Valued Ecosystem Components

- Air Quality
- Water Quality and Fish
- Wildlife and Habitat
- Cumulative Effects
Air Quality and Mitigation

- Mine
  - Dust (suppression)
  - Roads and Airstrip
  - Temporary tailings storage
  - Gases (reduced in new models)
    - Power generation
    - Incinerator
Old 1150 kw Generators (4)
New 1566 kw Generators (3)
Old Incinerator
New Incinerator
Air Quality

Transfer Facilities

- Dust
  - None, winter
- Gases
  - Only small gensets
Water Quality and Fish

- Mine - Operations
  - Mine water storage and recycle to Mill
  - Mill and excess mine water treatment
  - Same runoff management system
  - Waste Rock Pile seepage collection
  - Fuel spill prevention and response
  - SNP and EEM
NOTE: ALL NUMERIC FIGURES REPRESENT WATER FLOWS IN CUBIC METERS PER YEAR, BASED ON A MAXIMUM AVERAGE YEARLY MINE DRAINAGE OF 33 LITRES PER SECOND (AS SHOWN IN TABLE 4.8)
Water Quality and Fish

- Mine - Closure
  - Mine groundwater
  - Cover for Waste Rock Pile
Water Quality and Fish

- Transfer Facilities
  - Frozen conditions
  - Spill prevention and response
  - Seasonal closure
Wildlife and Habitat

- **Mine**
  - 2006 survey
  - Sighting log
  - Bear awareness
  - Project changes from Cadillac
    
    not significant
Wildlife and Habitat

- **Transfer Facilities**
  - April 2007 survey, limited numbers
  - Very limited areas
  - Seasonal use only
  - Seasonal closure, removal of attractants
Cumulative Effects

- **Mine Water Discharge**
  - No treatment prior to 2006
  - Treatment 2006-2008
  - Similar treatment of Mine and Mill water during operations
  - Univ. of Saskatchewan/Parks Canada studies
<table>
<thead>
<tr>
<th>Upgraded Mine Facilities</th>
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<tbody>
<tr>
<td>1. Water Storage Pond - Cell ‘A’</td>
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<tr>
<td>2. Water Storage Pond - Cell ‘B’</td>
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<tr>
<td>3. Temporary Tailings Storage Pad</td>
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<td>4. Water Treatment Plant</td>
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<td>5. New Accommodations Block</td>
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<tr>
<td>6. Covered Ore Stockpile</td>
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<td>7. New Underground Portal</td>
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<td>8. Concentrate Storage Sheds</td>
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<td>9. DMS Plant (Behind Mill)</td>
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<tr>
<td>10. Temporary DMS Rock Storage Pad</td>
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<td>11. Paste Backfill Plant (Behind Mill)</td>
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<td>12. Waste Rock File</td>
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</tbody>
</table>

Plate 4-2: Prairie Creek Site Showing Conceptual View of Upgraded Mine Facilities