



CROWN LAND INVASIVE PLANT MANAGEMENT IN THE THOMPSON-NICOLA 2019 PROGRESS REPORT

Background

Continued progress was made in 2019 to manage invasive plant species in the Thompson-Nicola region as part of the three-year \$2.2-million pilot project that began in 2017. "Protecting Ecosystem Health and Agricultural Values: A Strategy for Crown Land Invasive Plant Management in the Thompson-Nicola" is being implemented by the B.C. government in partnership with the B.C. Cattlemen's Association, the Thompson-Nicola Regional District (TNRD) and the Thompson-Nicola Invasive Plant Management Committee (TNIPMC). The invasive plant management pilot project helps support B.C.'s ranching industry and rural communities in the region affected by the spread of non-native invasive plants. These species can inhibit the growth of desirable plants and have a negative impact on grazing areas and the health of grassland ecosystems. In late 2019, a decision was made to extend the project through 2020.

2019 Accomplishments

- Over \$736,000 was invested in provincial public (Crown) land invasive plant management in 2019 by the Ministries of Forests, Lands, Natural Resource Operations and Rural Development (FLNRORD), Transportation and Infrastructure (MOTI) and Environment-BC Parks (BC PARKS).
- In addition, the \$300,000 provided to Thompson Rivers University (TRU) by FLNRORD and MOTI to support research on invasive plant management and restoration over the three years of the pilot project provided preliminary results.
- Treatment areas were again selected based on the following main criteria:
 - » Presence of high priority invasive plants, including new invaders to the region, or spotted knapweed;
 - » Areas that had a high potential for spread, such as recreation sites, roadside pullouts, and gravel pits; and,
 - » private landowners adjacent to provincial public lands were also managing their invasive plants (via "The Good Neighbour Program").
- A total of 20 provincial public land contracts were administered including:
 - » Hundreds of kilometers of Forest Service Roads were surveyed and treated where target invasive plant species were found.





- » More than 300 sites of high risk and new invader invasive plant species were surveyed and treated through joint contracts on FLNRORD, MOTI, BC Parks and FORTIS jurisdictions, including one site of poison hemlock, an extremely toxic invasive plant species. Survey and treatment coverage of the poison hemlock was improved along the Trans Canada East near Dallas.
- » FLNRORD successfully completed its second year of intensive work on regional early detection and rapid response species (i.e., invasive plant species that is new to the region and limited in extent) including a high-risk logging area infested with field scabious.
- » 28 hectares of grasslands were surveyed and treated where invasive plants were found. Fall seeding occurred in these areas with a mix formulated to be competitive against cheatgrass germination the following spring.
- » Approximately 110 kilometres of MOTI rights-of-way (ROW) was managed with 53 hectares of invasive plants treated.
- » This was accomplished through contracts administered by the TNRD on MOTI's behalf.
- » Through the ongoing partnership with the Invasive Species Council of BC, 52 MOTI gravel pits were managed, with 54 hectares of invasive plants treated in priority pits.
- Year 3 of the 'Good Neighbour' coordination approach, where provincial public lands are treated adjacent to treated private lands resulted in:
 - » Approximately 80 hectares surveyed, and five hectares treated on FLNRORD lands.
 - » 41 kilometers surveyed and over 17 hectares treated on MOTI ROW.
- This year was the first year within the pilot that significant levels of linear invasive plant management took place on a major MOTI highway within the region. Treatments along Highway 5 went well both logistically and from a safety point of view. There were no incidents, injuries or near misses reported.
- Additional high priority sites were identified and treated through work occurring in new areas.



Target Invasive Plants in the TNRD

- More than 30 Invasive Plant species were prioritized for treatment throughout the Thompson-Nicola due to their invasive nature and risk to ecological, environmental, and social values:
 - » 17 Regional Early Detection Rapid Response Species
 - Yellow flag iris, black knapweed, brown knapweed, bohemian knotweed, giant knotweed, Himalayan knotweed, Japanese knotweed, common bugloss, field scabious, rush skeletonweed, scotch broom, scotch thistle, tansy ragwort, teasel, whiplash hawkweed, wild chervil, poison hemlock
 - » 8 High Priority Species
 - Common tansy, hoary cress, orange hawkweed, spotted knapweed, sulphur cinquefoil, blueweed, hoary alyssum and, in specific areas only, burdock
 - » 8 Medium and Lower Priority Species
 - Leafy spurge, bachelor's buttons, baby's breath, chicory, plumeless thistle, policeman's helmet, Russian knapweed, yellow hawkweed complex

Successes

- Improved engagement with local First Nations and Thompson-Nicola stakeholders affected by and interested in invasive plants. Several First Nations bands are now sharing a species list of traditional plants that require protecting to support information sharing and improved invasive plant management processes.
- More active involvement and interest from more than five First Nations bands taking part in annual planning as well as herbicide and biocontrol treatment work.

- Successful completion of contracts by local ranchers and First Nations, plus ongoing discussions with interested First Nations on partnership opportunities.
- Research focusing on management of invasive plant species in grasslands had a successful field year in the Nicola, led by TRU with collaboration from the Ministries, First Nations and stakeholder groups.
- Enhanced action on projects supporting grassland restoration including treatments, seeding and land management changes.
- Continued planning early in the year that ensured a coordinated and efficient management approach led by FLNRORD, with participation from MOTI, BC Parks, First Nations and several stakeholders and private land holders, including members of the BC Cattlemen's Association.
- Assistance from FLNRORD District staff in establishing priorities and communicating with stakeholders, as well as implementing local contracts and monitoring treatments.
- Enhanced work and awareness of private landowner invasive plant control investments through targeted 'Good Neighbour' work.
- Third year treatment or revisit of many sites, showing a significant reduction in the density and distribution of the target invasive plants, recognizing that in most cases the residual herbicide was still present in the soil.
- Expanded linear treatments on MOTI ROW under the TNRD Red Cross funding project on top of the funding provided through the Pilot.



Challenges

- Legally required pesticide-free zones that exist around waterbodies and wells create challenges for complete linear or area-based control, however biological control agents are present within most of these areas to support long-term control.
- The total area of established species like spotted knapweed still exceeds available resources, so strategic prioritization will always be necessary.
- Cheatgrass, an invasive annual grass, was being noted as appearing to fill in following herbicide treatment in many treatment areas.
- Multiple stakeholders, competing priorities, and negative perceptions of herbicide use continues to be a tremendous challenge. More groups and individuals opposed to herbicide use emerge each year requesting alternative treatment approaches that are not always effective control methods.
- Logging practices that create extensive soil disturbance and associated road construction work provide ongoing opportunities for invasive plant establishment and spread. More awareness and broadscale adoption of best management practices to minimize invasive plants remains a challenge.
- Unmanaged motor vehicle access, creation of new, unauthorized trails into remote areas as well as travelling existing corridors and expanded recreational promotion and use are major contributors to the establishment and spread of invasive plants.

Next steps

- With the extension of the pilot project through 2020, next steps will include:
 - » Continued planning sessions with local stakeholders, First Nations and the TNIPMC will occur again in the fall of 2019 or early in 2020 to take advantage of the biological treatment window beginning in May and continuing into the fall.
 - » Ongoing communication and coordination with stakeholders and interested First Nations to ensure a coordinated approach across all lands within the Thompson-Nicola.
 - » Further exploration into whether large area-based and linear treatments are resulting in increased cheatgrass establishment following management of the target invasive plant.

