2025 Prince of Wales Invasive Plant Treatment Plan

The purpose of this document is to show that project design features (PDFs) are applied, and non-target resources are protected as outlined in the *Prince of Wales Landscape Level Analysis* (POW LLA, USDA Forest Service 2018). Application of aminopyralid, glyphosate, and imazapyr are authorized under the Final Environmental Impact Statement (FEIS) and Record of Decision (ROD) to efficiently control invasive infestations. All state and federal laws regulating pesticide use will be followed and all design features in the FEIS will be implemented (Appendix A).

The Invasive Plants implementation plan in Appendix B of the POW LLA FEIS directs that invasive treatments are prioritized based on three considerations:

1) Invasiveness of targeted plant species. The Alaska Natural Heritage Program (ANHP) developed a ranking system for non-native species in Alaska. A ranking of 0 indicates the lowest risk for ecological harm and 100 indicates the highest risk. The higher the invasive ranking for the species, the greater risk for continued spread and ecosystem impacts. Species with higher rankings (>60, which indicates moderate to extreme invasiveness) are prioritized for treatments.
2) Risk to high value habitat (ecosystem impacts and pathways of spread). Target locations are based on the sensitivity of the at-risk habitat, risk of altering ecosystem functions as a result of infestation, and the underlying desired condition (as defined by the LUD) for the site. Additionally, some sites contribute to increased spread of invasives because they are pathways for spread of seed or plant propagules. These include road corridors, marine access facilities, rock quarries, vehicles and equipment and water.
3) Management objective. The management objective can be **eradication**, **contain/control** or **tolerate**. For highly invasive species that are not widespread, the objective is eradication to prevent future infestations. For more widespread invasive species, such as reed canarygrass, the objective is to control spread. This requires treating reed canarygrass in riparian areas where moving water spreads seeds and propagules, but not on roadsides where reed canarygrass is widespread. For widespread invasive species that do not affect habitat or ecosystem functions, infestations are tolerated, and they are not actively managed.

Target Species and Specific Treatment

All treatment activities would include project design features detailed in the POW LLA. Glyphosate, and aminopyralid use would include treatments up to water's edge with application moving from the edge of water away from the water body.

For 2025 treatments will target five species including Canada thistle (*Cirsium arvense,* invasive rank 76), bull thistle (*Cirsium vulgare,* invasive rank 61), Japanese knotweed (*Polygonum cuspidatum,* invasive rank 87), spotted knapweed (*Centaurea stoebe ssp. micranthos,* invasive rank 86), and reed canarygrass (*Phalaris arundinacea*, invasive rank 83). These species range from moderately invasive to extremely invasive. The management objective for the proposed infestations is eradication.

There are two classes of target infestations. One includes Canada thistle, bull thistle, and spotted knapweed infestations along major roads to prevent the risk of these species being spread further by vehicle traffic. Details about each infestation can be found in the table below (Table 1) and maps are in Appendix B. If non-target invasive species occur in the same area as proposed target species, they will be treated concurrently to allow native plants to regenerate in the area. If the target invasive is treated but other non-native plants are allowed to persist, they will fill in where target plants were treated, which will not improve habitat to the desired condition.

The second class of infestations includes occurrences of reed canarygrass and Japanese knotweed at the Twelvemile habitat restoration area. Japanese knotweed is established at an old logging facility and reed canarygrass is in Twelvemile creek. These are being targeted because this area has high value stream and forest habitat that is the target of other habitat enhancements. Treatment details can be found in Table 1. Treatment of reed canarygrass will begin at the most upstream populations and progress downstream.

Additionally, early detection rapid response (EDRR) management will be implemented. This means that if additional undocumented target plants are found during treatment, the new plants will also be treated via integrated pest management practices. Treatment is most effective when infestations are treated before a seed bank is established and when infestations are small. EDRR also helps us to minimize the amount of herbicide needed to treat an infestation by preventing growth in the infestation size.

All herbicide application will be with either a hand sprayer or backpack sprayer. The backpack sprayer is calibrated at 50 gallons per acre. At this rate, a 2% solution is the equivalent of 3.9 lbs. a.i. per acre. A 0.08% solution aminopyralid is the equivalent of 6 ounces/acre application rate (0.09 lbs. a.i./acre).

Table 1. Proposed target infestations and management actions on Prince of Wales for FY2025

Project Area	Target species	Herbicide	Solution	Acres	Existing/new
Coffman Cove Road	bull thistle	aminopyralid	0.08%	23.54	2023 treated 0.1 acres with aminopyralid
Kosciusko road system (1525000)	bull thistle	Manual treatment due to karst concerns		0.01	manual 2012
NFS road 2054000	bull thistle	aminopyralid	0.08%	17.35	manual 2017
Federal Way (RD 3000134)	bull thistle	aminopyralid	0.08%	1	manual 2021
Intersection of NFS road 203000W and Big Salt – Thorne Bay Rd	bull thistle	aminopyralid	0.08%	2.25	manual 2022
Coffman Cove Road	bull thistle	aminopyralid	0.08%	2.95	new
Coffman Cove Road	bull thistle	aminopyralid	0.08%	0.1	new

Project Area	Target species	Herbicide	Solution	Acres	Existing/new
Intersection of NFS road 203000W and Big Salt – Thorne Bay Rd	bull thistle	aminopyralid	0.08%	8.93	new
Intersection of NFS road 203000W and Big Salt – Thorne Bay Rd	bull thistle	aminopyralid	0.08%	0.1	new
Intersection of NFS road 203000W and Big Salt – Thorne Bay Rd	bull thistle	aminopyralid	0.08%	0.15	new
Intersection of NFS road 203000W and Big Salt – Thorne Bay Rd	bull thistle	aminopyralid	0.08%	0.001	new
Intersection of NFS road 203000W and Big Salt – Thorne Bay Rd	bull thistle	aminopyralid	0.08%	0.3	new
Intersection of NFS road 203000W and Big Salt – Thorne Bay Rd	bull thistle	aminopyralid	0.08%	0.01	new
Lake Ellen Road East	bull thistle	aminopyralid	0.08%	1.35	new
Lake Ellen Road East	bull thistle	aminopyralid	0.08%	0.04	new
Lake Ellen Spur A (2030950)	bull thistle	aminopyralid	0.08%	0.27	new
NFS road 2360000	bull thistle	aminopyralid	0.08%	6.44	new
NFS road 2360000	bull thistle	aminopyralid	0.08%	0.05	new
NFS road 2360000	bull thistle	aminopyralid	0.08%	0.05	new
NFS road 3000C	bull thistle	aminopyralid	0.08%	2.95	new
Overview Road (30000120)	bull thistle	aminopyralid	0.08%	7.34	new
NFS road 2340000	Canada thistle	aminopyralid	0.08%	3.54	2023 treated 4.0 acres with aminopyralid
Kosciusko road system (150000W)	Canada thistle	aminopyralid	0.08%	0.15	manual 2014
Federal Way (RD 3000134)	Canada thistle	aminopyralid	0.08%	0.001	manual 2021
NFS road 3000C	Canada thistle	aminopyralid	0.08%	1.9	manual 2022

Project Area	Target species	Herbicide	Solution	Acres	Existing/new
Intersection Coffman Cove road and NFS road 3000C	Canada thistle	aminopyralid	0.08%	0.16	new
Intersection Coffman Cove road and NFS road 3000C	Canada thistle	aminopyralid	0.08%	0.35	new
NFS road 2054350	Canada thistle	aminopyralid	0.08%	0.52	new
North Prince of Wales road (925)	Canada thistle	aminopyralid	0.08%	0.58	new
North Prince of Wales road (925)	Canada thistle	aminopyralid	0.08%	0.15	new
Twelvemile arm	Japanese knotweed	glyphosate	2.00%	0.47	manual 2023
Twelvemile arm	Japanese knotweed	glyphosate	2.00%	0.78	manual 2023
Twelvemile arm	Japanese knotweed	glyphosate	2.00%	0.001	manual 2023
Bay Lake Rd (300000N)	spotted knapweed	aminopyralid	0.08%	2.19	new
North Prince of Wales road (925)	spotted knapweed	aminopyralid	0.08%	0.01	new
NFS road 2050600	spotted knapweed	aminopyralid	0.08%	0.46	new
North Prince of Wales road (925)	spotted knapweed	aminopyralid	0.08%	0.13	new
North Prince of Wales road (925)	spotted knapweed	aminopyralid	0.08%	0.001	new
Twelvemile creek	Reed canarygrass	glyphosate	1.5%	5.98	new
Twelvemile creek	Reed canarygrass	glyphosate	1.5%	0.20	new
Twelvemile creek	Reed canarygrass	glyphosate	1.5%	1.36	new
Twelvemile creek	Reed canarygrass	glyphosate	1.5%	8.59	new

Appendix A. Maps of Treatment Sites

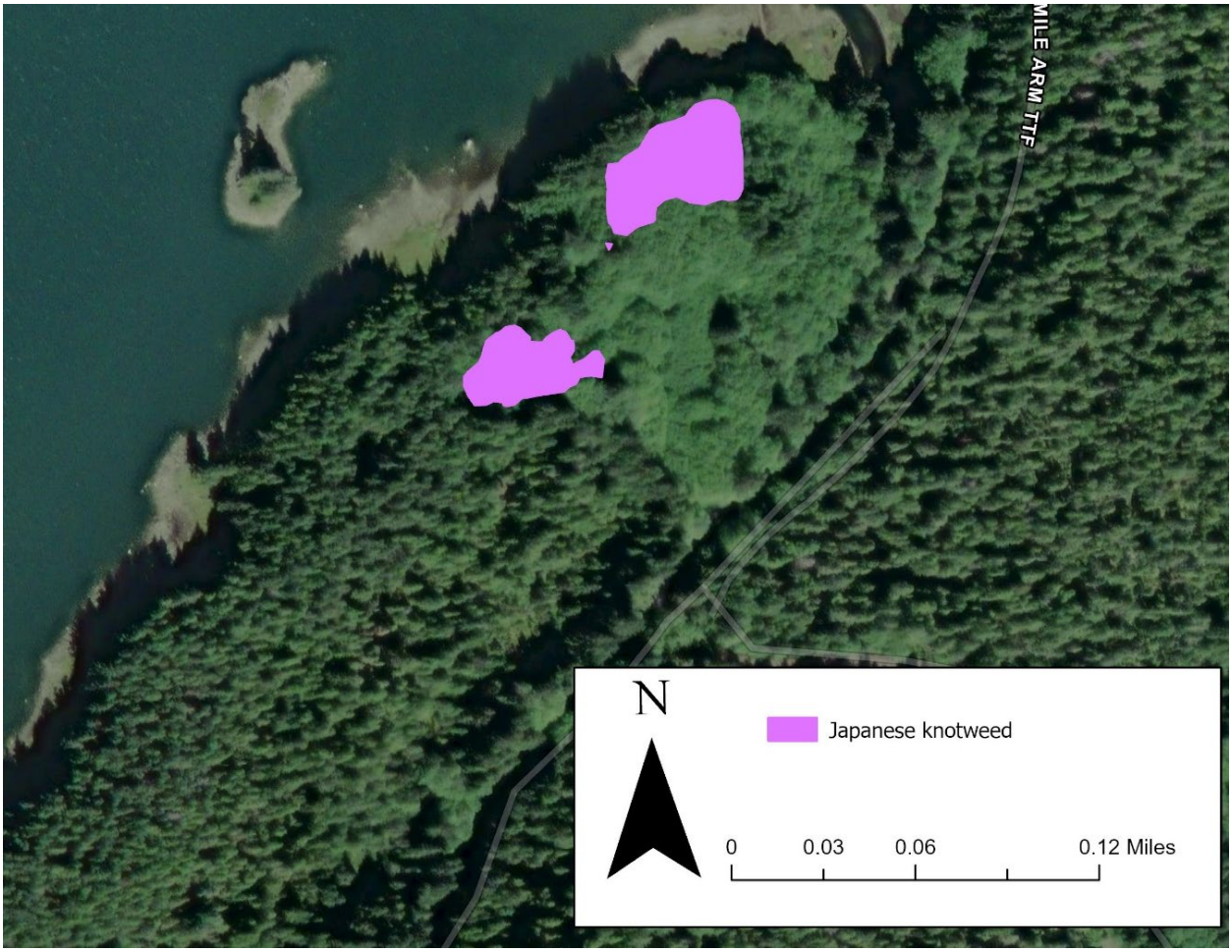

Figure 1. Japanese knotweed near Twelvemile Arm

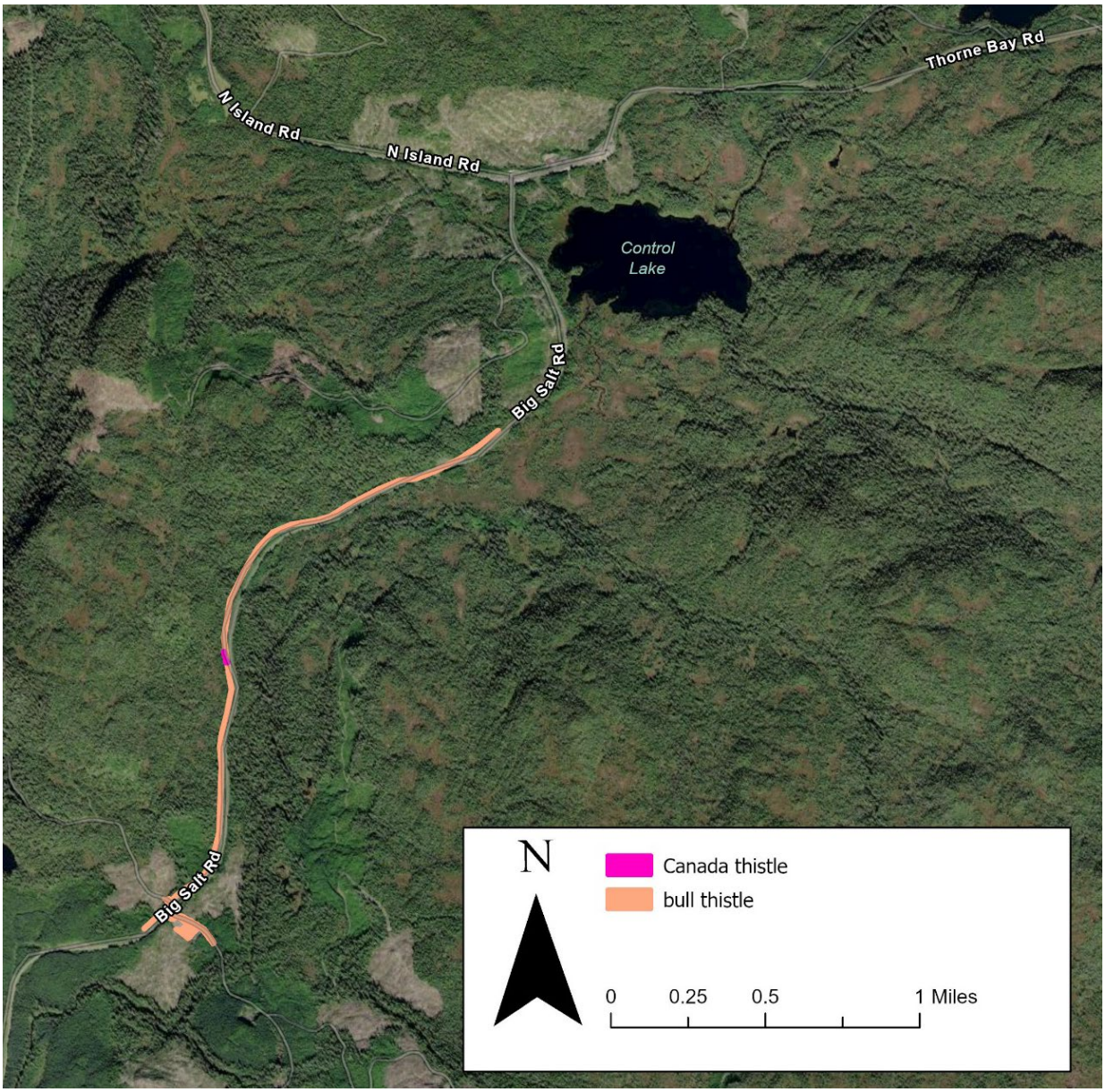

Figure 2. Bull and Canada thistle near Control Junction

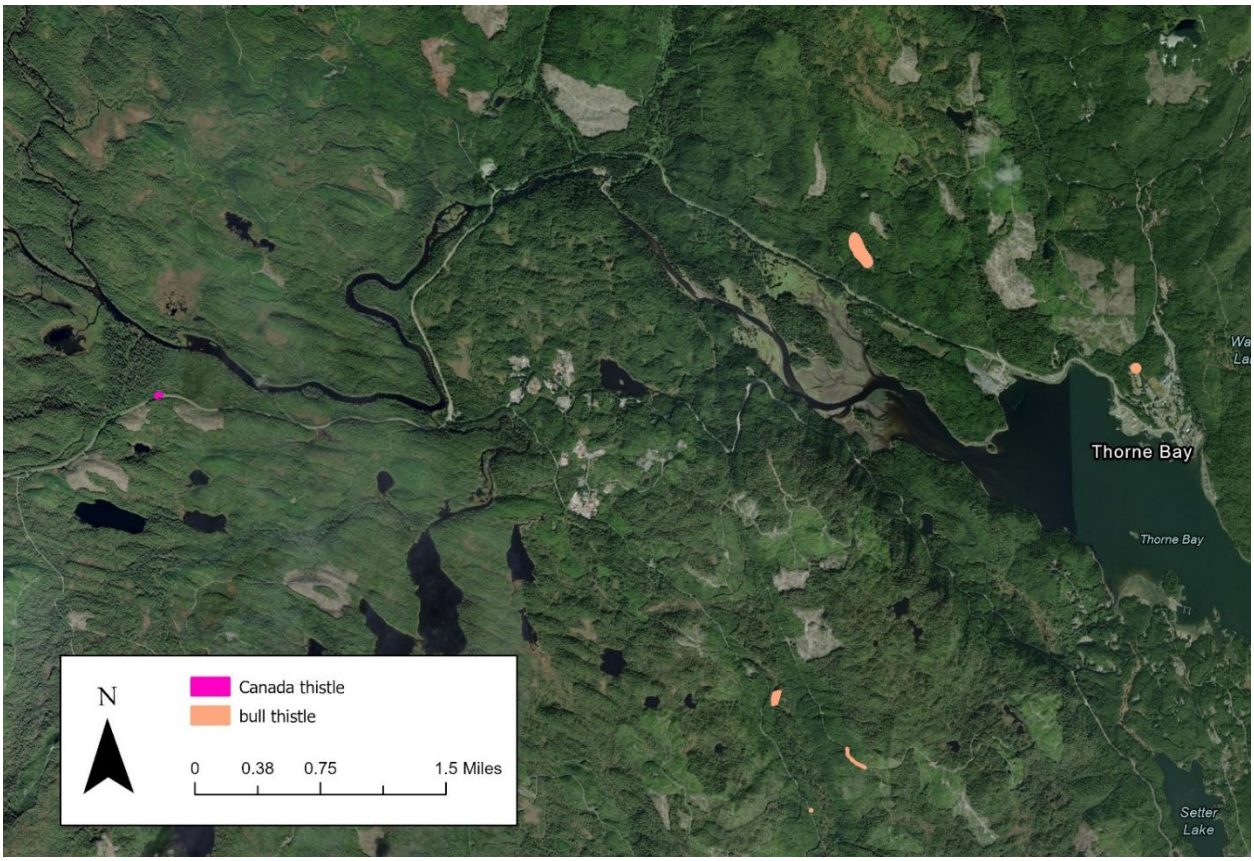

Figure 3. Bull and Canada thistle treatments near Thorne Bay

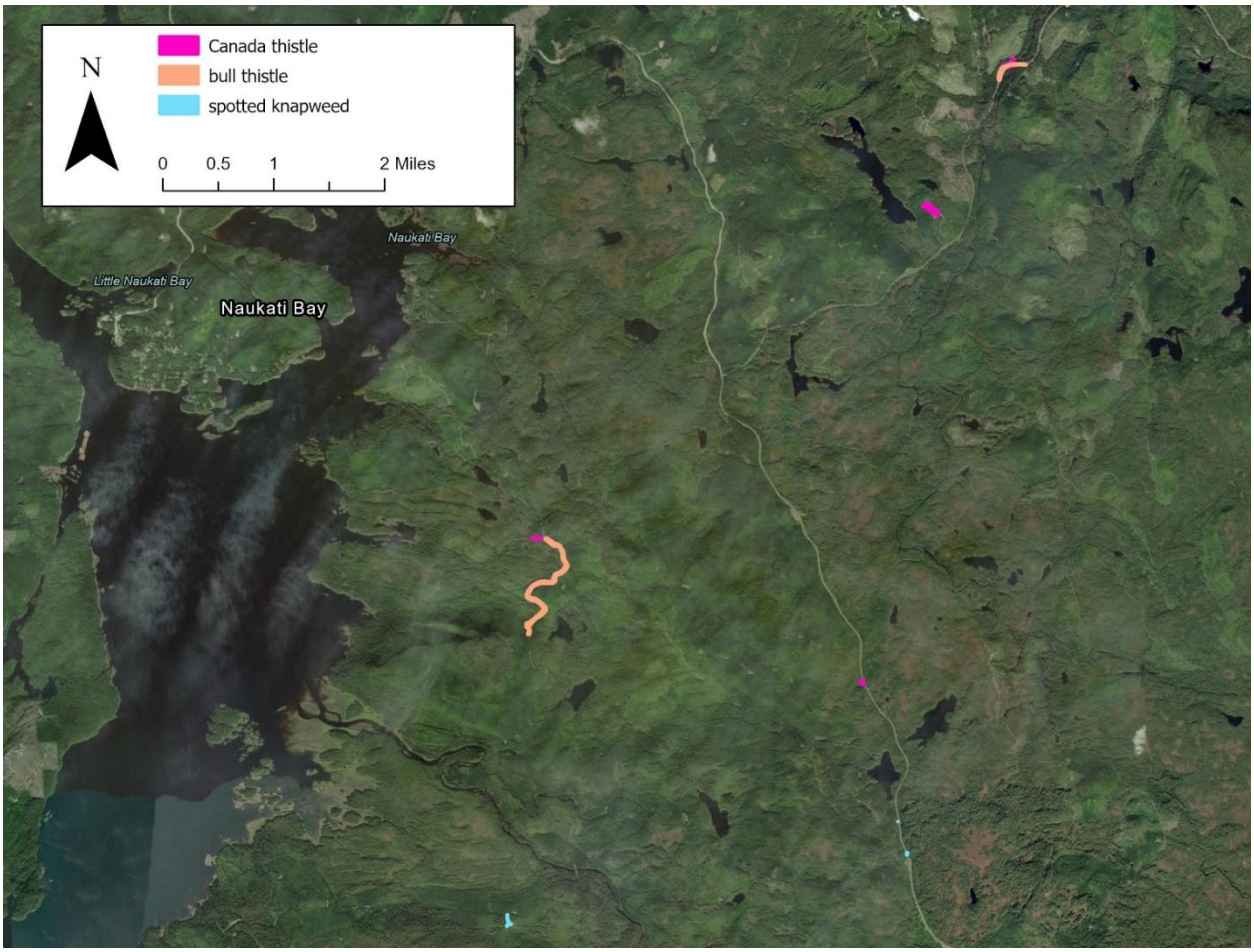

Figure 4. Bull thistle, Canada thistle and spotted knapweed treatments near Naukati

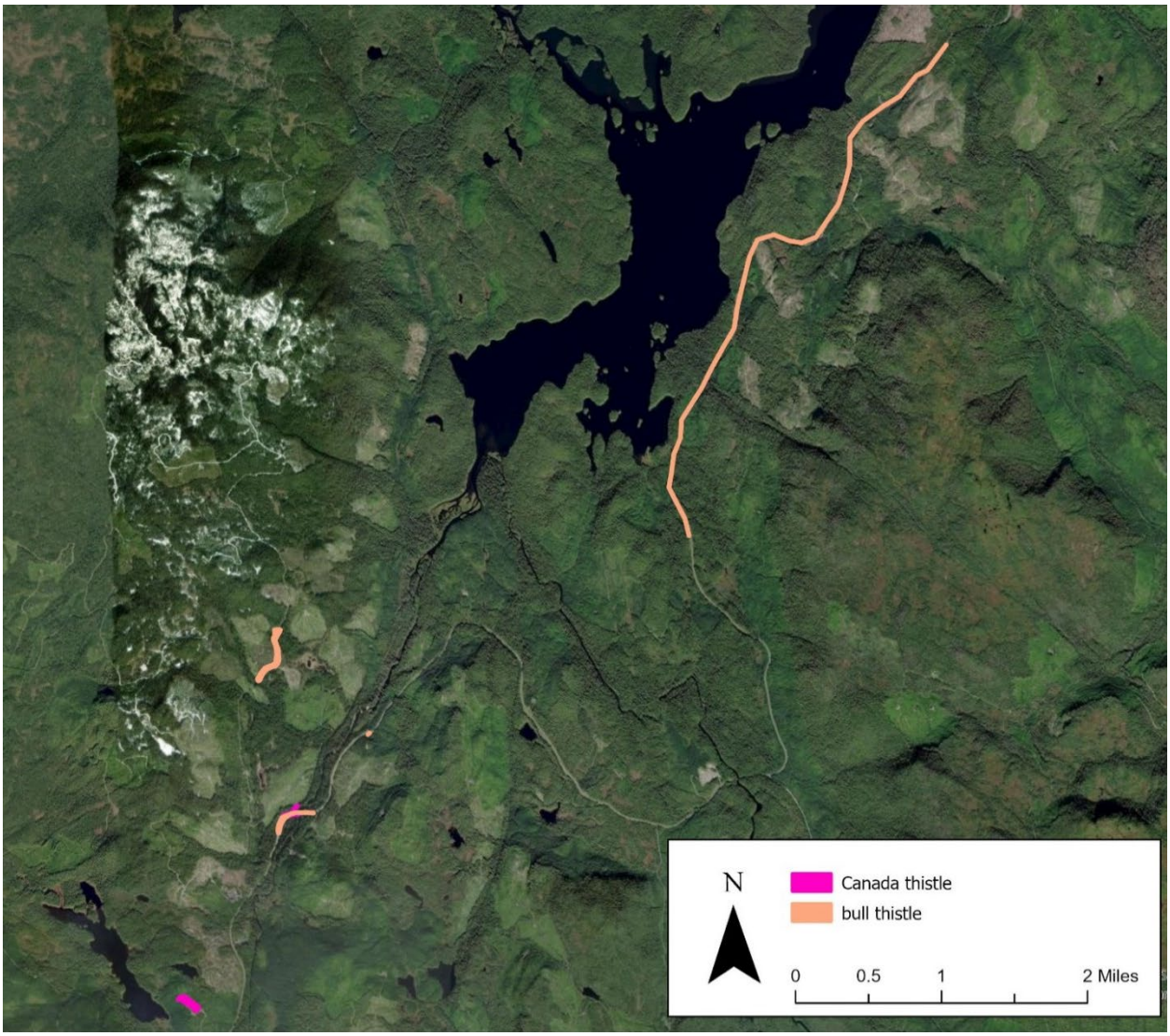

Figure 5. Bull and Canada thistle treatments near Coffman Cove Road

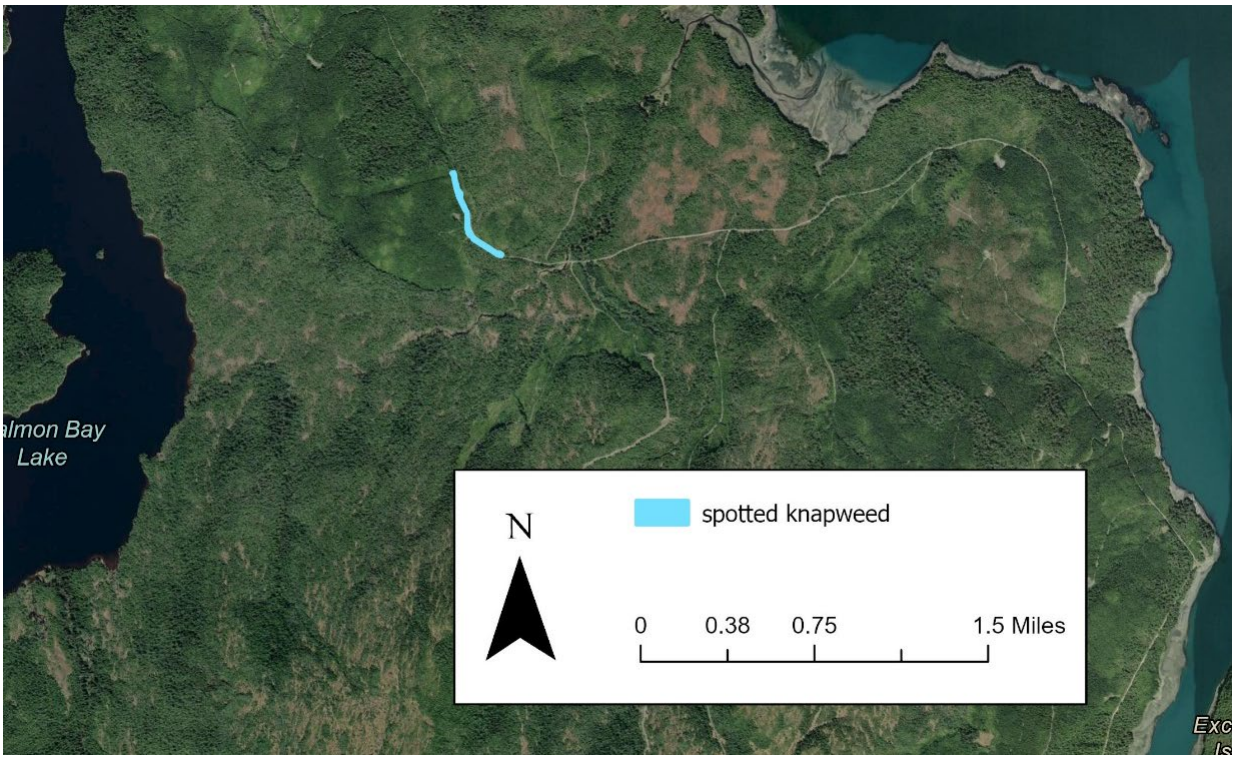

Figure 6. Spotted knapweed treatment near Salmon Bay Lake

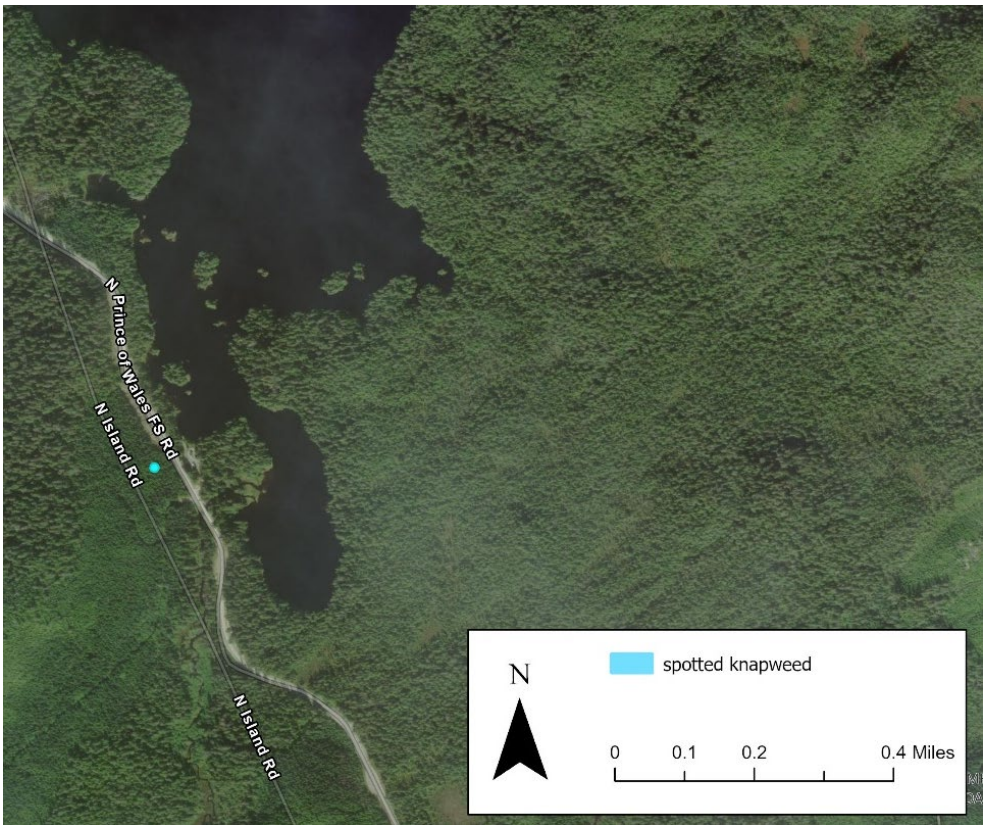

Figure 7. Spotted knapweed treatment near Sarkar on North Prince of Wales Road

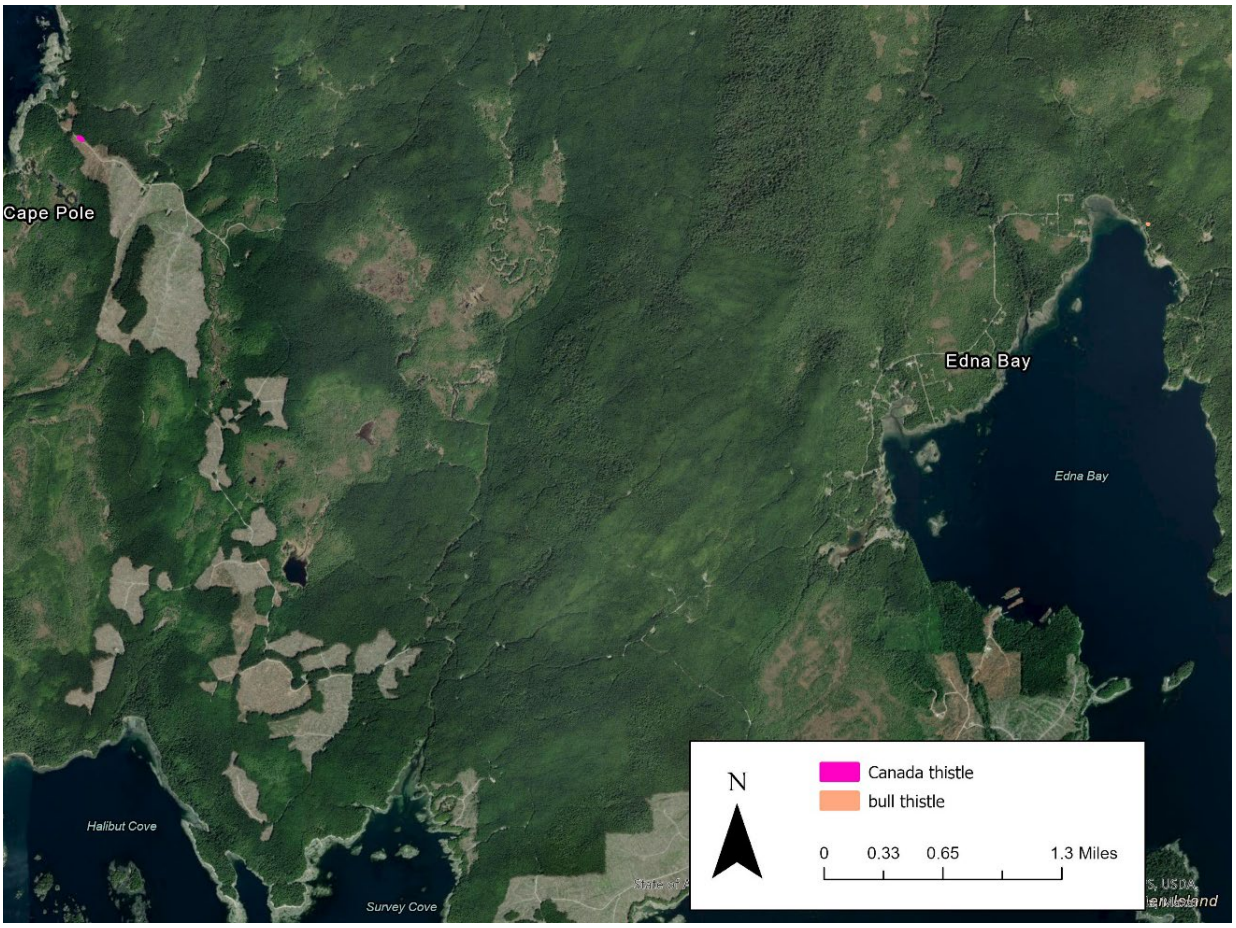

Figure 8. Bull and Canada thistle treatments on Kosciusko Island

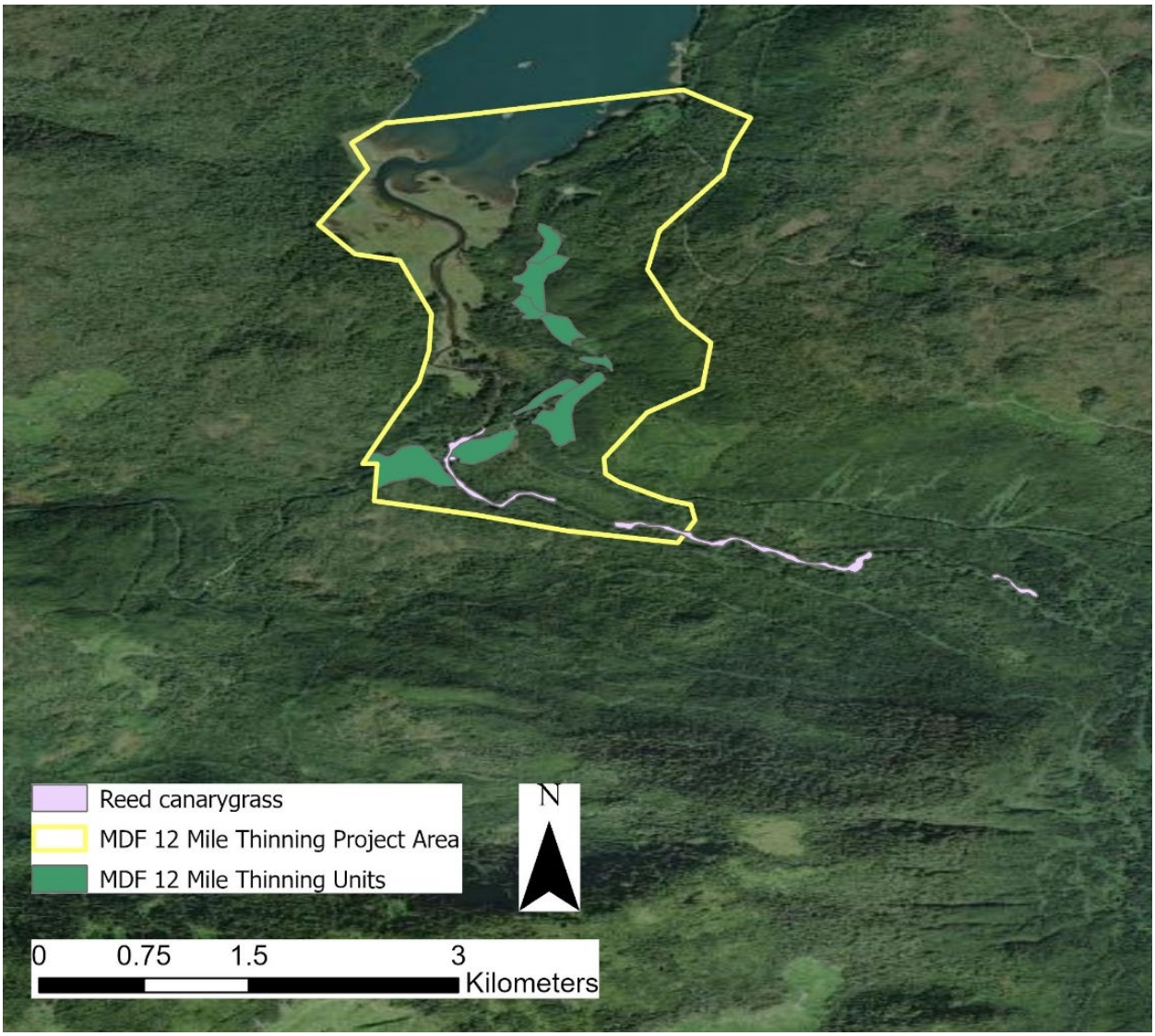

Figure 9. Map of reed canarygrass treatments and Twelvemile habitat restoration project area

Line Officer Signature:

NICHOLAS REYNOLDS
Digitally signed by NICHOLAS REYNOLDS
Date: 2025.04.16 10:19:31 -08'00'

_____

Nicholas Reynolds
Acting Deputy District Ranger
Craig and Thorne Bay Ranger Districts