



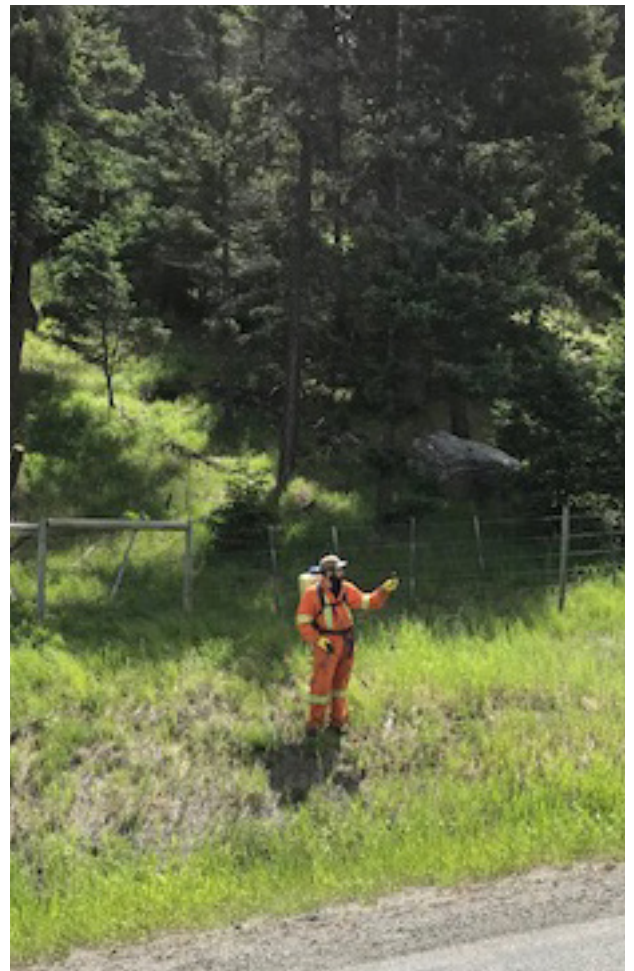
CROWN LAND INVASIVE PLANT MANAGEMENT IN THE THOMPSON NICOLA 2018 PROGRESS REPORT

Background

Continued progress is being made to manage invasive plant species in the Thompson Nicola region. This \$2.2-million pilot project began in 2017 and will continue through 2019. *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 and the newly-formed Thompson Nicola Invasive Plant Management Committee (TNIPMC). The three-year 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.

2018 Accomplishments

- Over \$775,000 was invested in Crown land invasive plant management in 2018 by the Ministries of Forests, Lands, Natural Resource Operations and Rural Development (FLNRORD), Transportation and Infrastructure (MOTI) and Environment/BC Parks (BC PARKS).
- A total of \$300,000, over three years, was provided to Thompson Rivers University (TRU) by FLNRORD and MOTI to support research on invasive plant management and restoration.
- Treatment areas were selected, based on the following main criteria:
 - high-priority invasive plants, including new invaders to the region or spotted knapweed, were present;
 - the area had a high potential for spread, such as recreation sites, roadside pullouts, and gravel pits; and
 - private land owners adjacent to Crown lands were also managing their invasive plants (via "The Good Neighbour Program").
- A total of 20 Crown land contracts were administered including:
 - Seven joint contracts with FLNRORD, MOTI, BC Parks and FORTIS sites.
 - Seven FLNRORD issued local contracts with First Nations and local ranchers.
 - Six contracts for MOTI roadside treatment, including one First Nations contract.





- A substantial amount of invasive plant infested Crown land was managed within the Thompson Nicola in 2018, including:
 - More than 1,000 kilometres (600 hectares) of Forest Service roads surveyed and treated where invasive plants were found.
 - Over 400 kilometres in the Nicola Region.
 - Over 600 kilometres in the Thompson Region.
 - At least 300 sites of high-risk and new invader species were surveyed and treated through joint contracts on FLNRORD, MOTI, BC Parks and FORTIS jurisdictions, including a very toxic invasive plant site of poison hemlock.
 - Six hectares of grasslands were surveyed and treated where invasive plants were found.
 - 212 kilometres of MOTI right-of-way (ROW) was managed with 42 hectares of invasive plants treated.
 - This was accomplished through contracts administered by the TNRD on MOTI's behalf for the first time in 2018.
 - Through partnership with the Invasive Species Council of BC, 50 MOTI gravel pits managed, with 38 hectares of invasive plants treated and 6 hectares seeded in priority pits.
- Year two of the 'Good Neighbour' coordination approach, where Crown lands are treated adjacent to private lands in which active invasive plant treatment is occurring, resulted in:
 - 60 hectares surveyed and 11 hectares treated on FLNRORD lands
 - 36 kilometres surveyed and over three hectares treated on MOTI ROW.
- In addition to the funding above, MOTI invested another \$1 million provincially to seed areas impacted by 2017 wildfires to prevent establishment of invasive plants.

- Approximately half of this funding was spent within the TNRD to seed over 23 hectares of fire impacted ROW, primarily within the Elephant Hill wildfire area, and the high-severity burns near Young Lake and Pressy Lake.

- Reclamation of two unused MOTI gravel pits (totaling approximately 6.5 hectares) near Ashcroft and Loon Lake also began in 2018, which included chemical treatment of invasive plants, followed by soil amendments, planting and seeding.

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 (ie. new invaders to the region)
 - 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
 - Eight High-Priority Species
 - Common Tansy, hoary cress, orange hawkweed, spotted knapweed, sulphur cinquefoil, blueweed, hoary alyssum and, in specific areas only, burdock
 - Eight Medium and Lower-Priority Species
 - Leafy spurge, bachelors button, baby's breath, chicory, plumeless thistle, policeman's helmet, Russian knapweed, yellow hawkweed complex.

Successes

- Improved engagement with Thompson Nicola stakeholders and local First Nations affected by and interested in invasive plants.
- 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 began in the Nicola, led by TRU with collaboration from the Ministries, First Nations and stakeholder groups.
- Improved planning early in the year to ensure a coordinated and efficient management approach led by FLNRORD, with participation from MOTI, BC Parks, First Nations and a number of stakeholders and private land holders, including members of BC Cattlemen's Association.
- Additional FLNRORD District staff assisted with establishing priorities with stakeholders and implementing local contracts, the first time in recent years.
- Treatment of widely established species like spotted knapweed was accomplished using broad linear treatments along roadways and grasslands to maximize efficiency, while localized spot treatments were used to prevent high priority new invaders from becoming the "next knapweed."
- The TNIPMC/TNRD coordinator organized several events, press releases, radio interviews and a newsletter highlighting invasive plant issues and treatments in the TNRD. The coordinator also responded to over 100 phone calls regarding invasive plant identification and treatment.
- Continued protection of private land owner invasive plant control investments through targeted treatments of Crown land buffer areas through the coordinated "Good Neighbour" approach.
- The TNRD was approved for \$990,000 in leveraged funding from the Red Cross, of which \$250,000 will be used over the next three years for invasive plant control and prevention on MOTI ROW in areas impacted by wildfires.





- Almost all sites treated in 2017 were retreated in 2018, showing a significant reduction in the density and distribution of the target invasive plants, recognizing that in most cases, residual herbicide was still present in the soil.

Challenges

- Legally required pesticide free zones that exist around waterbodies and wells etc. 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.
- Grassland restoration has numerous factors to be considered prior to treatment of invasive plants, including land management practices, and the potential for other high risk invasive plants such as cheatgrass to establish once the spotted knapweed or other target plant is removed.
- In 2018, retreatments and early season treatments resulted in increased time spent at each site searching for fewer, smaller plants, when compared to the linear or area-based treatments in year one, resulting in less total area treated than in 2017.
- The total area of established species like spotted knapweed still exceeds available resources, so strategic prioritization will always be critical.

Next steps

- Planning sessions with local stakeholders, First Nations and the TNIPMC will occur again early in 2019 to take advantage of the biological treatment window beginning in May and continuing into the fall.
- Holding earlier planning sessions, in cooperation with the new TNIPMC, will allow for earlier contract sign off. Treatments beginning in May and extending until the fall is the goal for the most successful treatment window possible.

- Ongoing communication and coordination with stakeholders and interested First Nations to ensure a coordinated approach across all lands within the Thompson Nicola.
- Discussions will be initiated with partners involved in this three-year pilot to discuss results and potential recommendations moving forward.

