

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

INDIGENOUS CONSTRUCTION MONITORING

WEEKLY REPORT

SPREAD 8

NOVEMBER 13TH TO NOVEMBER 18TH

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 13th to November 18th, 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 13, 2018 - Safety included: Stay out of swing zones while on site. Watch for wildlife and 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, scattered flurries and snow showers.

Winds light and variable with a high of -8.

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

Take SA employee from Swan Lake First Nation to the medical clinic.

SF 14 Clean-up crew is on both side of the road. West side of the road crew is putting back top soil. Excavators are pulling top soil piles from the edges of the ROW. Dozers are following behind spreading soil throughout the ROW. Excavator moved left over material and culverts over to the East side of the road. Crew members flagged for equipment when needed. Mulcher is on the East side of the road breaking up soil chunks along the ROW. Excavators are pulling the top soil piles from the edges of the ROW, so the dozers can get behind and spread soil. SF 41 Hydro Vac is onsite on the South side of Hwy #2 removing water and from the sump pit. Some of the fencing has been remove so that crews can work. North side of the Hwy side booms are being used to lower in pipe into the ground. Site was too congested to go onsite, observed from highway. SF 43-43A Backfill tie in crew is onsite. Dozer is levelling the ROW. Crew members are removing pig pens. SF 15 Clean up-crew is onsite. Excavator is removing half the approach and geo cloth. Soil is being placed on the ROW. Dozer is waiting for flaggers to cross the road. Straw was called to provide flaggers. Traffic was stopped by flaggers and the dozer crossed safely. SF22 Caterpillars levelling and breaking up the clay. SF38 Skid steer with pallet forks picking up pieces of geo-tec and loading them up. SF43A Excavators and a caterpillar are breaking up and levelling the clay. SF45 Excavators and a caterpillar are breaking up the clay and moving it to the side of the ditch. SF48 There are four side-booms carrying a section of the pipe to lower in for the tie-in crew. An excavator is taking the approach out. SF24A A caterpillar and grader are breaking up and levelling the clay. SF43AClean up crew are loading skids onto the sloop that the caterpillar is pulling. The crew have on their PPE.

Work Forecast: Continue to monitor construction activities, and monitor wetland and traditional land use areas.

November 14, 2018 - Safety included:

Stay out of swing zones while on site. Watch for wildlife and 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. With warmer temperatures sites can become slippery from the mud - watching your footing, be cautious when driving.

Weather forecast/Environment: Cloudy with a high of +1.

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

Watch for frozen ruts on ROW. Dress for colder temperatures in the morning, delay throughout the day.

General: Attend morning meeting

SF 9 North side of Hwy #2 dozer is onsite levelling the ROW in preparation for putting back top soil. SF 14 Clean-up crew is on the East side of the road. Dozers put back top soil and are levelling the ROW. Crew members on the West side of the road are taking down one set of goal posts, the other is left set up in case equipment needs to cross.

SF 15 Clean-up crew is on both sides of the road. On the west side of the road a dozer is spreading the soil that was removed from the approach. Mulcher is onsite to break up chunks of soil. Excavators are waiting to put back top soil at the access. East side of the road an excavator is removing the approach and placing soil on the ROW. SF 22B (KP943+74) Water course crossing #43. Wetlands crew is onsite. Excavators removed ice from the creek making a pathway for the aqua dam on the North side of the ROW. Aqua dam on the South side was previously installed. Sheet metal piles have been installed on both sides of the creek. An excavator is digging Bore trench on the East side of the creek, soil is being placed into a rock truck which is placing the soil in a pile East of the trench. Crew filled up the aqua dam with the water from the creek, once filled to appropriate level the crew began pumping the rest of the water outside the dams back into the creek. Golder aquatics is onsite to catch any minnows and place back into the creek on the outside of the dams. Two muskrats are within the ROW. All generators, light lamps, and heaters have spill trays or secondary containment under them. Silt fencing is installed around trench. Site is fully matted.

SF49 KP 996+398 Clean-up crew transferring skids from the truck and placing them on a sloop. An excavator is cleaning the ice out of the ditch for the de-watering crew so they can use water pump. The ladder is tied onto T-posts and the crew are wearing PPE. SF41 A caterpillar is moving clay to the side and levelling area by the crossing.

SF39 At the creek crossing sweepers removed about 200 minnows before the two excavators, two rock trucks and two caterpillars started to dig the ditch. Large sheet piles and plastic have been placed in the creek to hold the water back. crew wearing PPE.

Work Forecast: Continue to monitor construction activities, and monitor wetland and traditional land use areas. Monitor Oak Creek #2 and Cypress #1 water crossings.

November 15, 2018 - Safety included: Stay out of swing zones while on site. Watch for wildlife and 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 High of -8.

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. Attend progress meeting.

SF 15 clean-up crew is onsite. Dozers are putting back top soil and a tractor is tilling the ROW. SF 16 Clean-up crew is onsite on both sides of the road. West side of the road crew members are cleaning equipment before they cross the road. Crew is using electric hammer chisels and shovels to clean tracks and blades, compressed air was used to spray off loose soil. East side of the road excavators and dozers are working together putting back seconds and top soil piles. SF 22 Wetlands and bore crew is onsite. Drill rig is on the West side of the creek drilling under the creek to the East side. Golder aquatics team onsite fish salvaging and monitoring. Weekly meeting with GM from Matrix Solutions. SF50 Tandem trucks hauling sand out to different area.

SF49 KP 996+383 There are five side-booms holding pipe for the tie-in crew. The ladder is tied to the T-posts. SF47 KP 990+471 Excavators and caterpillars are backfilling the ditch. SF41 Excavators are digging the ditch. SF17 Excavators and caterpillars are levelling clay with a mulching machine breaking up the frozen chunks of clay. Clean up crew picking up the fences and T-posts. Crew wearing PPE.

SF15 Tractors are discing topsoil, getting ready for the straw.

Work Forecast: Continue to monitor construction activities, and monitor wetland and traditional land use areas. Monitor Oak Creek #2 and Cypress #1 water crossings.

November 16, 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. Strong cold wind -watch for frost bite.

Weather forecast/Environment: Cloudy High of -8, 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: SF 9 Clean-up crew is on both side of Hwy #2. Excavators and dozers are working together to put back top soil. Excavators pulled the top soil piles from the edges of the ROW so the dozers can get behind and spread the soil piles.

SF 16-17 Clean-up crew is onsite working West to East. Excavators and dozers are working together putting back top soil. Crew members flagged for equipment when they needed to cross the road. SF 28 Tie-ins crew is onsite preparing to lower in pipe. Side booms were unloaded at the access, semi and pilot truck had proper flagging and signage on their vehicles. Flagging crew onsite to stop traffic when equipment arrived onsite. SF 41A (KP979+410) Backfill tie in crew is onsite. Excavators are placing soil on top of pipe covering it, while an excavator and a dozer followed behind backfilling the rest of the trench. Oilers were used to look for rocks that could potentially damage the pipe while soil was placed on top of pipe. SF 8 Bone yard. Crew members cleaning a tractor and tiller. Shovels and hand chisels were used to clean the machine. Compressed air was used to spray off any loose soil. SA Environment team onsite to bleach and document cleaning. SF11 KP 924+979 Straw covering both sides of the road. SF16 KP 931+636 One excavator moving topsoil away from the edge of the ROW. One caterpillar levelling clay by the road. Six caterpillars levelling topsoil. One tractor is discing. One mulcher is breaking up the frozen lumps. There are pads piled on each side of the road from the approaches. SF35 KP 976+475 Two hydro-vac trucks and crew daylighting the pipe and erecting fences around the holes. A side-boom crossed the road East to West, flaggers assisted him. Crew wearing PPE.

SF41A KP 979+410 Caterpillars and excavators are backfilling the ditch.

Work Forecast: Continue to monitor construction activities, and monitor wetland and traditional land use areas.

November 17, 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. Strong cold wind -watch for frost bite.

Weather forecast/Environment: Cloudy High of -8, 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 8 Clean-up crew is onsite. Excavators are pulling top soil piles from the edges of the ROW. Dozers are spreading top soil piles working from East to West.

SF 17 Clean-up crew is onsite. Dozers are spreading the last of the top soil throughout the ROW. Tractor awaits with a hay bay to start the crimping process.

SF 48 West side of St Leon station. Excavator is working to back fill the road that was open cut. Coating crew is onsite preparing to coat the welding joints.

SF 48A (KP994+310) Welding crew is onsite welding sections of the pipe. Welders are wearing proper PPE requirements. SF9 Excavators and caterpillars levelling topsoil. Pads piled in the ditch. SF 28 Nine side-booms holding pipe for crew.

SF35 Excavator breaking up frozen clay and moving it away from the open ditch.

SF41A Excavators and caterpillar are breaking up frozen clay and backfilling the ditch.

SF49 Excavator and a caterpillar are breaking up and levelling clay on the West side of the road. On the East side a hydro-vac truck is working on the ditch. Excavator and caterpillars are backfilling tie-ins.

Work Forecast: Day off.

Photos of Sites Visited & Topics Discussed This Week

November 13, 2018



Description & Location:

SF45 Facing East
Excavator and caterpillar breaking up the frozen clay.

Photo



Description & Location:

Photo facing East.
SF 14 East side of the road.
Crew is onsite prepping ROW for top soil placement.

Photo



Description & Location:

Photo facing North West.
SF 15 West side of the road.
Excavator is removing half the approach and geo cloth.



Description & Location:

SF43A Facing North North East
The clean up crew are loading up skids onto the sloop that the caterpillar is pulling.

Photo



Description & Location:

Photo facing South West.
SF 43A West side of the road.
Dozer is leveling the ROW.

Photo

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Description & Location:

Photo facing North West.
SF 15 West side of the road.C86:BT109+AN96:BT109
Excavator is removing half the approach and geo cloth.

November 14, 2018



Description & Location:

SF49 KP 996+398 Facing East
Excavator removing ice for the de-watering crew. Ladder is tied on to the T-posts.



Description & Location:

SF39 KP 976+600 Facing East
Excavators digging the ditch at the creek. Sheet piles and plastic holding the water back.

Photo



Description & Location:

Photo facing North West
SF 14 West side of the road.
Crew members taking down one set of goal posts.

Photo



Description & Location:

Photo facing North East
SF 22B (KP943+74)
Crew is pulling aqua dam across the creek.

Photo



Description & Location:

Photo facing South East
SF 22B (KP943+74)
Golder aquatics team searching for fish.

Photo

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Description & Location:

November 15, 2018



Description & Location:

SF49 KP996+383 Facing West
Excavator and caterpillar backfilling ditch.



Description & Location:

SF47 Excavators and caterpillars
backfilling the ditch. Spotter watching.

Photo



Description & Location:

Photo facing East.
SF 15 East side of the road.
Tractor is tilling the ROW.

Photo



Description & Location:

Photo facing South West
SF 16 West side of the road.
Crew members are cleaning equipment.

Photo



Description & Location:

Photo facing West
SF 22B (KP943+74)
Drill rig is drilling under creek.

Photo

Right Click
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Description & Location:

November 16, 2018



Description & Location:

SF35 KP 976+475 Facing West
Two hydro-vac trucks and crew daylighting
the pipe.



Description & Location:

SF41A KP 979+410 Facing West
Caterpillars and excavators are backfilling
the ditch.

Photo



Description & Location:

Photo facing North East.
SF 17 North side of the road
Excavator pulling top soil pile away from
the edge of the ROW.

Photo



Description & Location:

Photo facing South East
SF 28 access.
Side boom is being unloaded at access.

Photo



Description & Location:

Photo facing North West
SF 41A (KP979+410)
Excavators backfilling trench.

Photo

Right Click
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Description & Location:

November 17, 2018



Description & Location:

SF9 Facing East
Excavators and caterpillars leveling the topsoil.



Description & Location:

SF41 KP 979+410 Facing West
Excavators and caterpillars breaking up the clay and leveling it out.

Photo



Description & Location:

Photo facing East.
SF 8 East side of the road.
Excavators pulling top soil from the edges of the ROW.

Photo



Description & Location:

Photo facing South East.
SF 48 West side of St Leon station.
Excavator is backfilling open cut road.

Photo



Description & Location:

Photo facing South West.
SF 48A (KP994+310)
Welding crew onsite welding sections of the pipe.

Photo

Right Click
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Description & Location:

APPROVALS

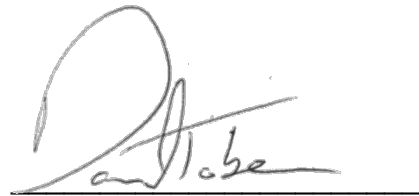


Justin McKinney

Senior Construction Monitor

December 18, 2018

Date



Daniel Tober

Senior Environmental Scientist

December 18, 2018

Date