

**SWAN LAKE FIRST NATION – MATRIX SOLUTIONS
INC. PARTNERSHIP**

INDIGENOUS CONSTRUCTION MONITORING

WEEKLY REPORT

SPREAD 8

NOVEMBER 19TH TO NOVEMBER 25TH

1. PURPOSE OF THIS REPORT

The report is a weekly summary of the daily reports submitted by the Indigenous Construction Monitors that are working on spread eight. The social and cultural findings have been tabulated with locations and mitigation measures below. A summary of the construction activities has been summarized for the weeks of November 19th to November 25th, 2018.

Social and Cultural Features

Field Observation	# of occurrences	Description and Mitigation Measures	Mitigation Status	Further Action Required (Yes/No)
Traditional Use Area (hunting, fishing, gathering, trapping)	N/A			
Rock Formations (rocks of significance, tipi rings, etc.)	N/A			
Artifacts	N/A			
Bones	N/A			
Potential Gravesites	N/A			

Environmental Features

Field Observation	# of occurrences	Description and Mitigation Measures	Mitigation Status	Further Action Required (Yes/No)
Medicinal or Cultural Plants	N/A			
Aquatic Life	N/A			
Animal Observations or Burrows	N/A			
Bird Nests	N/A			
Trees (Red Willow)	N/A			
Wetlands	N/A			
Watercourse Crossing	N/A			

Additional Observations and Summary of Activities or Concerns

Weekly activity included attending daily tailgate meetings and continue to check access points on the ROW and monitor Spread 8.

November 19, 2018 - Safety included: Stay out of swing zones while on site. Watch for wildlife. Watch for wide loads on Hwy#2. Be careful walking up and down steep slopes. Snow and ice conditions.

Weather forecast/Environment: High of -13C, partly cloudy with light winds.

General:

SF50 Side-booms hooking up and lowering the pipe in for the tie-in crew. Crew wearing PPE. Ladder in place with T-posts. The de-watering crew are finished, and the tie-in crew have tools and the clamp ready for the tie-in. Skids and plywood are put down for the crew to work safely. Extra skids on the side of the ditch.

SF49 Picker truck loading short pieces of the pipe. Crew wearing required PPE.

SF48 Excavators and caterpillars are breaking up and levelling the clay. Spotter watching the excavator and is wearing PPE.

Work Forecast: Continue to monitor ROW.

November 20, 2018 - Safety included: Slips, trips, falls, Driving conditions - No cruise control on snow covered or icy roads, Congested sites - Stay off site if you do not need to be there, Wildlife - deer coming out of ditches, Distracted driving, Fatigue. Watch out for Busses on rural roads and school zones. Watch out for vehicles in uncontrolled intersections. Stay out of machine swing zones and blind spots. Watch for dangerous drivers. Watch out for domestic animals. Be careful on mats vehicle to low to the ground. Strong cold wind -watch for frost bite.

Weather forecast/Environment: Cloudy High of 0, strong winds

Fine clean and bleach when entering a new RM or land owner requested wash.

Watch for frozen ruts on ROW. Dress for colder temperatures.

General: Attend morning meeting.

SF 27 Backfill tie-in crew onsite. Excavators and dozers are working together to backfill tie-in trench at Cypress #1. Fuel truck is onsite refuelling equipment at a safe distance from the water crossing.

SF 31 (KP961) Clean-up crew is onsite. Dozers are spreading soil throughout the ROW.

SF 41 South side of Hwy #2 Hydro vac is onsite removing water from the tie-in trench. Crew members have a water pump set up in the trench pumping out water into a pig pen. Ladder in trench is secure. Some of the fencing has been removed from around the trench temporarily. Welders are onsite welding a section of the pipe. Side booms are being used to hold pipe in place while the welders operate.

SF 48A Backfill tie-in crew is onsite. Excavators are working to place soil ontop of pipe, oiler is watching for rocks that could potentially damage the pipe, when found the rocks are placed to the side. Dozer followed behind and backfilled the rest of the trench bringing it to ground level.

Work Forecast:

Continue to monitor construction activities, traditional land use, heritage, and culturally sensitive areas.

November 21, 2018 - Safety included: Stay out of swing zones while on site. Watch for wildlife. Watch for wide loads on Hwy#2. Be careful walking up and down steep slopes. Snow and ice conditions. Slips, trips, falls. Driving conditions - No cruise control on snow covered or icy roads, Congested sites - Stay off site if you do not need to be there, Wildlife - deer coming out of ditches, Distracted driving, Fatigue. Watch out for Busses on rural roads and school zones. Watch out for vehicles in uncontrolled intersections. Stay out of machine swing zones and blind spots. Watch for dangerous drivers. Watch out for domestic animals. Be careful on mats vehicle too low to the ground. Roads are slippery due to light snow fall overnight.

Weather forecast/Environment: Winds South East at 15 to 25 km/h with a high of -9C
Fine clean and bleach when entering a new RM or land owner requested wash.

Watch for frozen ruts on ROW. Dress for colder temperatures.

General: Attend morning meeting

SF 22B (KP 943+74) Oak Creek #2 Wetlands and Bore crew onsite. Crews are finishing up work in the trench on the West side of the Creek. Drill rig is on the West side of the creek. Rock trucks are onsite for when soil needs to be removed. Hydro vac is onsite removing slurry and water from the trench. East side of the road at Oak Creek #3 Wetlands crew is onsite preparing for Bore crew to arrive. Excavator is removing soil from Bore trench and placing into Rock trucks which are piling in separate piles from seconds and top soil piles. SF 30 West side of the road Clean-up crew is onsite putting back soil in the wetland. Crew members are picking up garbage and debris from mats and piling near the access for later disposal. SF 31 Clean-up crew is onsite. Dozers are spreading soil throughout the ROW and levelling it. SF 32 Clean-up crew is onsite. Excavators and dozers are working together to put back soil throughout the ROW.

SF 35 South side of the road. Welding crew is onsite welding sections of the pipe. All proper PPE was worn. Side boom is holding pipe in place while the welders operate.

SF 50 Backfill Tie-in crew is onsite. Dump trucks brought in soil and piled near the trench, an excavator placed soil around pipe covering it. Another excavator is placing soil that was onsite back into the trench, an oiler is watching for any rocks that could potentially damage the pipe. When found they are removed and placed to the side. Dozer pushed soil piles into to trench bring it to ground level.

SF22B Rock truck hauling clay from the East side to the West side of the road. Excavator is digging the ditch. SF23 KP 948+000 Caterpillar levelling clay on the East side. On the West side an excavator is breaking up the clay to remove the geo-tec. Loader is using a mulcher attachment to break up the frozen lumps of clay. Clean up crew are picking up the geo-tec. Crew wearing PPE. SF30 On the west side an excavator is removing mats and geo-tec from the wetland area and loading the geo-tec into rock trucks. The crew are picking up the pieces of geo-tec. An excavator is breaking up and moving topsoil away from the edge of the ROW. SF32 Caterpillars and an excavator are breaking up and levelling the topsoil. SF35 On the South side of the road a side-boom is holding up the pipe for the welding crew. Grader is working on the road. On the North side of the road a side-boom and welding crew are joining pipes and a

tractor is pulling the pipe to the pond. The pond water is to be used to test the pipeline. An excavator is breaking up the clay and piling it. Crew are wearing PPE.

SF50 Two excavators and a cat are breaking up clay and backfilling the ditch. A crew member is spotting for one of the excavators. Crew wearing PPE. Clean up crew is on the site. A hydro-vac is daylighting the pipe. Gravel trucks are hauling in sand for the pipe.

Work Forecast: Continue to monitor construction activities, traditional land use, heritage, and culturally sensitive areas.

November 22, 2018- Safety included: Stay out of swing zones while on site. Watch for wildlife. Watch for wide loads on Hwy#2. Be careful walking up and down steep slopes. Snow and ice conditions. Slips, trips, falls. Driving conditions - No cruise control on snow covered or icy roads, Congested sites - Stay off site if you do not need to be there, Wildlife - deer coming out of ditches, Distracted driving, Fatigue. Watch out for Busses on rural roads and school zones. Watch out for vehicles in uncontrolled intersections. Stay out of machine swing zones and blind spots. Watch for dangerous drivers. Watch out for domestic animals. Be careful on mats vehicle too low to the ground.

Weather forecast/Environment: Cloudy, winds South at 15 to 30 km/h with a high of 0C.

Fine clean and bleach when entering a new RM or land owner requested wash.

Watch for frozen ruts on ROW. Dress for colder temperatures.

General: Attend morning meeting.

SF 28 Excavators and dozers are working together spreading soil through the ROW.

SF 32 North side of the road clean-up crew is onsite. Dozers are finishing spreading soil (clay layer) throughout the ROW. SF 35 Tie-in crew is onsite. Excavators and dozers are working together to remove soil from the tie-in ditch. Side booms are waiting to lower in pipe. Observed from a distance due to site being very congested.

SF 37 Backfill tie-in crew is onsite. Excavator is placing soil in trench covering the pipe, oiler is watching for any rocks that could potentially damage the pipe. When found they are placed to the side. SF 41A Backfill tie-in crew is onsite. Excavator is loading up a dump truck with soil, dump truck is placing soil next to the open trench. Dump trucks brought in sand and piled next to trench. Excavator placed soil into the trench covering the pipe. SF30 An excavator and crew are erecting a silt fence after the mats and geo-tec was removed for the crossing. Another excavator loading geo-tec onto a truck.

SF34 An excavator is removing the approach. SF35 Twelve side booms Are holding up the pipe to be lowered into the ditch for the tie-in crew. SF50 A Caterpillar is pushing the pile of transition to the ditch. An excavator is backfilling the ditch while the clean-up crew are picking up T-posts, fences and skids. A skid-steer was working with them. A gravel truck was hauling out rocks. The crew were wearing PPE.

Work Forecast: Continue to monitor construction activities, traditional land use, heritage, and culturally sensitive areas.

November 23, 2018 - Safety included: Stay out of swing zones while on site. Watch for wildlife. Watch for wide loads on Hwy#2. Be careful walking up and down steep slopes. Snow and ice conditions. Slips, trips, falls. Driving conditions - No cruise control on

snow covered or icy roads, Congested sites - Stay off site if you do not need to be there, Wildlife - deer coming out of ditches, Distracted driving, Fatigue. Watch out for Busses on rural roads and school zones. Watch out for vehicles in uncontrolled intersections. Stay out of machine swing zones and blind spots. Watch for dangerous drivers. Watch out for domestic animals. Be careful on mats vehicle too low to the ground.

Weather forecast/Environment: Cloudy, winds Northwest at 10 to 15 km/h.

High of -1C

Fine clean and bleach when entering a new RM or land owner requested wash.

General: SF 22B Oak Creek #3 Wetlands crew is onsite. Excavator is removing soil from the Bore trench and placing into Rock trucks. Rock trucks are taking the soil and piling on the West side of the road away from other soil piles. SF 32 North side of the road. Clean up crew is onsite. Excavator is loading up a rock truck with rocks that were placed to the side when backfilling and putting back clay layer.

SF 41 Backfill tie-in crew is onsite. Excavator is placing soil around pipe covering it. Oiler is on hand watching for rocks that could potentially damage the pipe, when found they are removed and placed to the side. SF 39 West side of Hwy #34. Clean up crew is onsite. Excavator is removing part of the approach bringing it back 3m. Oilers on hand spotting for excavators and picking up debris from the mats.

SF22B KP 944+425 On the West side a caterpillar is pushing up clay. A loader with pallet forks and clamp was moving smaller pipe. A rock truck is hauling clay from the East side of the road to the West side. SF28 A caterpillar is levelling clay. SF35 KP 968+000 Excavators are digging and backfilling the ditch. A caterpillar is also backfilling the ditch. Rock trucks are hauling clay for them. The pipe in the ditch has a concrete coating on it called gunnite which is used as weight to hold the pipe in place. Spotters are watching the equipment and have on PPE. A crew member is installing T-posts for the ladders. A screen cage is in place on the creek bed and the de-watering crew had pump inside. Perforated culvert sump drains are installed along the ditch.

Work Forecast: Continue to monitor construction activities, traditional land use, heritage, and culturally sensitive areas.

November 24, 2018 - Safety included: Stay out of swing zones while on site. Watch for wildlife. Watch for wide loads on Hwy#2. Be careful walking up and down steep slopes. Snow and ice conditions. Slips, trips, falls. Driving conditions - No cruise control on snow covered or icy roads, Congested sites - Stay off site if you do not need to be there, Wildlife - deer coming out of ditches, Distracted driving, Fatigue. Watch out for Busses on rural roads and school zones. Watch out for vehicles in uncontrolled intersections. Stay out of machine swing zones and blind spots. Watch for dangerous drivers. Watch out for domestic animals. Be careful on mats vehicle too low to the ground.

Weather forecast/Environment: Cloudy, winds North Northwest at 15 to 25 km/h.

High of -0C

Fine clean and bleach when entering a new RM or land owner requested wash.

General: Attend morning meeting.

SF 22B Oak Creek #3. Wetlands crew and Golder Biologists are onsite. Excavators are removing ice chunks from the creek. Golder biologists are fish salvaging, all proper PPE

is worn. SF 32 South side of the road. Crew members from the clean-up crew are onsite removing geo cloth and culverts from site. Debris is taken to the nearest Bone yard.

SF 37 South side of the road. Excavator is removing the approach and geo cloth. Goal posts are installed to prevent any potential touching of the powerlines overhead. Oiler is spotting for the operator and has a blow horn ready to use if the equipment touches the goal post. SF32 Excavator and crew removing approaches. SF33 A caterpillar is removing the approach. SF35 Tie-in crew is working on the side of the hill with side-booms holding the pipe for them. Excavators are working on the creek bed installing sand, gravel, rocks and mesh to hold it in place, also they are banking the edge of the creek with clay. Excavators and crew are backfilling another part of the ditch.

Work Forecast: Day off.

Photos of Sites Visited & Topics Discussed This Week

November 19, 2018



Description & Location:

SF50 KP 1000+140 Facing North West
Tie-in crew waiting as pipe is about to be
lowerd in.



Description & Location:

SF50 KP 1000+140 Facing West
Side-booms lowering pipe to tie in.

November 20, 2018

Photo



Description & Location:

Photo facing West.
SF 27 West side of Cypress #1
Refueling truck is onsite refuelling
equipment.

Photo



Description & Location:

Photo facing South East.
SF 41 South side of the road.
Hydro Vac is removing water from the trench.

Photo



Description & Location:

Photo facing North East.
SF 48A (KP994+310)
Excavators and a dozer are working together
to backfill tie in trench.

Photo

Right Click
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Description & Location:

Photo facing North East.
SF 48A (KP994+310)
Excavators and a dozer are working together to
backfill tie in trench+C86:BT109+AL99:BT109h.

November 21, 2018



Description & Location:

SF23 KP 948+000 Facing West
Excavator breaking up clay and removing
geo-tec.



Description & Location:

SF30 Facing West
Excavator loading geo-tec onto a rock
truck.

Photo



Description & Location:

Photo facing West.
SF 30 West side of the road.
Crew members collecting debris from the
ROW.

Photo



Description & Location:

Photo facing South.
SF 35 South side of the road.
Welding crew is onsite welding sections of the
pipe.

Photo



Description & Location:

Photo facing West.
SF 50 West side of the Hwy.
Excavators are placing soil on top of the
pipe covering it.

Photo

Right Click
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Description & Location:

November 22, 2018



Description & Location:

SF35 KP 976+475 Facing North
Side boom holding pipe for the welding crew
doing tie-in for testing the main pipe.



Description & Location:

SF50 KP 1000+129 Facing West
Caterpillar and excavator backfilling
ditch.

Photo



Description & Location:

Photo facing North West.
SF 32 North side of the road.
Dozers are leveling the ROW.

Photo



Description & Location:

Photo facing North West.
SF 37 (KP 971+263) North side of the road.
Excavator placing soil into trench.

Photo



Description & Location:

Photo facing West.
SF 41A South side of Hwy #2.
Excavators are placing into dump truck.

Photo

Right Click
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Description & Location:

November 23, 2018



Description & Location:

SF35 KP 968+000 Facing Southeast
Excavators and a caterpillar digging and backfilling ditch.



Description & Location:

SF35 KP 968+000 Facing Southeast
Ditch being backfilled over the pipe that is coated with gunnite.

Photo



Description & Location:

Photo facing North.
SF 32 North side of the road.
Excavator loading rock truck with rocks.

Photo



Description & Location:

Photo facing North West.
SF 41 South side of Hwy #23.
Excavator placing soil into the trench.

Photo



Description & Location:

Photo facing West.
SF 39 West side of Hwy #34.
Excavator removing part of the approach.

Photo

Right Click
Change Picture..

Description & Location:

November 24, 2018



Description & Location:

SF35 KP 968+000 Facing North West
Tie-in crew working on side of the hill.



Description & Location:

SF35 KP 968+000 Facing South West
Excavator banking side of the creek with mud.

Photo



Description & Location:

Photo facing East
SF 22B Oak Creek #3
Golder Biologists are fish salvaging.

Photo



Description & Location:

Photo facing South
SF 32 Southside of the road.
Crew members are removing debris from the ROW.

Photo



Description & Location:

Photo facing South East
SF 37 South side of the road.
Excavator removing the approach.

Photo

Right Click
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Description & Location:

APPROVALS

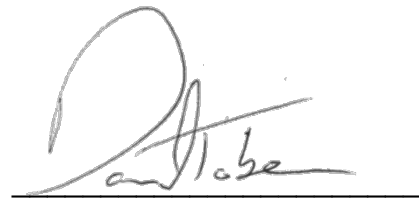


Justin McKinney

Senior Construction Monitor

January 14, 2019

Date



Daniel Tober

Senior Environmental Scientist

January 14, 2019

Date