

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

**INDIGENOUS CONSTRUCTION MONITORING**

**WEEKLY REPORT**

**SPREAD 8**

**OCTOBER 9<sup>TH</sup> TO OCTOBER 13<sup>TH</sup>**

## 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 October 9<sup>th</sup> to October 13<sup>th</sup>, 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.

October 9, 2018 - Safety included:

Due to weather impact on gravel roads drive with caution, possibility to slide of road when passing vehicles or equipment. Slips, trips, falls, Driving conditions, Congested sites, Wildlife, 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 speeding drivers in construction zones signs are being ignored. Watch out for domestic animals. Muddy, slippery, rough walking conditions. Stay out of swing zones while onsite, Watch for wildlife coming out of ditches, Watch for wide loads on Hwy #2.

Weather forecast/Environment:

Cloudy, High of 3. Fine clean and bleach when entering a new RM or land owner requested wash. ROW is still wet and muddy in most areas.

General: Attend morning meeting

SF 14 stringing crew is onsite. Premay hauling trucks delivering pipe. All loads are secure, 4 straps in the front 4 straps in the back. Excavator with magnetic claw is picking pipe off the truck and placing onto skids along the ROW working West to East.

SF 22 Bore crew is onsite pumping water out of trench on the South side of the road. Open trench is fenced off with proper signage. Two ladders are in the trench for safe entering/exiting. Existing line that is crossing the trench is being held in place with rope. Generator that is being used for water pumping has a spill tray under it. Water that is being pumped out is filtered into silt bags. Excavator is scraping the ROW clearing mud. Excavator on the North side of the road is digging trench, trenched is fenced off with proper signage. SF 25 Crew is onsite tying in pipe. Welders are in the trench welding pipe together. Safety ladders are in place for safe entry/exit. Trench is fenced off with proper signage.

SF 28 (KP955+867) Bore crew is onsite digging bore trench on the West and East sides of the road. Excavators are being used to dig the trenches and piling on the ROW for the dozer to pile adjacent to the trench. Trenches are fenced off with proper signage. Crew members are flagging when needed stopping traffic for equipment crossing.

SF 43A Welding pipe gang is onsite. Side booms are being used to move welding shacks along the ROW as well as holding propane tanks. All crew members are wearing proper PPE. Crew is welding pipe joints together working West to East.

SF 8 Oak Creek Crossing (KP 921+205) I went with Golder Archaeologist to retrieve a bone that was found last week, after retrieving the bone we went up the hill to the soil piles that were removed for trench. As we searched for any signs of bones or traditional/heritage objects the wetlands crew informed us that they had found another bone in the trench approximately 10-20 meters from where the last one was found. Upon leaving the soil piles we found a much smaller bone fragment in the soil. Upon leaving the site a crew member called us back to the site after finding another bone in the trench approximately 10 meters from the bone that was found today. Archaeologist

removed bones from site for further investigation, possible mature bison and juvenile bison. 6 pieces of bones has been found in trench in total since digging began.

SF14 Excavator with clamp unloading pipe off trucks. Caterpillars waiting. Crew laying blocks down for the pipes to be placed. SF22 Drilling machine driving to lowbed to be moved. Rock truck and excavator moving mud on the North side. On the South side one side boom holding up pipe in the trench. Excavator scraping wet clay so trucks and crew can work easier. Lots of water in trench as crew are pumping it out. Pipe has weight bags laying on the top of it. Three side booms holding pipe up so crew can work on it. Ladders are tied to T-posts, and snow fences are properly in place. SF25 Side boom lowering pipe into trench. Welder working on another pipe. SF26 Spill kits under lighting plants. Crew also pumping water out of trench. Steel pipe across trench holding up existing line that is crossing trench. SF43 Pipe gang working on the East side.

Work Forecast: Continue to monitor construction activities, Monitor work in traditional/heritage land use areas, wetland and water courses. Back to Oak Creek Crossing #1 for further investigation.

October 10, 2018 - Safety included:

Due to weather impact on gravel roads drive with caution, possibility to slide of road when passing vehicles or equipment. Slips, trips, falls, Driving conditions, Congested sites, Wildlife, 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 speeding drivers in construction zones signs are being ignored. Watch out for domestic animals.

Weather forecast/Environment: Cloudy, High of 3

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

ROW is freezing but still wet and muddy in areas.

General: Attend morning meeting

SF 1 small crew prepping to install silt fencing on smaller approach. Crew members wearing proper PPE.

SF 8 (KP921+205) Wetlands crew is onsite continuing to pump water and installing sheet metal pilings to prevent the trench from caving in any further. All light lamps and generators have spill trays underneath them. T-posts have safety caps on top. Sand Points were previously installed around the trench on both sides of the creek to reduce the amount of ground water. Ladders have been placed on each side of the trench and are secure to provide safe entry/exit. Water is being pumped into silt bags North of the trench. Excavator is scrapping soupy mud to clear a path for the water to drain towards the water pumps. A bone was found later in the day but no one was notified until the Archaeologist from Golder arrived onsite at 1pm. I arrived at 430pm to speak with the archaeologist and take a picture of the bone.

SF 37A Mulching crew is onsite refuelling on material. Crew crossed the road going West to East. Crew is spraying green edge mulching on the North side of the ROW. Coating crew is also onsite, side boom is being used to move the coating shacks along the ROW working West to East. Crew is coating the welding joints of the pipe.

SF 22 Crew is digging trench on the North side of the road, soil that is being removed is being placed adjacent to the trench being dug. Rock truck is onsite in case any soil needs to be placed elsewhere. South side of the road crew is lowering in pipe.

SF8 Oak Creek Crossing. Wetlands crew is on site installing sheet metal piles and pumping water from trench. Excavator was scraping wet mud out to let water drain to water pumps. The light lamps and generators have spill trays underneath them. Safety ladders were installed properly on each side of trench. Water is pumped into silt bags on North side of the trench. The T-posts have safety caps on them and Sand Points have been installed all around end of trench. SF37A Mulching crew and Coating crew are on site. Tandem trucks with water tanks refilling track trucks with water tanks to continue spray mulching. Side boom moving coating shacks for the coating crew.

SF22 Excavator was being used to dig trench. Soil was being removed and placed adjacent to trench. Crew on south side of road lowering in pipe.

Work Forecast: Continue to monitor construction activities, Monitor work in traditional/heritage land use areas, wetland and water courses. Back to Oak Creek Crossing #1 for further investigation. Monitor mulching and coating crew on Swan Lake First Nation SF38 to SF 40 as per request from Swan Lake.

October 11, 2018 - Safety included: Slips, trips, falls, Driving conditions, Congested sites, Wildlife, 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 speeding drivers in construction zones signs are being ignored. Watch out for domestic animals. Be cautious of frozen ruts on ROW, risk of damaging vehicle. Muddy, slippery, rough walking conditions. Stay out of swing zones while onsite, Watch for wildlife coming out of ditches, Watch for wide loads on Hwy #2. Mud was freezing making it slippery.

Weather forecast/Environment: Cloudy, High of 3

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

ROW is freezing but still wet and muddy in areas.

General: Attend morning meeting

SF 39 (KP976+500) Mulching crew is onsite. Crew is spraying edge mulch on the North side of the ROW. When mulching machine runs out of water, the water trucks refills the water tanks on the machine. Crew is working West to East. While checking soil piles some bone fragments were found. Enbridge environment and Golder archaeologist were notified. I waited onsite for the Golder archaeologist who arrived at 3:00 PM. Once archaeologist arrived, we did a sweep of the area looking for any signs of other bones or heritage/traditional objects, none were found. Archaeologist determined the bones were fairly modern.

SF 39 West side of the road mainline ditching is onsite. Crew is working West to East. Trenching machine is removing soil and places it adjacent to the trench on the North side. SF8 Oak Creek Crossing Wetlands crew on site installing sheet metal piles. Pumping water out of both trenches on each side of the creek into silt bags on North side of the trenches. Sand points are installed around ends of both trenches.

SF21 West side. Boring Crew on site and excavator and crew are moving attachment for the HD rig. Loader is moving rig mats around. A caterpillar is levelling clay in area. Another excavator was cleaning the ramp off and crew were preparing for equipment crossing of highway. On the East side of highway side booms were holding up pipe while crew are working on it. SF47 Prepping crew and welding crew were working on

West side of road. SF39 KP 975+700 Mainline ditching on site. Crew was working West to East.

Work Forecast: Continue to monitor construction activities, Monitor work in traditional/heritage land use areas, wetland and water courses. Back to Oak Creek Crossing #1 for further investigation.

October 12, 2018 - Safety included: Slips, trips, falls, Driving conditions, Congested sites, Wildlife, 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 speeding drivers in construction zones signs are being ignored. Watch out for domestic animals. Be cautious of frozen ruts on ROW, risk of damaging vehicle.

Weather forecast/Environment: Mostly Sunny, High of 9.

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

ROW is freezing but still wet and muddy in areas.

General: Attend morning meeting

SF 8 Oak Creek Crossing #1, Met Archaeologist onsite. Wetlands crew is onsite continuing to pump water out of Bore trench. Sheet metal pilings were installed on the North side of the trench yesterday to prevent the ground from caving in. Excavator is prepping to dig trench deeper. Archaeologist is staying onsite for the day and will let me know if any bones or heritage objects are found. SF 22 Tying in crew is onsite. Trench is fenced off and has proper signage. Crew is welding pipe together and pumping water out of trench. Generator for water pump is placed in a spill tray in case of any leaks. Water is being pumped into Geotech silt bags. SF 25 Tie in Backfill crew is onsite. Welders are welding pipe together. Dozers and excavators are working together to place soil into trench and levelling once trench is backfilled. SF 31 (KP961) Crew is digging Bore ditches. An excavator is on each side of the road removing soil and placing adjacent to trench. Trenches are fenced off and have proper signage. Temporary stairs have been built in trench. Cleaning station blow off material is still next to rare plant community. SF 38-39 Cultural sensitive area, Excavators are digging trench working West to East. Each excavator has a spotter with them. SF22 KP 941 + 0.55 Side boom crew lifting up pipe while crew are working on it. Water and ice in the trench near the road. Caterpillar was levelling clay in front of the ramp. SF24 Excavator digging trench and loading rock truck with clay on the North side. SF49A Pipe gang on site and side booms placing shacks for the welding crew. SF44 Sand blasting crew working on the pipe and another crew were working ahead of them cleaning paint and welds. SF41A Two trenches waiting by the crossing.

Work Forecast: Continue to monitor construction activities, Monitor work in traditional/heritage land use areas, wetland and water courses. Back to Oak Creek Crossing #1 for further monitoring. Monitor construction on cultural sensitive area SF 38

October 13, 2018 - Safety included: Slips, trips, falls, Driving conditions, Congested sites, Wildlife, 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 speeding

drivers in construction zones signs are being ignored. Watch out for domestic animals. Be cautious of frozen ruts on ROW, risk of damaging vehicle.

Weather forecast/Environment: Cloudy, rainy, windy High of 1

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

ROW is freezing but still wet and muddy in areas.

General: SF 43 Mulching crew is onsite working west to East. Crew is spraying edge mulch on the North side of the ROW. Water truck filled up water tanks on the mulching machine when water was low. ROW is wet and muddy. SF 49 Welding pipe gang is out on the ROW welding pipe joints together. Could not access the ROW due to weather impact not having a suitable vehicle. SF 39 Crew is onsite digging trenches and touching trench walls. Each machine had a spotter. Crew is working West to East. Crew members laid out Geo cloth, wood planks, and tires on Hwy 34 to prevent damage to the Hwy when the equipment is crossing. Flaggers were used to stop traffic when equipment was crossing. SF 38 Lowering in crew is onsite. Sidebooms with slings were used to lower in the pipe along the ROW. Crew is working West to East. SF8 Oak Creek Crossing on the West side of the creek Tie-in crew were setting up ladders around the trench. The ladders were being tie on for safety. Ropes and markers were also set up for safety. Excavator was digging trench and pilling the clay to the side and another one was taking it from there and loading it into rock trucks to be hauled away. Pipe from under the creek was now visible in the trench as most of the water had been pumped out from the night crew. Pumps are in trays. Huge pump on the East side of the creek was connected to the sand points. There were also hydro vac trucks at boneyard.

SF21 West side of road Paul Dunn Tie-in crew were on site. Tandem truck delivering pitrun to site. Excavator placing metal sheet piles into the trench and levelling the pitrun. Water being pumped from the trench through the culvert to a silt holding pen on the south side of the ramp. Another excavator was loading clay into a rock truck.

SF43A The mulching crew were spraying on the East side of the road.

Work Forecast: Day off



**Photos of Sites Visited & Topics Discussed This Week**

October 9, 2018



Description & Location:

SF22 Facing South, South East  
Side boom holding up pipe in the trench. Excavator cleaning up wet clay. Crew pumping water out of trench.



Description & Location:

SF25 Facing West  
Side Booms holding up pipe while crew member works on the pipe.

Photo



Description & Location:

Photo facing South East  
SF 8 (KP921+205) Oak creek crossing #1  
Location of area on where two bones were found.

Photo



Description & Location:

Photo facing South  
SF 8 (KP921+205) Oak creek crossing #1  
Jawbone with some teeth still intact.

Photo



Description & Location:

Photo facing South  
SF 8 (KP921+205) Oak creek crossing #1  
Bone that was found in trench.

Photo

Right Click  
Change Picture..

Description & Location:

October 10, 2018



Description & Location:

SF8 Oak Creek Crossing  
Facing West  
Excavator scraping mud to drain water to the pumps.



Description & Location:

SF8 Oak Creek Crossing  
Facing West  
Wetlands crew on site installing sheet metal pipe.

Photo



Description & Location:

Photo facing East  
SF 37A East side of the road.  
Mulching crew spraying edge mulch

Photo



Description & Location:

Photo facing South West  
SF 8 (KP921+205) Oak creek crossing #1  
Crew is installing sheet metal piling.

Photo



Description & Location:

Photo facing South  
SF 8 (KP921+205) Oak creek crossing #1  
Rib bone fragment that was found in trench.

Photo

Right Click  
Change Picture..

Description & Location:

October 11, 2018



Description & Location:

SF8 Oak Creek Crossing  
Wetlands crew on site installing sheet metal piles.



Description & Location:

SF39 KP 975+700  
Mainline ditching working on site.

Photo



Description & Location:

Photo facing East  
SF 39 East side of the road  
Mulching crew spraying edge mulch

Photo



Description & Location:

Photo facing South  
SF 39 (KP976+500)  
Small bone fragments found in soil pile.

Photo



Description & Location:

Photo facing West  
SF 39 (KP975+700)  
Trenching machine digging trench.

Photo

Right Click  
Change Picture..

Description & Location:

October 12, 2018



Description & Location:

SF22 Facing East KP 941+ 0.55  
Side booms holding up the pipe for crew members working on it.



Description & Location:

SF44 Facing East  
Sand blasting crew working on the pipe and another crew were working ahead of them cleaning paint and welds.

Photo



Description & Location:

Photo facing West  
SF 25 West side of the road  
View of backfilling and tying in.

Photo



Description & Location:

Photo facing East  
SF 31 East side of the road.  
Excavator is digging Bore trench

Photo



Description & Location:

Photo facing East  
SF 38 East side of the road.  
Excavators digging trench.

Photo

Right Click  
Change Picture..

Description & Location:

October 13, 2018



Description & Location:

SF8 Facing North Oak Creek Crossing  
Tie-in crew pumped out water and pipe is now visible. pumps are in trays.



Description & Location:

SF8 Facing West Oak Creek Crossing  
Excavator digging trench, moving clay to the side and another excavator loading the clay into rock trucks. A tie-in crew

Photo



Description & Location:

Photo facing North West  
SF 39 West side of the road  
Excavator digging trench


Photo



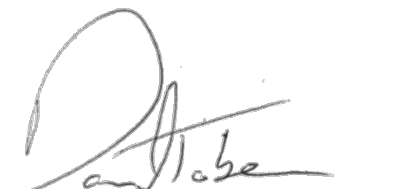
Description & Location:

Photo facing North  
SF 38 North side of the road  
Lowering in pipe

**APPROVALS**

  
Justin McKinney  
Senior Construction Monitor

November 22, 2018  
Date

  
Daniel Tober  
Senior Environmental Scientist

November 22, 2018  
Date