

APPENDIX C – AWARENESS PLAN

Awareness Plan

Pinetree, Stephenville (DFRP#00854)

Revised 2013/11/08

This document contains an overview of the Pinetree site near Stephenville, NL. It highlights the concerns, locations and mitigations required for any activities at the site to ensure the protection of rare species. This document was developed March 2013 and will be continually updated.

Contents

1.0	INTRODUCTION	3
2.0	PURPOSE	3
3.0	METHODOLOGY	4
4.0	SUMMARY OF BIOLOGY AND HABITAT.....	4
5.0	THREATS TO THE LOW NORTHERN ROCKCRESS	6
6.0	ENVIRONMENTAL MITIGATIONS	6
7.0	CONCLUSION.....	7

1.0 INTRODUCTION

The Low Northern Rockcress (*neotorularia humilis*) is a protected plant under the Newfoundland and Labrador provincial *Endangered Species Act*. A small population has been identified within the boundaries of the Public Works and Government Services Canada (PWGSC) property known as Pinetree (DFRP #00854), near Stephenville, NL. The Pinetree site is a former radar station atop of Table Mountain that was part of the Pinetree Line which was a system of radar stations across Canada used during the Cold War.



<http://www.env.gov.nl.ca/env/wildlife/endangeredspecies/plants.html>

Infrastructure still exists on site and PWGSC leases portions of the land to various organizations, such as the Canadian Broadcasting Corporation, Royal Canadian Mounted Police, Canadian Coast Guard, Nav Canada and Department of National Defence. Previous to existing tenants, the Pinetree site was occupied by the United States Military.

Past activities at the Pinetree Site have created some areas of contamination which has led to ongoing PWGSC environmental sampling and remediation activities. Activities carried out by tenants and by PWGSC have the potential, if not properly managed, to impact the habitat of the Low Northern Rockcress.

2.0 PURPOSE

As of 2005, there have been 250 mature individuals identified at this site and because this species is not known to occur elsewhere in Newfoundland, PWGSC want to ensure land users of the site are aware of the Low Northern Rockcress and take the necessary steps to promote its protection.

There are currently no major activities planned within boundaries of the Low Northern Rockcress habitat. Tenants of the site generally stay on designated roads and within their building footprints. There are, however, periodic field sampling programs and potential cleanup activities. Maintenance is also required upon the towers and buildings. These activities could pose a direct threat to the species.

The purpose of this document is to: outline mitigations that occupiers of the site will have to adhere; provide easy-to-view aerial maps that display critical areas; and to engage PWGSC managers to contact appropriate personnel within PWGSC before allowing proposed activities on site to proceed.

3.0 METHODOLOGY

As noted below, much of the information on the Low Northern Rockcress is already available. To expand on existing information PWGSC have:

- Contacted Environment Canada and the NL Provincial Government.
- Interviewed PWGSC staff to determine likely activities on the site.
- Engaged a GIS specialist to map the most recent available information.
- Engaged a federal Species at Risk Representative from PWGSC to review protocol.

This information has allowed PWGSC to develop a document to adequately manage the Low Northern Rockcress. Easy to view aerial photographs outlining habitat and leased areas have been prepared (attached) and will provide tenants and users of the site with an overview of areas to avoid.

4.0 SUMMARY OF BIOLOGY AND HABITAT

The Low Northern Rockcress is a small perennial plant that grows to a maximum height of 8 cm. It has been listed as a provincially protected species since 2004. The Low Northern Rockcress is a member of the Brassicaceae (mustard) family. It has four pedalled white flowers and is found on calcareous substrates such as the limestone barrens of Table Mountain.

Habitat requirements required for the Low Northern Rockcress are found at the Pinetree site and generally include exposed coastal and mountain limestone barrens. The habitat consists of disturbed shattered bedrock (felsenmeer) with thin soil in the interstices. The top of Table Mountain likely remained exposed during the last glaciations with glaciers filling the valleys around the mountain. This nunatak became an ice free refuge for arctic/alpine plants such as the Low Northern Rockcress.

In 1999 a survey found 55 individual of Low Northern Rockcress, but more extensive survey s in 2004 and 2005 revealed an estimate of approximately 250 individuals. Since this time, similar to other rare species found along the limestone barrens of western Newfoundland, the Low Northern Rockcress population has declined. The provincial government has set up several sampling plots on the Pinetree site and regularly monitor the status of the Low Northern Rockcress.



Claudia Hanel, NL Dept. of Environment and Conservation

Localized areas of unsuitable habitat do exist and include rock pavement, old building foundations, areas of continuous vegetation cover and areas where the gravel originates from acidic rock (e.g. white, black or pinkish pebbles).

The NL government, in conjunction with Memorial University have developed three documents that describe the biology, habitat requirements, and threats to the Low Northern Rockcress. These documents include:

- Recovery Strategy for the Newfoundland Population of the Low Northern Rockcress
- Status Report
- Fact sheet.

To view these documents please refer to: www.env.gov.nl.ca/env/endangeredspecies/plants.html.

The Low Northern Rockcress is not the only species of concern observed on this site. There are a number of rare and uncommon plant species, which have very few known locations in Newfoundland. For instance, the rock dwelling sedge (*Carex petricosa* var. *misandroides*) has been observed in the 1950's but the exact location and its persistence are not known. Lindley's Aster (*Symphyotrichum ciliolatum*) has been observed in two of the Low Northern Rockcress concentration areas in 1999 and 2007. Both species have been assessed as "endangered" but have not yet been listed. Another very rare species, the dwarf arctic ragwort (*Packera cymbalaria*), was observed in 2007 within one of the Low Northern Rockcress concentration areas. The arctic ragwort is a species of conservation concern.

5.0 THREATS TO THE LOW NORTHERN ROCKCRESS

It is believed that the Low Northern Rockcress existed at the Pinetree site prior to the 1950's and with the construction of the Pinetree Line, associated infrastructure resulted in the first impact to the species. There are roads and communication buildings still on the site, however over the years much of the infrastructure has been removed.

Threats to the Low Northern Rockcress include:

- Upgrades to roads, power lines and communications towers,
- Snow clearing,
- Clean up activities,
- Remediation activities
- Field sampling
- Diamond back moth,
- Curiosity seekers, and
- Recreational users such as hikers, bikers, and all terrain vehicles.

The site is presently gated and notices are posted that indicate the presence of the Low Northern Rockcress.

6.0 ENVIRONMENTAL MITIGATIONS

To ensure continued protection of the Low Northern Rockcress the following mitigations are recommended:

As part of renewed licensing agreements, PWGSC will provide tenants of the site this document. Contact information for PWGSC representatives is provided in the Appendix.

The **Environmental Compliance Management Program** at PWGSC allows PWGSC environmental staff to review proposed projects on PWGSC land, including the Pinetree site. If deemed appropriate (and with discussions with the Real Estate Group) project information may be shared with the Endangered Species and Biodiversity Section of the Provincial Department of Environment and Conversation to gain further advice on best management practices.

Aerial photographs outlining potential suitable habitat for the Low Northern Rockcress have been prepared and are attached. Tenants of the site will receive copies of these photographs.

Anyone on the site should assume that the entire area of suitable barren (see attached map) contains Low Northern Rockcress plants.

7.0 CONCLUSION

Through implementation of the above mitigations and through sharing of information between PWGSC and the Province, any potential threats to the Low Northern Rockcress can be mitigated.

APPENDIX

PWGSC Environmental Assessment Contact s:

Shawn Kean (709) 772-5955.

Cathy Martin (709) 772-5852

Mark Mcneil (709) 637-4481

PWGSC Project Manager Contacts:

Stephen Humprey (709)-772-6155

Heather Robbins (709) 772-5930

Detailed Mapping of the Pinetree site