Observations			
Riparian Zone Present: <i>(check one)</i>			
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No			
Vegetation Layers: <i>(check all that apply)</i>			
<input checked="" type="checkbox"/> Trees <input checked="" type="checkbox"/> Saplings/Shrubs <input checked="" type="checkbox"/> Herbs			
Dominant Bank Vegetation (list): Thuja occidentalis, Pinus strobus, Matteuccia struthiopteris, Tsuga canadensis, Fraxinus nigra, Maianthemum canadense, Carex cf umbellata			
Aquatic Habitats (ex: submerged or emerged aquatic vegetation, overhanging banks/roots, leaf packs, large submerged wood, riffles, deep pools, etc.): None.			
Aquatic Organisms Observed (list): None.			
Disturbances (ex: livestock access, manure in waterbody, waste discharge pipes): Observed beaver disturbance in nearby river shoreline.			
Observation Notes: The feature is an ephemeral stream with no water present at time of survey but large drift deposits indicate water moves through here at some point in the year. The feature meanders heavily through a forest dominated by white cedar, eastern hemlock, white pine, with some other deciduous species mixed in.			



sasa1007e_W (across)



sasa1007e_N (downstream)



sasa1007e_E (upstream)

Waterbody Data Sheet

Description			
Project Name: Line 5 Relocation Project		Date: 2020-05-19	Waterbody Survey ID: sasa1006i
State: Wisconsin	County/Parish: Ashland	USGS Waterbody Name: UNT to Brunswailer River	
Company: Enbridge	Crew Member Initials: SBR/DGL	Latitude: 46.404984	Longitude: -90.811049
Survey Type: <i>(check one)</i>	<input checked="" type="checkbox"/> Centerline <input type="checkbox"/> Re-Route <input type="checkbox"/> Access Road <input type="checkbox"/> Facility <input type="checkbox"/> Other		
Waterbody Type: <i>(check one)</i>	<input type="checkbox"/> River <input checked="" type="checkbox"/> Stream <input type="checkbox"/> Ditch <input type="checkbox"/> Swale <input type="checkbox"/> Canal <input type="checkbox"/> Other		
Water Appearance: <i>(check one)</i>	<input type="checkbox"/> No Water <input type="checkbox"/> Clear <input checked="" type="checkbox"/> Turbid <input type="checkbox"/> Sheen on Surface <input type="checkbox"/> Surface Scum <input type="checkbox"/> Algal Mats <input type="checkbox"/> Other		
Existing Condition^a: <i>(check one)</i>	<input type="checkbox"/> Highly Functional Stream <input checked="" type="checkbox"/> Moderately Functional Stream <input type="checkbox"/> Functionally Impaired Stream		
Feature Description: <i>(check one)</i>	<input checked="" type="checkbox"/> Natural <input type="checkbox"/> Artificial, man-made <input type="checkbox"/> Manipulated		
Flow Regime: <i>(check one)</i>	<input type="checkbox"/> Ephemeral <input checked="" type="checkbox"/> Intermittent <input type="checkbox"/> Perennial <input type="checkbox"/> Connecting Swale		
Sinuosity within Survey Corridor: <i>(check one)</i>	<input type="checkbox"/> Straight <input checked="" type="checkbox"/> Meandering		
Description Notes: The feature is an intermittent stream with some water present in the upper portion. The feature meanders through a hardwood swamp.			
Measurements			
Depth of Water: <u>0.1</u> ft. N/A <input type="checkbox"/> Unknown <input type="checkbox"/>		Water Edge to Water Edge: <u>2</u> ft. N/A <input type="checkbox"/>	
OHWM Width: <u>9</u> ft.			
OHWM Indicator: <i>(check all that apply)</i>	<input type="checkbox"/> Clear line on bank <input checked="" type="checkbox"/> Shelving <input type="checkbox"/> Wrested vegetation <input type="checkbox"/> Scouring <input type="checkbox"/> Water staining <input checked="" type="checkbox"/> Bent, matted, or missing vegetation <input type="checkbox"/> Wrack line <input checked="" type="checkbox"/> Litter and debris <input checked="" type="checkbox"/> Abrupt plant community change <input type="checkbox"/> Soil characteristic change		
Dominant Substrate: <i>(check all that apply)</i>	<input type="checkbox"/> Bedrock <input type="checkbox"/> Boulder <input checked="" type="checkbox"/> Cobble <input checked="" type="checkbox"/> Gravel <input checked="" type="checkbox"/> Sand <input type="checkbox"/> Silt/ clay <input type="checkbox"/> Organic		
Observations			
Riparian Zone Present: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <i>(check one)</i>			
Vegetation Layers: <input checked="" type="checkbox"/> Trees <input checked="" type="checkbox"/> Saplings/Shrubs <input checked="" type="checkbox"/> Herbs <i>(check all that apply)</i>			
Dominant Bank Vegetation (list): Thuja occidentalis, Ulmus americana, Tsuga canadensis, Fraxinus nigra, Carex bromoides			
Aquatic Habitats (ex: submerged or emerged aquatic vegetation, overhanging banks/roots, leaf packs, large submerged wood, riffles, deep pools, etc.): Some pools present within feature that provide shallow aquatic habitats.			
Aquatic Organisms Observed (list): Frog, aquafic insects.			
Disturbances (ex: livestock access, manure in waterbody, waste discharge pipes): None observed.			
Observation Notes: Stream meanders through a forest with almost continuous canopy cover and a relatively sparse understory at time of survey. A more dense understory will likely develop later in the year.			



sasa1006i_E (across)



sasa1006i_N (downstream)



sasa1006i_S (upstream)

Waterbody Data Sheet

Description			
Project Name: Line 5 Relocation Project		Date: 2020-06-04	Waterbody Survey ID: sasc1004e
State: Wisconsin	County/Parish: Ashland	USGS Waterbody Name: None	
Company: Enbridge	Crew Member Initials: EJO/JSW	Latitude: 46.404283	Longitude: -90.804430
Survey Type: <i>(check one)</i>	<input checked="" type="checkbox"/> Centerline <input type="checkbox"/> Re-Route <input type="checkbox"/> Access Road <input type="checkbox"/> Facility <input type="checkbox"/> Other		
Waterbody Type: <i>(check one)</i>	<input type="checkbox"/> River <input type="checkbox"/> Stream <input checked="" type="checkbox"/> Ditch <input type="checkbox"/> Swale <input type="checkbox"/> Canal <input type="checkbox"/> Other		
Water Appearance: <i>(check one)</i>	<input checked="" type="checkbox"/> No Water <input type="checkbox"/> Clear <input type="checkbox"/> Turbid <input type="checkbox"/> Sheen on Surface <input type="checkbox"/> Surface Scum <input type="checkbox"/> Algal Mats <input type="checkbox"/> Other		
Existing Condition^a: <i>(check one)</i>	<input type="checkbox"/> Highly Functional Stream <input checked="" type="checkbox"/> Moderately Functional Stream <input type="checkbox"/> Functionally Impaired Stream		
Feature Description: <i>(check one)</i>	<input type="checkbox"/> Natural <input type="checkbox"/> Artificial, man-made <input checked="" type="checkbox"/> Manipulated		
Flow Regime: <i>(check one)</i>	<input checked="" type="checkbox"/> Ephemeral <input type="checkbox"/> Intermittent <input type="checkbox"/> Perennial <input type="checkbox"/> Connecting Swale		
Sinuosity within Survey Corridor: <i>(check one)</i>	<input type="checkbox"/> Straight <input checked="" type="checkbox"/> Meandering		
Description Notes: The feature is a narrow stream within a depression between a gravel driveway and residential property and lawn.			
Measurements			
Depth of Water: <u>NA</u> ft. N/A <input type="checkbox"/> Unknown <input type="checkbox"/>		Water Edge to Water Edge: <u>NA</u> ft. N/A <input type="checkbox"/>	
OHWM Width: <u>1</u> ft.			
OHWM Indicator: <i>(check all that apply)</i>	<input checked="" type="checkbox"/> Clear line on bank <input type="checkbox"/> Shelving <input type="checkbox"/> Wrested vegetation <input type="checkbox"/> Scouring <input type="checkbox"/> Water staining <input checked="" type="checkbox"/> Bent, matted, or missing vegetation <input type="checkbox"/> Wrack line <input type="checkbox"/> Litter and debris <input type="checkbox"/> Abrupt plant community change <input type="checkbox"/> Soil characteristic change		
Dominant Substrate: <i>(check all that apply)</i>	<input type="checkbox"/> Bedrock <input type="checkbox"/> Boulder <input type="checkbox"/> Cobble <input type="checkbox"/> Gravel <input type="checkbox"/> Sand <input checked="" type="checkbox"/> Silt/ clay <input type="checkbox"/> Organic		
Observations			
Riparian Zone Present: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <i>(check one)</i>			
Vegetation Layers: <input type="checkbox"/> Trees <input type="checkbox"/> Saplings/Shrubs <input checked="" type="checkbox"/> Herbs <i>(check all that apply)</i>			
Dominant Bank Vegetation (list): Scirpus cyperinus, Phalaris arundinacea, Carex cf. scoparia, Salix discolor			
Aquatic Habitats (ex: submerged or emerged aquatic vegetation, overhanging banks/roots, leaf packs, large submerged wood, riffles, deep pools, etc.): Overhanging, dense vegetation.			
Aquatic Organisms Observed (list): None observed.			
Disturbances (ex: livestock access, manure in waterbody, waste discharge pipes): Part of the stream is mowed where it intersects a lawn.			
Observation Notes: The feature is an ephemeral stream that occurs on a residential property. A narrow fringe wetland is present on either side of stream.			



sasc1004e_S (across)



sasc1004e_E (downstream)



sasc1004e_W (upstream)

Waterbody Data Sheet

Description			
Project Name: Line 5 Relocation Project		Date: 2020-06-04	Waterbody Survey ID: sasc1005e
State: Wisconsin	County/Parish: Ashland	USGS Waterbody Name: None	
Company: Enbridge	Crew Member Initials: EJO/JSW	Latitude: 46.404142	Longitude: -90.804637
Survey Type: <i>(check one)</i>	<input checked="" type="checkbox"/> Centerline <input type="checkbox"/> Re-Route <input type="checkbox"/> Access Road <input type="checkbox"/> Facility <input type="checkbox"/> Other		
Waterbody Type: <i>(check one)</i>	<input type="checkbox"/> River <input type="checkbox"/> Stream <input checked="" type="checkbox"/> Ditch <input type="checkbox"/> Swale <input type="checkbox"/> Canal <input type="checkbox"/> Other		
Water Appearance: <i>(check one)</i>	<input checked="" type="checkbox"/> No Water <input type="checkbox"/> Clear <input type="checkbox"/> Turbid <input type="checkbox"/> Sheen on Surface <input type="checkbox"/> Surface Scum <input type="checkbox"/> Algal Mats <input type="checkbox"/> Other		
Existing Condition^a: <i>(check one)</i>	<input type="checkbox"/> Highly Functional Stream <input checked="" type="checkbox"/> Moderately Functional Stream <input type="checkbox"/> Functionally Impaired Stream		
Feature Description: <i>(check one)</i>	<input type="checkbox"/> Natural <input checked="" type="checkbox"/> Artificial, man-made <input type="checkbox"/> Manipulated		
Flow Regime: <i>(check one)</i>	<input checked="" type="checkbox"/> Ephemeral <input type="checkbox"/> Intermittent <input type="checkbox"/> Perennial <input type="checkbox"/> Connecting Swale		
Sinuosity within Survey Corridor: <i>(check one)</i>	<input checked="" type="checkbox"/> Straight <input type="checkbox"/> Meandering		
Description Notes: The feature is an ephemeral ditch that runs between a gravel driveway and a hay field.			
Measurements			
Depth of Water: <u>NA</u> ft. N/A <input type="checkbox"/> Unknown <input type="checkbox"/>		Water Edge to Water Edge: <u>NA</u> ft. N/A <input type="checkbox"/>	
OHWM Width: <u>1</u> ft.			
OHWM Indicator: <i>(check all that apply)</i>	<input checked="" type="checkbox"/> Clear line on bank <input type="checkbox"/> Shelving <input type="checkbox"/> Wrested vegetation <input type="checkbox"/> Scouring <input type="checkbox"/> Water staining <input checked="" type="checkbox"/> Bent, matted, or missing vegetation <input type="checkbox"/> Wrack line <input type="checkbox"/> Litter and debris <input type="checkbox"/> Abrupt plant community change <input type="checkbox"/> Soil characteristic change		
Dominant Substrate: <i>(check all that apply)</i>	<input type="checkbox"/> Bedrock <input type="checkbox"/> Boulder <input type="checkbox"/> Cobble <input type="checkbox"/> Gravel <input type="checkbox"/> Sand <input checked="" type="checkbox"/> Silt/ clay <input type="checkbox"/> Organic		
Observations			
Riparian Zone Present: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <i>(check one)</i>			
Vegetation Layers: <input type="checkbox"/> Trees <input type="checkbox"/> Saplings/Shrubs <input checked="" type="checkbox"/> Herbs <i>(check all that apply)</i>			
Dominant Bank Vegetation (list): Trifolium repens, Lotus corniculatus			
Aquatic Habitats (ex: submerged or emerged aquatic vegetation, overhanging banks/roots, leaf packs, large submerged wood, riffles, deep pools, etc.): None observed.			
Aquatic Organisms Observed (list): None observed.			
Disturbances (ex: livestock access, manure in waterbody, waste discharge pipes): The feature is partially planted in hay.			
Observation Notes: The feature has sparse vegetative cover; part of the feature occurs in a hay field.			



sasc1005e_S (across)



sasc1005e_E (downstream)



sasc1005e_W (upstream)

Waterbody Data Sheet

Description			
Project Name: Line 5 Relocation Project		Date: 2020-06-05	Waterbody Survey ID: sasc1006p
State: Wisconsin	County/Parish: Ashland	USGS Waterbody Name: UNT to Brunswailer River	
Company: Enbridge	Crew Member Initials: EJO/JSW	Latitude: 46.401275	Longitude: -90.801781
Survey Type: <i>(check one)</i>	<input checked="" type="checkbox"/> Centerline <input type="checkbox"/> Re-Route <input type="checkbox"/> Access Road <input type="checkbox"/> Facility <input type="checkbox"/> Other		
Waterbody Type: <i>(check one)</i>	<input type="checkbox"/> River <input checked="" type="checkbox"/> Stream <input type="checkbox"/> Ditch <input type="checkbox"/> Swale <input type="checkbox"/> Canal <input type="checkbox"/> Other		
Water Appearance: <i>(check one)</i>	<input type="checkbox"/> No Water <input checked="" type="checkbox"/> Clear <input type="checkbox"/> Turbid <input type="checkbox"/> Sheen on Surface <input type="checkbox"/> Surface Scum <input type="checkbox"/> Algal Mats <input type="checkbox"/> Other		
Existing Condition^a: <i>(check one)</i>	<input checked="" type="checkbox"/> Highly Functional Stream <input type="checkbox"/> Moderately Functional Stream <input type="checkbox"/> Functionally Impaired Stream		
Feature Description: <i>(check one)</i>	<input checked="" type="checkbox"/> Natural <input type="checkbox"/> Artificial, man-made <input type="checkbox"/> Manipulated		
Flow Regime: <i>(check one)</i>	<input type="checkbox"/> Ephemeral <input type="checkbox"/> Intermittent <input checked="" type="checkbox"/> Perennial <input type="checkbox"/> Connecting Swale		
Sinuosity within Survey Corridor: <i>(check one)</i>	<input type="checkbox"/> Straight <input checked="" type="checkbox"/> Meandering		
Description Notes: The feature is a perennial stream bordered by a floodplain wetland complex.			
Measurements			
Depth of Water: <u>0.5</u> ft. N/A <input type="checkbox"/> Unknown <input type="checkbox"/>		Water Edge to Water Edge: <u>4</u> ft. N/A <input type="checkbox"/>	
OHWM Width: <u>8</u> ft.			
OHWM Indicator: <i>(check all that apply)</i>	<input checked="" type="checkbox"/> Clear line on bank <input checked="" type="checkbox"/> Shelving <input type="checkbox"/> Wrested vegetation <input checked="" type="checkbox"/> Scouring <input type="checkbox"/> Water staining <input type="checkbox"/> Bent, matted, or missing vegetation <input type="checkbox"/> Wrack line <input checked="" type="checkbox"/> Litter and debris <input type="checkbox"/> Abrupt plant community change <input type="checkbox"/> Soil characteristic change		
Dominant Substrate: <i>(check all that apply)</i>	<input type="checkbox"/> Bedrock <input type="checkbox"/> Boulder <input type="checkbox"/> Cobble <input type="checkbox"/> Gravel <input checked="" type="checkbox"/> Sand <input type="checkbox"/> Silt/ clay <input type="checkbox"/> Organic		
Observations			
Riparian Zone Present: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <i>(check one)</i>			
Vegetation Layers: <input checked="" type="checkbox"/> Trees <input checked="" type="checkbox"/> Saplings/Shrubs <input checked="" type="checkbox"/> Herbs <i>(check all that apply)</i>			
Dominant Bank Vegetation (list): Salix interior, Cornus sericea, Equisetum sylvaticum, Equisetum hyemale			
Aquatic Habitats (ex: submerged or emerged aquatic vegetation, overhanging banks/roots, leaf packs, large submerged wood, riffles, deep pools, etc.): Pools, overhanging vegetation, coarse woody debris.			
Aquatic Organisms Observed (list): Water striders, minnows.			
Disturbances (ex: livestock access, manure in waterbody, waste discharge pipes): None observed.			
Observation Notes: The perennial stream has a sandy substrate with sandbar willow being the dominant vegetation at the sample point.			



sasc1006p_SE (across)



sasc1006p_N (downstream)



sasc1006p_SW (upstream)

Waterbody Data Sheet

Description			
Project Name: Line 5 Relocation Project		Date: 2020-06-05	Waterbody Survey ID: sasc1007e
State: Wisconsin	County/Parish: Ashland	USGS Waterbody Name: UNT to Brunsweler River	
Company: Enbridge	Crew Member Initials: EJO/JSW	Latitude: 46.400847	Longitude: -90.800042
Survey Type: <i>(check one)</i>	<input checked="" type="checkbox"/> Centerline <input type="checkbox"/> Re-Route <input type="checkbox"/> Access Road <input type="checkbox"/> Facility <input type="checkbox"/> Other		
Waterbody Type: <i>(check one)</i>	<input type="checkbox"/> River <input checked="" type="checkbox"/> Stream <input type="checkbox"/> Ditch <input type="checkbox"/> Swale <input type="checkbox"/> Canal <input type="checkbox"/> Other		
Water Appearance: <i>(check one)</i>	<input checked="" type="checkbox"/> No Water <input type="checkbox"/> Clear <input type="checkbox"/> Turbid <input type="checkbox"/> Sheen on Surface <input type="checkbox"/> Surface Scum <input type="checkbox"/> Algal Mats <input type="checkbox"/> Other		
Existing Condition^a: <i>(check one)</i>	<input checked="" type="checkbox"/> Highly Functional Stream <input type="checkbox"/> Moderately Functional Stream <input type="checkbox"/> Functionally Impaired Stream		
Feature Description: <i>(check one)</i>	<input checked="" type="checkbox"/> Natural <input type="checkbox"/> Artificial, man-made <input type="checkbox"/> Manipulated		
Flow Regime: <i>(check one)</i>	<input checked="" type="checkbox"/> Ephemeral <input type="checkbox"/> Intermittent <input type="checkbox"/> Perennial <input type="checkbox"/> Connecting Swale		
Sinuosity within Survey Corridor: <i>(check one)</i>	<input type="checkbox"/> Straight <input checked="" type="checkbox"/> Meandering		
Description Notes: The feature is an ephemeral stream in a small forested ravine within an agricultural landscape.			
Measurements			
Depth of Water: <u>NA</u> ft. N/A <input type="checkbox"/> Unknown <input type="checkbox"/>		Water Edge to Water Edge: <u>NA</u> ft. N/A <input type="checkbox"/>	
OHWM Width: <u>2</u> ft.			
OHWM Indicator: <i>(check all that apply)</i>	<input checked="" type="checkbox"/> Clear line on bank <input checked="" type="checkbox"/> Shelving <input type="checkbox"/> Wrested vegetation <input checked="" type="checkbox"/> Scouring <input type="checkbox"/> Water staining <input checked="" type="checkbox"/> Bent, matted, or missing vegetation <input type="checkbox"/> Wrack line <input checked="" type="checkbox"/> Litter and debris <input type="checkbox"/> Abrupt plant community change <input type="checkbox"/> Soil characteristic change		
Dominant Substrate: <i>(check all that apply)</i>	<input type="checkbox"/> Bedrock <input type="checkbox"/> Boulder <input checked="" type="checkbox"/> Cobble <input type="checkbox"/> Gravel <input type="checkbox"/> Sand <input checked="" type="checkbox"/> Silt/ clay <input type="checkbox"/> Organic		
Observations			
Riparian Zone Present: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <i>(check one)</i>			
Vegetation Layers: <input checked="" type="checkbox"/> Trees <input checked="" type="checkbox"/> Saplings/Shrubs <input checked="" type="checkbox"/> Herbs <i>(check all that apply)</i>			
Dominant Bank Vegetation (list): Tilia americana, Dryopteris intermedia, Carex gracillima, Amelanchier spp.			
Aquatic Habitats (ex: submerged or emerged aquatic vegetation, overhanging banks/roots, leaf packs, large submerged wood, riffles, deep pools, etc.): Overhanging vegetation, woody debris.			
Aquatic Organisms Observed (list): None observed.			
Disturbances (ex: livestock access, manure in waterbody, waste discharge pipes): None observed in stream; stream adjacent to agricultural field.			
Observation Notes: The stream is located in a forested ravine dominated by basswood.			



sasc1007e_NW (across)



sasc1007e_NE (downstream)



sasc1007e_S (upstream)

Waterbody Data Sheet

Description			
Project Name: Line 5 Relocation Project		Date: 2020-06-05	Waterbody Survey ID: sasc1008e
State: Wisconsin	County/Parish: Ashland	USGS Waterbody Name: UNT to Brunswailer River	
Company: Enbridge	Crew Member Initials: EJO/JSW	Latitude: 46.400437	Longitude: -90.799208
Survey Type: <i>(check one)</i>	<input checked="" type="checkbox"/> Centerline <input type="checkbox"/> Re-Route <input type="checkbox"/> Access Road <input type="checkbox"/> Facility <input type="checkbox"/> Other		
Waterbody Type: <i>(check one)</i>	<input type="checkbox"/> River <input checked="" type="checkbox"/> Stream <input type="checkbox"/> Ditch <input type="checkbox"/> Swale <input type="checkbox"/> Canal <input type="checkbox"/> Other		
Water Appearance: <i>(check one)</i>	<input checked="" type="checkbox"/> No Water <input type="checkbox"/> Clear <input type="checkbox"/> Turbid <input type="checkbox"/> Sheen on Surface <input type="checkbox"/> Surface Scum <input type="checkbox"/> Algal Mats <input type="checkbox"/> Other		
Existing Condition^a: <i>(check one)</i>	<input checked="" type="checkbox"/> Highly Functional Stream <input type="checkbox"/> Moderately Functional Stream <input type="checkbox"/> Functionally Impaired Stream		
Feature Description: <i>(check one)</i>	<input checked="" type="checkbox"/> Natural <input type="checkbox"/> Artificial, man-made <input type="checkbox"/> Manipulated		
Flow Regime: <i>(check one)</i>	<input checked="" type="checkbox"/> Ephemeral <input type="checkbox"/> Intermittent <input type="checkbox"/> Perennial <input type="checkbox"/> Connecting Swale		
Sinuosity within Survey Corridor: <i>(check one)</i>	<input type="checkbox"/> Straight <input checked="" type="checkbox"/> Meandering		
Description Notes: The feature is an ephemeral stream located in a small forested ravine surrounded by an agricultural field.			
Measurements			
Depth of Water: <u>NA</u> ft. N/A <input type="checkbox"/> Unknown <input type="checkbox"/>		Water Edge to Water Edge: <u>NA</u> ft. N/A <input type="checkbox"/>	
OHWM Width: <u>1</u> ft.			
OHWM Indicator: <i>(check all that apply)</i>	<input checked="" type="checkbox"/> Clear line on bank <input type="checkbox"/> Shelving <input type="checkbox"/> Wrested vegetation <input checked="" type="checkbox"/> Scouring <input type="checkbox"/> Water staining <input checked="" type="checkbox"/> Bent, matted, or missing vegetation <input type="checkbox"/> Wrack line <input type="checkbox"/> Litter and debris <input type="checkbox"/> Abrupt plant community change <input type="checkbox"/> Soil characteristic change		
Dominant Substrate: <i>(check all that apply)</i>	<input type="checkbox"/> Bedrock <input type="checkbox"/> Boulder <input type="checkbox"/> Cobble <input type="checkbox"/> Gravel <input type="checkbox"/> Sand <input checked="" type="checkbox"/> Silt/ clay <input type="checkbox"/> Organic		
Observations			
Riparian Zone Present: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <i>(check one)</i>			
Vegetation Layers: <input checked="" type="checkbox"/> Trees <input checked="" type="checkbox"/> Saplings/Shrubs <input checked="" type="checkbox"/> Herbs <i>(check all that apply)</i>			
Dominant Bank Vegetation (list): Eurybia macrophylla, Fraxinus nigra, Fraxinus americana, Rhamnus cathartica, Amelanchier spp.			
Aquatic Habitats (ex: submerged or emerged aquatic vegetation, overhanging banks/roots, leaf packs, large submerged wood, riffles, deep pools, etc.): Overhanging vegetation, woody debris.			
Aquatic Organisms Observed (list): None observed.			
Disturbances (ex: livestock access, manure in waterbody, waste discharge pipes): None observed in stream; stream is surrounded by an agricultural field.			
Observation Notes: The stream occurs within a narrow ravine dominated by black ash, white ash, and red maple.			



sasc1008e_W (across)



sasc1008e_N (downstream)



sasc1008e_S (upstream)

Waterbody Data Sheet

Description			
Project Name: Line 5 Relocation Project		Date: 2020-06-05	Waterbody Survey ID: sasc1009e
State: Wisconsin	County/Parish: Ashland	USGS Waterbody Name: UNT to Brunswailer River	
Company: Enbridge	Crew Member Initials: EJO/JSW	Latitude: 46.399830	Longitude: -90.798920
Survey Type: <i>(check one)</i>	<input checked="" type="checkbox"/> Centerline <input type="checkbox"/> Re-Route <input type="checkbox"/> Access Road <input type="checkbox"/> Facility <input type="checkbox"/> Other		
Waterbody Type: <i>(check one)</i>	<input type="checkbox"/> River <input checked="" type="checkbox"/> Stream <input type="checkbox"/> Ditch <input type="checkbox"/> Swale <input type="checkbox"/> Canal <input type="checkbox"/> Other		
Water Appearance: <i>(check one)</i>	<input type="checkbox"/> No Water <input checked="" type="checkbox"/> Clear <input type="checkbox"/> Turbid <input type="checkbox"/> Sheen on Surface <input type="checkbox"/> Surface Scum <input type="checkbox"/> Algal Mats <input type="checkbox"/> Other		
Existing Condition^a: <i>(check one)</i>	<input checked="" type="checkbox"/> Highly Functional Stream <input type="checkbox"/> Moderately Functional Stream <input type="checkbox"/> Functionally Impaired Stream		
Feature Description: <i>(check one)</i>	<input checked="" type="checkbox"/> Natural <input type="checkbox"/> Artificial, man-made <input type="checkbox"/> Manipulated		
Flow Regime: <i>(check one)</i>	<input checked="" type="checkbox"/> Ephemeral <input type="checkbox"/> Intermittent <input type="checkbox"/> Perennial <input type="checkbox"/> Connecting Swale		
Sinuosity within Survey Corridor: <i>(check one)</i>	<input type="checkbox"/> Straight <input checked="" type="checkbox"/> Meandering		
Description Notes: The feature is an ephemeral stream within a narrow forested ravine that is surrounded by an agricultural field.			
Measurements			
Depth of Water: <u>0.1</u> ft. N/A <input type="checkbox"/> Unknown <input type="checkbox"/>		Water Edge to Water Edge: <u>1</u> ft. N/A <input type="checkbox"/>	
OHWM Width: <u>2</u> ft.			
OHWM Indicator: <i>(check all that apply)</i>	<input checked="" type="checkbox"/> Clear line on bank <input type="checkbox"/> Shelving <input type="checkbox"/> Wrested vegetation <input checked="" type="checkbox"/> Scouring <input type="checkbox"/> Water staining <input checked="" type="checkbox"/> Bent, matted, or missing vegetation <input type="checkbox"/> Wrack line <input checked="" type="checkbox"/> Litter and debris <input type="checkbox"/> Abrupt plant community change <input type="checkbox"/> Soil characteristic change		
Dominant Substrate: <i>(check all that apply)</i>	<input type="checkbox"/> Bedrock <input type="checkbox"/> Boulder <input type="checkbox"/> Cobble <input type="checkbox"/> Gravel <input type="checkbox"/> Sand <input checked="" type="checkbox"/> Silt/ clay <input type="checkbox"/> Organic		
Observations			
Riparian Zone Present: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <i>(check one)</i>			
Vegetation Layers: <input checked="" type="checkbox"/> Trees <input checked="" type="checkbox"/> Saplings/Shrubs <input type="checkbox"/> Herbs <i>(check all that apply)</i>			
Dominant Bank Vegetation (list): Acer rubrum, Fraxinus nigra, Diervilla lonicera, Equisetum arvense, Prunus serotina, Carex gracillima			
Aquatic Habitats (ex: submerged or emerged aquatic vegetation, overhanging banks/roots, leaf packs, large submerged wood, riffles, deep pools, etc.): Woody debris, overhanging vegetation.			
Aquatic Organisms Observed (list): None observed.			
Disturbances (ex: livestock access, manure in waterbody, waste discharge pipes): None observed in stream; the stream is surrounded by an agricultural field.			
Observation Notes: The stream is located in a forested ravine dominated by red maple, black ash, and black cherry.			



sasc1009e_E (across)



sasc1009e_N (downstream)



sasc1009e_S (upstream)

Waterbody Data Sheet

Description			
Project Name: Line 5 Relocation Project		Date: 2020-06-09	Waterbody Survey ID: sasa1028i
State: Wisconsin	County/Parish: Ashland	USGS Waterbody Name: None	
Company: Enbridge	Crew Member Initials: SBR/DGL	Latitude: 46.400745	Longitude: -90.797648
Survey Type: <i>(check one)</i>	<input checked="" type="checkbox"/> Centerline <input type="checkbox"/> Re-Route <input type="checkbox"/> Access Road <input type="checkbox"/> Facility <input type="checkbox"/> Other		
Waterbody Type: <i>(check one)</i>	<input type="checkbox"/> River <input checked="" type="checkbox"/> Stream <input type="checkbox"/> Ditch <input type="checkbox"/> Swale <input type="checkbox"/> Canal <input type="checkbox"/> Other		
Water Appearance: <i>(check one)</i>	<input type="checkbox"/> No Water <input checked="" type="checkbox"/> Clear <input type="checkbox"/> Turbid <input type="checkbox"/> Sheen on Surface <input type="checkbox"/> Surface Scum <input type="checkbox"/> Algal Mats <input type="checkbox"/> Other		
Existing Condition^a: <i>(check one)</i>	<input type="checkbox"/> Highly Functional Stream <input checked="" type="checkbox"/> Moderately Functional Stream <input type="checkbox"/> Functionally Impaired Stream		
Feature Description: <i>(check one)</i>	<input type="checkbox"/> Natural <input type="checkbox"/> Artificial, man-made <input checked="" type="checkbox"/> Manipulated		
Flow Regime: <i>(check one)</i>	<input type="checkbox"/> Ephemeral <input checked="" type="checkbox"/> Intermittent <input type="checkbox"/> Perennial <input type="checkbox"/> Connecting Swale		
Sinuosity within Survey Corridor: <i>(check one)</i>	<input type="checkbox"/> Straight <input checked="" type="checkbox"/> Meandering		
Description Notes: The feature is an intermittent stream with a small amount of water present in some places in the channel.			
Measurements			
Depth of Water: <u>0.1</u> ft. N/A <input type="checkbox"/> Unknown <input type="checkbox"/>		Water Edge to Water Edge: <u>1</u> ft. N/A <input type="checkbox"/>	
OHWM Width: <u>6</u> ft.			
OHWM Indicator: <i>(check all that apply)</i>			
<input type="checkbox"/> Clear line on bank <input type="checkbox"/> Shelving <input type="checkbox"/> Wrested vegetation <input checked="" type="checkbox"/> Scouring <input type="checkbox"/> Water staining <input checked="" type="checkbox"/> Bent, matted, or missing vegetation <input type="checkbox"/> Wrack line <input checked="" type="checkbox"/> Litter and debris <input type="checkbox"/> Abrupt plant community change <input type="checkbox"/> Soil characteristic change			
Dominant Substrate: <i>(check all that apply)</i>			
<input type="checkbox"/> Bedrock <input type="checkbox"/> Boulder <input type="checkbox"/> Cobble <input type="checkbox"/> Gravel <input type="checkbox"/> Sand <input checked="" type="checkbox"/> Silt/ clay <input type="checkbox"/> Organic			
Observations			
Riparian Zone Present: <i>(check one)</i>			
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No			
Vegetation Layers: <i>(check all that apply)</i>			
<input checked="" type="checkbox"/> Trees <input type="checkbox"/> Saplings/Shrubs <input checked="" type="checkbox"/> Herbs			
Dominant Bank Vegetation (list): Parthenocissus inserta, Fraxinus americana, Acer rubrum, Betula alleghaniensis, Ulmus americana			
Aquatic Habitats (ex: submerged or emerged aquatic vegetation, overhanging banks/roots, leaf packs, large submerged wood, riffles, deep pools, etc.): Pools.			
Aquatic Organisms Observed (list): Aquatic invertebrates.			
Disturbances (ex: livestock access, manure in waterbody, waste discharge pipes): Polluted runoff from upslope agricultural field.			
Observation Notes: Some areas have denser herbaceous vegetation along the bank. Feature associated with wetland wasa1072f.			



sasa1028i_SE (across)



sasa1028i_SE (downstream)



sasa1028i_NW (upstream)

Waterbody Data Sheet

Description			
Project Name: Line 5 Relocation Project		Date: 2020-06-09	Waterbody Survey ID: sasa1027e
State: Wisconsin	County/Parish: Ashland	USGS Waterbody Name: None	
Company: Enbridge	Crew Member Initials: SBR/DGL	Latitude: 46.400826	Longitude: -90.796458
Survey Type: <small>(check one)</small> <input type="checkbox"/> Centerline <input type="checkbox"/> Re-Route <input checked="" type="checkbox"/> Access Road <input type="checkbox"/> Facility <input type="checkbox"/> Other			
Waterbody Type: <small>(check one)</small> <input type="checkbox"/> River <input checked="" type="checkbox"/> Stream <input type="checkbox"/> Ditch <input type="checkbox"/> Swale <input type="checkbox"/> Canal <input type="checkbox"/> Other			
Water Appearance: <small>(check one)</small> <input checked="" type="checkbox"/> No Water <input type="checkbox"/> Clear <input type="checkbox"/> Turbid <input type="checkbox"/> Sheen on Surface <input type="checkbox"/> Surface Scum <input type="checkbox"/> Algal Mats <input type="checkbox"/> Other			
Existing Condition^a: <small>(check one)</small> <input type="checkbox"/> Highly Functional Stream <input checked="" type="checkbox"/> Moderately Functional Stream <input type="checkbox"/> Functionally Impaired Stream			
Feature Description: <small>(check one)</small> <input type="checkbox"/> Natural <input type="checkbox"/> Artificial, man-made <input checked="" type="checkbox"/> Manipulated			
Flow Regime: <small>(check one)</small> <input checked="" type="checkbox"/> Ephemeral <input type="checkbox"/> Intermittent <input type="checkbox"/> Perennial <input type="checkbox"/> Connecting Swale			
Sinuosity within Survey Corridor: <small>(check one)</small> <input checked="" type="checkbox"/> Straight <input type="checkbox"/> Meandering			
Description Notes: The feature is an ephemeral stream that carries water away from an agricultural field.			
Measurements			
Depth of Water: <u>N/A</u> ft. N/A <input checked="" type="checkbox"/> Unknown <input type="checkbox"/>		Water Edge to Water Edge: <u>N/A</u> ft. N/A <input checked="" type="checkbox"/>	
OHWM Width: <u>3</u> ft.			
OHWM Indicator: <small>(check all that apply)</small> <input type="checkbox"/> Clear line on bank <input checked="" type="checkbox"/> Shelving <input type="checkbox"/> Wrested vegetation <input checked="" type="checkbox"/> Scouring <input type="checkbox"/> Water staining <input type="checkbox"/> Bent, matted, or missing vegetation <input type="checkbox"/> Wrack line <input checked="" type="checkbox"/> Litter and debris <input checked="" type="checkbox"/> Abrupt plant community change <input type="checkbox"/> Soil characteristic change			
Dominant Substrate: <small>(check all that apply)</small> <input type="checkbox"/> Bedrock <input type="checkbox"/> Boulder <input type="checkbox"/> Cobble <input type="checkbox"/> Gravel <input type="checkbox"/> Sand <input checked="" type="checkbox"/> Silt/ clay <input type="checkbox"/> Organic			
Observations			
Riparian Zone Present: <small>(check one)</small> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No			
Vegetation Layers: <small>(check all that apply)</small> <input checked="" type="checkbox"/> Trees <input checked="" type="checkbox"/> Saplings/Shrubs <input checked="" type="checkbox"/> Herbs			
Dominant Bank Vegetation (list): Betula alleghaniensis, Prunus sp., Corylus cornuta, Ribes cf americanum			
Aquatic Habitats (ex: submerged or emerged aquatic vegetation, overhanging banks/roots, leaf packs, large submerged wood, riffles, deep pools, etc.): None.			
Aquatic Organisms Observed (list): None.			
Disturbances (ex: livestock access, manure in waterbody, waste discharge pipes): Polluted runoff from the agricultural field.			
Observation Notes: No water at the time of survey.			



sasa1027e_NE (across)



sasa1027e_NW (downstream)



sasa1027e_SE (upstream)

Waterbody Data Sheet

Description			
Project Name: Line 5 Relocation Project		Date: 2020-06-09	Waterbody Survey ID: sasa1025e
State: Wisconsin	County/Parish: Ashland	USGS Waterbody Name: None	
Company: Enbridge	Crew Member Initials: SBR/DGL	Latitude: 46.401906	Longitude: -90.795275
Survey Type: <i>(check one)</i>	<input type="checkbox"/> Centerline <input type="checkbox"/> Re-Route <input checked="" type="checkbox"/> Access Road <input type="checkbox"/> Facility <input type="checkbox"/> Other		
Waterbody Type: <i>(check one)</i>	<input type="checkbox"/> River <input type="checkbox"/> Stream <input checked="" type="checkbox"/> Ditch <input type="checkbox"/> Swale <input type="checkbox"/> Canal <input type="checkbox"/> Other		
Water Appearance: <i>(check one)</i>	<input checked="" type="checkbox"/> No Water <input type="checkbox"/> Clear <input type="checkbox"/> Turbid <input type="checkbox"/> Sheen on Surface <input type="checkbox"/> Surface Scum <input type="checkbox"/> Algal Mats <input type="checkbox"/> Other		
Existing Condition^a: <i>(check one)</i>	<input type="checkbox"/> Highly Functional Stream <input checked="" type="checkbox"/> Moderately Functional Stream <input type="checkbox"/> Functionally Impaired Stream		
Feature Description: <i>(check one)</i>	<input type="checkbox"/> Natural <input type="checkbox"/> Artificial, man-made <input checked="" type="checkbox"/> Manipulated		
Flow Regime: <i>(check one)</i>	<input checked="" type="checkbox"/> Ephemeral <input type="checkbox"/> Intermittent <input type="checkbox"/> Perennial <input type="checkbox"/> Connecting Swale		
Sinuosity within Survey Corridor: <i>(check one)</i>	<input checked="" type="checkbox"/> Straight <input type="checkbox"/> Meandering		
Description Notes: The feature is an ephemeral ditch.			
Measurements			
Depth of Water: <u>N/A</u> ft. <input checked="" type="checkbox"/> N/A <input type="checkbox"/> Unknown		Water Edge to Water Edge: <u>N/A</u> ft. <input checked="" type="checkbox"/> N/A	
OHWM Width: <u>3</u> ft.			
OHWM Indicator: <i>(check all that apply)</i>	<input type="checkbox"/> Clear line on bank <input type="checkbox"/> Shelving <input checked="" type="checkbox"/> Wrested vegetation <input type="checkbox"/> Scouring <input type="checkbox"/> Water staining <input type="checkbox"/> Bent, matted, or missing vegetation <input type="checkbox"/> Wrack line <input type="checkbox"/> Litter and debris <input checked="" type="checkbox"/> Abrupt plant community change <input type="checkbox"/> Soil characteristic change		
Dominant Substrate: <i>(check all that apply)</i>	<input type="checkbox"/> Bedrock <input type="checkbox"/> Boulder <input type="checkbox"/> Cobble <input type="checkbox"/> Gravel <input type="checkbox"/> Sand <input checked="" type="checkbox"/> Silt/ clay <input type="checkbox"/> Organic		
Observations			
Riparian Zone Present: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <i>(check one)</i>			
Vegetation Layers: <input type="checkbox"/> Trees <input type="checkbox"/> Saplings/Shrubs <input checked="" type="checkbox"/> Herbs <i>(check all that apply)</i>			
Dominant Bank Vegetation (list): Typha sp., Poa pratensis, Juncus filiformis, Leucanthemum vulgare, Lotus corniculatus			
Aquatic Habitats (ex: submerged or emerged aquatic vegetation, overhanging banks/roots, leaf packs, large submerged wood, riffles, deep pools, etc.): None.			
Aquatic Organisms Observed (list): None.			
Disturbances (ex: livestock access, manure in waterbody, waste discharge pipes): Receives runoff from roadside and adjacent agricultural field.			
Observation Notes: Feature is located along a busy highway. A narrow wetland fringe is present.			



sasa1025e_E (across)



sasa1025e_NW (downstream)



sasa1025e_SE (upstream)

Waterbody Data Sheet

Description			
Project Name: Line 5 Relocation Project		Date: 2020-06-09	Waterbody Survey ID: sasa1026e
State: Wisconsin	County/Parish: Ashland	USGS Waterbody Name: None	
Company: Enbridge	Crew Member Initials: SBR/DGL	Latitude: 46.401761	Longitude: -90.795139
Survey Type: <i>(check one)</i>	<input type="checkbox"/> Centerline <input type="checkbox"/> Re-Route <input checked="" type="checkbox"/> Access Road <input type="checkbox"/> Facility <input type="checkbox"/> Other		
Waterbody Type: <i>(check one)</i>	<input type="checkbox"/> River <input type="checkbox"/> Stream <input checked="" type="checkbox"/> Ditch <input type="checkbox"/> Swale <input type="checkbox"/> Canal <input type="checkbox"/> Other		
Water Appearance: <i>(check one)</i>	<input checked="" type="checkbox"/> No Water <input type="checkbox"/> Clear <input type="checkbox"/> Turbid <input type="checkbox"/> Sheen on Surface <input type="checkbox"/> Surface Scum <input type="checkbox"/> Algal Mats <input type="checkbox"/> Other		
Existing Condition^a: <i>(check one)</i>	<input type="checkbox"/> Highly Functional Stream <input checked="" type="checkbox"/> Moderately Functional Stream <input type="checkbox"/> Functionally Impaired Stream		
Feature Description: <i>(check one)</i>	<input type="checkbox"/> Natural <input type="checkbox"/> Artificial, man-made <input checked="" type="checkbox"/> Manipulated		
Flow Regime: <i>(check one)</i>	<input checked="" type="checkbox"/> Ephemeral <input type="checkbox"/> Intermittent <input type="checkbox"/> Perennial <input type="checkbox"/> Connecting Swale		
Sinuosity within Survey Corridor: <i>(check one)</i>	<input checked="" type="checkbox"/> Straight <input type="checkbox"/> Meandering		
Description Notes: The feature is an ephemeral ditch.			
Measurements			
Depth of Water: <u>N/A</u> ft. <input checked="" type="checkbox"/> N/A <input type="checkbox"/> Unknown		Water Edge to Water Edge: <u>N/A</u> ft. <input checked="" type="checkbox"/> N/A	
OHWM Width: <u>3</u> ft.			
OHWM Indicator: <i>(check all that apply)</i>	<input type="checkbox"/> Clear line on bank <input type="checkbox"/> Shelving <input checked="" type="checkbox"/> Wrested vegetation <input type="checkbox"/> Scouring <input type="checkbox"/> Water staining <input type="checkbox"/> Bent, matted, or missing vegetation <input type="checkbox"/> Wrack line <input type="checkbox"/> Litter and debris <input checked="" type="checkbox"/> Abrupt plant community change <input type="checkbox"/> Soil characteristic change		
Dominant Substrate: <i>(check all that apply)</i>	<input type="checkbox"/> Bedrock <input type="checkbox"/> Boulder <input type="checkbox"/> Cobble <input type="checkbox"/> Gravel <input type="checkbox"/> Sand <input checked="" type="checkbox"/> Silt/ clay <input type="checkbox"/> Organic		
Observations			
Riparian Zone Present: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <i>(check one)</i>			
Vegetation Layers: <input type="checkbox"/> Trees <input type="checkbox"/> Saplings/Shrubs <input checked="" type="checkbox"/> Herbs <i>(check all that apply)</i>			
Dominant Bank Vegetation (list): Typha sp., Juncus filiformis, Equisetum pratense, Leucanthemum vulgare, Lotus corniculatus			
Aquatic Habitats (ex: submerged or emerged aquatic vegetation, overhanging banks/roots, leaf packs, large submerged wood, riffles, deep pools, etc.): None.			
Aquatic Organisms Observed (list): None.			
Disturbances (ex: livestock access, manure in waterbody, waste discharge pipes): Polluted runoff from nearby road and corn field.			
Observation Notes: No water was observed at the time of survey. A narrow wetland fringe is present.			



sasa1026e_NE (across)



sasa1026e_NW (downstream)



sasa1026e_SE (upstream)

Waterbody Data Sheet

Description			
Project Name: Line 5 Relocation Project		Date: 2020-06-05	Waterbody Survey ID: sasc1010i
State: Wisconsin	County/Parish: Ashland	USGS Waterbody Name: UNT to Brunswailer River	
Company: Enbridge	Crew Member Initials: EJO/JSW	Latitude: 46.400263	Longitude: -90.790965
Survey Type: <i>(check one)</i>	<input checked="" type="checkbox"/> Centerline <input type="checkbox"/> Re-Route <input type="checkbox"/> Access Road <input type="checkbox"/> Facility <input type="checkbox"/> Other		
Waterbody Type: <i>(check one)</i>	<input type="checkbox"/> River <input checked="" type="checkbox"/> Stream <input type="checkbox"/> Ditch <input type="checkbox"/> Swale <input type="checkbox"/> Canal <input type="checkbox"/> Other		
Water Appearance: <i>(check one)</i>	<input type="checkbox"/> No Water <input type="checkbox"/> Clear <input checked="" type="checkbox"/> Turbid <input type="checkbox"/> Sheen on Surface <input type="checkbox"/> Surface Scum <input type="checkbox"/> Algal Mats <input type="checkbox"/> Other		
Existing Condition^a: <i>(check one)</i>	<input checked="" type="checkbox"/> Highly Functional Stream <input type="checkbox"/> Moderately Functional Stream <input type="checkbox"/> Functionally Impaired Stream		
Feature Description: <i>(check one)</i>	<input checked="" type="checkbox"/> Natural <input type="checkbox"/> Artificial, man-made <input type="checkbox"/> Manipulated		
Flow Regime: <i>(check one)</i>	<input type="checkbox"/> Ephemeral <input checked="" type="checkbox"/> Intermittent <input type="checkbox"/> Perennial <input type="checkbox"/> Connecting Swale		
Sinuosity within Survey Corridor: <i>(check one)</i>	<input type="checkbox"/> Straight <input checked="" type="checkbox"/> Meandering		
Description Notes: The feature is an intermittent stream associated with wetland wasc1036s.			
Measurements			
Depth of Water: <u>0.5</u> ft. N/A <input type="checkbox"/> Unknown <input type="checkbox"/>		Water Edge to Water Edge: <u>1</u> ft. N/A <input type="checkbox"/>	
OHWM Width: <u>3</u> ft.			
OHWM Indicator: <i>(check all that apply)</i>	<input checked="" type="checkbox"/> Clear line on bank <input checked="" type="checkbox"/> Shelving <input type="checkbox"/> Wrested vegetation <input checked="" type="checkbox"/> Scouring <input type="checkbox"/> Water staining <input checked="" type="checkbox"/> Bent, matted, or missing vegetation <input type="checkbox"/> Wrack line <input checked="" type="checkbox"/> Litter and debris <input type="checkbox"/> Abrupt plant community change <input type="checkbox"/> Soil characteristic change		
Dominant Substrate: <i>(check all that apply)</i>	<input type="checkbox"/> Bedrock <input type="checkbox"/> Boulder <input type="checkbox"/> Cobble <input type="checkbox"/> Gravel <input checked="" type="checkbox"/> Sand <input checked="" type="checkbox"/> Silt/ clay <input type="checkbox"/> Organic		
Observations			
Riparian Zone Present: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <i>(check one)</i>			
Vegetation Layers: <input checked="" type="checkbox"/> Trees <input checked="" type="checkbox"/> Saplings/Shrubs <input checked="" type="checkbox"/> Herbs <i>(check all that apply)</i>			
Dominant Bank Vegetation (list): Cornus sericea, Salix eriocephala, Vitis riparia, Populus tremuloides			
Aquatic Habitats (ex: submerged or emerged aquatic vegetation, overhanging banks/roots, leaf packs, large submerged wood, riffles, deep pools, etc.): Pools, overhanging vegetation, coarse woody debris.			
Aquatic Organisms Observed (list): None observed.			
Disturbances (ex: livestock access, manure in waterbody, waste discharge pipes): None observed in the stream.			
Observation Notes: The stream is associated with a shrub-carr wetland.			



sasc1010i_SE (across)



sasc1010i_E (downstream)



sasc1010i_SW (upstream)

Waterbody Data Sheet

Description			
Project Name: Line 5 Relocation Project		Date: 2020-06-02	Waterbody Survey ID: sasc1003p
State: Wisconsin	County/Parish: Ashland	USGS Waterbody Name: UNT to Trout Brook	
Company: Enbridge	Crew Member Initials: EJO/JSW	Latitude: 46.397164	Longitude: -90.781390
Survey Type: <i>(check one)</i>	<input checked="" type="checkbox"/> Centerline <input type="checkbox"/> Re-Route <input type="checkbox"/> Access Road <input type="checkbox"/> Facility <input type="checkbox"/> Other		
Waterbody Type: <i>(check one)</i>	<input type="checkbox"/> River <input checked="" type="checkbox"/> Stream <input type="checkbox"/> Ditch <input type="checkbox"/> Swale <input type="checkbox"/> Canal <input type="checkbox"/> Other		
Water Appearance: <i>(check one)</i>	<input type="checkbox"/> No Water <input type="checkbox"/> Clear <input checked="" type="checkbox"/> Turbid <input type="checkbox"/> Sheen on Surface <input type="checkbox"/> Surface Scum <input type="checkbox"/> Algal Mats <input type="checkbox"/> Other		
Existing Condition^a: <i>(check one)</i>	<input checked="" type="checkbox"/> Highly Functional Stream <input type="checkbox"/> Moderately Functional Stream <input type="checkbox"/> Functionally Impaired Stream		
Feature Description: <i>(check one)</i>	<input checked="" type="checkbox"/> Natural <input type="checkbox"/> Artificial, man-made <input type="checkbox"/> Manipulated		
Flow Regime: <i>(check one)</i>	<input type="checkbox"/> Ephemeral <input type="checkbox"/> Intermittent <input checked="" type="checkbox"/> Perennial <input type="checkbox"/> Connecting Swale		
Sinuosity within Survey Corridor: <i>(check one)</i>	<input type="checkbox"/> Straight <input checked="" type="checkbox"/> Meandering		
Description Notes: The feature is a perennial stream.			
Measurements			
Depth of Water: <u> 1 </u> ft. N/A <input type="checkbox"/> Unknown <input type="checkbox"/>		Water Edge to Water Edge: <u> 6 </u> ft. N/A <input type="checkbox"/>	
OHWM Width: <u> 8 </u> ft.			
OHWM Indicator: <i>(check all that apply)</i>	<input checked="" type="checkbox"/> Clear line on bank <input checked="" type="checkbox"/> Shelving <input type="checkbox"/> Wrested vegetation <input checked="" type="checkbox"/> Scouring <input type="checkbox"/> Water staining <input checked="" type="checkbox"/> Bent, matted, or missing vegetation <input type="checkbox"/> Wrack line <input type="checkbox"/> Litter and debris <input type="checkbox"/> Abrupt plant community change <input type="checkbox"/> Soil characteristic change		
Dominant Substrate: <i>(check all that apply)</i>	<input type="checkbox"/> Bedrock <input type="checkbox"/> Boulder <input type="checkbox"/> Cobble <input type="checkbox"/> Gravel <input checked="" type="checkbox"/> Sand <input type="checkbox"/> Silt/ clay <input type="checkbox"/> Organic		
Observations			
Riparian Zone Present: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <i>(check one)</i>			
Vegetation Layers: <input checked="" type="checkbox"/> Trees <input checked="" type="checkbox"/> Saplings/Shrubs <input checked="" type="checkbox"/> Herbs <i>(check all that apply)</i>			
Dominant Bank Vegetation (list): Cornus racemosa, Viburnum lentago, Carex brunnescens, Ribes americanum, Salix cf. nigra, Fraxinus nigra			
Aquatic Habitats (ex: submerged or emerged aquatic vegetation, overhanging banks/roots, leaf packs, large submerged wood, riffles, deep pools, etc.): Overhanging vegetation, pools, runs and riffles.			
Aquatic Organisms Observed (list): Water striders, unidentified fish.			
Disturbances (ex: livestock access, manure in waterbody, waste discharge pipes): None observed.			
Observation Notes: The feature is a perennial stream surrounded by a floodplain forest.			



sasc1003p_SE (across)



sasc1003p_NE (downstream)



sasc1003p_S (upstream)

Waterbody Data Sheet

Description			
Project Name: Line 5 Relocation Project		Date: 2020-06-02	Waterbody Survey ID: sasc1002i
State: Wisconsin	County/Parish: Ashland	USGS Waterbody Name: UNT to Trout Brook	
Company: Enbridge	Crew Member Initials: EJO/JSW	Latitude: 46.397008	Longitude: -90.779854
Survey Type: <i>(check one)</i>	<input checked="" type="checkbox"/> Centerline <input type="checkbox"/> Re-Route <input type="checkbox"/> Access Road <input type="checkbox"/> Facility <input type="checkbox"/> Other		
Waterbody Type: <i>(check one)</i>	<input type="checkbox"/> River <input checked="" type="checkbox"/> Stream <input type="checkbox"/> Ditch <input type="checkbox"/> Swale <input type="checkbox"/> Canal <input type="checkbox"/> Other		
Water Appearance: <i>(check one)</i>	<input type="checkbox"/> No Water <input checked="" type="checkbox"/> Clear <input type="checkbox"/> Turbid <input type="checkbox"/> Sheen on Surface <input type="checkbox"/> Surface Scum <input type="checkbox"/> Algal Mats <input type="checkbox"/> Other		
Existing Condition^a: <i>(check one)</i>	<input checked="" type="checkbox"/> Highly Functional Stream <input type="checkbox"/> Moderately Functional Stream <input type="checkbox"/> Functionally Impaired Stream		
Feature Description: <i>(check one)</i>	<input checked="" type="checkbox"/> Natural <input type="checkbox"/> Artificial, man-made <input type="checkbox"/> Manipulated		
Flow Regime: <i>(check one)</i>	<input type="checkbox"/> Ephemeral <input checked="" type="checkbox"/> Intermittent <input type="checkbox"/> Perennial <input type="checkbox"/> Connecting Swale		
Sinuosity within Survey Corridor: <i>(check one)</i>	<input type="checkbox"/> Straight <input checked="" type="checkbox"/> Meandering		
Description Notes: The stream is contiguous with sasc1001i and runs through a wet meadow.			
Measurements			
Depth of Water: <u>0.25</u> ft. N/A <input type="checkbox"/> Unknown <input type="checkbox"/>		Water Edge to Water Edge: <u>1</u> ft. N/A <input type="checkbox"/>	
OHWM Width: <u>5</u> ft.			
OHWM Indicator: <i>(check all that apply)</i>	<input type="checkbox"/> Clear line on bank <input type="checkbox"/> Shelving <input type="checkbox"/> Wrested vegetation <input type="checkbox"/> Scouring <input checked="" type="checkbox"/> Water staining <input checked="" type="checkbox"/> Bent, matted, or missing vegetation <input type="checkbox"/> Wrack line <input type="checkbox"/> Litter and debris <input type="checkbox"/> Abrupt plant community change <input type="checkbox"/> Soil characteristic change		
Dominant Substrate: <i>(check all that apply)</i>	<input type="checkbox"/> Bedrock <input type="checkbox"/> Boulder <input type="checkbox"/> Cobble <input checked="" type="checkbox"/> Gravel <input checked="" type="checkbox"/> Sand <input type="checkbox"/> Silt/ clay <input type="checkbox"/> Organic		
Observations			
Riparian Zone Present: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <i>(check one)</i>			
Vegetation Layers: <input type="checkbox"/> Trees <input type="checkbox"/> Saplings/Shrubs <input checked="" type="checkbox"/> Herbs <i>(check all that apply)</i>			
Dominant Bank Vegetation (list): Phalaris arundinacea, Equisetum arvense, Onoclea sensibilis			
Aquatic Habitats (ex: submerged or emerged aquatic vegetation, overhanging banks/roots, leaf packs, large submerged wood, riffles, deep pools, etc.): Overhanging vegetation.			
Aquatic Organisms Observed (list): Frog.			
Disturbances (ex: livestock access, manure in waterbody, waste discharge pipes): None observed; the surrounding wet meadow is dominated by invasive reed canary grass.			
Observation Notes: The feature is an intermittent stream associated with a wet meadow dominated by reed canary grass.			



sasc1002i_NE (across)



sasc1002i_NW (downstream)



sasc1002i_SE (upstream)

Waterbody Data Sheet

Description			
Project Name: Line 5 Relocation Project		Date: 2020-06-02	Waterbody Survey ID: sasc1001i
State: Wisconsin	County/Parish: Ashland	USGS Waterbody Name: UNT to Trout Brook	
Company: Enbridge	Crew Member Initials: EJO/JSW	Latitude: 46.396325	Longitude: -90.779823
Survey Type: <i>(check one)</i>	<input checked="" type="checkbox"/> Centerline <input type="checkbox"/> Re-Route <input type="checkbox"/> Access Road <input type="checkbox"/> Facility <input type="checkbox"/> Other		
Waterbody Type: <i>(check one)</i>	<input type="checkbox"/> River <input checked="" type="checkbox"/> Stream <input type="checkbox"/> Ditch <input type="checkbox"/> Swale <input type="checkbox"/> Canal <input type="checkbox"/> Other		
Water Appearance: <i>(check one)</i>	<input type="checkbox"/> No Water <input type="checkbox"/> Clear <input checked="" type="checkbox"/> Turbid <input type="checkbox"/> Sheen on Surface <input type="checkbox"/> Surface Scum <input type="checkbox"/> Algal Mats <input type="checkbox"/> Other		
Existing Condition^a: <i>(check one)</i>	<input type="checkbox"/> Highly Functional Stream <input checked="" type="checkbox"/> Moderately Functional Stream <input type="checkbox"/> Functionally Impaired Stream		
Feature Description: <i>(check one)</i>	<input checked="" type="checkbox"/> Natural <input type="checkbox"/> Artificial, man-made <input type="checkbox"/> Manipulated		
Flow Regime: <i>(check one)</i>	<input type="checkbox"/> Ephemeral <input checked="" type="checkbox"/> Intermittent <input type="checkbox"/> Perennial <input type="checkbox"/> Connecting Swale		
Sinuosity within Survey Corridor: <i>(check one)</i>	<input type="checkbox"/> Straight <input checked="" type="checkbox"/> Meandering		
Description Notes: The stream is intermittent and somewhat degraded by the presence of lumber and refuse.			
Measurements			
Depth of Water: <u>0.5</u> ft. N/A <input type="checkbox"/> Unknown <input type="checkbox"/>		Water Edge to Water Edge: <u>2</u> ft. N/A <input type="checkbox"/>	
OHWM Width: <u>5</u> ft.			
OHWM Indicator: <i>(check all that apply)</i>			
<input checked="" type="checkbox"/> Clear line on bank <input checked="" type="checkbox"/> Shelving <input type="checkbox"/> Wrested vegetation <input checked="" type="checkbox"/> Scouring <input type="checkbox"/> Water staining <input type="checkbox"/> Bent, matted, or missing vegetation <input type="checkbox"/> Wrack line <input checked="" type="checkbox"/> Litter and debris <input type="checkbox"/> Abrupt plant community change <input type="checkbox"/> Soil characteristic change			
Dominant Substrate: <i>(check all that apply)</i>			
<input type="checkbox"/> Bedrock <input type="checkbox"/> Boulder <input checked="" type="checkbox"/> Cobble <input checked="" type="checkbox"/> Gravel <input type="checkbox"/> Sand <input type="checkbox"/> Silt/ clay <input type="checkbox"/> Organic			
Observations			
Riparian Zone Present: <i>(check one)</i>			
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No			
Vegetation Layers: <i>(check all that apply)</i>			
<input checked="" type="checkbox"/> Trees <input checked="" type="checkbox"/> Saplings/Shrubs <input checked="" type="checkbox"/> Herbs			
Dominant Bank Vegetation (list): Populus tremuloides, Onoclea sensibilis, Rubus idaeus, Vitis riparia, Matteuccia struthiopteris, Cornus sericea, Diervilla lonicera			
Aquatic Habitats (ex: submerged or emerged aquatic vegetation, overhanging banks/roots, leaf packs, large submerged wood, riffles, deep pools, etc.): Overhanging vegetation, coarse woody debris.			
Aquatic Organisms Observed (list): None observed.			
Disturbances (ex: livestock access, manure in waterbody, waste discharge pipes): Lumber and other refuse observed in stream.			
Observation Notes: The stream is intermittent and is fed by a culvert.			



sasc1001i_NW (across)



sasc1001i_NE (downstream)



sasc100li_SW (upstream)

Waterbody Data Sheet

Description			
Project Name: Line 5 Relocation Project		Date: 2020-06-06	Waterbody Survey ID: sasc1011e
State: Wisconsin	County/Parish: Ashland	USGS Waterbody Name: None	
Company: Enbridge	Crew Member Initials: EJO/JSW	Latitude: 46.390528	Longitude: -90.775157
Survey Type: <i>(check one)</i>	<input checked="" type="checkbox"/> Centerline <input type="checkbox"/> Re-Route <input type="checkbox"/> Access Road <input type="checkbox"/> Facility <input type="checkbox"/> Other		
Waterbody Type: <i>(check one)</i>	<input type="checkbox"/> River <input checked="" type="checkbox"/> Stream <input type="checkbox"/> Ditch <input type="checkbox"/> Swale <input type="checkbox"/> Canal <input type="checkbox"/> Other		
Water Appearance: <i>(check one)</i>	<input checked="" type="checkbox"/> No Water <input type="checkbox"/> Clear <input type="checkbox"/> Turbid <input type="checkbox"/> Sheen on Surface <input type="checkbox"/> Surface Scum <input type="checkbox"/> Algal Mats <input type="checkbox"/> Other		
Existing Condition^a: <i>(check one)</i>	<input checked="" type="checkbox"/> Highly Functional Stream <input type="checkbox"/> Moderately Functional Stream <input type="checkbox"/> Functionally Impaired Stream		
Feature Description: <i>(check one)</i>	<input checked="" type="checkbox"/> Natural <input type="checkbox"/> Artificial, man-made <input type="checkbox"/> Manipulated		
Flow Regime: <i>(check one)</i>	<input checked="" type="checkbox"/> Ephemeral <input type="checkbox"/> Intermittent <input type="checkbox"/> Perennial <input type="checkbox"/> Connecting Swale		
Sinuosity within Survey Corridor: <i>(check one)</i>	<input type="checkbox"/> Straight <input checked="" type="checkbox"/> Meandering		
Description Notes: The feature is a narrow ephemeral stream located within a hardwood forest. The stream appears to drain out of wetland wasc1040f and into wetland wasc1041f.			
Measurements			
Depth of Water: <u>NA</u> ft. N/A <input type="checkbox"/> Unknown <input type="checkbox"/>		Water Edge to Water Edge: <u>NA</u> ft. N/A <input type="checkbox"/>	
OHWM Width: <u>1</u> ft.			
OHWM Indicator: <i>(check all that apply)</i>	<input checked="" type="checkbox"/> Clear line on bank <input type="checkbox"/> Shelving <input type="checkbox"/> Wrested vegetation <input checked="" type="checkbox"/> Scouring <input type="checkbox"/> Water staining <input checked="" type="checkbox"/> Bent, matted, or missing vegetation <input type="checkbox"/> Wrack line <input type="checkbox"/> Litter and debris <input type="checkbox"/> Abrupt plant community change <input type="checkbox"/> Soil characteristic change		
Dominant Substrate: <i>(check all that apply)</i>	<input type="checkbox"/> Bedrock <input type="checkbox"/> Boulder <input type="checkbox"/> Cobble <input type="checkbox"/> Gravel <input type="checkbox"/> Sand <input checked="" type="checkbox"/> Silt/ clay <input type="checkbox"/> Organic		
Observations			
Riparian Zone Present: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <i>(check one)</i>			
Vegetation Layers: <input checked="" type="checkbox"/> Trees <input checked="" type="checkbox"/> Saplings/Shrubs <input checked="" type="checkbox"/> Herbs <i>(check all that apply)</i>			
Dominant Bank Vegetation (list): Tsuga canadensis, Acer rubrum, Ulmus americana, Dryopteris intermedia, Thuja occidentalis			
Aquatic Habitats (ex: submerged or emerged aquatic vegetation, overhanging banks/roots, leaf packs, large submerged wood, riffles, deep pools, etc.): Overhanging vegetation, woody debris.			
Aquatic Organisms Observed (list): None observed.			
Disturbances (ex: livestock access, manure in waterbody, waste discharge pipes): None observed.			
Observation Notes: The stream runs through a forest dominated by eastern hemlock, red maple, American elm, and northern white cedar.			



sasc1011e_N (across)



sasc1011e_E (downstream)



sasc1011e_W (upstream)

Waterbody Data Sheet

Description			
Project Name: Line 5 Relocation Project		Date: 2020-06-06	Waterbody Survey ID: sasc1012p
State: Wisconsin	County/Parish: Ashland	USGS Waterbody Name: Trout Brook	
Company: Enbridge	Crew Member Initials: EJO/JSW	Latitude: 46.390396	Longitude: -90.774462
Survey Type: <i>(check one)</i>	<input checked="" type="checkbox"/> Centerline <input type="checkbox"/> Re-Route <input type="checkbox"/> Access Road <input type="checkbox"/> Facility <input type="checkbox"/> Other		
Waterbody Type: <i>(check one)</i>	<input checked="" type="checkbox"/> River <input type="checkbox"/> Stream <input type="checkbox"/> Ditch <input type="checkbox"/> Swale <input type="checkbox"/> Canal <input type="checkbox"/> Other		
Water Appearance: <i>(check one)</i>	<input type="checkbox"/> No Water <input checked="" type="checkbox"/> Clear <input type="checkbox"/> Turbid <input type="checkbox"/> Sheen on Surface <input type="checkbox"/> Surface Scum <input type="checkbox"/> Algal Mats <input type="checkbox"/> Other		
Existing Condition^a: <i>(check one)</i>	<input checked="" type="checkbox"/> Highly Functional Stream <input type="checkbox"/> Moderately Functional Stream <input type="checkbox"/> Functionally Impaired Stream		
Feature Description: <i>(check one)</i>	<input checked="" type="checkbox"/> Natural <input type="checkbox"/> Artificial, man-made <input type="checkbox"/> Manipulated		
Flow Regime: <i>(check one)</i>	<input type="checkbox"/> Ephemeral <input type="checkbox"/> Intermittent <input checked="" type="checkbox"/> Perennial <input type="checkbox"/> Connecting Swale		
Sinuosity within Survey Corridor: <i>(check one)</i>	<input type="checkbox"/> Straight <input checked="" type="checkbox"/> Meandering		
Description Notes: The feature is a perennial stream associated with the floodplain wasc1041f.			
Measurements			
Depth of Water: <u>2</u> ft. N/A <input type="checkbox"/> Unknown <input type="checkbox"/>		Water Edge to Water Edge: <u>20</u> ft. N/A <input type="checkbox"/>	
OHWM Width: <u>30</u> ft.			
OHWM Indicator: <i>(check all that apply)</i>	<input checked="" type="checkbox"/> Clear line on bank <input checked="" type="checkbox"/> Shelving <input type="checkbox"/> Wrested vegetation <input checked="" type="checkbox"/> Scouring <input type="checkbox"/> Water staining <input checked="" type="checkbox"/> Bent, matted, or missing vegetation <input type="checkbox"/> Wrack line <input checked="" type="checkbox"/> Litter and debris <input type="checkbox"/> Abrupt plant community change <input type="checkbox"/> Soil characteristic change		
Dominant Substrate: <i>(check all that apply)</i>	<input type="checkbox"/> Bedrock <input type="checkbox"/> Boulder <input checked="" type="checkbox"/> Cobble <input checked="" type="checkbox"/> Gravel <input checked="" type="checkbox"/> Sand <input type="checkbox"/> Silt/ clay <input type="checkbox"/> Organic		
Observations			
Riparian Zone Present: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <i>(check one)</i>			
Vegetation Layers: <input checked="" type="checkbox"/> Trees <input checked="" type="checkbox"/> Saplings/Shrubs <input checked="" type="checkbox"/> Herbs <i>(check all that apply)</i>			
Dominant Bank Vegetation (list): Populus balsamifera, Matteuccia struthiopteris, Tilia americana, Solidago gigantea, Acer rubrum, Fraxinus nigra			
Aquatic Habitats (ex: submerged or emerged aquatic vegetation, overhanging banks/roots, leaf packs, large submerged wood, riffles, deep pools, etc.): Overhanging vegetation, pools, runs and riffles, coarse woody debris.			
Aquatic Organisms Observed (list): None observed.			
Disturbances (ex: livestock access, manure in waterbody, waste discharge pipes): None observed.			
Observation Notes: The stream is associated with a floodplain forest.			



sasc1012p_SE (across)



sasc1012p_E (downstream)



sasc1012p_SW (upstream)

Waterbody Data Sheet

Description			
Project Name: Line 5 Relocation Project		Date: 2020-06-08	Waterbody Survey ID: sasa1014e
State: Wisconsin	County/Parish: Ashland	USGS Waterbody Name: UNT to White River	
Company: Enbridge	Crew Member Initials: SBR/DGL	Latitude: 46.496051	Longitude: -90.905262
Survey Type: <i>(check one)</i>	<input type="checkbox"/> Centerline <input type="checkbox"/> Re-Route <input checked="" type="checkbox"/> Access Road <input type="checkbox"/> Facility <input type="checkbox"/> Other		
Waterbody Type: <i>(check one)</i>	<input type="checkbox"/> River <input checked="" type="checkbox"/> Stream <input type="checkbox"/> Ditch <input type="checkbox"/> Swale <input type="checkbox"/> Canal <input type="checkbox"/> Other		
Water Appearance: <i>(check one)</i>	<input checked="" type="checkbox"/> No Water <input type="checkbox"/> Clear <input type="checkbox"/> Turbid <input type="checkbox"/> Sheen on Surface <input type="checkbox"/> Surface Scum <input type="checkbox"/> Algal Mats <input type="checkbox"/> Other		
Existing Condition^a: <i>(check one)</i>	<input type="checkbox"/> Highly Functional Stream <input checked="" type="checkbox"/> Moderately Functional Stream <input type="checkbox"/> Functionally Impaired Stream		
Feature Description: <i>(check one)</i>	<input type="checkbox"/> Natural <input type="checkbox"/> Artificial, man-made <input checked="" type="checkbox"/> Manipulated		
Flow Regime: <i>(check one)</i>	<input checked="" type="checkbox"/> Ephemeral <input type="checkbox"/> Intermittent <input type="checkbox"/> Perennial <input type="checkbox"/> Connecting Swale		
Sinuosity within Survey Corridor: <i>(check one)</i>	<input checked="" type="checkbox"/> Straight <input type="checkbox"/> Meandering		
Description Notes: The feature is an ephemeral stream that carries water away from an agricultural field.			
Measurements			
Depth of Water: <u>N/A</u> ft. <input checked="" type="checkbox"/> N/A <input type="checkbox"/> Unknown		Water Edge to Water Edge: <u>N/A</u> ft. <input checked="" type="checkbox"/> N/A	
OHWM Width: <u>2</u> ft.			
OHWM Indicator: <i>(check all that apply)</i>	<input type="checkbox"/> Clear line on bank <input checked="" type="checkbox"/> Shelving <input type="checkbox"/> Wrested vegetation <input type="checkbox"/> Scouring <input type="checkbox"/> Water staining <input type="checkbox"/> Bent, matted, or missing vegetation <input type="checkbox"/> Wrack line <input checked="" type="checkbox"/> Litter and debris <input checked="" type="checkbox"/> Abrupt plant community change <input type="checkbox"/> Soil characteristic change		
Dominant Substrate: <i>(check all that apply)</i>	<input type="checkbox"/> Bedrock <input type="checkbox"/> Boulder <input type="checkbox"/> Cobble <input type="checkbox"/> Gravel <input type="checkbox"/> Sand <input checked="" type="checkbox"/> Silt/ clay <input type="checkbox"/> Organic		
Observations			
Riparian Zone Present: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <i>(check one)</i>			
Vegetation Layers: <input checked="" type="checkbox"/> Trees <input checked="" type="checkbox"/> Saplings/Shrubs <input checked="" type="checkbox"/> Herbs <i>(check all that apply)</i>			
Dominant Bank Vegetation (list): Abies balsamea, Populus tremuloides, Toxicodendron rydbergii, Equisetum pratense			
Aquatic Habitats (ex: submerged or emerged aquatic vegetation, overhanging banks/roots, leaf packs, large submerged wood, riffles, deep pools, etc.): None.			
Aquatic Organisms Observed (list): None.			
Disturbances (ex: livestock access, manure in waterbody, waste discharge pipes): Potential runoff from the nearby agricultural field.			
Observation Notes: The stream channel has been used as a place to dump household garbage.			



sasa1014e_S (across)



sasa1014e_E (downstream)



sasa1014e_W (upstream)

Waterbody Data Sheet

Description			
Project Name: Line 5 Relocation Project		Date: 2020-06-06	Waterbody Survey ID: sasa1013e
State: Wisconsin	County/Parish: Ashland	USGS Waterbody Name: UNT to White River	
Company: Enbridge	Crew Member Initials: SBR/DGL	Latitude: 46.495777	Longitude: -90.898417
Survey Type: <small>(check one)</small> <input type="checkbox"/> Centerline <input type="checkbox"/> Re-Route <input checked="" type="checkbox"/> Access Road <input type="checkbox"/> Facility <input type="checkbox"/> Other			
Waterbody Type: <small>(check one)</small> <input type="checkbox"/> River <input checked="" type="checkbox"/> Stream <input type="checkbox"/> Ditch <input type="checkbox"/> Swale <input type="checkbox"/> Canal <input type="checkbox"/> Other			
Water Appearance: <small>(check one)</small> <input checked="" type="checkbox"/> No Water <input type="checkbox"/> Clear <input type="checkbox"/> Turbid <input type="checkbox"/> Sheen on Surface <input type="checkbox"/> Surface Scum <input type="checkbox"/> Algal Mats <input type="checkbox"/> Other			
Existing Condition^a: <small>(check one)</small> <input type="checkbox"/> Highly Functional Stream <input checked="" type="checkbox"/> Moderately Functional Stream <input type="checkbox"/> Functionally Impaired Stream			
Feature Description: <small>(check one)</small> <input type="checkbox"/> Natural <input type="checkbox"/> Artificial, man-made <input checked="" type="checkbox"/> Manipulated			
Flow Regime: <small>(check one)</small> <input checked="" type="checkbox"/> Ephemeral <input type="checkbox"/> Intermittent <input type="checkbox"/> Perennial <input type="checkbox"/> Connecting Swale			
Sinuosity within Survey Corridor: <small>(check one)</small> <input checked="" type="checkbox"/> Straight <input type="checkbox"/> Meandering			
Description Notes: The feature is a manipulated ephemeral stream that drains water away from a meadow that borders an agricultural field.			
Measurements			
Depth of Water: <u>N/A</u> ft. N/A <input checked="" type="checkbox"/> Unknown <input type="checkbox"/>		Water Edge to Water Edge: <u>N/A</u> ft. N/A <input checked="" type="checkbox"/>	
OHWM Width: <u>2</u> ft.			
OHWM Indicator: <small>(check all that apply)</small> <input type="checkbox"/> Clear line on bank <input type="checkbox"/> Shelving <input type="checkbox"/> Wrested vegetation <input type="checkbox"/> Scouring <input type="checkbox"/> Water staining <input type="checkbox"/> Bent, matted, or missing vegetation <input type="checkbox"/> Wrack line <input type="checkbox"/> Litter and debris <input checked="" type="checkbox"/> Abrupt plant community change <input type="checkbox"/> Soil characteristic change			
Dominant Substrate: <small>(check all that apply)</small> <input type="checkbox"/> Bedrock <input type="checkbox"/> Boulder <input type="checkbox"/> Cobble <input type="checkbox"/> Gravel <input type="checkbox"/> Sand <input checked="" type="checkbox"/> Silt/ clay <input type="checkbox"/> Organic			
Observations			
Riparian Zone Present: <small>(check one)</small> <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No			
Vegetation Layers: <small>(check all that apply)</small> <input checked="" type="checkbox"/> Trees <input type="checkbox"/> Saplings/Shrubs <input checked="" type="checkbox"/> Herbs			
Dominant Bank Vegetation (list): Populus tremuloides, Fraxinus americana, Phalaris arundinacea, Carex gracillima			
Aquatic Habitats (ex: submerged or emerged aquatic vegetation, overhanging banks/roots, leaf packs, large submerged wood, riffles, deep pools, etc.): None.			
Aquatic Organisms Observed (list): None.			
Disturbances (ex: livestock access, manure in waterbody, waste discharge pipes): Potential disturbance from the nearby agricultural field.			
Observation Notes: The stream becomes more obvious on its eastern side and extends beyond the survey corridor.			



sasa1013e_N (across)



sasa1013e_E (downstream)



sasa1013e_W (upstream)

Waterbody Data Sheet

Description			
Project Name: Line 5 Relocation Project		Date: 2020-05-27	Waterbody Survey ID: sasc026e_x
State: Wisconsin	County/Parish: Ashland	USGS Waterbody Name: UNT to Billy Creek	
Company: Enbridge	Crew Member Initials: KDF/SAM	Latitude: 46.389529	Longitude: -90.766952
Survey Type: <i>(check one)</i>	<input checked="" type="checkbox"/> Centerline <input type="checkbox"/> Re-Route <input type="checkbox"/> Access Road <input type="checkbox"/> Facility <input type="checkbox"/> Other		
Waterbody Type: <i>(check one)</i>	<input type="checkbox"/> River <input checked="" type="checkbox"/> Stream <input type="checkbox"/> Ditch <input type="checkbox"/> Swale <input type="checkbox"/> Canal <input type="checkbox"/> Other		
Water Appearance: <i>(check one)</i>	<input type="checkbox"/> No Water <input type="checkbox"/> Clear <input checked="" type="checkbox"/> Turbid <input type="checkbox"/> Sheen on Surface <input type="checkbox"/> Surface Scum <input type="checkbox"/> Algal Mats <input type="checkbox"/> Other		
Existing Condition^a: <i>(check one)</i>	<input checked="" type="checkbox"/> Highly Functional Stream <input type="checkbox"/> Moderately Functional Stream <input type="checkbox"/> Functionally Impaired Stream		
Feature Description: <i>(check one)</i>	<input checked="" type="checkbox"/> Natural <input type="checkbox"/> Artificial, man-made <input type="checkbox"/> Manipulated		
Flow Regime: <i>(check one)</i>	<input checked="" type="checkbox"/> Ephemeral <input type="checkbox"/> Intermittent <input type="checkbox"/> Perennial <input type="checkbox"/> Connecting Swale		
Sinuosity within Survey Corridor: <i>(check one)</i>	<input type="checkbox"/> Straight <input checked="" type="checkbox"/> Meandering		
Description Notes: The ephemeral stream is located within a shallow ravine near a roadway and flows through a culvert on the north end. A fringe emergent wetland is present on either side of the stream, and portions of the stream diffuse into the wetland with the stream bed and bank becoming less defined but later becoming defined again near the culvert.			
Measurements			
Depth of Water: <u>0.25</u> ft. N/A <input type="checkbox"/> Unknown <input type="checkbox"/>		Water Edge to Water Edge: <u>3</u> ft. N/A <input type="checkbox"/>	
OHWM Width: <u>3</u> ft.			
OHWM Indicator: <i>(check all that apply)</i>	<input type="checkbox"/> Clear line on bank <input type="checkbox"/> Shelving <input type="checkbox"/> Wrested vegetation <input checked="" type="checkbox"/> Scouring <input type="checkbox"/> Water staining <input checked="" type="checkbox"/> Bent, matted, or missing vegetation <input type="checkbox"/> Wrack line <input checked="" type="checkbox"/> Litter and debris <input type="checkbox"/> Abrupt plant community change <input type="checkbox"/> Soil characteristic change		
Dominant Substrate: <i>(check all that apply)</i>	<input type="checkbox"/> Bedrock <input type="checkbox"/> Boulder <input type="checkbox"/> Cobble <input type="checkbox"/> Gravel <input type="checkbox"/> Sand <input checked="" type="checkbox"/> Silt/ clay <input type="checkbox"/> Organic		
Observations			
Riparian Zone Present: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <i>(check one)</i>			
Vegetation Layers: <input checked="" type="checkbox"/> Trees <input checked="" type="checkbox"/> Saplings/Shrubs <input checked="" type="checkbox"/> Herbs <i>(check all that apply)</i>			
Dominant Bank Vegetation (list): Alnus incana, Phalaris arundinacea, Impatiens capensis, Onoclea sensibilis			
Aquatic Habitats (ex: submerged or emerged aquatic vegetation, overhanging banks/roots, leaf packs, large submerged wood, riffles, deep pools, etc.): Inundated vegetation within and surrounding areas of the stream.			
Aquatic Organisms Observed (list): None.			
Disturbances (ex: livestock access, manure in waterbody, waste discharge pipes): None.			
Observation Notes: None.			



sasc026e_x (across)



sasc026e_x (downstream)



sasc026e_x (upstream)

Waterbody Data Sheet

Description			
Project Name: Line 5 Relocation Project		Date: 2020-05-27	Waterbody Survey ID: sasb1001e
State: Wisconsin	County/Parish: Ashland	USGS Waterbody Name: UNT to Billy Creek	
Company: Enbridge	Crew Member Initials: KDF/SAM	Latitude: 46.388421	Longitude: -90.763688
Survey Type: <i>(check one)</i>	<input checked="" type="checkbox"/> Centerline <input type="checkbox"/> Re-Route <input type="checkbox"/> Access Road <input type="checkbox"/> Facility <input type="checkbox"/> Other		
Waterbody Type: <i>(check one)</i>	<input type="checkbox"/> River <input checked="" type="checkbox"/> Stream <input type="checkbox"/> Ditch <input type="checkbox"/> Swale <input type="checkbox"/> Canal <input type="checkbox"/> Other		
Water Appearance: <i>(check one)</i>	<input type="checkbox"/> No Water <input checked="" type="checkbox"/> Clear <input type="checkbox"/> Turbid <input type="checkbox"/> Sheen on Surface <input type="checkbox"/> Surface Scum <input type="checkbox"/> Algal Mats <input type="checkbox"/> Other		
Existing Condition^a: <i>(check one)</i>	<input checked="" type="checkbox"/> Highly Functional Stream <input type="checkbox"/> Moderately Functional Stream <input type="checkbox"/> Functionally Impaired Stream		
Feature Description: <i>(check one)</i>	<input checked="" type="checkbox"/> Natural <input type="checkbox"/> Artificial, man-made <input type="checkbox"/> Manipulated		
Flow Regime: <i>(check one)</i>	<input checked="" type="checkbox"/> Ephemeral <input type="checkbox"/> Intermittent <input type="checkbox"/> Perennial <input type="checkbox"/> Connecting Swale		
Sinuosity within Survey Corridor: <i>(check one)</i>	<input type="checkbox"/> Straight <input checked="" type="checkbox"/> Meandering		
Description Notes: The ephemeral stream flows into an intermittent stream to the east and is located within a ravine.			
Measurements			
Depth of Water: <u>0.25</u> ft. N/A <input type="checkbox"/> Unknown <input type="checkbox"/>		Water Edge to Water Edge: <u>2</u> ft. N/A <input type="checkbox"/>	
OHWM Width: <u>2</u> ft.			
OHWM Indicator: <i>(check all that apply)</i>	<input checked="" type="checkbox"/> Clear line on bank <input type="checkbox"/> Shelving <input type="checkbox"/> Wrested vegetation <input checked="" type="checkbox"/> Scouring <input type="checkbox"/> Water staining <input checked="" type="checkbox"/> Bent, matted, or missing vegetation <input type="checkbox"/> Wrack line <input checked="" type="checkbox"/> Litter and debris <input type="checkbox"/> Abrupt plant community change <input checked="" type="checkbox"/> Soil characteristic change		
Dominant Substrate: <i>(check all that apply)</i>	<input type="checkbox"/> Bedrock <input type="checkbox"/> Boulder <input type="checkbox"/> Cobble <input type="checkbox"/> Gravel <input type="checkbox"/> Sand <input checked="" type="checkbox"/> Silt/ clay <input type="checkbox"/> Organic		
Observations			
Riparian Zone Present: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <i>(check one)</i>			
Vegetation Layers: <input checked="" type="checkbox"/> Trees <input checked="" type="checkbox"/> Saplings/Shrubs <input checked="" type="checkbox"/> Herbs <i>(check all that apply)</i>			
Dominant Bank Vegetation (list): Athyrium filix-femina, Fraxinus pennsylvanica, Solidago flexicaulis			
Aquatic Habitats (ex: submerged or emerged aquatic vegetation, overhanging banks/roots, leaf packs, large submerged wood, riffles, deep pools, etc.): Downed woody debris is abundant within the feature.			
Aquatic Organisms Observed (list): None.			
Disturbances (ex: livestock access, manure in waterbody, waste discharge pipes): Erosion is evident along the banks.			
Observation Notes: None.			



sasb1001e_S (across)



sasb1001e_E (downstream)



sasb1001e_W (upstream)

Waterbody Data Sheet

Description			
Project Name: Line 5 Relocation Project		Date: 2020-05-29	Waterbody Survey ID: sasb1007e
State: Wisconsin	County/Parish: Ashland	USGS Waterbody Name: UNT to Billy Creek	
Company: Enbridge	Crew Member Initials: KDF/SAM	Latitude: 46.387715	Longitude: -90.760997
Survey Type: <i>(check one)</i>	<input checked="" type="checkbox"/> Centerline <input type="checkbox"/> Re-Route <input type="checkbox"/> Access Road <input type="checkbox"/> Facility <input type="checkbox"/> Other		
Waterbody Type: <i>(check one)</i>	<input type="checkbox"/> River <input checked="" type="checkbox"/> Stream <input type="checkbox"/> Ditch <input type="checkbox"/> Swale <input type="checkbox"/> Canal <input type="checkbox"/> Other		
Water Appearance: <i>(check one)</i>	<input type="checkbox"/> No Water <input checked="" type="checkbox"/> Clear <input type="checkbox"/> Turbid <input type="checkbox"/> Sheen on Surface <input type="checkbox"/> Surface Scum <input type="checkbox"/> Algal Mats <input type="checkbox"/> Other		
Existing Condition^a: <i>(check one)</i>	<input type="checkbox"/> Highly Functional Stream <input checked="" type="checkbox"/> Moderately Functional Stream <input type="checkbox"/> Functionally Impaired Stream		
Feature Description: <i>(check one)</i>	<input checked="" type="checkbox"/> Natural <input type="checkbox"/> Artificial, man-made <input type="checkbox"/> Manipulated		
Flow Regime: <i>(check one)</i>	<input checked="" type="checkbox"/> Ephemeral <input type="checkbox"/> Intermittent <input type="checkbox"/> Perennial <input type="checkbox"/> Connecting Swale		
Sinuosity within Survey Corridor: <i>(check one)</i>	<input checked="" type="checkbox"/> Straight <input type="checkbox"/> Meandering		
Description Notes: The ephemeral stream is located within a ravine dominated by hemlock and ironwood and flows north through the corridor. Small boulders are present along the margins of the feature, as well as within portions of the stream bed.			
Measurements			
Depth of Water: <0.25 ft. N/A <input type="checkbox"/> Unknown <input type="checkbox"/>		Water Edge to Water Edge: 0.5 ft. N/A <input type="checkbox"/>	
OHWM Width: 2 ft.			
OHWM Indicator: <i>(check all that apply)</i>	<input type="checkbox"/> Clear line on bank <input type="checkbox"/> Shelving <input type="checkbox"/> Wrested vegetation <input checked="" type="checkbox"/> Scouring <input type="checkbox"/> Water staining <input checked="" type="checkbox"/> Bent, matted, or missing vegetation <input type="checkbox"/> Wrack line <input checked="" type="checkbox"/> Litter and debris <input type="checkbox"/> Abrupt plant community change <input type="checkbox"/> Soil characteristic change		
Dominant Substrate: <i>(check all that apply)</i>	<input type="checkbox"/> Bedrock <input type="checkbox"/> Boulder <input type="checkbox"/> Cobble <input type="checkbox"/> Gravel <input type="checkbox"/> Sand <input checked="" type="checkbox"/> Silt/ clay <input type="checkbox"/> Organic		
Observations			
Riparian Zone Present: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <i>(check one)</i>			
Vegetation Layers: <input checked="" type="checkbox"/> Trees <input checked="" type="checkbox"/> Saplings/Shrubs <input checked="" type="checkbox"/> Herbs <i>(check all that apply)</i>			
Dominant Bank Vegetation (list): Ostrya virginiana, Osmunda claytoniana, Arisaema triphyllum			
Aquatic Habitats (ex: submerged or emerged aquatic vegetation, overhanging banks/roots, leaf packs, large submerged wood, riffles, deep pools, etc.): None.			
Aquatic Organisms Observed (list): None.			
Disturbances (ex: livestock access, manure in waterbody, waste discharge pipes): There is significant bank erosion present throughout most of the feature.			
Observation Notes: None.			



sasb1007e_W (across)



sasb1007e_NO (downstream)



sasb1007e_S (upstream)

Waterbody Data Sheet

Description			
Project Name: Line 5 Relocation Project		Date: 2020-05-27	Waterbody Survey ID: sasb1002i
State: Wisconsin	County/Parish: Ashland	USGS Waterbody Name: UNT to Billy Creek	
Company: Enbridge	Crew Member Initials: KDF/SAM	Latitude: 46.387116	Longitude: -90.763153
Survey Type: <i>(check one)</i>	<input checked="" type="checkbox"/> Centerline <input type="checkbox"/> Re-Route <input type="checkbox"/> Access Road <input type="checkbox"/> Facility <input type="checkbox"/> Other		
Waterbody Type: <i>(check one)</i>	<input type="checkbox"/> River <input checked="" type="checkbox"/> Stream <input type="checkbox"/> Ditch <input type="checkbox"/> Swale <input type="checkbox"/> Canal <input type="checkbox"/> Other		
Water Appearance: <i>(check one)</i>	<input type="checkbox"/> No Water <input type="checkbox"/> Clear <input checked="" type="checkbox"/> Turbid <input type="checkbox"/> Sheen on Surface <input type="checkbox"/> Surface Scum <input type="checkbox"/> Algal Mats <input type="checkbox"/> Other		
Existing Condition^a: <i>(check one)</i>	<input type="checkbox"/> Highly Functional Stream <input checked="" type="checkbox"/> Moderately Functional Stream <input type="checkbox"/> Functionally Impaired Stream		
Feature Description: <i>(check one)</i>	<input checked="" type="checkbox"/> Natural <input type="checkbox"/> Artificial, man-made <input type="checkbox"/> Manipulated		
Flow Regime: <i>(check one)</i>	<input type="checkbox"/> Ephemeral <input checked="" type="checkbox"/> Intermittent <input type="checkbox"/> Perennial <input type="checkbox"/> Connecting Swale		
Sinuosity within Survey Corridor: <i>(check one)</i>	<input type="checkbox"/> Straight <input checked="" type="checkbox"/> Meandering		
Description Notes: The intermittent stream is located within a ravine surrounded by mesic hardwood forest. The stream flows north into another intermittent stream within the survey corridor.			
Measurements			
Depth of Water: <u>0.25</u> ft. N/A <input type="checkbox"/> Unknown <input type="checkbox"/>		Water Edge to Water Edge: <u>2</u> ft. N/A <input type="checkbox"/>	
OHWM Width: <u>2</u> ft.			
OHWM Indicator: <i>(check all that apply)</i>	<input type="checkbox"/> Clear line on bank <input type="checkbox"/> Shelving <input type="checkbox"/> Wrested vegetation <input checked="" type="checkbox"/> Scouring <input type="checkbox"/> Water staining <input checked="" type="checkbox"/> Bent, matted, or missing vegetation <input type="checkbox"/> Wrack line <input checked="" type="checkbox"/> Litter and debris <input type="checkbox"/> Abrupt plant community change <input checked="" type="checkbox"/> Soil characteristic change		
Dominant Substrate: <i>(check all that apply)</i>	<input type="checkbox"/> Bedrock <input type="checkbox"/> Boulder <input type="checkbox"/> Cobble <input type="checkbox"/> Gravel <input type="checkbox"/> Sand <input checked="" type="checkbox"/> Silt/ clay <input type="checkbox"/> Organic		
Observations			
Riparian Zone Present: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <i>(check one)</i>			
Vegetation Layers: <input checked="" type="checkbox"/> Trees <input checked="" type="checkbox"/> Saplings/Shrubs <input checked="" type="checkbox"/> Herbs <i>(check all that apply)</i>			
Dominant Bank Vegetation (list): Athyrium filix-femina, Ostrya virginiana, Solidago flexicaulis, Equisetum pratense, Acer saccharum			
Aquatic Habitats (ex: submerged or emerged aquatic vegetation, overhanging banks/roots, leaf packs, large submerged wood, riffles, deep pools, etc.): Small pools will likely be present within the feature as it begins to dry up. Recent heavy precipitation is resulting in consistent flow throughout. Downed woody debris is also abundant throughout.			
Aquatic Organisms Observed (list): None.			
Disturbances (ex: livestock access, manure in waterbody, waste discharge pipes): There is concrete fill present within the southern end of the feature, as well as scattered garbage debris. Erosion is evident along portions of the bank.			
Observation Notes: Common buckthorn is abundant along a portion of the stream.			



sasb1002i_E (across)



sasb1002i_N (downstream)



sasb1002i_S (upstream)

Waterbody Data Sheet

Description			
Project Name: Line 5 Relocation Project		Date: 2020-05-29	Waterbody Survey ID: sasb1004e
State: Wisconsin	County/Parish: Ashland	USGS Waterbody Name: UNT to Billy Creek	
Company: Enbridge	Crew Member Initials: KDF/SAM	Latitude: 46.387296	Longitude: -90.761861
Survey Type: <i>(check one)</i>	<input checked="" type="checkbox"/> Centerline <input type="checkbox"/> Re-Route <input type="checkbox"/> Access Road <input type="checkbox"/> Facility <input type="checkbox"/> Other		
Waterbody Type: <i>(check one)</i>	<input type="checkbox"/> River <input checked="" type="checkbox"/> Stream <input type="checkbox"/> Ditch <input type="checkbox"/> Swale <input type="checkbox"/> Canal <input type="checkbox"/> Other		
Water Appearance: <i>(check one)</i>	<input type="checkbox"/> No Water <input type="checkbox"/> Clear <input type="checkbox"/> Turbid <input type="checkbox"/> Sheen on Surface <input checked="" type="checkbox"/> Surface Scum <input type="checkbox"/> Algal Mats <input type="checkbox"/> Other		
Existing Condition^a: <i>(check one)</i>	<input type="checkbox"/> Highly Functional Stream <input checked="" type="checkbox"/> Moderately Functional Stream <input type="checkbox"/> Functionally Impaired Stream		
Feature Description: <i>(check one)</i>	<input checked="" type="checkbox"/> Natural <input type="checkbox"/> Artificial, man-made <input type="checkbox"/> Manipulated		
Flow Regime: <i>(check one)</i>	<input checked="" type="checkbox"/> Ephemeral <input type="checkbox"/> Intermittent <input type="checkbox"/> Perennial <input type="checkbox"/> Connecting Swale		
Sinuosity within Survey Corridor: <i>(check one)</i>	<input type="checkbox"/> Straight <input checked="" type="checkbox"/> Meandering		
Description Notes: The ephemeral stream is fed by groundwater and discharge from the adjacent wetland complex. The feature flows north and feeds into sasc025i.			
Measurements			
Depth of Water: <0.25 ft. N/A <input type="checkbox"/> Unknown <input type="checkbox"/>		Water Edge to Water Edge: 0.5 ft. N/A <input type="checkbox"/>	
OHWM Width: 2 ft.			
OHWM Indicator: <i>(check all that apply)</i>	<input type="checkbox"/> Clear line on bank <input type="checkbox"/> Shelving <input type="checkbox"/> Wrested vegetation <input checked="" type="checkbox"/> Scouring <input type="checkbox"/> Water staining <input checked="" type="checkbox"/> Bent, matted, or missing vegetation <input type="checkbox"/> Wrack line <input checked="" type="checkbox"/> Litter and debris <input type="checkbox"/> Abrupt plant community change <input type="checkbox"/> Soil characteristic change		
Dominant Substrate: <i>(check all that apply)</i>	<input type="checkbox"/> Bedrock <input type="checkbox"/> Boulder <input type="checkbox"/> Cobble <input type="checkbox"/> Gravel <input type="checkbox"/> Sand <input checked="" type="checkbox"/> Silt/ clay <input type="checkbox"/> Organic		
Observations			
Riparian Zone Present: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No			
Vegetation Layers: <input checked="" type="checkbox"/> Trees <input checked="" type="checkbox"/> Saplings/Shrubs <input checked="" type="checkbox"/> Herbs			
Dominant Bank Vegetation (list): Populus grandidentata, Acer saccharum, Fraxinus pennsylvanica, Athyrium filix-femina			
Aquatic Habitats (ex: submerged or emerged aquatic vegetation, overhanging banks/roots, leaf packs, large submerged wood, riffles, deep pools, etc.): Downed woody debris is abundant throughout.			
Aquatic Organisms Observed (list): None.			
Disturbances (ex: livestock access, manure in waterbody, waste discharge pipes): The feature is located adjacent to a hay field and likely receives polluted runoff, resulting in a surface sheen on the water.			
Observation Notes: Small boulders are present along the margins of the stream.			



sasb1004e_W (across)



sasb1004e_NE (downstream)



sasb1004e_S (upstream)

Waterbody Data Sheet

Description			
Project Name: Line 5 Relocation Project		Date: 2020-05-27	Waterbody Survey ID: sasc025i_x
State: Wisconsin	County/Parish: Ashland	USGS Waterbody Name: UNT to Billy Creek	
Company: Enbridge	Crew Member Initials: KDF/SAM	Latitude: 46.388392	Longitude: -90.763193
Survey Type: <i>(check one)</i>	<input checked="" type="checkbox"/> Centerline <input type="checkbox"/> Re-Route <input type="checkbox"/> Access Road <input type="checkbox"/> Facility <input type="checkbox"/> Other		
Waterbody Type: <i>(check one)</i>	<input type="checkbox"/> River <input checked="" type="checkbox"/> Stream <input type="checkbox"/> Ditch <input type="checkbox"/> Swale <input type="checkbox"/> Canal <input type="checkbox"/> Other		
Water Appearance: <i>(check one)</i>	<input type="checkbox"/> No Water <input type="checkbox"/> Clear <input checked="" type="checkbox"/> Turbid <input type="checkbox"/> Sheen on Surface <input type="checkbox"/> Surface Scum <input type="checkbox"/> Algal Mats <input type="checkbox"/> Other		
Existing Condition^a: <i>(check one)</i>	<input checked="" type="checkbox"/> Highly Functional Stream <input type="checkbox"/> Moderately Functional Stream <input type="checkbox"/> Functionally Impaired Stream		
Feature Description: <i>(check one)</i>	<input checked="" type="checkbox"/> Natural <input type="checkbox"/> Artificial, man-made <input type="checkbox"/> Manipulated		
Flow Regime: <i>(check one)</i>	<input type="checkbox"/> Ephemeral <input checked="" type="checkbox"/> Intermittent <input type="checkbox"/> Perennial <input type="checkbox"/> Connecting Swale		
Sinuosity within Survey Corridor: <i>(check one)</i>	<input type="checkbox"/> Straight <input checked="" type="checkbox"/> Meandering		
Description Notes: The intermittent stream is located within a ravine of mesic hardwood forest. There are multiple tributaries flowing into the stream on the west side. An emergent wetland is located along both sides of the stream and shows evidence of flashy hydrology.			
Measurements			
Depth of Water: <u>0.25</u> ft. N/A <input type="checkbox"/> Unknown <input type="checkbox"/>		Water Edge to Water Edge: <u>3</u> ft. N/A <input type="checkbox"/>	
OHWM Width: <u>3</u> ft.			
OHWM Indicator: <i>(check all that apply)</i>	<input type="checkbox"/> Clear line on bank <input type="checkbox"/> Shelving <input type="checkbox"/> Wrested vegetation <input checked="" type="checkbox"/> Scouring <input type="checkbox"/> Water staining <input checked="" type="checkbox"/> Bent, matted, or missing vegetation <input type="checkbox"/> Wrack line <input checked="" type="checkbox"/> Litter and debris <input type="checkbox"/> Abrupt plant community change <input type="checkbox"/> Soil characteristic change		
Dominant Substrate: <i>(check all that apply)</i>	<input type="checkbox"/> Bedrock <input type="checkbox"/> Boulder <input checked="" type="checkbox"/> Cobble <input type="checkbox"/> Gravel <input type="checkbox"/> Sand <input checked="" type="checkbox"/> Silt/ clay <input type="checkbox"/> Organic		
Observations			
Riparian Zone Present: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <i>(check one)</i>			
Vegetation Layers: <input checked="" type="checkbox"/> Trees <input checked="" type="checkbox"/> Saplings/Shrubs <input checked="" type="checkbox"/> Herbs <i>(check all that apply)</i>			
Dominant Bank Vegetation (list): Glyceria striata, Phalaris arundinacea, Fraxinus pennsylvanica			
Aquatic Habitats (ex: submerged or emerged aquatic vegetation, overhanging banks/roots, leaf packs, large submerged wood, riffles, deep pools, etc.): Downed woody debris is present within the feature.			
Aquatic Organisms Observed (list): None.			
Disturbances (ex: livestock access, manure in waterbody, waste discharge pipes): None.			
Observation Notes: Feature was previously characterized as ephemeral but should be intermittent after inspection of the extension area.			



sasc025i_x (across)



sasc025i_x (downstream)



sasc025i_x (upstream)

Waterbody Data Sheet

Description			
Project Name: Line 5 Relocation Project		Date: 2020-05-28	Waterbody Survey ID: sasb1003e
State: Wisconsin	County/Parish: Ashland	USGS Waterbody Name: UNT	
Company: Enbridge	Crew Member Initials: KDF/SAM	Latitude: 46.386259	Longitude: -90.762358
Survey Type: <i>(check one)</i>	<input checked="" type="checkbox"/> Centerline <input type="checkbox"/> Re-Route <input type="checkbox"/> Access Road <input type="checkbox"/> Facility <input type="checkbox"/> Other		
Waterbody Type: <i>(check one)</i>	<input type="checkbox"/> River <input checked="" type="checkbox"/> Stream <input type="checkbox"/> Ditch <input type="checkbox"/> Swale <input type="checkbox"/> Canal <input type="checkbox"/> Other		
Water Appearance: <i>(check one)</i>	<input type="checkbox"/> No Water <input type="checkbox"/> Clear <input type="checkbox"/> Turbid <input type="checkbox"/> Sheen on Surface <input checked="" type="checkbox"/> Surface Scum <input type="checkbox"/> Algal Mats <input type="checkbox"/> Other		
Existing Condition^a: <i>(check one)</i>	<input type="checkbox"/> Highly Functional Stream <input checked="" type="checkbox"/> Moderately Functional Stream <input type="checkbox"/> Functionally Impaired Stream		
Feature Description: <i>(check one)</i>	<input checked="" type="checkbox"/> Natural <input type="checkbox"/> Artificial, man-made <input type="checkbox"/> Manipulated		
Flow Regime: <i>(check one)</i>	<input checked="" type="checkbox"/> Ephemeral <input type="checkbox"/> Intermittent <input type="checkbox"/> Perennial <input type="checkbox"/> Connecting Swale		
Sinuosity within Survey Corridor: <i>(check one)</i>	<input type="checkbox"/> Straight <input checked="" type="checkbox"/> Meandering		
Description Notes: The ephemeral stream is fed by groundwater discharge at the south end and overflow of surface water traveling downslope. There is a narrow fringe wetland present on either side of the feature.			
Measurements			
Depth of Water: <0.25 ft. N/A <input type="checkbox"/> Unknown <input type="checkbox"/>		Water Edge to Water Edge: 6 ft. N/A <input type="checkbox"/>	
OHWM Width: 2 ft.			
OHWM Indicator: <i>(check all that apply)</i>	<input type="checkbox"/> Clear line on bank <input type="checkbox"/> Shelving <input type="checkbox"/> Wrested vegetation <input checked="" type="checkbox"/> Scouring <input type="checkbox"/> Water staining <input checked="" type="checkbox"/> Bent, matted, or missing vegetation <input type="checkbox"/> Wrack line <input checked="" type="checkbox"/> Litter and debris <input type="checkbox"/> Abrupt plant community change <input type="checkbox"/> Soil characteristic change		
Dominant Substrate: <i>(check all that apply)</i>	<input type="checkbox"/> Bedrock <input type="checkbox"/> Boulder <input type="checkbox"/> Cobble <input type="checkbox"/> Gravel <input checked="" type="checkbox"/> Sand <input checked="" type="checkbox"/> Silt/ clay <input type="checkbox"/> Organic		
Observations			
Riparian Zone Present: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <i>(check one)</i>			
Vegetation Layers: <input checked="" type="checkbox"/> Trees <input checked="" type="checkbox"/> Saplings/Shrubs <input checked="" type="checkbox"/> Herbs <i>(check all that apply)</i>			
Dominant Bank Vegetation (list): Onoclea sensibilis, Osmunda claytoniana, Equisetum hyemale, Betula papyrifera			
Aquatic Habitats (ex: submerged or emerged aquatic vegetation, overhanging banks/roots, leaf packs, large submerged wood, riffles, deep pools, etc.): None.			
Aquatic Organisms Observed (list): None.			
Disturbances (ex: livestock access, manure in waterbody, waste discharge pipes): Feature appears to receive polluted runoff resulting in a sheen on the surface of the water.			
Observation Notes: None.			



sasb1003e_NW (across)



sasb1003e_NE (downstream)



sasb1003e_SW (upstream)

Waterbody Data Sheet

Description			
Project Name: Line 5 Relocation Project		Date: 2020-06-29	Waterbody Survey ID: sasd1018e
State: Wisconsin	County/Parish: Ashland	USGS Waterbody Name: UNT to Billy Creek	
Company: Enbridge	Crew Member Initials: DMP/AGG	Latitude: 46.387975	Longitude: -90.760878
Survey Type: <i>(check one)</i>	<input type="checkbox"/> Centerline <input type="checkbox"/> Re-Route <input type="checkbox"/> Access Road <input type="checkbox"/> Facility <input type="checkbox"/> Other		
Waterbody Type: <i>(check one)</i>	<input type="checkbox"/> River <input checked="" type="checkbox"/> Stream <input type="checkbox"/> Ditch <input type="checkbox"/> Swale <input type="checkbox"/> Canal <input type="checkbox"/> Other		
Water Appearance: <i>(check one)</i>	<input checked="" type="checkbox"/> No Water <input type="checkbox"/> Clear <input type="checkbox"/> Turbid <input type="checkbox"/> Sheen on Surface <input type="checkbox"/> Surface Scum <input type="checkbox"/> Algal Mats <input type="checkbox"/> Other		
Existing Condition^a: <i>(check one)</i>	<input checked="" type="checkbox"/> Highly Functional Stream <input checked="" type="checkbox"/> Moderately Functional Stream <input type="checkbox"/> Functionally Impaired Stream		
Feature Description: <i>(check one)</i>	<input checked="" type="checkbox"/> Natural <input type="checkbox"/> Artificial, man-made <input type="checkbox"/> Manipulated		
Flow Regime: <i>(check one)</i>	<input checked="" type="checkbox"/> Ephemeral <input type="checkbox"/> Intermittent <input type="checkbox"/> Perennial <input type="checkbox"/> Connecting Swale		
Sinuosity within Survey Corridor: <i>(check one)</i>	<input checked="" type="checkbox"/> Straight <input type="checkbox"/> Meandering		
Description Notes: No flowing water was observed within the feature during the field survey.			
Measurements			
Depth of Water: <u> 0 </u> ft. N/A <input type="checkbox"/> Unknown <input type="checkbox"/>		Water Edge to Water Edge: <u> 0 </u> ft. N/A <input type="checkbox"/>	
OHWM Width: <u> 1 </u> ft.			
OHWM Indicator: <i>(check all that apply)</i>	<input checked="" type="checkbox"/> Clear line on bank <input type="checkbox"/> Shelving <input type="checkbox"/> Wrested vegetation <input type="checkbox"/> Scouring <input type="checkbox"/> Water staining <input checked="" type="checkbox"/> Bent, matted, or missing vegetation <input type="checkbox"/> Wrack line <input checked="" type="checkbox"/> Litter and debris <input type="checkbox"/> Abrupt plant community change <input type="checkbox"/> Soil characteristic change		
Dominant Substrate: <i>(check all that apply)</i>	<input type="checkbox"/> Bedrock <input type="checkbox"/> Boulder <input type="checkbox"/> Cobble <input type="checkbox"/> Gravel <input checked="" type="checkbox"/> Sand <input checked="" type="checkbox"/> Silt/ clay <input type="checkbox"/> Organic		
Observations			
Riparian Zone Present: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <i>(check one)</i>			
Vegetation Layers: <input checked="" type="checkbox"/> Trees <input checked="" type="checkbox"/> Saplings/Shrubs <input checked="" type="checkbox"/> Herbs <i>(check all that apply)</i>			
Dominant Bank Vegetation (list): Tsuga canadensis, Athyrium filix-femina, Phegopteris connectilis, Taxus canadensis			
Aquatic Habitats (ex: submerged or emerged aquatic vegetation, overhanging banks/roots, leaf packs, large submerged wood, riffles, deep pools, etc.): None.			
Aquatic Organisms Observed (list): None.			
Disturbances (ex: livestock access, manure in waterbody, waste discharge pipes): None.			
Observation Notes: The ephemeral stream flows through a steep and eroded channel through a forest. The feature is contiguous with sasb1006e and flows into sasb1007e.			



sasd1018e_E (across)



sasd1018e_N (downstream)



sasd1018e_S (upstream)

Waterbody Data Sheet

Description			
Project Name: Line 5 Relocation Project		Date: 2020-05-29	Waterbody Survey ID: sasb1006e
State: Wisconsin	County/Parish: Ashland	USGS Waterbody Name: UNT to Billy Creek	
Company: Enbridge	Crew Member Initials: KDF/SAM	Latitude: 46.387697	Longitude: -90.760698
Survey Type: <i>(check one)</i>	<input checked="" type="checkbox"/> Centerline <input type="checkbox"/> Re-Route <input type="checkbox"/> Access Road <input type="checkbox"/> Facility <input type="checkbox"/> Other		
Waterbody Type: <i>(check one)</i>	<input type="checkbox"/> River <input checked="" type="checkbox"/> Stream <input type="checkbox"/> Ditch <input type="checkbox"/> Swale <input type="checkbox"/> Canal <input type="checkbox"/> Other		
Water Appearance: <i>(check one)</i>	<input type="checkbox"/> No Water <input type="checkbox"/> Clear <input checked="" type="checkbox"/> Turbid <input type="checkbox"/> Sheen on Surface <input type="checkbox"/> Surface Scum <input type="checkbox"/> Algal Mats <input type="checkbox"/> Other		
Existing Condition^a: <i>(check one)</i>	<input type="checkbox"/> Highly Functional Stream <input checked="" type="checkbox"/> Moderately Functional Stream <input type="checkbox"/> Functionally Impaired Stream		
Feature Description: <i>(check one)</i>	<input checked="" type="checkbox"/> Natural <input type="checkbox"/> Artificial, man-made <input type="checkbox"/> Manipulated		
Flow Regime: <i>(check one)</i>	<input checked="" type="checkbox"/> Ephemeral <input type="checkbox"/> Intermittent <input type="checkbox"/> Perennial <input type="checkbox"/> Connecting Swale		
Sinuosity within Survey Corridor: <i>(check one)</i>	<input checked="" type="checkbox"/> Straight <input type="checkbox"/> Meandering		
Description Notes: The stream is located within a shallow ravine that becomes significantly more dissected outside of the corridor north of the mapped feature.			
Measurements			
Depth of Water: <0.25 ft. N/A <input type="checkbox"/> Unknown <input type="checkbox"/>		Water Edge to Water Edge: 0.5 ft. N/A <input type="checkbox"/>	
OHWM Width: 1 ft.			
OHWM Indicator: <i>(check all that apply)</i>			
<input type="checkbox"/> Clear line on bank <input type="checkbox"/> Shelving <input type="checkbox"/> Wrested vegetation <input checked="" type="checkbox"/> Scouring <input type="checkbox"/> Water staining <input checked="" type="checkbox"/> Bent, matted, or missing vegetation <input type="checkbox"/> Wrack line <input checked="" type="checkbox"/> Litter and debris <input type="checkbox"/> Abrupt plant community change <input type="checkbox"/> Soil characteristic change			
Dominant Substrate: <i>(check all that apply)</i>			
<input type="checkbox"/> Bedrock <input type="checkbox"/> Boulder <input type="checkbox"/> Cobble <input type="checkbox"/> Gravel <input type="checkbox"/> Sand <input checked="" type="checkbox"/> Silt/ clay <input type="checkbox"/> Organic			
Observations			
Riparian Zone Present: <i>(check one)</i>			
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No			
Vegetation Layers: <i>(check all that apply)</i>			
<input checked="" type="checkbox"/> Trees <input checked="" type="checkbox"/> Saplings/Shrubs <input checked="" type="checkbox"/> Herbs			
Dominant Bank Vegetation (list): Fraxinus pennsylvanica, Ostrya virginiana, Athyrium filix-femina, Carex pedunculata			
Aquatic Habitats (ex: submerged or emerged aquatic vegetation, overhanging banks/roots, leaf packs, large submerged wood, riffles, deep pools, etc.): None.			
Aquatic Organisms Observed (list): None.			
Disturbances (ex: livestock access, manure in waterbody, waste discharge pipes): The stream continues north outside of the corridor, where the banks exhibit significant erosion.			
Observation Notes: None.			



sasb1006e_E (across)



sasb1006e_N (downstream)



sasb1006e_S (upstream)

Waterbody Data Sheet

Description			
Project Name: Line 5 Relocation Project		Date: 2020-05-29	Waterbody Survey ID: sasb1005i
State: Wisconsin	County/Parish: Ashland	USGS Waterbody Name: None	
Company: Enbridge	Crew Member Initials: KDF/SAM	Latitude: 46.387418	Longitude: -90.759966
Survey Type: <i>(check one)</i>	<input checked="" type="checkbox"/> Centerline <input type="checkbox"/> Re-Route <input type="checkbox"/> Access Road <input type="checkbox"/> Facility <input type="checkbox"/> Other		
Waterbody Type: <i>(check one)</i>	<input type="checkbox"/> River <input checked="" type="checkbox"/> Stream <input type="checkbox"/> Ditch <input type="checkbox"/> Swale <input type="checkbox"/> Canal <input type="checkbox"/> Other		
Water Appearance: <i>(check one)</i>	<input type="checkbox"/> No Water <input checked="" type="checkbox"/> Clear <input type="checkbox"/> Turbid <input type="checkbox"/> Sheen on Surface <input type="checkbox"/> Surface Scum <input type="checkbox"/> Algal Mats <input type="checkbox"/> Other		
Existing Condition^a: <i>(check one)</i>	<input checked="" type="checkbox"/> Highly Functional Stream <input type="checkbox"/> Moderately Functional Stream <input type="checkbox"/> Functionally Impaired Stream		
Feature Description: <i>(check one)</i>	<input checked="" type="checkbox"/> Natural <input type="checkbox"/> Artificial, man-made <input type="checkbox"/> Manipulated		
Flow Regime: <i>(check one)</i>	<input type="checkbox"/> Ephemeral <input checked="" type="checkbox"/> Intermittent <input type="checkbox"/> Perennial <input type="checkbox"/> Connecting Swale		
Sinuosity within Survey Corridor: <i>(check one)</i>	<input type="checkbox"/> Straight <input checked="" type="checkbox"/> Meandering		
Description Notes: The intermittent stream is located within a ravine dominated by hemlock.			
Measurements			
Depth of Water: <u>0.25</u> ft. N/A <input type="checkbox"/> Unknown <input type="checkbox"/>		Water Edge to Water Edge: <u>2</u> ft. N/A <input type="checkbox"/>	
OHWM Width: <u>3</u> ft.			
OHWM Indicator: <i>(check all that apply)</i>	<input type="checkbox"/> Clear line on bank <input type="checkbox"/> Shelving <input type="checkbox"/> Wrested vegetation <input checked="" type="checkbox"/> Scouring <input type="checkbox"/> Water staining <input checked="" type="checkbox"/> Bent, matted, or missing vegetation <input type="checkbox"/> Wrack line <input checked="" type="checkbox"/> Litter and debris <input type="checkbox"/> Abrupt plant community change <input type="checkbox"/> Soil characteristic change		
Dominant Substrate: <i>(check all that apply)</i>	<input type="checkbox"/> Bedrock <input type="checkbox"/> Boulder <input type="checkbox"/> Cobble <input type="checkbox"/> Gravel <input type="checkbox"/> Sand <input checked="" type="checkbox"/> Silt/ clay <input type="checkbox"/> Organic		
Observations			
Riparian Zone Present: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <i>(check one)</i>			
Vegetation Layers: <input checked="" type="checkbox"/> Trees <input checked="" type="checkbox"/> Saplings/Shrubs <input checked="" type="checkbox"/> Herbs <i>(check all that apply)</i>			
Dominant Bank Vegetation (list): Tsuga canadensis, Fraxinus pennsylvanica, Betula alleghaniensis, Athyrium filix-femina			
Aquatic Habitats (ex: submerged or emerged aquatic vegetation, overhanging banks/roots, leaf packs, large submerged wood, riffles, deep pools, etc.): Some woody debris is present within the feature.			
Aquatic Organisms Observed (list): None.			
Disturbances (ex: livestock access, manure in waterbody, waste discharge pipes): Bank erosion is prevalent within the stream feature.			
Observation Notes: None.			



sasb1005i_E (across)



sasb1005i_N (downstream)



sasb1005i_S (upstream)

Waterbody Data Sheet

Description			
Project Name: Line 5 Relocation Project		Date: 2020-05-30	Waterbody Survey ID: sasb1008e
State: Wisconsin	County/Parish: Ashland	USGS Waterbody Name: UNT to Billy Creek	
Company: Enbridge	Crew Member Initials: KDF/SAM	Latitude: 46.386847	Longitude: -90.758976
Survey Type: <i>(check one)</i>	<input checked="" type="checkbox"/> Centerline <input type="checkbox"/> Re-Route <input type="checkbox"/> Access Road <input type="checkbox"/> Facility <input type="checkbox"/> Other		
Waterbody Type: <i>(check one)</i>	<input type="checkbox"/> River <input checked="" type="checkbox"/> Stream <input type="checkbox"/> Ditch <input type="checkbox"/> Swale <input type="checkbox"/> Canal <input type="checkbox"/> Other		
Water Appearance: <i>(check one)</i>	<input type="checkbox"/> No Water <input checked="" type="checkbox"/> Clear <input type="checkbox"/> Turbid <input type="checkbox"/> Sheen on Surface <input type="checkbox"/> Surface Scum <input type="checkbox"/> Algal Mats <input type="checkbox"/> Other		
Existing Condition^a: <i>(check one)</i>	<input checked="" type="checkbox"/> Highly Functional Stream <input type="checkbox"/> Moderately Functional Stream <input type="checkbox"/> Functionally Impaired Stream		
Feature Description: <i>(check one)</i>	<input checked="" type="checkbox"/> Natural <input type="checkbox"/> Artificial, man-made <input type="checkbox"/> Manipulated		
Flow Regime: <i>(check one)</i>	<input checked="" type="checkbox"/> Ephemeral <input type="checkbox"/> Intermittent <input type="checkbox"/> Perennial <input type="checkbox"/> Connecting Swale		
Sinuosity within Survey Corridor: <i>(check one)</i>	<input checked="" type="checkbox"/> Straight <input type="checkbox"/> Meandering		
Description Notes: The ephemeral stream is located within a ravine dominated by hemlock. A few individual ferns are present along the highly-eroded banks. Small boulders are present within the stream bed. The feature flows into a perennial stream.			
Measurements			
Depth of Water: <0.25 ft. N/A <input type="checkbox"/> Unknown <input type="checkbox"/>		Water Edge to Water Edge: 1 ft. N/A <input type="checkbox"/>	
OHWM Width: 2 ft.			
OHWM Indicator: <i>(check all that apply)</i>	<input type="checkbox"/> Clear line on bank <input type="checkbox"/> Shelving <input type="checkbox"/> Wrested vegetation <input checked="" type="checkbox"/> Scouring <input type="checkbox"/> Water staining <input checked="" type="checkbox"/> Bent, matted, or missing vegetation <input type="checkbox"/> Wrack line <input checked="" type="checkbox"/> Litter and debris <input type="checkbox"/> Abrupt plant community change <input checked="" type="checkbox"/> Soil characteristic change		
Dominant Substrate: <i>(check all that apply)</i>	<input type="checkbox"/> Bedrock <input checked="" type="checkbox"/> Boulder <input type="checkbox"/> Cobble <input type="checkbox"/> Gravel <input checked="" type="checkbox"/> Sand <input type="checkbox"/> Silt/ clay <input type="checkbox"/> Organic		
Observations			
Riparian Zone Present: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <i>(check one)</i>			
Vegetation Layers: <input checked="" type="checkbox"/> Trees <input type="checkbox"/> Saplings/Shrubs <input type="checkbox"/> Herbs <i>(check all that apply)</i>			
Dominant Bank Vegetation (list): Tsuga canadensis			
Aquatic Habitats (ex: submerged or emerged aquatic vegetation, overhanging banks/roots, leaf packs, large submerged wood, riffles, deep pools, etc.): Downed woody debris is abundant throughout.			
Aquatic Organisms Observed (list): None.			
Disturbances (ex: livestock access, manure in waterbody, waste discharge pipes): Bank erosion is highly evident throughout the feature. There is garbage debris near the the beginning of the stream but not within the stream bed.			
Observation Notes: Feature flows into sasb1009p.			



sasb1008e_E (across)



sasb1008e_N (downstream)



sasb1008e_S (upstream)

Waterbody Data Sheet

Description			
Project Name: Line 5 Relocation Project		Date: 2020-05-30	Waterbody Survey ID: sasb1009p
State: Wisconsin	County/Parish: Ashland	USGS Waterbody Name: Billy Creek	
Company: Enbridge	Crew Member Initials: KDF/SAM	Latitude: 46.387049	Longitude: -90.759110
Survey Type: <i>(check one)</i>	<input checked="" type="checkbox"/> Centerline <input type="checkbox"/> Re-Route <input type="checkbox"/> Access Road <input type="checkbox"/> Facility <input type="checkbox"/> Other		
Waterbody Type: <i>(check one)</i>	<input type="checkbox"/> River <input checked="" type="checkbox"/> Stream <input type="checkbox"/> Ditch <input type="checkbox"/> Swale <input type="checkbox"/> Canal <input type="checkbox"/> Other		
Water Appearance: <i>(check one)</i>	<input type="checkbox"/> No Water <input checked="" type="checkbox"/> Clear <input type="checkbox"/> Turbid <input type="checkbox"/> Sheen on Surface <input type="checkbox"/> Surface Scum <input type="checkbox"/> Algal Mats <input type="checkbox"/> Other		
Existing Condition^a: <i>(check one)</i>	<input checked="" type="checkbox"/> Highly Functional Stream <input type="checkbox"/> Moderately Functional Stream <input type="checkbox"/> Functionally Impaired Stream		
Feature Description: <i>(check one)</i>	<input checked="" type="checkbox"/> Natural <input type="checkbox"/> Artificial, man-made <input type="checkbox"/> Manipulated		
Flow Regime: <i>(check one)</i>	<input type="checkbox"/> Ephemeral <input type="checkbox"/> Intermittent <input checked="" type="checkbox"/> Perennial <input type="checkbox"/> Connecting Swale		
Sinuosity within Survey Corridor: <i>(check one)</i>	<input type="checkbox"/> Straight <input checked="" type="checkbox"/> Meandering		
Description Notes: The perennial stream is located within a ravine dominated by hemlock and yellow birch. The stream exhibits moderately fast flow. Sasb1008e flows into the feature from the south.			
Measurements			
Depth of Water: <u> 1 </u> ft. N/A <input type="checkbox"/> Unknown <input type="checkbox"/>		Water Edge to Water Edge: <u> 6 </u> ft. N/A <input type="checkbox"/>	
OHWM Width: <u> 8 </u> ft.			
OHWM Indicator: <i>(check all that apply)</i>	<input checked="" type="checkbox"/> Clear line on bank <input type="checkbox"/> Shelving <input type="checkbox"/> Wrested vegetation <input checked="" type="checkbox"/> Scouring <input type="checkbox"/> Water staining <input checked="" type="checkbox"/> Bent, matted, or missing vegetation <input type="checkbox"/> Wrack line <input checked="" type="checkbox"/> Litter and debris <input type="checkbox"/> Abrupt plant community change <input checked="" type="checkbox"/> Soil characteristic change		
Dominant Substrate: <i>(check all that apply)</i>	<input type="checkbox"/> Bedrock <input type="checkbox"/> Boulder <input type="checkbox"/> Cobble <input type="checkbox"/> Gravel <input checked="" type="checkbox"/> Sand <input type="checkbox"/> Silt/ clay <input type="checkbox"/> Organic		
Observations			
Riparian Zone Present: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <i>(check one)</i>			
Vegetation Layers: <input checked="" type="checkbox"/> Trees <input type="checkbox"/> Saplings/Shrubs <input type="checkbox"/> Herbs <i>(check all that apply)</i>			
Dominant Bank Vegetation (list): Tsuga canadensis, Betula alleghaniensis			
Aquatic Habitats (ex: submerged or emerged aquatic vegetation, overhanging banks/roots, leaf packs, large submerged wood, riffles, deep pools, etc.): Downed woody debris, riffles, exposed root tangles, saturated sand bars, rock bars.			
Aquatic Organisms Observed (list): Aquatic invertebrates.			
Disturbances (ex: livestock access, manure in waterbody, waste discharge pipes): The banks are highly eroded throughout the feature.			
Observation Notes: Side hill seeps present on south bank.			



sasb1009p_S (across)



sasb1009p_NW (downstream)



sasb1009p_NE (upstream)

Waterbody Data Sheet

Description			
Project Name: Line 5 Relocation Project		Date: 2020-05-30	Waterbody Survey ID: sasb1010i
State: Wisconsin	County/Parish: Ashland	USGS Waterbody Name: UNT to Billy Creek	
Company: Enbridge	Crew Member Initials: KDF/SAM	Latitude: 46.386762	Longitude: -90.758532
Survey Type: <i>(check one)</i>	<input checked="" type="checkbox"/> Centerline <input type="checkbox"/> Re-Route <input type="checkbox"/> Access Road <input type="checkbox"/> Facility <input type="checkbox"/> Other		
Waterbody Type: <i>(check one)</i>	<input type="checkbox"/> River <input checked="" type="checkbox"/> Stream <input type="checkbox"/> Ditch <input type="checkbox"/> Swale <input type="checkbox"/> Canal <input type="checkbox"/> Other		
Water Appearance: <i>(check one)</i>	<input type="checkbox"/> No Water <input checked="" type="checkbox"/> Clear <input type="checkbox"/> Turbid <input type="checkbox"/> Sheen on Surface <input type="checkbox"/> Surface Scum <input type="checkbox"/> Algal Mats <input type="checkbox"/> Other		
Existing Condition^a: <i>(check one)</i>	<input checked="" type="checkbox"/> Highly Functional Stream <input type="checkbox"/> Moderately Functional Stream <input type="checkbox"/> Functionally Impaired Stream		
Feature Description: <i>(check one)</i>	<input checked="" type="checkbox"/> Natural <input type="checkbox"/> Artificial, man-made <input type="checkbox"/> Manipulated		
Flow Regime: <i>(check one)</i>	<input type="checkbox"/> Ephemeral <input checked="" type="checkbox"/> Intermittent <input type="checkbox"/> Perennial <input type="checkbox"/> Connecting Swale		
Sinuosity within Survey Corridor: <i>(check one)</i>	<input type="checkbox"/> Straight <input checked="" type="checkbox"/> Meandering		
Description Notes: The intermittent stream is located within a ravine dominated by hemlock. The feature flows northwest through the survey corridor and feeds into sasb1009p.			
Measurements			
Depth of Water: <u>0.25</u> ft. N/A <input type="checkbox"/> Unknown <input type="checkbox"/>		Water Edge to Water Edge: <u>1</u> ft. N/A <input type="checkbox"/>	
OHWM Width: <u>3</u> ft.			
OHWM Indicator: <i>(check all that apply)</i>	<input checked="" type="checkbox"/> Clear line on bank <input type="checkbox"/> Shelving <input type="checkbox"/> Wrested vegetation <input checked="" type="checkbox"/> Scouring <input type="checkbox"/> Water staining <input checked="" type="checkbox"/> Bent, matted, or missing vegetation <input type="checkbox"/> Wrack line <input checked="" type="checkbox"/> Litter and debris <input type="checkbox"/> Abrupt plant community change <input type="checkbox"/> Soil characteristic change		
Dominant Substrate: <i>(check all that apply)</i>	<input type="checkbox"/> Bedrock <input type="checkbox"/> Boulder <input type="checkbox"/> Cobble <input type="checkbox"/> Gravel <input checked="" type="checkbox"/> Sand <input type="checkbox"/> Silt/ clay <input type="checkbox"/> Organic		
Observations			
Riparian Zone Present: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <i>(check one)</i>			
Vegetation Layers: <input checked="" type="checkbox"/> Trees <input type="checkbox"/> Saplings/Shrubs <input type="checkbox"/> Herbs <i>(check all that apply)</i>			
Dominant Bank Vegetation (list): Tsuga canadensis, Thuja occidentalis			
Aquatic Habitats (ex: submerged or emerged aquatic vegetation, overhanging banks/roots, leaf packs, large submerged wood, riffles, deep pools, etc.): Downed woody debris.			
Aquatic Organisms Observed (list): None.			
Disturbances (ex: livestock access, manure in waterbody, waste discharge pipes): Moderate bank erosion is evident throughout the feature.			
Observation Notes: Fern species are abundant along a portion of the stream within the associated forested seep (wasb1011f).			



sasb1010i_W (across)



sasb1010i_N (downstream)



sasb1010i_SE (upstream)

Waterbody Data Sheet

Description			
Project Name: Line 5 Relocation Project		Date: 2020-06-01	Waterbody Survey ID: sasb1011p
State: Wisconsin	County/Parish: Ashland	USGS Waterbody Name: Billy Creek	
Company: Enbridge	Crew Member Initials: KDF/SAM	Latitude: 46.386650	Longitude: -90.757378
Survey Type: <i>(check one)</i>	<input checked="" type="checkbox"/> Centerline <input type="checkbox"/> Re-Route <input type="checkbox"/> Access Road <input type="checkbox"/> Facility <input type="checkbox"/> Other		
Waterbody Type: <i>(check one)</i>	<input type="checkbox"/> River <input checked="" type="checkbox"/> Stream <input type="checkbox"/> Ditch <input type="checkbox"/> Swale <input type="checkbox"/> Canal <input type="checkbox"/> Other		
Water Appearance: <i>(check one)</i>	<input type="checkbox"/> No Water <input checked="" type="checkbox"/> Clear <input type="checkbox"/> Turbid <input type="checkbox"/> Sheen on Surface <input type="checkbox"/> Surface Scum <input type="checkbox"/> Algal Mats <input type="checkbox"/> Other		
Existing Condition^a: <i>(check one)</i>	<input checked="" type="checkbox"/> Highly Functional Stream <input type="checkbox"/> Moderately Functional Stream <input type="checkbox"/> Functionally Impaired Stream		
Feature Description: <i>(check one)</i>	<input checked="" type="checkbox"/> Natural <input type="checkbox"/> Artificial, man-made <input type="checkbox"/> Manipulated		
Flow Regime: <i>(check one)</i>	<input type="checkbox"/> Ephemeral <input type="checkbox"/> Intermittent <input checked="" type="checkbox"/> Perennial <input type="checkbox"/> Connecting Swale		
Sinuosity within Survey Corridor: <i>(check one)</i>	<input type="checkbox"/> Straight <input checked="" type="checkbox"/> Meandering		
Description Notes: The perennial stream flows through a culvert to the east and continues northwest. It is located at the edge of the survey corridor.			
Measurements			
Depth of Water: <u> 1 </u> ft. N/A <input type="checkbox"/> Unknown <input type="checkbox"/>		Water Edge to Water Edge: <u> 6 </u> ft. N/A <input type="checkbox"/>	
OHWM Width: <u> 11 </u> ft.			
OHWM Indicator: <i>(check all that apply)</i>	<input type="checkbox"/> Clear line on bank <input type="checkbox"/> Shelving <input type="checkbox"/> Wrested vegetation <input checked="" type="checkbox"/> Scouring <input type="checkbox"/> Water staining <input checked="" type="checkbox"/> Bent, matted, or missing vegetation <input type="checkbox"/> Wrack line <input checked="" type="checkbox"/> Litter and debris <input type="checkbox"/> Abrupt plant community change <input type="checkbox"/> Soil characteristic change		
Dominant Substrate: <i>(check all that apply)</i>	<input type="checkbox"/> Bedrock <input type="checkbox"/> Boulder <input type="checkbox"/> Cobble <input type="checkbox"/> Gravel <input checked="" type="checkbox"/> Sand <input type="checkbox"/> Silt/ clay <input type="checkbox"/> Organic		
Observations			
Riparian Zone Present: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <i>(check one)</i>			
Vegetation Layers: <input checked="" type="checkbox"/> Trees <input checked="" type="checkbox"/> Saplings/Shrubs <input type="checkbox"/> Herbs <i>(check all that apply)</i>			
Dominant Bank Vegetation (list): Ostrya virginiana, Tsuga canadensis, Fraxinus nigra			
Aquatic Habitats (ex: submerged or emerged aquatic vegetation, overhanging banks/roots, leaf packs, large submerged wood, riffles, deep pools, etc.): Downed woody debris is abundant throughout. Sand and gravel bars are present along the margins.			
Aquatic Organisms Observed (list): Aquatic invertebrates.			
Disturbances (ex: livestock access, manure in waterbody, waste discharge pipes): Moderate erosion is evident along the banks.			
Observation Notes: Feature is mapped as several components as it meanders in and out of the survey corridor.			



sasb1011p_S (across)



sasb1011p_NW (downstream)



sasb1011p_E (upstream)

Waterbody Data Sheet

Description			
Project Name: Line 5 Relocation Project		Date: 2020-06-09	Waterbody Survey ID: sasa1024i
State: Wisconsin	County/Parish: Ashland	USGS Waterbody Name: UNT to Billy Creek	
Company: Enbridge	Crew Member Initials: SBR/DGL	Latitude: 46.385709	Longitude: -90.756309
Survey Type: <i>(check one)</i>	<input checked="" type="checkbox"/> Centerline <input type="checkbox"/> Re-Route <input type="checkbox"/> Access Road <input type="checkbox"/> Facility <input type="checkbox"/> Other		
Waterbody Type: <i>(check one)</i>	<input type="checkbox"/> River <input checked="" type="checkbox"/> Stream <input type="checkbox"/> Ditch <input type="checkbox"/> Swale <input type="checkbox"/> Canal <input type="checkbox"/> Other		
Water Appearance: <i>(check one)</i>	<input type="checkbox"/> No Water <input type="checkbox"/> Clear <input type="checkbox"/> Turbid <input checked="" type="checkbox"/> Sheen on Surface <input type="checkbox"/> Surface Scum <input type="checkbox"/> Algal Mats <input type="checkbox"/> Other		
Existing Condition^a: <i>(check one)</i>	<input type="checkbox"/> Highly Functional Stream <input checked="" type="checkbox"/> Moderately Functional Stream <input type="checkbox"/> Functionally Impaired Stream		
Feature Description: <i>(check one)</i>	<input type="checkbox"/> Natural <input type="checkbox"/> Artificial, man-made <input checked="" type="checkbox"/> Manipulated		
Flow Regime: <i>(check one)</i>	<input type="checkbox"/> Ephemeral <input checked="" type="checkbox"/> Intermittent <input type="checkbox"/> Perennial <input type="checkbox"/> Connecting Swale		
Sinuosity within Survey Corridor: <i>(check one)</i>	<input type="checkbox"/> Straight <input checked="" type="checkbox"/> Meandering		
Description Notes: The feature is an intermittent stream that flows from a utility corridor and behind a personal residence to a perennial stream.			
Measurements			
Depth of Water: <u>0.1</u> ft. N/A <input type="checkbox"/> Unknown <input type="checkbox"/>		Water Edge to Water Edge: <u>1</u> ft. N/A <input type="checkbox"/>	
OHWM Width: <u>3</u> ft.			
OHWM Indicator: <i>(check all that apply)</i>	<input type="checkbox"/> Clear line on bank <input type="checkbox"/> Shelving <input type="checkbox"/> Wrested vegetation <input type="checkbox"/> Scouring <input checked="" type="checkbox"/> Water staining <input checked="" type="checkbox"/> Bent, matted, or missing vegetation <input type="checkbox"/> Wrack line <input type="checkbox"/> Litter and debris <input checked="" type="checkbox"/> Abrupt plant community change <input type="checkbox"/> Soil characteristic change		
Dominant Substrate: <i>(check all that apply)</i>	<input type="checkbox"/> Bedrock <input type="checkbox"/> Boulder <input type="checkbox"/> Cobble <input type="checkbox"/> Gravel <input type="checkbox"/> Sand <input checked="" type="checkbox"/> Silt/ clay <input type="checkbox"/> Organic		
Observations			
Riparian Zone Present: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <i>(check one)</i>			
Vegetation Layers: <input checked="" type="checkbox"/> Trees <input checked="" type="checkbox"/> Saplings/Shrubs <input checked="" type="checkbox"/> Herbs <i>(check all that apply)</i>			
Dominant Bank Vegetation (list): Equisetum hyemale, Athyrium filix-femina, Fraxinus americana, Betula alleghaniensis, Abies balsamea			
Aquatic Habitats (ex: submerged or emerged aquatic vegetation, overhanging banks/roots, leaf packs, large submerged wood, riffles, deep pools, etc.): Small pools.			
Aquatic Organisms Observed (list): Amphibians.			
Disturbances (ex: livestock access, manure in waterbody, waste discharge pipes): Potential mowing in the adjacent utility corridor and runoff from the personal residence.			
Observation Notes: There is household garbage littering the stream channel.			



sasa1024i_S (across)



sasa1024i_E (downstream)



sasa1024i_W (upstream)

Waterbody Data Sheet

Description			
Project Name: Line 5 Relocation Project		Date: 2020-06-30	Waterbody Survey ID: sasd1019e
State: Wisconsin	County/Parish: Ashland	USGS Waterbody Name: UNT to Marengo River	
Company: Enbridge	Crew Member Initials: DMP/AGG	Latitude: 46.389600	Longitude: -90.755056
Survey Type: <small>(check one)</small> <input type="checkbox"/> Centerline <input type="checkbox"/> Re-Route <input type="checkbox"/> Access Road <input type="checkbox"/> Facility <input type="checkbox"/> Other			
Waterbody Type: <small>(check one)</small> <input type="checkbox"/> River <input checked="" type="checkbox"/> Stream <input type="checkbox"/> Ditch <input type="checkbox"/> Swale <input type="checkbox"/> Canal <input type="checkbox"/> Other			
Water Appearance: <small>(check one)</small> <input type="checkbox"/> No Water <input checked="" type="checkbox"/> Clear <input type="checkbox"/> Turbid <input type="checkbox"/> Sheen on Surface <input type="checkbox"/> Surface Scum <input type="checkbox"/> Algal Mats <input type="checkbox"/> Other			
Existing Condition^a: <small>(check one)</small> <input checked="" type="checkbox"/> Highly Functional Stream <input checked="" type="checkbox"/> Moderately Functional Stream <input type="checkbox"/> Functionally Impaired Stream			
Feature Description: <small>(check one)</small> <input type="checkbox"/> Natural <input type="checkbox"/> Artificial, man-made <input checked="" type="checkbox"/> Manipulated			
Flow Regime: <small>(check one)</small> <input checked="" type="checkbox"/> Ephemeral <input type="checkbox"/> Intermittent <input type="checkbox"/> Perennial <input type="checkbox"/> Connecting Swale			
Sinuosity within Survey Corridor: <small>(check one)</small> <input type="checkbox"/> Straight <input checked="" type="checkbox"/> Meandering			
Description Notes: There was clear flowing water within the stream during the field survey.			
Measurements			
Depth of Water: <u>0.25</u> ft. N/A <input type="checkbox"/> Unknown <input type="checkbox"/>		Water Edge to Water Edge: <u>1</u> ft. N/A <input type="checkbox"/>	
OHWM Width: <u>1</u> ft.			
OHWM Indicator: <small>(check all that apply)</small> <input checked="" type="checkbox"/> Clear line on bank <input type="checkbox"/> Shelving <input checked="" type="checkbox"/> Wrested vegetation <input type="checkbox"/> Scouring <input type="checkbox"/> Water staining <input checked="" type="checkbox"/> Bent, matted, or missing vegetation <input type="checkbox"/> Wrack line <input checked="" type="checkbox"/> Litter and debris <input type="checkbox"/> Abrupt plant community change <input type="checkbox"/> Soil characteristic change			
Dominant Substrate: <small>(check all that apply)</small> <input type="checkbox"/> Bedrock <input type="checkbox"/> Boulder <input type="checkbox"/> Cobble <input type="checkbox"/> Gravel <input checked="" type="checkbox"/> Sand <input checked="" type="checkbox"/> Silt/ clay <input type="checkbox"/> Organic			
Observations			
Riparian Zone Present: <small>(check one)</small> <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No			
Vegetation Layers: <small>(check all that apply)</small> <input checked="" type="checkbox"/> Trees <input type="checkbox"/> Saplings/Shrubs <input checked="" type="checkbox"/> Herbs			
Dominant Bank Vegetation (list): Tilia americana, Betula alleghaniensis, Acer rubrum, Phalaris arundinacea, Impatiens capensis			
Aquatic Habitats (ex: submerged or emerged aquatic vegetation, overhanging banks/roots, leaf packs, large submerged wood, riffles, deep pools, etc.): Overhanging vegetation, large woody debris.			
Aquatic Organisms Observed (list): None.			
Disturbances (ex: livestock access, manure in waterbody, waste discharge pipes): The feature flows into a road culvert just outside of the survey area to the north.			
Observation Notes: The ephemeral stream begins at wasw033f and flows north into a culvert that is located outside of the survey area.			



sasd1019e_NW (across)



sasd1019e_NE (downstream)



sasd1019e_SW (upstream)

Waterbody Data Sheet

Description			
Project Name: Line 5 Relocation Project		Date: 2020-06-05	Waterbody Survey ID: sasd1013p
State: Wisconsin	County/Parish: Ashland	USGS Waterbody Name: UNT to Silver Creek	
Company: Enbridge	Crew Member Initials: KDF/OTG	Latitude: 46.376741	Longitude: -90.731301
Survey Type: <i>(check one)</i>	<input checked="" type="checkbox"/> Centerline <input type="checkbox"/> Re-Route <input type="checkbox"/> Access Road <input type="checkbox"/> Facility <input type="checkbox"/> Other		
Waterbody Type: <i>(check one)</i>	<input type="checkbox"/> River <input checked="" type="checkbox"/> Stream <input type="checkbox"/> Ditch <input type="checkbox"/> Swale <input type="checkbox"/> Canal <input type="checkbox"/> Other		
Water Appearance: <i>(check one)</i>	<input type="checkbox"/> No Water <input checked="" type="checkbox"/> Clear <input type="checkbox"/> Turbid <input type="checkbox"/> Sheen on Surface <input type="checkbox"/> Surface Scum <input type="checkbox"/> Algal Mats <input type="checkbox"/> Other		
Existing Condition^a: <i>(check one)</i>	<input checked="" type="checkbox"/> Highly Functional Stream <input type="checkbox"/> Moderately Functional Stream <input type="checkbox"/> Functionally Impaired Stream		
Feature Description: <i>(check one)</i>	<input checked="" type="checkbox"/> Natural <input type="checkbox"/> Artificial, man-made <input type="checkbox"/> Manipulated		
Flow Regime: <i>(check one)</i>	<input type="checkbox"/> Ephemeral <input type="checkbox"/> Intermittent <input checked="" type="checkbox"/> Perennial <input type="checkbox"/> Connecting Swale		
Sinuosity within Survey Corridor: <i>(check one)</i>	<input type="checkbox"/> Straight <input checked="" type="checkbox"/> Meandering		
Description Notes: The perennial stream is a tributary to Silver Creek. There is an intermittent stream to the south that terminates at the feature before flowing into the river to the east.			
Measurements			
Depth of Water: <u>0.25</u> ft. N/A <input type="checkbox"/> Unknown <input type="checkbox"/>		Water Edge to Water Edge: <u>2</u> ft. N/A <input type="checkbox"/>	
OHWM Width: <u>3</u> ft.			
OHWM Indicator: <i>(check all that apply)</i>	<input checked="" type="checkbox"/> Clear line on bank <input type="checkbox"/> Shelving <input type="checkbox"/> Wrested vegetation <input checked="" type="checkbox"/> Scouring <input type="checkbox"/> Water staining <input checked="" type="checkbox"/> Bent, matted, or missing vegetation <input type="checkbox"/> Wrack line <input checked="" type="checkbox"/> Litter and debris <input type="checkbox"/> Abrupt plant community change <input type="checkbox"/> Soil characteristic change		
Dominant Substrate: <i>(check all that apply)</i>	<input type="checkbox"/> Bedrock <input type="checkbox"/> Boulder <input type="checkbox"/> Cobble <input type="checkbox"/> Gravel <input checked="" type="checkbox"/> Sand <input type="checkbox"/> Silt/ clay <input type="checkbox"/> Organic		
Observations			
Riparian Zone Present: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <i>(check one)</i>			
Vegetation Layers: <input checked="" type="checkbox"/> Trees <input checked="" type="checkbox"/> Saplings/Shrubs <input checked="" type="checkbox"/> Herbs <i>(check all that apply)</i>			
Dominant Bank Vegetation (list): Abies balsamea, Matteuccia struthiopteris, Acer saccharum			
Aquatic Habitats (ex: submerged or emerged aquatic vegetation, overhanging banks/roots, leaf packs, large submerged wood, riffles, deep pools, etc.): Downed woody debris is present within the feature.			
Aquatic Organisms Observed (list): None.			
Disturbances (ex: livestock access, manure in waterbody, waste discharge pipes): None.			
Observation Notes: None.			



sasd1013p_S (across)



sasd1013p_E (downstream)



sasd1013p_W (upstream)

Waterbody Data Sheet

Description			
Project Name: Line 5 Relocation Project		Date: 2020-06-05	Waterbody Survey ID: sasd1012i
State: Wisconsin	County/Parish: Ashland	USGS Waterbody Name: UNT to Silver Creek	
Company: Enbridge	Crew Member Initials: AGG/OTG	Latitude: 46.376656	Longitude: -90.731303
Survey Type: <i>(check one)</i>	<input checked="" type="checkbox"/> Centerline <input type="checkbox"/> Re-Route <input type="checkbox"/> Access Road <input type="checkbox"/> Facility <input type="checkbox"/> Other		
Waterbody Type: <i>(check one)</i>	<input type="checkbox"/> River <input checked="" type="checkbox"/> Stream <input type="checkbox"/> Ditch <input type="checkbox"/> Swale <input type="checkbox"/> Canal <input type="checkbox"/> Other		
Water Appearance: <i>(check one)</i>	<input type="checkbox"/> No Water <input checked="" type="checkbox"/> Clear <input type="checkbox"/> Turbid <input type="checkbox"/> Sheen on Surface <input type="checkbox"/> Surface Scum <input type="checkbox"/> Algal Mats <input type="checkbox"/> Other		
Existing Condition^a: <i>(check one)</i>	<input checked="" type="checkbox"/> Highly Functional Stream <input type="checkbox"/> Moderately Functional Stream <input type="checkbox"/> Functionally Impaired Stream		
Feature Description: <i>(check one)</i>	<input checked="" type="checkbox"/> Natural <input type="checkbox"/> Artificial, man-made <input type="checkbox"/> Manipulated		
Flow Regime: <i>(check one)</i>	<input type="checkbox"/> Ephemeral <input checked="" type="checkbox"/> Intermittent <input type="checkbox"/> Perennial <input type="checkbox"/> Connecting Swale		
Sinuosity within Survey Corridor: <i>(check one)</i>	<input type="checkbox"/> Straight <input checked="" type="checkbox"/> Meandering		
Description Notes: Intermittent tributary ultimately draining to Silver Creek.			
Measurements			
Depth of Water: <u>0.5</u> ft. N/A <input type="checkbox"/> Unknown <input type="checkbox"/>		Water Edge to Water Edge: <u>2</u> ft. N/A <input type="checkbox"/>	
OHWM Width: <u>3</u> ft.			
OHWM Indicator: <i>(check all that apply)</i>	<input checked="" type="checkbox"/> Clear line on bank <input type="checkbox"/> Shelving <input type="checkbox"/> Wrested vegetation <input type="checkbox"/> Scouring <input type="checkbox"/> Water staining <input checked="" type="checkbox"/> Bent, matted, or missing vegetation <input type="checkbox"/> Wrack line <input type="checkbox"/> Litter and debris <input type="checkbox"/> Abrupt plant community change <input type="checkbox"/> Soil characteristic change		
Dominant Substrate: <i>(check all that apply)</i>	<input type="checkbox"/> Bedrock <input type="checkbox"/> Boulder <input type="checkbox"/> Cobble <input type="checkbox"/> Gravel <input checked="" type="checkbox"/> Sand <input checked="" type="checkbox"/> Silt/ clay <input type="checkbox"/> Organic		
Observations			
Riparian Zone Present: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <i>(check one)</i>			
Vegetation Layers: <input checked="" type="checkbox"/> Trees <input checked="" type="checkbox"/> Saplings/Shrubs <input checked="" type="checkbox"/> Herbs <i>(check all that apply)</i>			
Dominant Bank Vegetation (list): Acer saccharum, Abies balsamea, Picea glauca, Athyrium filix-femina, Matteuccia struthiopteris			
Aquatic Habitats (ex: submerged or emerged aquatic vegetation, overhanging banks/roots, leaf packs, large submerged wood, riffles, deep pools, etc.): None.			
Aquatic Organisms Observed (list): Insects.			
Disturbances (ex: livestock access, manure in waterbody, waste discharge pipes): None.			
Observation Notes: The feature is an intermittent stream that appears to be fed by seepage outside of the survey corridor. The feature terminates in stream sasd1013p.			



sasd1012i_E (across)



sasd1012i_N (downstream)



sasd1012i_S (upstream)

Waterbody Data Sheet

Description			
Project Name: Line 5 Relocation Project		Date: 2020-06-05	Waterbody Survey ID: sasd1011p
State: Wisconsin	County/Parish: Ashland	USGS Waterbody Name: Silver Creek	
Company: Enbridge	Crew Member Initials: AGG/OTG	Latitude: 46.376706	Longitude: -90.730952
Survey Type: <i>(check one)</i>	<input checked="" type="checkbox"/> Centerline <input type="checkbox"/> Re-Route <input type="checkbox"/> Access Road <input type="checkbox"/> Facility <input type="checkbox"/> Other		
Waterbody Type: <i>(check one)</i>	<input checked="" type="checkbox"/> River <input type="checkbox"/> Stream <input type="checkbox"/> Ditch <input type="checkbox"/> Swale <input type="checkbox"/> Canal <input type="checkbox"/> Other		
Water Appearance: <i>(check one)</i>	<input type="checkbox"/> No Water <input checked="" type="checkbox"/> Clear <input type="checkbox"/> Turbid <input type="checkbox"/> Sheen on Surface <input type="checkbox"/> Surface Scum <input type="checkbox"/> Algal Mats <input type="checkbox"/> Other		
Existing Condition^a: <i>(check one)</i>	<input checked="" type="checkbox"/> Highly Functional Stream <input type="checkbox"/> Moderately Functional Stream <input type="checkbox"/> Functionally Impaired Stream		
Feature Description: <i>(check one)</i>	<input checked="" type="checkbox"/> Natural <input type="checkbox"/> Artificial, man-made <input type="checkbox"/> Manipulated		
Flow Regime: <i>(check one)</i>	<input type="checkbox"/> Ephemeral <input type="checkbox"/> Intermittent <input checked="" type="checkbox"/> Perennial <input type="checkbox"/> Connecting Swale		
Sinuosity within Survey Corridor: <i>(check one)</i>	<input type="checkbox"/> Straight <input checked="" type="checkbox"/> Meandering		
Description Notes: Feature is Silver Creek, a perennial river.			
Measurements			
Depth of Water: <u> 1 </u> ft. N/A <input type="checkbox"/> Unknown <input type="checkbox"/>		Water Edge to Water Edge: <u> 12 </u> ft. N/A <input type="checkbox"/>	
OHWM Width: <u> 15 </u> ft.			
OHWM Indicator: <i>(check all that apply)</i>	<input checked="" type="checkbox"/> Clear line on bank <input type="checkbox"/> Shelving <input type="checkbox"/> Wrested vegetation <input type="checkbox"/> Scouring <input type="checkbox"/> Water staining <input checked="" type="checkbox"/> Bent, matted, or missing vegetation <input type="checkbox"/> Wrack line <input type="checkbox"/> Litter and debris <input type="checkbox"/> Abrupt plant community change <input type="checkbox"/> Soil characteristic change		
Dominant Substrate: <i>(check all that apply)</i>	<input type="checkbox"/> Bedrock <input type="checkbox"/> Boulder <input checked="" type="checkbox"/> Cobble <input checked="" type="checkbox"/> Gravel <input checked="" type="checkbox"/> Sand <input type="checkbox"/> Silt/ clay <input type="checkbox"/> Organic		
Observations			
Riparian Zone Present: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <i>(check one)</i>			
Vegetation Layers: <input type="checkbox"/> Trees <input checked="" type="checkbox"/> Saplings/Shrubs <input checked="" type="checkbox"/> Herbs <i>(check all that apply)</i>			
Dominant Bank Vegetation (list): Salix spp., Barbarea vulgaris			
Aquatic Habitats (ex: submerged or emerged aquatic vegetation, overhanging banks/roots, leaf packs, large submerged wood, riffles, deep pools, etc.): Pools, riffles, runs, rock outcrops, sand bars, gravel bars, woody debris.			
Aquatic Organisms Observed (list): None.			
Disturbances (ex: livestock access, manure in waterbody, waste discharge pipes): None.			
Observation Notes: The feature is a braided channel perennial waterbody. Within the survey corridor, the feature has multiple channels separated by large gravel bars.			



sasd1011p_W (across)



sasd1011p_N (downstream)



sasd1011p_S (upstream)

Open Waterbody Data Sheet

Description			
Project Name: Line 5 Relocation Project		Date: 2020-06-06	Waterbody Survey ID: oasd1002
State: Wisconsin	County/Parish: Ashland	USGS Waterbody Name: None	
Company: Enbridge	Crew Member Initials: KDF/AGG	Latitude: 46.373536	Longitude: -90.719455
Survey Type: <i>(check one)</i>	<input checked="" type="checkbox"/> Centerline <input type="checkbox"/> Re-Route <input type="checkbox"/> Access Road <input type="checkbox"/> Facility <input type="checkbox"/> Other		
Waterbody Type: <i>(check one)</i>	<input type="checkbox"/> Stock Pond <input type="checkbox"/> Natural Pond <input type="checkbox"/> Fishing Pond <input type="checkbox"/> Lake <input checked="" type="checkbox"/> Other		
Water Appearance: <i>(check one)</i>	<input type="checkbox"/> No Water <input type="checkbox"/> Clear <input checked="" type="checkbox"/> Turbid <input type="checkbox"/> Sheen on Surface <input type="checkbox"/> Surface Scum <input type="checkbox"/> Algal Mats <input type="checkbox"/> Other		
Feature Quality: <i>(check one)</i>	<input type="checkbox"/> High <input checked="" type="checkbox"/> Moderate <input type="checkbox"/> Low		
Feature Description: <i>(check one)</i>	<input type="checkbox"/> Natural <input checked="" type="checkbox"/> Artificial, man-made <input type="checkbox"/> Manipulated		
Description Notes: Disturbed, man-made pond fed by an ephemeral stream to the southwest. There is gravel built up to the east impounding the water.			
Measurements			
Depth of Water: <u> 3 </u> ft. N/A <input type="checkbox"/> Unknown <input type="checkbox"/>			
OHWM Indicator: <i>(check all that apply)</i>	<input checked="" type="checkbox"/> Clear line on bank <input type="checkbox"/> Shelving <input type="checkbox"/> Wrested vegetation <input type="checkbox"/> Scouring <input type="checkbox"/> Water staining <input type="checkbox"/> Bent, matted, or missing vegetation <input type="checkbox"/> Wrack line <input type="checkbox"/> Litter and debris <input checked="" type="checkbox"/> Abrupt plant community change <input type="checkbox"/> Soil characteristic change		
Dominant Substrate: <i>(check all that apply)</i>	<input type="checkbox"/> Bedrock <input type="checkbox"/> Boulder <input type="checkbox"/> Cobble <input type="checkbox"/> Gravel <input type="checkbox"/> Sand <input checked="" type="checkbox"/> Silt/ clay <input type="checkbox"/> Organic		
Observations			
Riparian Zone Present: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <i>(check one)</i>			
Vegetation Layers: <input checked="" type="checkbox"/> Trees <input checked="" type="checkbox"/> Saplings/Shrubs <input checked="" type="checkbox"/> Herbs <i>(check all that apply)</i>			
Dominant Bank Vegetation (list): Salix bebbiana, Scirpus cyperinus, Populus tremuloides, Glyceria striata			
Aquatic Habitats (ex: submerged or emerged aquatic vegetation, overhanging banks/roots, leaf packs, large submerged wood, riffles, deep pools, etc.): Pools, inundated vegetation along the banks.			
Aquatic Organisms Observed (list): Tadpoles, aquatic invertebrates, frogs.			
Disturbances (ex: livestock access, manure in waterbody, waste discharge pipes): Runoff from the gravel road and nearby quarry. Gravel impounding water on the east side.			
Observation Notes: Woodcock observed near the feature.			



oasd1002_E



oasd1002_S



oasd1002_SW

Waterbody Data Sheet

Description			
Project Name: Line 5 Relocation Project		Date: 2020-06-06	Waterbody Survey ID: sasd1014e
State: Wisconsin	County/Parish: Ashland	USGS Waterbody Name: None	
Company: Enbridge	Crew Member Initials: KDF/AGG	Latitude: 46.373356	Longitude: -90.719430
Survey Type: <i>(check one)</i>	<input checked="" type="checkbox"/> Centerline <input type="checkbox"/> Re-Route <input type="checkbox"/> Access Road <input type="checkbox"/> Facility <input type="checkbox"/> Other		
Waterbody Type: <i>(check one)</i>	<input type="checkbox"/> River <input type="checkbox"/> Stream <input checked="" type="checkbox"/> Ditch <input type="checkbox"/> Swale <input type="checkbox"/> Canal <input type="checkbox"/> Other		
Water Appearance: <i>(check one)</i>	<input checked="" type="checkbox"/> No Water <input type="checkbox"/> Clear <input type="checkbox"/> Turbid <input type="checkbox"/> Sheen on Surface <input type="checkbox"/> Surface Scum <input type="checkbox"/> Algal Mats <input type="checkbox"/> Other		
Existing Condition^a: <i>(check one)</i>	<input type="checkbox"/> Highly Functional Stream <input checked="" type="checkbox"/> Moderately Functional Stream <input type="checkbox"/> Functionally Impaired Stream		
Feature Description: <i>(check one)</i>	<input type="checkbox"/> Natural <input type="checkbox"/> Artificial, man-made <input checked="" type="checkbox"/> Manipulated		
Flow Regime: <i>(check one)</i>	<input checked="" type="checkbox"/> Ephemeral <input type="checkbox"/> Intermittent <input type="checkbox"/> Perennial <input type="checkbox"/> Connecting Swale		
Sinuosity within Survey Corridor: <i>(check one)</i>	<input checked="" type="checkbox"/> Straight <input type="checkbox"/> Meandering		
Description Notes: The feature is a small ephemeral ditch that connects a wetland from outside of the survey corridor to an open waterbody. The feature flows into oasd1002 when water is present.			
Measurements			
Depth of Water: <u> 0 </u> ft. N/A <input type="checkbox"/> Unknown <input type="checkbox"/>		Water Edge to Water Edge: <u> 0 </u> ft. N/A <input type="checkbox"/>	
OHWM Width: <u> 2 </u> ft.			
OHWM Indicator: <i>(check all that apply)</i>	<input type="checkbox"/> Clear line on bank <input type="checkbox"/> Shelving <input type="checkbox"/> Wrested vegetation <input checked="" type="checkbox"/> Scouring <input type="checkbox"/> Water staining <input checked="" type="checkbox"/> Bent, matted, or missing vegetation <input type="checkbox"/> Wrack line <input type="checkbox"/> Litter and debris <input type="checkbox"/> Abrupt plant community change <input type="checkbox"/> Soil characteristic change		
Dominant Substrate: <i>(check all that apply)</i>	<input type="checkbox"/> Bedrock <input type="checkbox"/> Boulder <input type="checkbox"/> Cobble <input type="checkbox"/> Gravel <input type="checkbox"/> Sand <input checked="" type="checkbox"/> Silt/ clay <input type="checkbox"/> Organic		
Observations			
Riparian Zone Present: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <i>(check one)</i>			
Vegetation Layers: <input checked="" type="checkbox"/> Trees <input checked="" type="checkbox"/> Saplings/Shrubs <input checked="" type="checkbox"/> Herbs <i>(check all that apply)</i>			
Dominant Bank Vegetation (list): Populus tremuloides, Salix bebbiana, Glyceria striata			
Aquatic Habitats (ex: submerged or emerged aquatic vegetation, overhanging banks/roots, leaf packs, large submerged wood, riffles, deep pools, etc.): None.			
Aquatic Organisms Observed (list): None.			
Disturbances (ex: livestock access, manure in waterbody, waste discharge pipes): Disturbance from land use of nearby quarry.			
Observation Notes: None.			



sasd1014e_E (across)



sasd1014e_S (downstream)



sasd1014e_N (upstream)

Waterbody Data Sheet

Description			
Project Name: Line 5 Relocation Project		Date: 2020-06-08	Waterbody Survey ID: sasd1017p
State: Wisconsin	County/Parish: Ashland	USGS Waterbody Name: UNT to Silver Creek	
Company: Enbridge	Crew Member Initials: KDF/AGG	Latitude: 46.374060	Longitude: -90.714307
Survey Type: <i>(check one)</i>	<input checked="" type="checkbox"/> Centerline <input type="checkbox"/> Re-Route <input type="checkbox"/> Access Road <input type="checkbox"/> Facility <input type="checkbox"/> Other		
Waterbody Type: <i>(check one)</i>	<input type="checkbox"/> River <input checked="" type="checkbox"/> Stream <input type="checkbox"/> Ditch <input type="checkbox"/> Swale <input type="checkbox"/> Canal <input type="checkbox"/> Other		
Water Appearance: <i>(check one)</i>	<input type="checkbox"/> No Water <input checked="" type="checkbox"/> Clear <input type="checkbox"/> Turbid <input type="checkbox"/> Sheen on Surface <input type="checkbox"/> Surface Scum <input type="checkbox"/> Algal Mats <input type="checkbox"/> Other		
Existing Condition^a: <i>(check one)</i>	<input checked="" type="checkbox"/> Highly Functional Stream <input type="checkbox"/> Moderately Functional Stream <input type="checkbox"/> Functionally Impaired Stream		
Feature Description: <i>(check one)</i>	<input checked="" type="checkbox"/> Natural <input type="checkbox"/> Artificial, man-made <input type="checkbox"/> Manipulated		
Flow Regime: <i>(check one)</i>	<input type="checkbox"/> Ephemeral <input type="checkbox"/> Intermittent <input checked="" type="checkbox"/> Perennial <input type="checkbox"/> Connecting Swale		
Sinuosity within Survey Corridor: <i>(check one)</i>	<input type="checkbox"/> Straight <input checked="" type="checkbox"/> Meandering		
Description Notes: The perennial stream flows northeast to southwest through the survey corridor.			
Measurements			
Depth of Water: <u> 1 </u> ft. N/A <input type="checkbox"/> Unknown <input type="checkbox"/>		Water Edge to Water Edge: <u> 10 </u> ft. N/A <input type="checkbox"/>	
OHWM Width: <u> 12 </u> ft.			
OHWM Indicator: <i>(check all that apply)</i>	<input type="checkbox"/> Clear line on bank <input type="checkbox"/> Shelving <input type="checkbox"/> Wrested vegetation <input checked="" type="checkbox"/> Scouring <input type="checkbox"/> Water staining <input checked="" type="checkbox"/> Bent, matted, or missing vegetation <input type="checkbox"/> Wrack line <input checked="" type="checkbox"/> Litter and debris <input type="checkbox"/> Abrupt plant community change <input type="checkbox"/> Soil characteristic change		
Dominant Substrate: <i>(check all that apply)</i>	<input type="checkbox"/> Bedrock <input type="checkbox"/> Boulder <input type="checkbox"/> Cobble <input type="checkbox"/> Gravel <input checked="" type="checkbox"/> Sand <input type="checkbox"/> Silt/ clay <input type="checkbox"/> Organic		
Observations			
Riparian Zone Present: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <i>(check one)</i>			
Vegetation Layers: <input type="checkbox"/> Trees <input checked="" type="checkbox"/> Saplings/Shrubs <input checked="" type="checkbox"/> Herbs <i>(check all that apply)</i>			
Dominant Bank Vegetation (list): Alnus incana, Matteuccia struthiopteris, Glyceria cf. striata			
Aquatic Habitats (ex: submerged or emerged aquatic vegetation, overhanging banks/roots, leaf packs, large submerged wood, riffles, deep pools, etc.): Downed woody debris, sand and gravel bars.			
Aquatic Organisms Observed (list): Aquatic invertebrates, minnows.			
Disturbances (ex: livestock access, manure in waterbody, waste discharge pipes): Moderate bank erosion.			
Observation Notes: None.			



sasd1017p_W (across)



sasd1017p_S (downstream)



sasd1017p_NE (upstream)

Waterbody Data Sheet

Description			
Project Name: Line 5 Relocation Project		Date: 2020-06-09	Waterbody Survey ID: sasa071p_x
State: Wisconsin	County/Parish: Ashland	USGS Waterbody Name: UNT to Silver Creek	
Company: Enbridge	Crew Member Initials: KDF/AGG	Latitude: 46.373704	Longitude: -90.712819
Survey Type: <i>(check one)</i>	<input checked="" type="checkbox"/> Centerline <input type="checkbox"/> Re-Route <input type="checkbox"/> Access Road <input type="checkbox"/> Facility <input type="checkbox"/> Other		
Waterbody Type: <i>(check one)</i>	<input type="checkbox"/> River <input checked="" type="checkbox"/> Stream <input type="checkbox"/> Ditch <input type="checkbox"/> Swale <input type="checkbox"/> Canal <input type="checkbox"/> Other		
Water Appearance: <i>(check one)</i>	<input type="checkbox"/> No Water <input checked="" type="checkbox"/> Clear <input type="checkbox"/> Turbid <input type="checkbox"/> Sheen on Surface <input type="checkbox"/> Surface Scum <input type="checkbox"/> Algal Mats <input type="checkbox"/> Other		
Existing Condition^a: <i>(check one)</i>	<input checked="" type="checkbox"/> Highly Functional Stream <input type="checkbox"/> Moderately Functional Stream <input type="checkbox"/> Functionally Impaired Stream		
Feature Description: <i>(check one)</i>	<input checked="" type="checkbox"/> Natural <input type="checkbox"/> Artificial, man-made <input type="checkbox"/> Manipulated		
Flow Regime: <i>(check one)</i>	<input type="checkbox"/> Ephemeral <input type="checkbox"/> Intermittent <input checked="" type="checkbox"/> Perennial <input type="checkbox"/> Connecting Swale		
Sinuosity within Survey Corridor: <i>(check one)</i>	<input type="checkbox"/> Straight <input checked="" type="checkbox"/> Meandering		
Description Notes: The perennial stream flows northwest through the corridor through culverts underneath a gravel road.			
Measurements			
Depth of Water: <u> 1 </u> ft. N/A <input type="checkbox"/> Unknown <input type="checkbox"/>		Water Edge to Water Edge: <u> 12 </u> ft. N/A <input type="checkbox"/>	
OHWM Width: <u> 12 </u> ft.			
OHWM Indicator: <i>(check all that apply)</i>	<input type="checkbox"/> Clear line on bank <input type="checkbox"/> Shelving <input type="checkbox"/> Wrested vegetation <input checked="" type="checkbox"/> Scouring <input type="checkbox"/> Water staining <input checked="" type="checkbox"/> Bent, matted, or missing vegetation <input type="checkbox"/> Wrack line <input checked="" type="checkbox"/> Litter and debris <input type="checkbox"/> Abrupt plant community change <input checked="" type="checkbox"/> Soil characteristic change		
Dominant Substrate: <i>(check all that apply)</i>	<input type="checkbox"/> Bedrock <input type="checkbox"/> Boulder <input type="checkbox"/> Cobble <input type="checkbox"/> Gravel <input type="checkbox"/> Sand <input checked="" type="checkbox"/> Silt/ clay <input type="checkbox"/> Organic		
Observations			
Riparian Zone Present: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <i>(check one)</i>			
Vegetation Layers: <input checked="" type="checkbox"/> Trees <input checked="" type="checkbox"/> Saplings/Shrubs <input checked="" type="checkbox"/> Herbs <i>(check all that apply)</i>			
Dominant Bank Vegetation (list): Fraxinus nigra, Alnus incana, Carex crinita, Matteuccia struthiopteris			
Aquatic Habitats (ex: submerged or emerged aquatic vegetation, overhanging banks/roots, leaf packs, large submerged wood, riffles, deep pools, etc.): Downed woody debris, exposed sand bars.			
Aquatic Organisms Observed (list): Aquatic invertebrates.			
Disturbances (ex: livestock access, manure in waterbody, waste discharge pipes): Minimal bank erosion.			
Observation Notes: Snapping turtle nesting along the gravel road above the culverts.			



sasa071p_x (across)



sasa071p_x (downstream)



sasa071p_x (upstream)

Waterbody Data Sheet

Description			
Project Name: Line 5 Relocation Project		Date: 2020-06-08	Waterbody Survey ID: sasd1015p
State: Wisconsin	County/Parish: Ashland	USGS Waterbody Name: UNT	
Company: Enbridge	Crew Member Initials: KDF/AGG	Latitude: 46.371905	Longitude: -90.718866
Survey Type: <i>(check one)</i>	<input checked="" type="checkbox"/> Centerline <input type="checkbox"/> Re-Route <input type="checkbox"/> Access Road <input type="checkbox"/> Facility <input type="checkbox"/> Other		
Waterbody Type: <i>(check one)</i>	<input type="checkbox"/> River <input checked="" type="checkbox"/> Stream <input type="checkbox"/> Ditch <input type="checkbox"/> Swale <input type="checkbox"/> Canal <input type="checkbox"/> Other		
Water Appearance: <i>(check one)</i>	<input type="checkbox"/> No Water <input checked="" type="checkbox"/> Clear <input type="checkbox"/> Turbid <input type="checkbox"/> Sheen on Surface <input type="checkbox"/> Surface Scum <input type="checkbox"/> Algal Mats <input type="checkbox"/> Other		
Existing Condition^a: <i>(check one)</i>	<input checked="" type="checkbox"/> Highly Functional Stream <input type="checkbox"/> Moderately Functional Stream <input type="checkbox"/> Functionally Impaired Stream		
Feature Description: <i>(check one)</i>	<input checked="" type="checkbox"/> Natural <input type="checkbox"/> Artificial, man-made <input type="checkbox"/> Manipulated		
Flow Regime: <i>(check one)</i>	<input type="checkbox"/> Ephemeral <input type="checkbox"/> Intermittent <input checked="" type="checkbox"/> Perennial <input type="checkbox"/> Connecting Swale		
Sinuosity within Survey Corridor: <i>(check one)</i>	<input type="checkbox"/> Straight <input checked="" type="checkbox"/> Meandering		
Description Notes: The perennial stream flows east to west through the survey corridor. The surrounding area is mesic hardwood forest.			
Measurements			
Depth of Water: <u>0.75</u> ft. N/A <input type="checkbox"/> Unknown <input type="checkbox"/>		Water Edge to Water Edge: <u>6</u> ft. N/A <input type="checkbox"/>	
OHWM Width: <u>8</u> ft.			
OHWM Indicator: <i>(check all that apply)</i>			
<input type="checkbox"/> Clear line on bank <input type="checkbox"/> Shelving <input type="checkbox"/> Wrested vegetation <input checked="" type="checkbox"/> Scouring <input type="checkbox"/> Water staining			
<input checked="" type="checkbox"/> Bent, matted, or missing vegetation <input type="checkbox"/> Wrack line <input checked="" type="checkbox"/> Litter and debris <input type="checkbox"/> Abrupt plant community change <input checked="" type="checkbox"/> Soil characteristic change			
Dominant Substrate: <i>(check all that apply)</i>			
<input type="checkbox"/> Bedrock <input type="checkbox"/> Boulder <input checked="" type="checkbox"/> Cobble <input type="checkbox"/> Gravel <input checked="" type="checkbox"/> Sand <input type="checkbox"/> Silt/ clay <input type="checkbox"/> Organic			
Observations			
Riparian Zone Present: <i>(check one)</i>			
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No			
Vegetation Layers: <i>(check all that apply)</i>			
<input checked="" type="checkbox"/> Trees <input checked="" type="checkbox"/> Saplings/Shrubs <input checked="" type="checkbox"/> Herbs			
Dominant Bank Vegetation (list): Equisetum scirpoides, Fraxinus nigra, Matteuccia struthiopteris			
Aquatic Habitats (ex: submerged or emerged aquatic vegetation, overhanging banks/roots, leaf packs, large submerged wood, riffles, deep pools, etc.): Downed woody debris, sand and gravel bars, riffles.			
Aquatic Organisms Observed (list): Aquatic invertebrates.			
Disturbances (ex: livestock access, manure in waterbody, waste discharge pipes): Moderate bank erosion with exposed roots.			
Observation Notes: Feature associated with wetland wasd1033.			



sasd1015p_S (across)



sasd1015p_W (downstream)



sasd1015p_E (upstream)

Waterbody Data Sheet

Description			
Project Name: Line 5 Relocation Project		Date: 2020-06-08	Waterbody Survey ID: sasd1016i
State: Wisconsin	County/Parish: Ashland	USGS Waterbody Name: UNT	
Company: Enbridge	Crew Member Initials: KDF/AGG	Latitude: 46.371817	Longitude: -90.718855
Survey Type: <i>(check one)</i>	<input checked="" type="checkbox"/> Centerline <input type="checkbox"/> Re-Route <input type="checkbox"/> Access Road <input type="checkbox"/> Facility <input type="checkbox"/> Other		
Waterbody Type: <i>(check one)</i>	<input type="checkbox"/> River <input checked="" type="checkbox"/> Stream <input type="checkbox"/> Ditch <input type="checkbox"/> Swale <input type="checkbox"/> Canal <input type="checkbox"/> Other		
Water Appearance: <i>(check one)</i>	<input type="checkbox"/> No Water <input checked="" type="checkbox"/> Clear <input type="checkbox"/> Turbid <input type="checkbox"/> Sheen on Surface <input type="checkbox"/> Surface Scum <input type="checkbox"/> Algal Mats <input type="checkbox"/> Other		
Existing Condition^a: <i>(check one)</i>	<input checked="" type="checkbox"/> Highly Functional Stream <input type="checkbox"/> Moderately Functional Stream <input type="checkbox"/> Functionally Impaired Stream		
Feature Description: <i>(check one)</i>	<input checked="" type="checkbox"/> Natural <input type="checkbox"/> Artificial, man-made <input type="checkbox"/> Manipulated		
Flow Regime: <i>(check one)</i>	<input type="checkbox"/> Ephemeral <input checked="" type="checkbox"/> Intermittent <input type="checkbox"/> Perennial <input type="checkbox"/> Connecting Swale		
Sinuosity within Survey Corridor: <i>(check one)</i>	<input checked="" type="checkbox"/> Straight <input type="checkbox"/> Meandering		
Description Notes: The intermittent stream is fed by a seep and flows north through the survey corridor into sasd015p.			
Measurements			
Depth of Water: <u>0.25</u> ft. N/A <input type="checkbox"/> Unknown <input type="checkbox"/>		Water Edge to Water Edge: <u>0.5</u> ft. N/A <input type="checkbox"/>	
OHWM Width: <u>2</u> ft.			
OHWM Indicator: <i>(check all that apply)</i>			
<input type="checkbox"/> Clear line on bank <input type="checkbox"/> Shelving <input type="checkbox"/> Wrested vegetation <input checked="" type="checkbox"/> Scouring <input type="checkbox"/> Water staining <input checked="" type="checkbox"/> Bent, matted, or missing vegetation <input type="checkbox"/> Wrack line <input checked="" type="checkbox"/> Litter and debris <input type="checkbox"/> Abrupt plant community change <input type="checkbox"/> Soil characteristic change			
Dominant Substrate: <i>(check all that apply)</i>			
<input type="checkbox"/> Bedrock <input type="checkbox"/> Boulder <input type="checkbox"/> Cobble <input type="checkbox"/> Gravel <input checked="" type="checkbox"/> Sand <input type="checkbox"/> Silt/ clay <input type="checkbox"/> Organic			
Observations			
Riparian Zone Present: <i>(check one)</i>			
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No			
Vegetation Layers: <i>(check all that apply)</i>			
<input type="checkbox"/> Trees <input checked="" type="checkbox"/> Saplings/Shrubs <input checked="" type="checkbox"/> Herbs			
Dominant Bank Vegetation (list): Fraxinus nigra, Ranunculus acris, Athyrium filix-femina			
Aquatic Habitats (ex: submerged or emerged aquatic vegetation, overhanging banks/roots, leaf packs, large submerged wood, riffles, deep pools, etc.): None.			
Aquatic Organisms Observed (list): None.			
Disturbances (ex: livestock access, manure in waterbody, waste discharge pipes): Moderate bank erosion.			
Observation Notes: None.			



sasd1016i_E (across)



sasd1016i_N (downstream)



sasd1016i_S (upstream)

Waterbody Data Sheet

Description			
Project Name: Line 5 Relocation Project		Date: 2020-05-28	Waterbody Survey ID: sase1005e
State: Wisconsin	County/Parish: Ashland	USGS Waterbody Name: None	
Company: Enbridge	Crew Member Initials: ARK/DMP	Latitude: 46.366805	Longitude: -90.723369
Survey Type: <i>(check one)</i>	<input checked="" type="checkbox"/> Centerline <input type="checkbox"/> Re-Route <input type="checkbox"/> Access Road <input type="checkbox"/> Facility <input type="checkbox"/> Other		
Waterbody Type: <i>(check one)</i>	<input type="checkbox"/> River <input type="checkbox"/> Stream <input type="checkbox"/> Ditch <input checked="" type="checkbox"/> Swale <input type="checkbox"/> Canal <input type="checkbox"/> Other		
Water Appearance: <i>(check one)</i>	<input type="checkbox"/> No Water <input checked="" type="checkbox"/> Clear <input type="checkbox"/> Turbid <input type="checkbox"/> Sheen on Surface <input type="checkbox"/> Surface Scum <input type="checkbox"/> Algal Mats <input type="checkbox"/> Other		
Existing Condition^a: <i>(check one)</i>	<input checked="" type="checkbox"/> Highly Functional Stream <input type="checkbox"/> Moderately Functional Stream <input type="checkbox"/> Functionally Impaired Stream		
Feature Description: <i>(check one)</i>	<input checked="" type="checkbox"/> Natural <input type="checkbox"/> Artificial, man-made <input type="checkbox"/> Manipulated		
Flow Regime: <i>(check one)</i>	<input checked="" type="checkbox"/> Ephemeral <input type="checkbox"/> Intermittent <input type="checkbox"/> Perennial <input type="checkbox"/> Connecting Swale		
Sinuosity within Survey Corridor: <i>(check one)</i>	<input type="checkbox"/> Straight <input checked="" type="checkbox"/> Meandering		
Description Notes: Ephemeral feature with a poorly developed bed and bank, located in a forested swale. Conveys stormwater concentrated from higher in the landscape to a wetland outside the survey area.			
Measurements			
Depth of Water: <u>0.25</u> ft. N/A <input type="checkbox"/> Unknown <input type="checkbox"/>		Water Edge to Water Edge: <u>2</u> ft. N/A <input type="checkbox"/>	
OHWM Width: <u>2</u> ft.			
OHWM Indicator: <i>(check all that apply)</i>	<input type="checkbox"/> Clear line on bank <input type="checkbox"/> Shelving <input type="checkbox"/> Wrested vegetation <input type="checkbox"/> Scouring <input type="checkbox"/> Water staining <input type="checkbox"/> Bent, matted, or missing vegetation <input type="checkbox"/> Wrack line <input checked="" type="checkbox"/> Litter and debris <input checked="" type="checkbox"/> Abrupt plant community change <input checked="" type="checkbox"/> Soil characteristic change		
Dominant Substrate: <i>(check all that apply)</i>	<input type="checkbox"/> Bedrock <input type="checkbox"/> Boulder <input type="checkbox"/> Cobble <input type="checkbox"/> Gravel <input type="checkbox"/> Sand <input checked="" type="checkbox"/> Silt/ clay <input type="checkbox"/> Organic		
Observations			
Riparian Zone Present: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <i>(check one)</i>			
Vegetation Layers: <input checked="" type="checkbox"/> Trees <input checked="" type="checkbox"/> Saplings/Shrubs <input checked="" type="checkbox"/> Herbs <i>(check all that apply)</i>			
Dominant Bank Vegetation (list): Acer saccharum, Onoclea sensibilis, Toxicodendron radicans			
Aquatic Habitats (ex: submerged or emerged aquatic vegetation, overhanging banks/roots, leaf packs, large submerged wood, riffles, deep pools, etc.): None.			
Aquatic Organisms Observed (list): None.			
Disturbances (ex: livestock access, manure in waterbody, waste discharge pipes): None.			
Observation Notes: There is less vegetation in the bed of the channel than there is on the adjacent slopes.			



sase1005e_SE (across)



sase1005e_NE (downstream)



sase1005e_SW (upstream)

Waterbody Data Sheet

Description			
Project Name: Line 5 Relocation Project		Date: 2020-05-29	Waterbody Survey ID: sase1006e
State: Wisconsin	County/Parish: Ashland	USGS Waterbody Name: None	
Company: Enbridge	Crew Member Initials: DMP/ARK	Latitude: 46.366865	Longitude: -90.723447
Survey Type: <i>(check one)</i>	<input type="checkbox"/> Centerline <input type="checkbox"/> Re-Route <input checked="" type="checkbox"/> Access Road <input type="checkbox"/> Facility <input type="checkbox"/> Other		
Waterbody Type: <i>(check one)</i>	<input type="checkbox"/> River <input type="checkbox"/> Stream <input type="checkbox"/> Ditch <input checked="" type="checkbox"/> Swale <input type="checkbox"/> Canal <input type="checkbox"/> Other		
Water Appearance: <i>(check one)</i>	<input type="checkbox"/> No Water <input checked="" type="checkbox"/> Clear <input type="checkbox"/> Turbid <input type="checkbox"/> Sheen on Surface <input type="checkbox"/> Surface Scum <input type="checkbox"/> Algal Mats <input type="checkbox"/> Other		
Existing Condition^a: <i>(check one)</i>	<input type="checkbox"/> Highly Functional Stream <input checked="" type="checkbox"/> Moderately Functional Stream <input type="checkbox"/> Functionally Impaired Stream		
Feature Description: <i>(check one)</i>	<input type="checkbox"/> Natural <input type="checkbox"/> Artificial, man-made <input checked="" type="checkbox"/> Manipulated		
Flow Regime: <i>(check one)</i>	<input checked="" type="checkbox"/> Ephemeral <input type="checkbox"/> Intermittent <input type="checkbox"/> Perennial <input type="checkbox"/> Connecting Swale		
Sinuosity within Survey Corridor: <i>(check one)</i>	<input type="checkbox"/> Straight <input checked="" type="checkbox"/> Meandering		
Description Notes: The feature was flowing during the field survey. There has been a substantial amount of rain in the past few days.			
Measurements			
Depth of Water: <u>0.25</u> ft. N/A <input type="checkbox"/> Unknown <input type="checkbox"/>		Water Edge to Water Edge: <u>1</u> ft. N/A <input type="checkbox"/>	
OHWM Width: <u>2</u> ft.			
OHWM Indicator: <i>(check all that apply)</i>	<input checked="" type="checkbox"/> Clear line on bank <input type="checkbox"/> Shelving <input type="checkbox"/> Wrested vegetation <input type="checkbox"/> Scouring <input type="checkbox"/> Water staining <input checked="" type="checkbox"/> Bent, matted, or missing vegetation <input type="checkbox"/> Wrack line <input type="checkbox"/> Litter and debris <input type="checkbox"/> Abrupt plant community change <input type="checkbox"/> Soil characteristic change		
Dominant Substrate: <i>(check all that apply)</i>	<input type="checkbox"/> Bedrock <input type="checkbox"/> Boulder <input type="checkbox"/> Cobble <input type="checkbox"/> Gravel <input type="checkbox"/> Sand <input checked="" type="checkbox"/> Silt/ clay <input type="checkbox"/> Organic		
Observations			
Riparian Zone Present: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <i>(check one)</i>			
Vegetation Layers: <input checked="" type="checkbox"/> Trees <input checked="" type="checkbox"/> Saplings/Shrubs <input checked="" type="checkbox"/> Herbs <i>(check all that apply)</i>			
Dominant Bank Vegetation (list): Betula papyrifera, Prunus serotina, Osmunda claytoniana, Corylus cornuta, Carex gracillima			
Aquatic Habitats (ex: submerged or emerged aquatic vegetation, overhanging banks/roots, leaf packs, large submerged wood, riffles, deep pools, etc.): The feature could be used by reptiles and amphibians when flowing.			
Aquatic Organisms Observed (list): No aquatic organisms were observed.			
Disturbances (ex: livestock access, manure in waterbody, waste discharge pipes): The headwater of the feature is located on an existing private road.			
Observation Notes: The ephemeral stream begins at a private road and flows through a woodland. The stream is rather short, and empties into sase1005e.			



sase1006e_N (across)



sase1006e_W (downstream)



sase1006e_W (upstream)

Waterbody Data Sheet

Description			
Project Name: Line 5 Relocation Project		Date: 2020-05-29	Waterbody Survey ID: sase1007p
State: Wisconsin	County/Parish: Ashland	USGS Waterbody Name: Silver Creek	
Company: Enbridge	Crew Member Initials: DMP/ARK	Latitude: 46.367410	Longitude: -90.715404
Survey Type: <small>(check one)</small> <input type="checkbox"/> Centerline <input type="checkbox"/> Re-Route <input checked="" type="checkbox"/> Access Road <input type="checkbox"/> Facility <input type="checkbox"/> Other			
Waterbody Type: <small>(check one)</small> <input type="checkbox"/> River <input checked="" type="checkbox"/> Stream <input type="checkbox"/> Ditch <input type="checkbox"/> Swale <input type="checkbox"/> Canal <input type="checkbox"/> Other			
Water Appearance: <small>(check one)</small> <input type="checkbox"/> No Water <input checked="" type="checkbox"/> Clear <input type="checkbox"/> Turbid <input type="checkbox"/> Sheen on Surface <input type="checkbox"/> Surface Scum <input type="checkbox"/> Algal Mats <input type="checkbox"/> Other			
Existing Condition^a: <small>(check one)</small> <input checked="" type="checkbox"/> Highly Functional Stream <input type="checkbox"/> Moderately Functional Stream <input type="checkbox"/> Functionally Impaired Stream			
Feature Description: <small>(check one)</small> <input checked="" type="checkbox"/> Natural <input type="checkbox"/> Artificial, man-made <input type="checkbox"/> Manipulated			
Flow Regime: <small>(check one)</small> <input type="checkbox"/> Ephemeral <input type="checkbox"/> Intermittent <input checked="" type="checkbox"/> Perennial <input type="checkbox"/> Connecting Swale			
Sinuosity within Survey Corridor: <small>(check one)</small> <input type="checkbox"/> Straight <input checked="" type="checkbox"/> Meandering			
Description Notes: The perennial stream had clear flowing water during the field survey.			
Measurements			
Depth of Water: <u>2</u> ft. N/A <input type="checkbox"/> Unknown <input type="checkbox"/>		Water Edge to Water Edge: <u>25</u> ft. N/A <input type="checkbox"/>	
OHWM Width: <u>25</u> ft.			
OHWM Indicator: <small>(check all that apply)</small> <input checked="" type="checkbox"/> Clear line on bank <input type="checkbox"/> Shelving <input type="checkbox"/> Wrested vegetation <input type="checkbox"/> Scouring <input type="checkbox"/> Water staining <input type="checkbox"/> Bent, matted, or missing vegetation <input checked="" type="checkbox"/> Wrack line <input checked="" type="checkbox"/> Litter and debris <input checked="" type="checkbox"/> Abrupt plant community change <input checked="" type="checkbox"/> Soil characteristic change			
Dominant Substrate: <small>(check all that apply)</small> <input type="checkbox"/> Bedrock <input type="checkbox"/> Boulder <input checked="" type="checkbox"/> Cobble <input checked="" type="checkbox"/> Gravel <input checked="" type="checkbox"/> Sand <input type="checkbox"/> Silt/ clay <input type="checkbox"/> Organic			
Observations			
Riparian Zone Present: <small>(check one)</small> <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No			
Vegetation Layers: <small>(check all that apply)</small> <input checked="" type="checkbox"/> Trees <input checked="" type="checkbox"/> Saplings/Shrubs <input checked="" type="checkbox"/> Herbs			
Dominant Bank Vegetation (list): Betula papyrifera, Tilia americana, Alnus incana, Scirpus microcarpus			
Aquatic Habitats (ex: submerged or emerged aquatic vegetation, overhanging banks/roots, leaf packs, large submerged wood, riffles, deep pools, etc.): Pools, riffles, runs, and large woody debris.			
Aquatic Organisms Observed (list): No aquatic organisms were observed during the survey, however fish, amphibians, and aquatic insects are assumed to be present.			
Disturbances (ex: livestock access, manure in waterbody, waste discharge pipes): There is bridge that goes over the stream.			
Observation Notes: The perennial stream meanders south to north through the a forest. There was a bridge over the feature, but the disturbance is low.			



sase1007p_W (across)



sase1007p_N (downstream)



sase1007p_S (upstream)

Waterbody Data Sheet

Description			
Project Name: Line 5 Relocation Project		Date: 2020-05-27	Waterbody Survey ID: sasd1003e
State: Wisconsin	County/Parish: Ashland	USGS Waterbody Name: None	
Company: Enbridge	Crew Member Initials: AGG/OTG	Latitude: 46.351847	Longitude: -90.666622
Survey Type: <i>(check one)</i>	<input checked="" type="checkbox"/> Centerline <input type="checkbox"/> Re-Route <input type="checkbox"/> Access Road <input type="checkbox"/> Facility <input type="checkbox"/> Other		
Waterbody Type: <i>(check one)</i>	<input type="checkbox"/> River <input type="checkbox"/> Stream <input checked="" type="checkbox"/> Ditch <input type="checkbox"/> Swale <input type="checkbox"/> Canal <input type="checkbox"/> Other		
Water Appearance: <i>(check one)</i>	<input type="checkbox"/> No Water <input type="checkbox"/> Clear <input checked="" type="checkbox"/> Turbid <input type="checkbox"/> Sheen on Surface <input type="checkbox"/> Surface Scum <input type="checkbox"/> Algal Mats <input type="checkbox"/> Other		
Existing Condition^a: <i>(check one)</i>	<input type="checkbox"/> Highly Functional Stream <input type="checkbox"/> Moderately Functional Stream <input checked="" type="checkbox"/> Functionally Impaired Stream		
Feature Description: <i>(check one)</i>	<input type="checkbox"/> Natural <input checked="" type="checkbox"/> Artificial, man-made <input type="checkbox"/> Manipulated		
Flow Regime: <i>(check one)</i>	<input checked="" type="checkbox"/> Ephemeral <input type="checkbox"/> Intermittent <input type="checkbox"/> Perennial <input type="checkbox"/> Connecting Swale		
Sinuosity within Survey Corridor: <i>(check one)</i>	<input checked="" type="checkbox"/> Straight <input type="checkbox"/> Meandering		
Description Notes: Artificial ephemeral ditch.			
Measurements			
Depth of Water: <u>0.5</u> ft. N/A <input type="checkbox"/> Unknown <input type="checkbox"/>		Water Edge to Water Edge: <u>1</u> ft. N/A <input type="checkbox"/>	
OHWM Width: <u>1</u> ft.			
OHWM Indicator: <i>(check all that apply)</i>	<input type="checkbox"/> Clear line on bank <input type="checkbox"/> Shelving <input type="checkbox"/> Wrested vegetation <input type="checkbox"/> Scouring <input type="checkbox"/> Water staining <input checked="" type="checkbox"/> Bent, matted, or missing vegetation <input type="checkbox"/> Wrack line <input type="checkbox"/> Litter and debris <input type="checkbox"/> Abrupt plant community change <input type="checkbox"/> Soil characteristic change		
Dominant Substrate: <i>(check all that apply)</i>	<input type="checkbox"/> Bedrock <input type="checkbox"/> Boulder <input type="checkbox"/> Cobble <input type="checkbox"/> Gravel <input type="checkbox"/> Sand <input checked="" type="checkbox"/> Silt/ clay <input type="checkbox"/> Organic		
Observations			
Riparian Zone Present: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <i>(check one)</i>			
Vegetation Layers: <input type="checkbox"/> Trees <input type="checkbox"/> Saplings/Shrubs <input checked="" type="checkbox"/> Herbs <i>(check all that apply)</i>			
Dominant Bank Vegetation (list): Lotus corniculatus, Juncus effusus			
Aquatic Habitats (ex: submerged or emerged aquatic vegetation, overhanging banks/roots, leaf packs, large submerged wood, riffles, deep pools, etc.): None.			
Aquatic Organisms Observed (list): None.			
Disturbances (ex: livestock access, manure in waterbody, waste discharge pipes): Excavated feature.			
Observation Notes: The feature is a man-made ditch created to move water away from nearby infrastructure.			



sasd1003e_N (across)



sasd1003e_E (downstream)



sasd1003e_W (upstream)

Waterbody Data Sheet

Description			
Project Name: Line 5 Relocation Project		Date: 2020-05-27	Waterbody Survey ID: sasd1001e
State: Wisconsin	County/Parish: Ashland	USGS Waterbody Name: None	
Company: Enbridge	Crew Member Initials: AGG/OTG	Latitude: 46.351835	Longitude: -90.665073
Survey Type: <i>(check one)</i>	<input checked="" type="checkbox"/> Centerline <input type="checkbox"/> Re-Route <input type="checkbox"/> Access Road <input type="checkbox"/> Facility <input type="checkbox"/> Other		
Waterbody Type: <i>(check one)</i>	<input type="checkbox"/> River <input checked="" type="checkbox"/> Stream <input type="checkbox"/> Ditch <input type="checkbox"/> Swale <input type="checkbox"/> Canal <input type="checkbox"/> Other		
Water Appearance: <i>(check one)</i>	<input type="checkbox"/> No Water <input type="checkbox"/> Clear <input checked="" type="checkbox"/> Turbid <input type="checkbox"/> Sheen on Surface <input type="checkbox"/> Surface Scum <input type="checkbox"/> Algal Mats <input type="checkbox"/> Other		
Existing Condition^a: <i>(check one)</i>	<input type="checkbox"/> Highly Functional Stream <input type="checkbox"/> Moderately Functional Stream <input checked="" type="checkbox"/> Functionally Impaired Stream		
Feature Description: <i>(check one)</i>	<input type="checkbox"/> Natural <input checked="" type="checkbox"/> Artificial, man-made <input type="checkbox"/> Manipulated		
Flow Regime: <i>(check one)</i>	<input checked="" type="checkbox"/> Ephemeral <input type="checkbox"/> Intermittent <input type="checkbox"/> Perennial <input type="checkbox"/> Connecting Swale		
Sinuosity within Survey Corridor: <i>(check one)</i>	<input checked="" type="checkbox"/> Straight <input type="checkbox"/> Meandering		
Description Notes: Artificial ephemeral feature draining an excavated wetland.			
Measurements			
Depth of Water: <u>0.25</u> ft. N/A <input type="checkbox"/> Unknown <input type="checkbox"/>		Water Edge to Water Edge: <u>1</u> ft. N/A <input type="checkbox"/>	
OHWM Width: <u>1</u> ft.			
OHWM Indicator: <i>(check all that apply)</i>	<input type="checkbox"/> Clear line on bank <input type="checkbox"/> Shelving <input type="checkbox"/> Wrested vegetation <input type="checkbox"/> Scouring <input type="checkbox"/> Water staining <input checked="" type="checkbox"/> Bent, matted, or missing vegetation <input type="checkbox"/> Wrack line <input checked="" type="checkbox"/> Litter and debris <input checked="" type="checkbox"/> Abrupt plant community change <input type="checkbox"/> Soil characteristic change		
Dominant Substrate: <i>(check all that apply)</i>	<input type="checkbox"/> Bedrock <input type="checkbox"/> Boulder <input type="checkbox"/> Cobble <input type="checkbox"/> Gravel <input type="checkbox"/> Sand <input checked="" type="checkbox"/> Silt/ clay <input type="checkbox"/> Organic		
Observations			
Riparian Zone Present: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <i>(check one)</i>			
Vegetation Layers: <input type="checkbox"/> Trees <input type="checkbox"/> Saplings/Shrubs <input checked="" type="checkbox"/> Herbs <i>(check all that apply)</i>			
Dominant Bank Vegetation (list): Scirpus sp.			
Aquatic Habitats (ex: submerged or emerged aquatic vegetation, overhanging banks/roots, leaf packs, large submerged wood, riffles, deep pools, etc.): None.			
Aquatic Organisms Observed (list): None.			
Disturbances (ex: livestock access, manure in waterbody, waste discharge pipes): Culverts, roads, large rocks placed in the channel.			
Observation Notes: The feature is an ephemeral stream that flows through two culverts and an associated wetland. It is highly altered and very low quality.			



sasd1001e_S (across)



sasd1001e_E (downstream)



sasd1001e_W (upstream)

Waterbody Data Sheet

Description			
Project Name: Line 5 Relocation Project		Date: 2020-05-27	Waterbody Survey ID: sasd1002e
State: Wisconsin	County/Parish: Ashland	USGS Waterbody Name: None	
Company: Enbridge	Crew Member Initials: AGG/OTG	Latitude: 46.351578	Longitude: -90.665676
Survey Type: <i>(check one)</i>	<input checked="" type="checkbox"/> Centerline <input type="checkbox"/> Re-Route <input type="checkbox"/> Access Road <input type="checkbox"/> Facility <input type="checkbox"/> Other		
Waterbody Type: <i>(check one)</i>	<input type="checkbox"/> River <input checked="" type="checkbox"/> Stream <input type="checkbox"/> Ditch <input type="checkbox"/> Swale <input type="checkbox"/> Canal <input type="checkbox"/> Other		
Water Appearance: <i>(check one)</i>	<input type="checkbox"/> No Water <input type="checkbox"/> Clear <input checked="" type="checkbox"/> Turbid <input type="checkbox"/> Sheen on Surface <input type="checkbox"/> Surface Scum <input type="checkbox"/> Algal Mats <input type="checkbox"/> Other		
Existing Condition^a: <i>(check one)</i>	<input type="checkbox"/> Highly Functional Stream <input type="checkbox"/> Moderately Functional Stream <input checked="" type="checkbox"/> Functionally Impaired Stream		
Feature Description: <i>(check one)</i>	<input type="checkbox"/> Natural <input checked="" type="checkbox"/> Artificial, man-made <input type="checkbox"/> Manipulated		
Flow Regime: <i>(check one)</i>	<input checked="" type="checkbox"/> Ephemeral <input type="checkbox"/> Intermittent <input type="checkbox"/> Perennial <input type="checkbox"/> Connecting Swale		
Sinuosity within Survey Corridor: <i>(check one)</i>	<input type="checkbox"/> Straight <input checked="" type="checkbox"/> Meandering		
Description Notes: Artificial ephemeral feature within a highly disturbed area.			
Measurements			
Depth of Water: <u>0.5</u> ft. N/A <input type="checkbox"/> Unknown <input type="checkbox"/>		Water Edge to Water Edge: <u>1</u> ft. N/A <input type="checkbox"/>	
OHWM Width: <u>1</u> ft.			
OHWM Indicator: <i>(check all that apply)</i>	<input type="checkbox"/> Clear line on bank <input type="checkbox"/> Shelving <input type="checkbox"/> Wrested vegetation <input type="checkbox"/> Scouring <input type="checkbox"/> Water staining <input checked="" type="checkbox"/> Bent, matted, or missing vegetation <input type="checkbox"/> Wrack line <input type="checkbox"/> Litter and debris <input type="checkbox"/> Abrupt plant community change <input type="checkbox"/> Soil characteristic change		
Dominant Substrate: <i>(check all that apply)</i>	<input type="checkbox"/> Bedrock <input type="checkbox"/> Boulder <input type="checkbox"/> Cobble <input type="checkbox"/> Gravel <input checked="" type="checkbox"/> Sand <input checked="" type="checkbox"/> Silt/ clay <input type="checkbox"/> Organic		
Observations			
Riparian Zone Present: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <i>(check one)</i>			
Vegetation Layers: <input type="checkbox"/> Trees <input type="checkbox"/> Saplings/Shrubs <input checked="" type="checkbox"/> Herbs <i>(check all that apply)</i>			
Dominant Bank Vegetation (list): Festuca cf. rubra			
Aquatic Habitats (ex: submerged or emerged aquatic vegetation, overhanging banks/roots, leaf packs, large submerged wood, riffles, deep pools, etc.): None.			
Aquatic Organisms Observed (list): None.			
Disturbances (ex: livestock access, manure in waterbody, waste discharge pipes): Culvert, road, large rocks placed in channel.			
Observation Notes: The feature is a highly altered ephemeral stream that flows through a culvert and terminates in a nearby wetland.			



sasd1002e_S (across)



sasd1002e_W (downstream)



sasd1002e_E (upstream)

Waterbody Data Sheet

Description			
Project Name: Line 5 Relocation Project		Date: 2020-05-28	Waterbody Survey ID: sasb006p_x1
State: Wisconsin	County/Parish: Ashland	USGS Waterbody Name: Bad River	
Company: Enbridge	Crew Member Initials: AGG/OTG	Latitude: 46.336244	Longitude: -90.652612
Survey Type: <i>(check one)</i>	<input checked="" type="checkbox"/> Centerline <input type="checkbox"/> Re-Route <input type="checkbox"/> Access Road <input type="checkbox"/> Facility <input type="checkbox"/> Other		
Waterbody Type: <i>(check one)</i>	<input checked="" type="checkbox"/> River <input type="checkbox"/> Stream <input type="checkbox"/> Ditch <input type="checkbox"/> Swale <input type="checkbox"/> Canal <input type="checkbox"/> Other		
Water Appearance: <i>(check one)</i>	<input type="checkbox"/> No Water <input checked="" type="checkbox"/> Clear <input type="checkbox"/> Turbid <input type="checkbox"/> Sheen on Surface <input type="checkbox"/> Surface Scum <input type="checkbox"/> Algal Mats <input type="checkbox"/> Other		
Existing Condition^a: <i>(check one)</i>	<input checked="" type="checkbox"/> Highly Functional Stream <input type="checkbox"/> Moderately Functional Stream <input type="checkbox"/> Functionally Impaired Stream		
Feature Description: <i>(check one)</i>	<input checked="" type="checkbox"/> Natural <input type="checkbox"/> Artificial, man-made <input type="checkbox"/> Manipulated		
Flow Regime: <i>(check one)</i>	<input type="checkbox"/> Ephemeral <input type="checkbox"/> Intermittent <input checked="" type="checkbox"/> Perennial <input type="checkbox"/> Connecting Swale		
Sinuosity within Survey Corridor: <i>(check one)</i>	<input type="checkbox"/> Straight <input checked="" type="checkbox"/> Meandering		
Description Notes: Southern bank of the Bad River at the edge of the survey corridor.			
Measurements			
Depth of Water: <u>5</u> ft. N/A <input type="checkbox"/> Unknown <input type="checkbox"/>		Water Edge to Water Edge: <u>50</u> ft. N/A <input type="checkbox"/>	
OHWM Width: <u>50</u> ft.			
OHWM Indicator: <i>(check all that apply)</i>	<input checked="" type="checkbox"/> Clear line on bank <input type="checkbox"/> Shelving <input type="checkbox"/> Wrested vegetation <input type="checkbox"/> Scouring <input type="checkbox"/> Water staining <input checked="" type="checkbox"/> Bent, matted, or missing vegetation <input type="checkbox"/> Wrack line <input type="checkbox"/> Litter and debris <input type="checkbox"/> Abrupt plant community change <input type="checkbox"/> Soil characteristic change		
Dominant Substrate: <i>(check all that apply)</i>	<input type="checkbox"/> Bedrock <input type="checkbox"/> Boulder <input type="checkbox"/> Cobble <input type="checkbox"/> Gravel <input checked="" type="checkbox"/> Sand <input checked="" type="checkbox"/> Silt/ clay <input type="checkbox"/> Organic		
Observations			
Riparian Zone Present: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <i>(check one)</i>			
Vegetation Layers: <input checked="" type="checkbox"/> Trees <input checked="" type="checkbox"/> Saplings/Shrubs <input checked="" type="checkbox"/> Herbs <i>(check all that apply)</i>			
Dominant Bank Vegetation (list): Acer saccharinum, Fraxinus pennsylvanica, Matteuccia struthiopteris, Prunus virginiana			
Aquatic Habitats (ex: submerged or emergent aquatic vegetation, overhanging banks/roots, leaf packs, large submerged wood, riffles, deep pools, etc.): Runs, pools, woody debris, overhanging vegetation.			
Aquatic Organisms Observed (list): None.			
Disturbances (ex: livestock access, manure in waterbody, waste discharge pipes): Road, bridges.			
Observation Notes: The Bad River is a perennial waterbody that flows through surrounding floodplain forest.			



sasb006p_x1 (across)



sasb006p_x1 (downstream)



sasb006p_x1 (upstream)