CASE STUDY

Pipeline Construction During a Restricted Activity Period

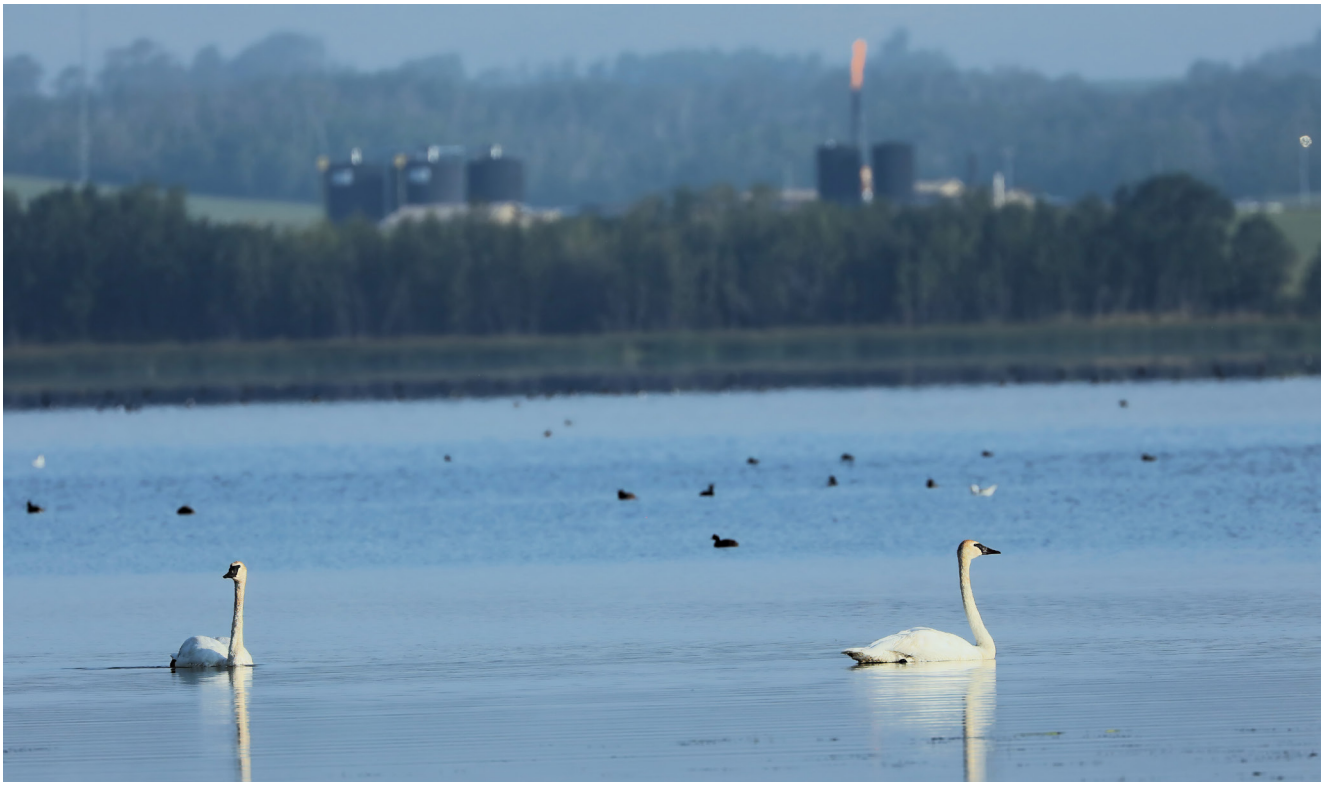
Project Overview

A major midstream operator in Alberta engaged 360 to provide comprehensive environmental services - including planning, permitting, construction monitoring, and post-construction reclamation - for their Gas Gathering System Expansion Project. A portion of the pipeline is within an 800-meter (m) trumpeter swan (TRUS) buffer, which has a Restricted Activity Period (RAP) extending from April 1st to September 30th.

The project was initially planned for winter construction. However, to manage potential reclamation risks associated with winter construction and reclamation on private agricultural land, construction was rescheduled for the summer/fall of 2024. This change led to the development of a mitigation plan to work through the migratory bird and trumpeter swan (TRUS) buffer during the RAP.

Challenge

The task was to ensure compliance with the Environmental Protection and Enhancement Act (EPEA) Approval conditions, monitor and mitigate any potential impacts on TRUS during the construction of the pipeline within the 800 m buffer zone, and complete the construction activities efficiently and effectively. This included visual observations of TRUS life stages, behaviors, and habits, as well as monitoring traffic and noise levels to ensure compliance with environmental regulations and minimize disturbance to the swans.



Approach

Several actions were taken to mitigate the impact on TRUS:

- Construction within the TRUS buffer was delayed to as late in the season as possible without compromising the overall project schedule.
- Access to the area was restricted to essential personnel to minimize the number of vehicles and equipment traveling through the buffer area.
- Monitoring of TRUS continued prior to and during construction activity within the TRUS buffer area. If young TRUS were identified within the 800 m buffer and there was any behavioral indication of risk, activities would cease until the young were more mature or alternative mitigation was developed.
- The request for construction within the TRUS buffer during the RAP was approved by the Alberta Energy Regulator (AER) with specific conditions.

Results & Impact

The monitoring program indicated that potential TRUS nesting/breeding was confined to the extreme east and southeast end of Saskatoon Lake, which is greater than 3 kilometres from the project area. The TRUS observed on the lake appeared to be relatively non-reactive to the high level of non-project related activity in the surrounding areas. The noise monitoring program supported the theory that environmental conditions and physical barriers can effectively buffer between human disturbances and wildlife habitats.

The project was completed without any short-term impact on TRUS populations on the lake, and significantly ahead of the original construction schedule. By condensing the construction timeline and including final reclamation activities, the project minimized potential impacts and the overall duration of disturbance to landowners, stakeholders, and environmental features, including wildlife.