

Wildlife Management Plan

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Agenda

- Site Introduction
- Wildlife at Mosaic Belle Plaine
- Regulatory Requirements
- Wildlife Management Practices
- Specific Site Scenarios
- Conclusion
- Questions



Introduction

Characteristics of the site:

- First potash solution mine, established in 1964
- Mining depth is 1630 meters
- Occupies just over ten square miles
 - Nearly 70% of the land is considered arable or wild
- Approximately 500 personnel
- Produces 2.8 million metric tonnes annually



Introduction

- Between Mixed Grassland and Moist Mixed Grassland Prairie
- Surrounded by agricultural crop consisting of canola, wheat, lentils and peas
- In the middle of the North American Central Migratory Bird Flyway
- Glaciolacustrine Plain or generally flat with few permanent water bodies



Wildlife on Site

Birds typically encountered:

- Canada Goose
- Barn Swallow
- Snow Geese
- American Robin
- Mourning Dove
- Snowy Owl
- Killdeer
- Grebe Species
- Blue-winged Teal
- Mallard
- Northern Pintail
- American Coot
- American Avocet
- Sandpiper Species
- Loggerhead Shrike
- Blackbird Species
- Great Horned Owl
- Ross's Geese
- Canvasback
- Tern Species
- Sanderling
- Grosbeck Species
- Bobolink
- Gull Species
- Killdeer



Animals typically encountered:

- Red Fox
- White Tailed Deer
- Mule Deer
- Moose
- Pronghorn
- Coyote
- Muskrat
- American Badger
- Tiger Salamander
- Northern Leopard Frog



Wildlife on Site

Wildlife Behaviors/activities:

- Nesting
- Rutting/mating season
- Burrowing
- Parental season
- Foraging/grazing
- Hunting/roaming
- Packing or herding
- Aggressive
- Curious
- Unpredictable

Personnel Behaviors/activities:

- Vehicular travel
- Foot travel
- Equipment
- Noise
- Light
- Exhaust and discharge
- Material storage areas
- Construction activity
- Other Process operations
- Curious



Coexistence is possible as long we recognize and understand wildlife interactions with our operations and apply the appropriate wildlife management practices.

Regulatory Requirements

- The Saskatchewan Wildlife Act – 1998
- The Saskatchewan Wildlife Regulations – 1981
- The Saskatchewan Wild Species at Risk Regulations
- The Migratory Birds Convention Act (MBCA) – 1994
- The Migratory Birds Regulations
- The Species at Risk Act (SARA)

Wildlife Organizations

- The Saskatchewan Wildlife Federation
- Ducks Unlimited Canada
- The Wildlife Rehabilitation Society of Saskatchewan
- The Saskatchewan Prairie Conservation Action Plan
- Committee on Status of Endangered Wildlife (COSEWIC)
- The Wildlife Society Saskatchewan Chapter
- Wild and Cared Free Rehabilitation Center
- Moose Jaw Animal Clinic
- The Moose Jaw Wildlife Federation



Wildlife Management Plan

- A guidance document for general mine site operations regarding wildlife.
- General practices include:
 - Avoid interactions
 - Monitoring for wildlife activity
 - Avoid construction during general nesting season
 - Deterrents
 - Protection of wetlands and other sensitive habitats during construction and operations
 - Obtain environmental permits as required
- Allows the site to better understand our responsibility to the environment and how we will achieve coexistence with wildlife.

Wildlife Management Plan

The Wildlife Management Plan serves as the basis for integrating wildlife with site documents and procedures, including:

- Wildlife Management Procedure
- Project Environmental Management Plan
- Management of Change Procedure
- Task Specific Analysis
- Work Permits and Safe Work Plans
- Site Communications

Site Communications

Communications with site personnel includes the following:

- Daily Shift Start
- Monthly Environmental Health Safety Meetings
- The Weekly Newsletter: The Buffalo
- Department specific training
- Site Wide Email Notification

Belle Plaine Shift Start
March 27, 2018

Days OSHA Free	Days Reproducible Spill Free	OSHA 1818 YTD	OSHA 1818 YTD	OSHA 1818 YTD
409	Record: 431	Record: 552	Record: 552	Record: 552
		Target: 40	Target: 40	Target: 40

Today's Weather: Snow, Rain, Showers. Feels like -1°C. Wind: 20 km/h SW. POP: 40%.

Tomorrow's Weather: Mix of Sun & Cloud. Feels like -9°C. Wind: 23 km/h NW. POP: 20%.

Incident Report
There were 14 incidents reported between March 22nd & 25th:

Type of Incident	# of Occurrences
Environmental Release	3
Near Miss	10
Property Damage	1

March 26th: While an employee was performing routine, he entered into the Sodium Bisulfite Chemical building from the south thickener side, and while making his way down the stairs, he noticed that the bottom stair tread had a lot of flux to the one side of it and was broken. The stairway and access to it was red taped off, tagged to identify the hazard and a service request was entered to repair the tread.

Near Miss (Employee Injury Potential)

Safety Thought: Spring Bird Migration
Migratory birds have been seen in the area which may affect work activities. Federal jurisdiction protects these animals from disturbances during nesting. Avoid migratory bird interactions by:

- Sealing off openings to buildings, utility boxes or other enclosures (missing blanks in electrical boxes, pipe thresholds to building, non-grated vents, etc.)
- Moving equipment inside if feasible to avoid nesting.
- Checking outside equipment daily to ensure nests are not being built on equipment.
- Closing doors & other access ports (main door, overhead doors, hatches, etc.)
- Staying information of wildlife activities.
- Carefully inspect work site prior to job activity.

Please contact the Environmental Department (8788) & inform them of any plans to reduce wildlife interactions.

For additional content please visit publinter.belleplaine-mosaic.com by 3:00 PM.

WILDLIFE ALERT!



Fall in Saskatchewan is the busiest season for our wild friends and likely so, considering the season that is to follow. Animals of all sorts are on the move. Birds are migrating. Ruminants such as deer, elk & moose are rutting, dens are being constructed & animals of all sorts are fattening up for the tough times ahead.

It is at this time when we need to be especially cautious. Whether it's being mindful of deer crossing the highway on our way to work or making sure our sheds & other out buildings are closed up to prevent skunks from bedding down over winter, we must do our best to stay out of their way and avoid any contact. Wild animals can be dangerous.

Interaction with wild animals can sometimes be unavoidable but there are a number of things people can do to limit exposure:

- Ensure openings to buildings are closed/sealed off
- Garbage is properly disposed of (garbage bags are easily shredded apart by crows, etc.)
- Food is secured in a hard case lunch box or indoors
- Maintain situational awareness while driving
- Avoid outdoor activities in remote locations by yourself
- Do not engage the animal or entertain animal curiosity

If you observe wildlife or recognize signs of their presence that may affect work activity, call the Environmental Department (345-8788) and refrain from any further wildlife contact.

Animals
Saskatchewan Ministry of Environment General Information 1-800-787-4224
Saskatchewan Conservation Data Centre 1-306-787-7196

Employees may encounter many types of animals. Common animal's onsite are Canadian Geese, American Robins, Barn swallows, Mice, Badgers, Swift Fox, Gophers, Coyote, White Tailed & Mule Deer, Antelope, and Tiger Salamanders. With regards to birds, every migratory bird is protected. This means that employees must take every precaution to avoid disturbing these creatures including nesting sites. Management of Rodents such as Mice & Gophers is permitted but employees must beware of zoological pathogens. Management of certain animals such as fox or badgers will require special permitting to manage the animal. Employees should avoid contact with animals.



Swift Fox – Endangered



Piping Plover – Endangered



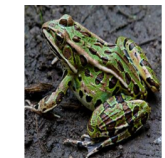
Tiger Salamander – At Risk



Barn Swallow – At Risk



Badger – Concern



Leopard Frog – Concern

Environment - Wildlife

Animals or animal activity in or near your workspace?

- Notify the Environmental Department (8788) to receive guidance on how to proceed
- Incorporate any wildlife plans into the Safe Work Plan (SWP)
- Monitor animal activity & change the SWP accordingly

How to avoid or reduce the chances of an animal incident

- Practice good industrial hygiene
 - Keep chemicals sealed & stored appropriately
 - Promptly dispose of waste
 - Keep the site organized & clean so that animal activity is more noticeable
- Frequent site inspections
- Employ wildlife deterrents

Do Not:

- Touch wildlife
- Remove or touch nests
- Feed animals
- Harm animals

CONTACT TERRY ZWARICH (8788) WITH ANY QUESTIONS, CONCERNS OR NOTIFICATIONS REGARDING WILDLIFE.

Mosaic

Mosaic

Scenario - Ponds

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Scenario - Ponds

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Scenario - Ponds

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Scenario - Ponds

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Scenario - Ponds

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Scenario - Ponds

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Scenario - Containment Berms

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Scenario - Containment Berms

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Scenario - Nest/Equipment

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Scenario - Nest/Equipment

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Scenario - Birds in Buildings

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Scenario - Birds in Buildings

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Conclusion

Coexistence is possible as long we recognize and understand wildlife interactions with our operations and apply the appropriate wildlife management practices.

Mosaic Belle Plaines Wildlife Management Plan and Procedure is in a state of continual development adapting to the many challenges of coexistence.

Belle Plaine will continue to work with its employees, third party contractors, other professionals and organizations to ensure continual innovation in wildlife management practices.





