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# Snap Lake Diamond Project Technical Sessions

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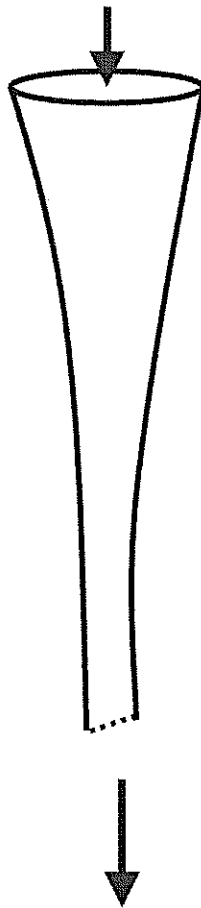
Wildlife and Wildlife Habitat

## Beginning of the Process

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- ♦Community Consultation (1999 - ongoing)
- ♦Biophysical Baseline Data Collection (1999 - ongoing)
- ♦Land Use Permit and Water Licence Applications  
Submitted to the MVLWB (Feb 2001)
- ♦MVEIRB Referral - Impact Assessment (May 2001) - ..
- ♦MVEIRB provided Terms of Reference (September 2001)

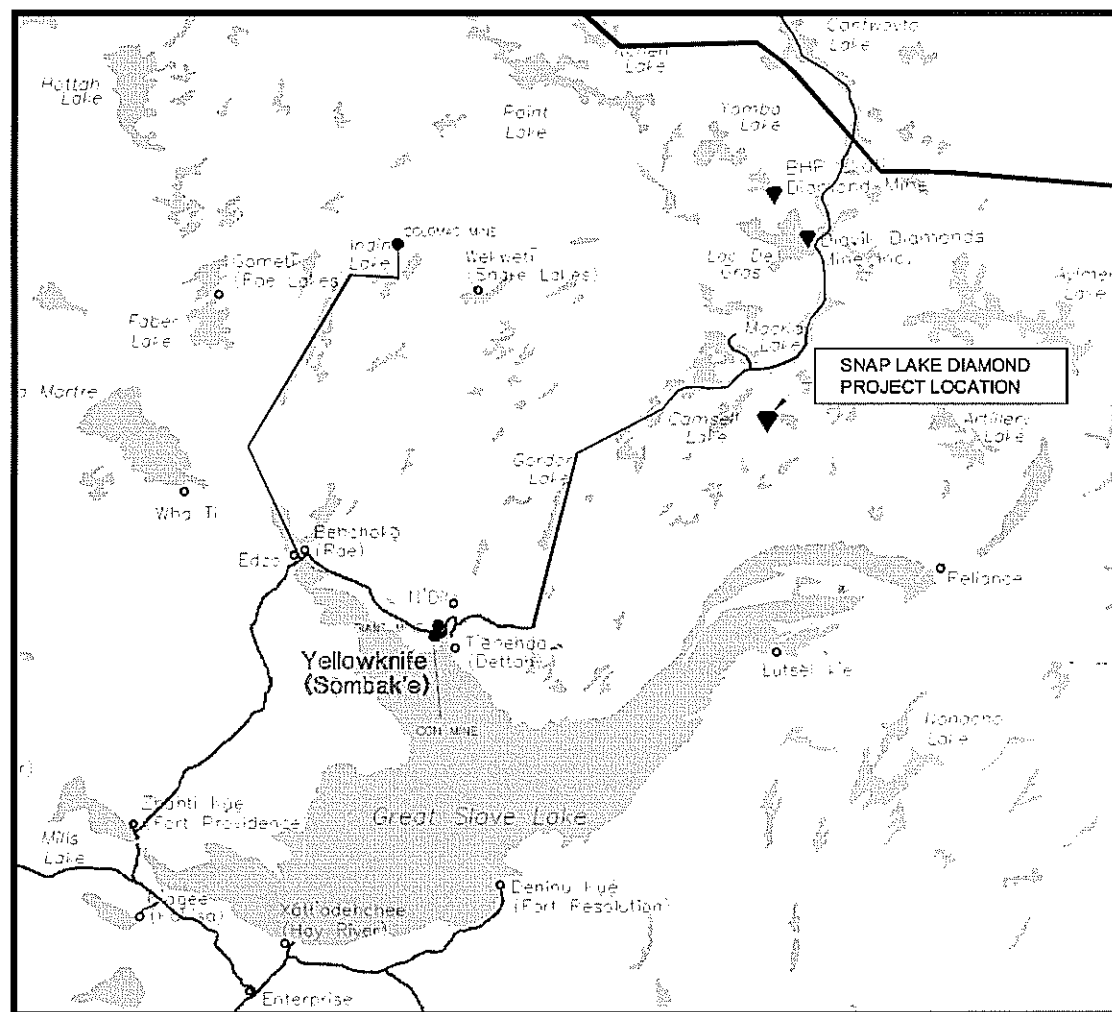
# Environmental Assessment Process



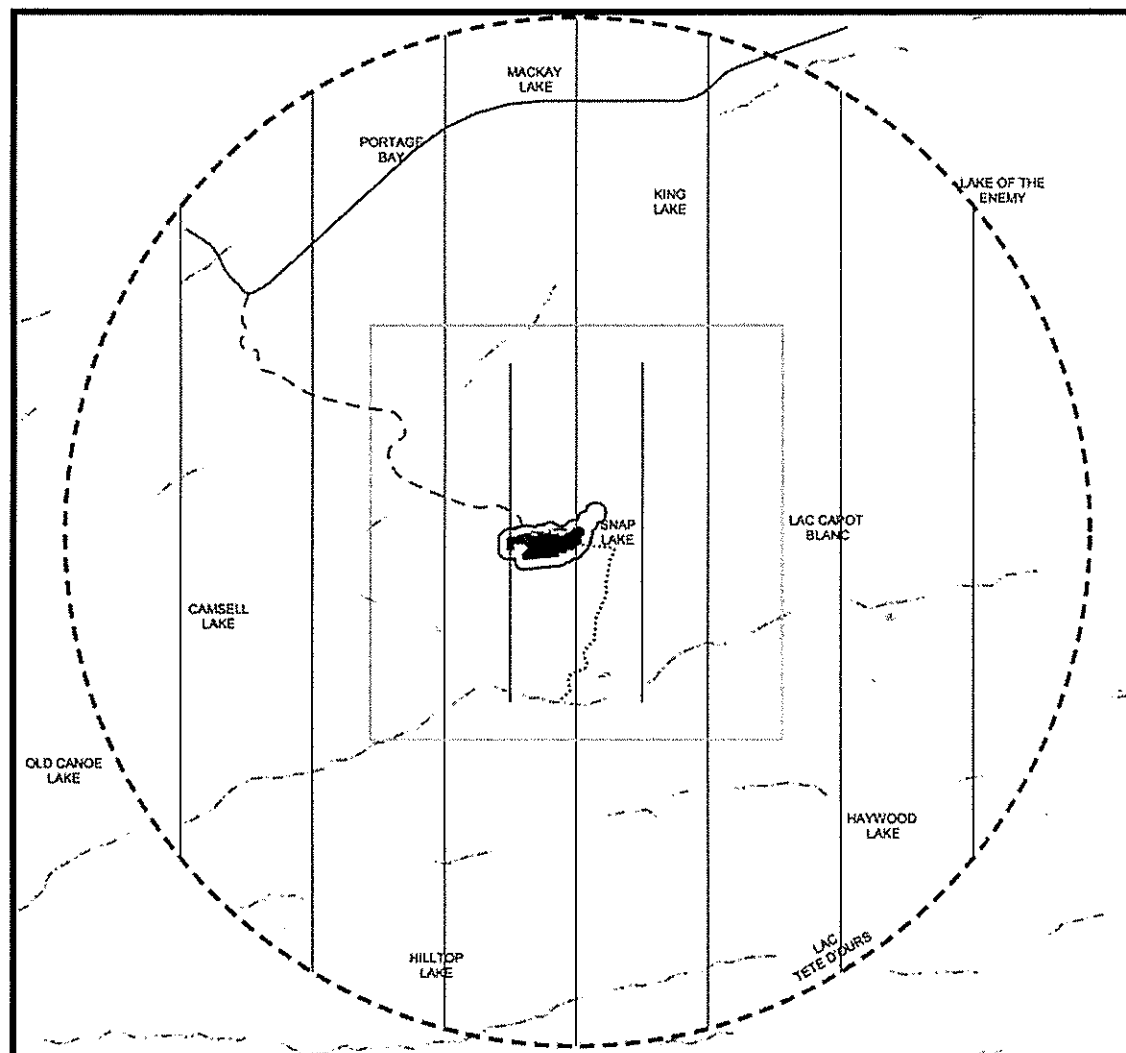
- ♦ Environmental Assessment Report (Feb 2002)
- ♦ Comprehensive Technical Information Sessions
- ♦ Information Requests: Five Rounds (May - Nov 2002)
- ♦ Conformity Check Completion (Sep 2002)
- ♦ **MVEIRB Technical Sessions**
- ♦ Technical Report Submissions to the MVEIRB (Feb 2003)
- ♦ MVEIRB Public Hearings (March 24-28, 2003)
- ♦ MVEIRB Submission to Minister of INAC (June 2003)

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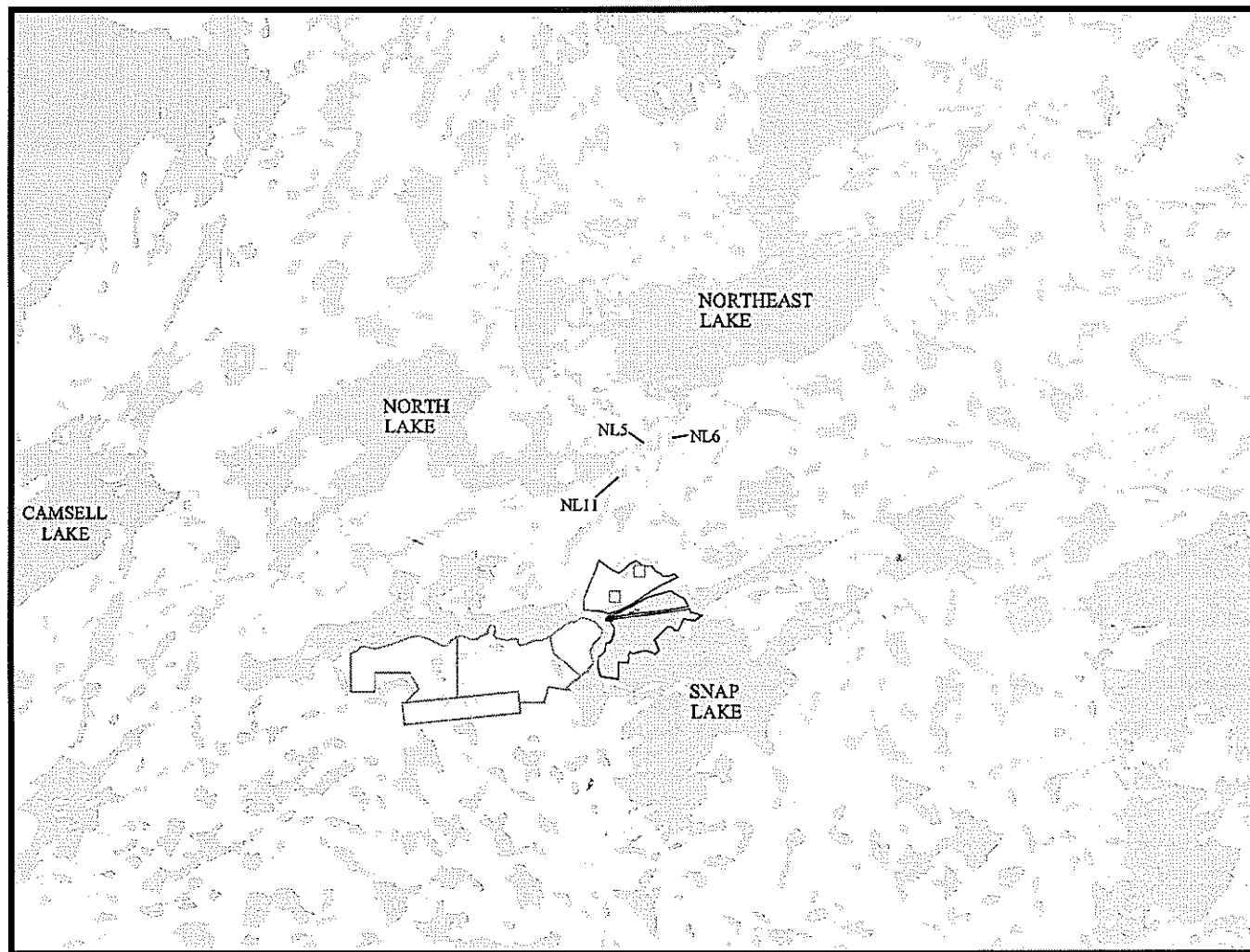
# Project Location



## Wildlife Local and Regional Study Areas



# Location of North Lake, Northeast Lake and Snap Lake



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# Wildlife and Wildlife Habitat

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## ◆ Wildlife Study Design

## Wildlife Issues

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- ◆ Baseline Data and Impact Predictions
- ◆ Linkage Analysis
- ◆ Impact Ratings
- ◆ Use of Traditional Knowledge in Development of Mitigation and Monitoring Plans
- ◆ Monitoring Program
- ◆ Mitigation and Adaptive Management Plan
- ◆ Approach to Cumulative Effects Assessment



# Baseline Data and Impact Predictions

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◆ Purpose:

- to describe the study design and the objectives of baseline data collection for caribou, grizzly bear, wolverine and raptor surveys
- to provide the baseline information required to make impact predictions with confidence

## Topic Has Been Addressed:

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- ◆ Environmental Assessment Report
  - Sections 10.4.1.2, 10.4.1.3 and 10.4.1.4
  
- ◆ Responses to Information Requests
  - IRs 2.5.19, 2.5.20, 2.5.15, 2.5.18, 2.5.33, 3.10.22, 3.10.23, 4.12.7, 4.12.10, 4.12.11, 4.12.16, and 4.12.23

## Baseline Methods and Data

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- ◆ Methods for caribou, grizzly bear, wolverine and raptor surveys were based on protocols used for BHP Billiton's EKATI™ mine
- ◆ These methods are reviewed annually by RWED
- ◆ Data can be combined with other regional information to provide better understanding of regional issues and cumulative effects

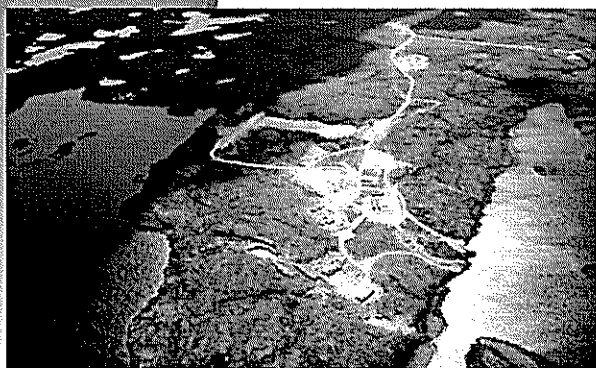
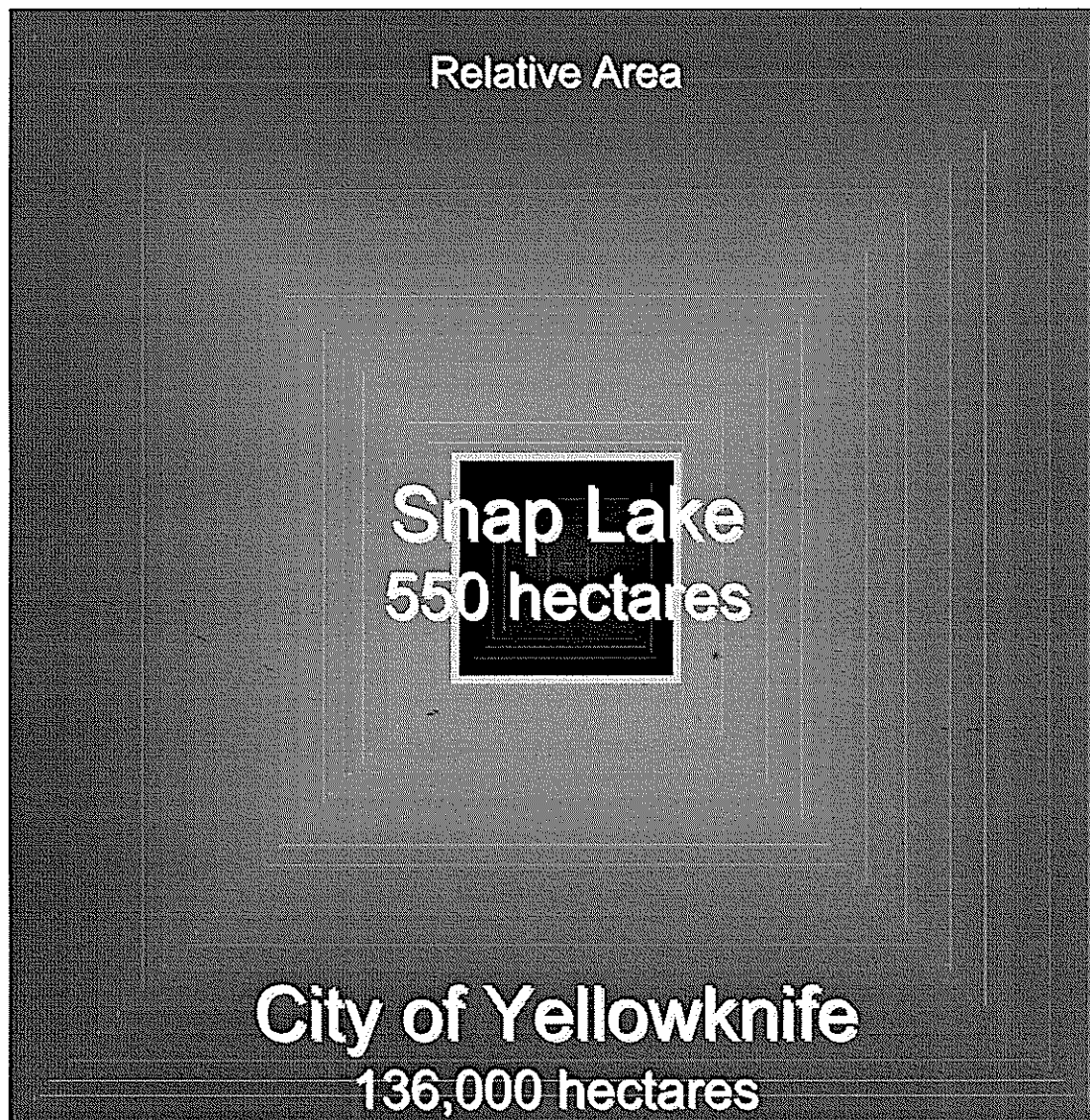
## Project Features That Affect the Study Design

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- ◆ Type of operation: underground mining (no open pits)
- ◆ No major all weather haul roads
  - dust and barriers to movement
- ◆ Size of footprint: 550 ha plus winter access road

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# Mine Footprint Comparison





# Snap Lake Diamond Project

## North looking South



6.7.2000



# Snap Lake Diamond Project

## East looking West



6/7/2000

## Baseline Data: Caribou

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### Short Term Data:

- Aerial survey data for northern and southern (post-calving) migrations
- Snow track data for northern migration
- Distribution of satellite collared caribou

### Long Term Data:

- Traditional knowledge of caribou distribution and abundance
- Historic trails for post-calving migration

### Conclusion:

- The combination of data sources provides an adequate baseline to understand how the project could affect caribou



## Baseline Data: Grizzly Bears

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- ◆ Habitat selection analysis indicated that grizzly bears prefer to den in or near eskers
- ◆ Aerial surveys and ground surveys were conducted along eskers in the Regional Study Area (RSA)
- ◆ Potential effects of esker and winter access roads on denning habitat were addressed in responses to Information Requests 2.5.19 (c) and 2.5.20 (a)

## Baseline Data: Grizzly Bears (cont.)

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- ◆ Maximum of 6-8 individuals predicted to use part of the RSA, based on density estimates from RWED's collared grizzly bears in the Lac de Gras area
- ◆ Using this information, the impact on habitat from the mine footprint is predicted to be less than 1% of an individual's home range
- ◆ Habitat loss is minimal
- ◆ Surveys of other preferred habitats since 2001 provide an index of bear use in the RSA

## Conclusion: Grizzly Bears

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- ◆ Predicted changes in habitat at Snap Lake and numbers of bears using the Snap Lake RSA are supported by:
  - esker surveys for dens in the RSA
  - additional data on preferred bear habitat in the RSA
  - collared bears in the Lac de Gras area

## Baseline Data: Wolverines

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- ◆ Purpose:
  - to determine presence of wolverines in the RSA
  
- ◆ Study design considered the life history of wolverines (large home range, elusive, solitary)

## Baseline Data: Wolverines (cont.)

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- ◆ Methods were based on protocols used for BHP Billiton's EKATI™ mine
- ◆ These methods are reviewed annually by RWED
- ◆ Data can be combined with regional information to provide better understanding of regional issues and cumulative effects

## Conclusion: Wolverines

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- ◆ Existing baseline data show that the RSA is important for wolverines
- ◆ Effective mitigation and management are important to avoid attracting wildlife that may result in loss of animals

## Baseline Data: Raptors

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- ◆ Surveys have been conducted in preferred raptor nesting habitat
- ◆ Major cliffs and eskers were identified on maps prior to surveys
- ◆ In 1999, these areas were targeted for nest searches conducted at the same time as den surveys
- ◆ All nests observed during all other wildlife surveys were visited in subsequent raptor surveys

## Baseline Data: Raptors (cont.)

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### **Raptors**

- ◆ In 2000, all nests located in 1999 were revisited
- ◆ In 2000, an area within an 11-km radius of mine site was intensively searched for nests
- ◆ Beginning in 2000, surveys were conducted in July to estimate nest productivity



## Conclusion: Raptors

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- ◆ Data collected supports the predicted impacts to changes in the occupancy rate of raptors in the RSA

## Summary

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The study design and baseline data for wildlife provides sufficient information:

- ◆ to predict potential project impacts, and
- ◆ to design effective mitigation and monitoring programs

# Snap Lake Diamond Project

## East looking West

