



# Whitehorse Nordic Ski Society – Climate Action Plan 2026

## 1. Introduction

The Whitehorse Nordic Centre recognizes that climate change presents both challenges and opportunities for maintaining a sustainable community hub for winter recreation. This Climate Action Plan outlines strategies to reduce greenhouse gas (GHG) emissions, adapt operations to changing snow conditions, and strengthen engagement with the community. It builds on the Nordic Centre's ongoing commitment to environmental stewardship and community resilience.

## 2. Goals and Objectives

- Quantify and reduce emissions from operations.
- Increase energy efficiency in facilities and equipment.
- Transition to low-emission technologies over time.
- Enhance operational resilience to variable snow and temperature conditions.
- Engage the community in climate-aware practices and sustainable recreation.

## 3. Emissions Baseline and Tracking

Action Steps:

1. Quantify current emissions sources, including:
  - Fuel consumption for grooming and facility operations.
  - Staff and volunteer commuting patterns.
  - Establish a baseline for annual emissions and update it annually.
2. Track key operational metrics, such as:
  - Number of grooming hours and associated diesel consumption.
  - Dates of grooming season start/stop.
  - Extreme cold closure days.
  - Extreme wind/precipitation events that impact summer trail maintenance or winter operations.
3. Assess trends using local temperature and precipitation data to understand the Nordic Centre's climate exposure (e.g., changing shoulder seasons).

## 4. Emission Reduction Actions

### A. Transportation

- Promote and advocate for bus transport for youth programs and events to reduce private vehicle trips.
- Encourage carpooling and active transportation where feasible.
- Evaluate potential electrification of nordic centre vehicles and small machinery by 2030.

### B. Equipment and Grooming

- Track fuel use and hours for grooming operations to identify efficiency opportunities.
- Implement an “adaptive grooming policy”:
  - Continue reducing grooming frequency at temperatures below -25°C to balance fuel use and snow quality.
  - Use grooming strategically based on snowpack conditions.
- Explore biofuel or blended diesel options for interim emissions reductions.
- Develop a long-term plan for electrifying grooming equipment as technology advances.

### C. Facilities

- Optimize indoor temperature management to minimize heating-related emissions.
- Engage with the City of Whitehorse to identify areas for insulation, lighting, and heating upgrades.

## 5. Adaptation and Infrastructure Resilience

Although this plan focuses on action and mitigation, adaptation remains a key component of long-term sustainability.

### Actions Already Taken

- Investment in versatile grooming and snow management equipment capable of operating under varying snow conditions.
- Summer trail improvements (drainage, grading) to enhance winter grooming capacity during low-snow years.

### Future Adaptation Actions

- Continued Summer trail improvements.
  - Evaluate paving or hardening key trail segments to enable grooming with thinner snow cover.
  - Mulching and grass planting to improve snow retention.

- Conduct a cost-benefit analysis of snowmaking versus developing higher-elevation or alternative trails.
- Explore snow farming as a complementary strategy.
- Strengthen partnerships (e.g., with Mt. Sima) for shared early-season ski opportunities.
- Conduct climate risk analyses as part of any major capital purchase or infrastructure improvement.

## **6. Community and Engagement**

- Develop strategies for membership retention during low-snow years, such as:
  - Off-season community and social events.
  - Non-ski programming or diversified winter activities.
- Integrate diversification of activities into the Functional Plan.
- Partner with local organizations and schools to promote sustainable recreation and climate awareness.

## **7. Monitoring and Evaluation**

- Review progress annually using tracked metrics and emission data.
- Adjust strategies based on new information, community feedback, and emerging technologies.
- Reassess and update the plan every five years.

## **8. Next Steps (2026 Priorities)**

1. Begin data collection and establish emissions baseline.
2. Draft and approve an adaptive grooming policy.
3. Identify funding and partnership opportunities for summer trail and infrastructure improvements.
4. Incorporate findings from regional climate modelling into the Functional Plan.
5. Explore options, alternatives and solutions for early-season skiing.

## **9. Conclusion**

The Whitehorse Nordic Centre's Climate Action Plan provides a proactive framework for reducing emissions, enhancing sustainability, and ensuring continued community value in a changing climate.