

Thompson-Nicola  
INVASIVE PLANT  
management committee

# 2021 TNIPMC ANNUAL REPORT

[tnipmc.com](http://tnipmc.com)

DAME'S ROCKET (*Hesperis matronalis*)



**THOMPSON-NICOLA**  
REGIONAL DISTRICT  
The Region of BC's Best

# ACKNOWLEDGEMENTS

The TNIPMC would like to acknowledge the following for their financial support:

- *Ministry of Environment and Climate Change Strategy- BC Parks Enhancement Fund*
- *Ministry of Forests, Range, Natural Resource Operations and Rural Development*
- *Ministry of Transportation and Infrastructure*
- *Thompson-Nicola Regional District*

# EXECUTIVE SUMMARY

The Thompson-Nicola Region has benefited from several large scale invasive plant program over the past few years:

- 2017- 2020: Provincial government's "Protecting Ecosystem Health and Agricultural Values: A Strategy for Crown Land Invasive Plant Management in the Thompson Nicola" pilot provided \$2.8 million in funding for management on Crown land in the region.
- 2019-2021: Canadian Red Cross invested \$990K for invasive plant management within the Elephant Hill Wildfire area.
- 2021: the Provincial Government announced \$12 million in Recovery Grant Funding to assist with the detection and removal of invasive species, as part of its economic recovery plan to support jobs and help communities cope with the ongoing impacts of the COVID- 19 pandemic. Funding was shared with the Invasive Species Council of BC (\$8 M), four Provincial government agencies (\$1M) and regional invasive species organizations, local governments and First Nations (\$4M). It is estimated that \$350K to \$400K was expended to facilitate invasive plant management within the Thompson-Nicola Region.

Despite the fluctuation in resources, extreme temperatures and wildfires experienced over the summer, management efforts were relatively successful. It is estimated that over \$1.8 Million dollars was invested in invasive plant control, education and outreach, and coordination efforts across the region the year. This investment resulted in over 5000 ha of invasive plant infestations being treated and over 24,000 people reached through education and outreach initiatives.

Now, more than ever, the Region is in need of additional resources to support management efforts. These are necessary to prevent invasive plants from spreading onto the disturbed areas resulting from the series of natural disasters that took place in 2021.



**24K**  
PEOPLE  
REACHED



**\$1.8M**  
INVESTED IN  
MANAGEMENT



**5000 HA**  
TREATED

# MEET THE TNIPMC TEAM

## TNIPMC Committee Members

Bill Kershaw, TNRD (Chair)  
Barbara Rhoden, TNRD (Vice-Chair)  
Herb Grahame, TNRD  
Sheryl Wurtz, Ministry of Forests, Lands & Natural Resources  
Rachel Whitehouse, Ministry of Forests, Lands & Natural Resources (Alternate)  
Donna Olsen, Ministry of Transportation & Infrastructure  
Grahame Gielens, Ministry of Transportation & Infrastructure (Alternate)  
Morgan Jumbo, Nicola Scw'exmx Tribal Council  
Dwayne Paradis, Shuswap Nation Tribal Council  
Jessica Eustache, Shuswap Nation Tribal Council (Alternate)  
Mandy Ross, Grasslands Conservation Council (Alternate)  
Peggy Jo Broad, Thompson Rivers University  
Wendy Gardner, Thompson Rivers University (Alternate)  
Stephane Russel, Ministry of Environment and Climate Change Strategy-BC Parks  
Valerie Campbell, Ministry of Environment and Climate Change Strategy- BC Parks (Alternate)

## TNRD Staff

Coleen Hougen - Invasive Plant Management Coordinator  
Denise Roberts - Environmental Services Program Assistant  
Emily Anderson - Invasive Plant Technician  
Mike Dedels - TNRD Elephant Hill Wildfire Invasive Plant Program Coordinator  
Jake Devlin - Director of Environmental Health Services  
Jamie Vieira - Environmental Health Services Manager

## TNRD Contracted Support Staff

Catherine Tarasoff - TNIPMC Education and Outreach Coordinator  
Meagan Nolander - TNIPMC Education and Outreach Assistant  
Kristi Gordon - TNIPMC Education and Outreach Assistant  
Adria Huser - TNIPMC Education and Outreach Assistant



North Bonaparte Lake Road



# MESSAGE FROM THE CHAIR

## Message from the Chair, TNRD Director William Kershaw

While we were hoping for a more “normal” year in 2021, Mother Nature had other plans in store. The Thompson-Nicola Region was hit hard with extreme temperatures, wildfires, floods and landslides.

Despite these challenges, the TNIPMC was able to continue with delivery of education and outreach efforts. A few mentionable highlights from this year include delivery of a 3-day Industrial Vegetation and Noxious Weed Pesticide Applicators training session, hosting the TNIPMC annual field day in Clinton, sharing our Earth Kids program messaging with young campers in Monck and Lac Le Jeune Provincial Parks and partnering with the Thompson- Nicola Regional Library’s mobile library on their regional library tour. We were also able to host place-based learning sessions at schools across the region.

Operationally, management efforts continued, however in decreased capacity for some organizations in the region. Key provincial agencies saw declines in operational budgets,

despite the \$12 million Provincial Recovery Grant Funding for Invasive Species. The ebb and flow of funding has made it challenging to make long term management efforts effective. With all that has happened in 2021 on the landscape, short and long term funding is required so efforts can be made to prevent invasive plants from invading these disturbed areas. These investments will prevent additional impacts to our regions economy, environment and society as a result of invasive plant spread.

I want to extend thanks the TNIPMC staff, regional land mangers, and members of the public that continued to adapt to these changing and challenging times. Your continued support and flexibility have enabled the TNIPMC to continue to work towards an “Invasive Plant-Free TNRD”.

## ALERT SPECIES



Bighead knapweed



Cypress spurge



Garlic mustard



Scotch broom



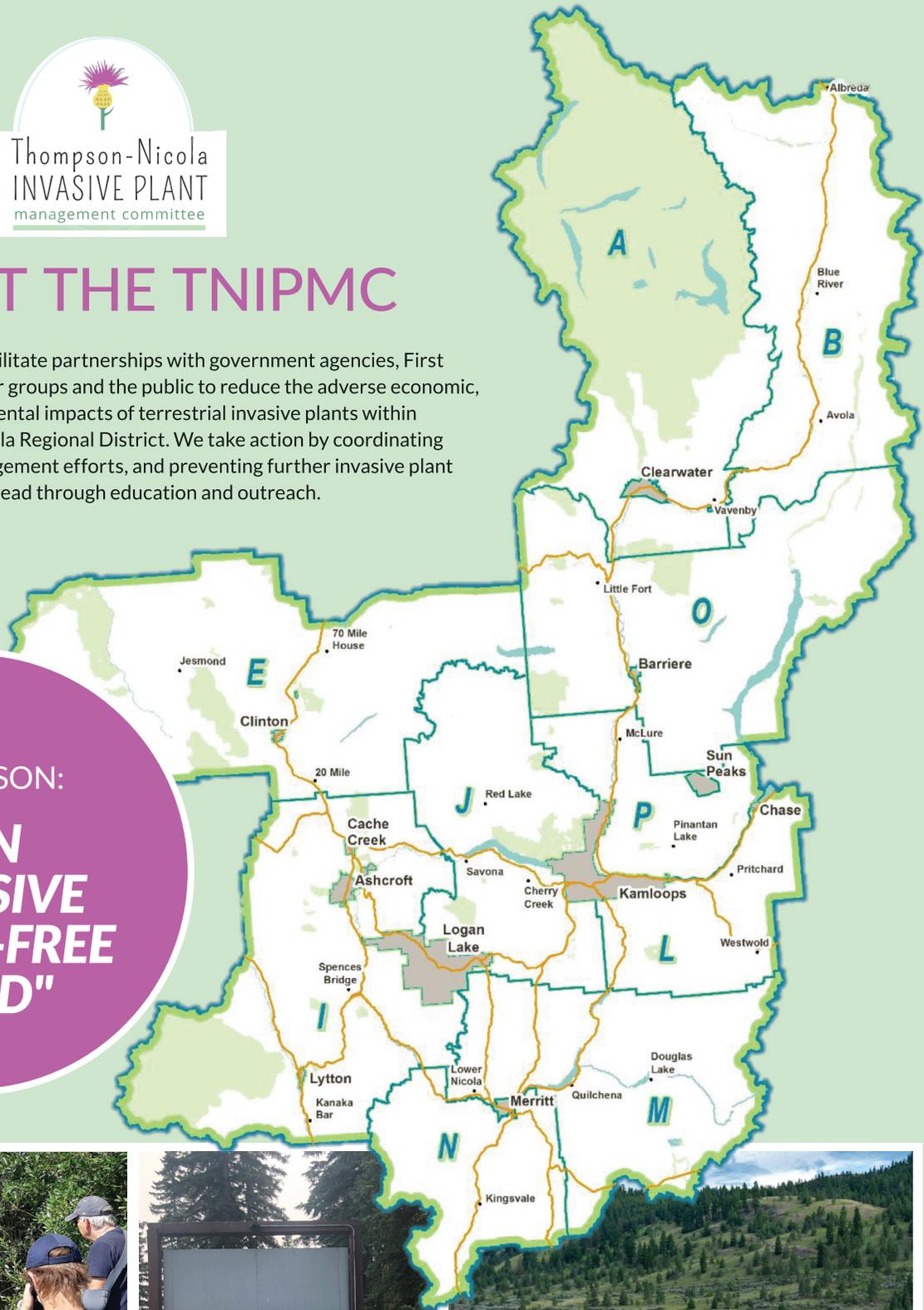
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# ABOUT THE TNIPMC

Our mission is to facilitate partnerships with government agencies, First Nations, stakeholder groups and the public to reduce the adverse economic, social and environmental impacts of terrestrial invasive plants within the Thompson- Nicola Regional District. We take action by coordinating invasive plant management efforts, and preventing further invasive plant introduction and spread through education and outreach.

OUR VISION:  
**"AN  
 INVASIVE  
 PLANT-FREE  
 TNRD"**

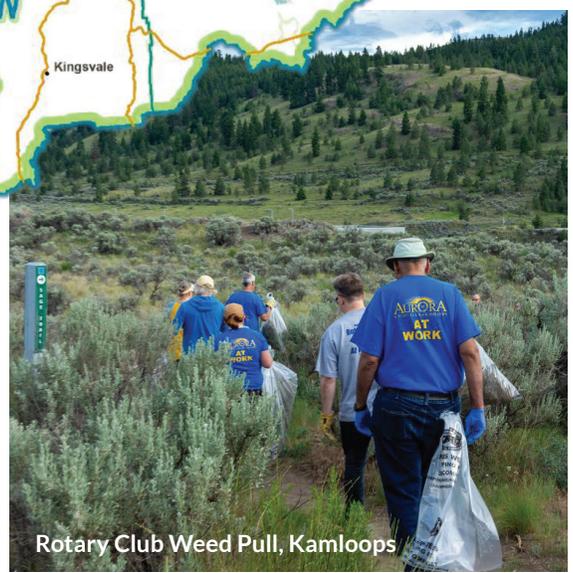


Yellow Flag Iris Workshop,  
Pinantan Lake

TNIPMC Annual Field Day-Clinton



Earth Kids.  
Lac Le Jeune, Provincial Park



Rotary Club Weed Pull, Kamloops

# EDUCATION & OUTREACH

The TNIPMC successfully delivered another year of invasive plant education and outreach throughout the Thompson Nicola Region. With an annual operational budget of \$50,000, 71 events were attended, including classroom presentations, community outreach events and workshops.

The Committee enhanced its social media present with invasive plant campaigns reaching just over 24,000 people.



## SCHOOL PROGRAM

8 schools  
20 classrooms  
367 students reached



## TRAINING

Pesticide Applicators  
Certification  
Municipal Public  
Works Staff  
20 people reached



## COMMUNITY WEED PULL CHALLENGE

4 organizations  
71 volunteers  
1000 pounds pulled



## FACEBOOK

452 followers  
24,087 people reached



## TNRL MOBILE LIBRARY PARTNERSHIP

7 communities  
9 stops  
98 people reached



## FORMAL PRESENTATIONS

5 presentations  
162 people reached



## EARTH KIDS PROGRAM

Monck Lake & Lac Le Jeune  
Provincial Park  
11 visits  
152 recreationalists reached



## COMMUNITY WORKSHOPS

Clinton (TNIPMC Annual Field Day)  
Pinantan Lake  
Cherry Creek  
59 people reached



## COMMUNICATIONS

1 Community Mailout  
6 Articles  
3 new videos  
120 Public Inquiries

# ENHANCED INVENTORY

A new role for the TNIPMC this year was coordinating and administering targeted invasive plant inventories for priority invasive plants in the region. Inventories took place along Hwy 5 from Avola, north to the TNRD boundary, a portion Agate Bay Road and several side roads, Birch Island Lost Creek Road, Palmer Forsyth Road, Planet Mine Road, Guilliford Road, and HWY 12 north of Lytton. Through these targeted efforts, and the sharp eyes of partners, the following new invaders were confirmed in the Thompson-Nicola Region. All are currently under management.

## NEW INVADERS FOUND



**COMMON BUGLOSS**  
(*Anchusa officinalis*)  
Duck Range Road, MoTI



**PUNCTUREVINE**  
(*Tribulus terrestris*)  
South of Lytton, Private Land



**DAME'S ROCKET**  
(*Hesperis matronalis*)  
Heffley Louis Creek Road, MoTI / Private Land



**WILD PARSNIP**  
(*Pastinaca sativa*)  
HWY 5 South of Darfield, MoTI



**HIMALAYAN BALSAM**  
(*Impatiens glandulifera*)  
Westwold, Private Land



**MARSH PLUME THISTLE**  
(*Cirsium palustre*)  
HWY 5 North of Blue River,  
MoTI/Trans Mountain

# ON THE GROUND MANAGEMENT

## Provincial Government



Many Provincial government agencies saw a decline in their operational budgets, limiting the extent of their management efforts. The MFLNORD, MoTI and MOE-BC Parks focused a large portion of their management efforts on treating provincial and regional high priority invasive plants, such as Blueweed, Hoary Alyssum, Hoary Cress, Common Tansy, Wild Parsnip and Wild Chervil. MoTI continued administering its Good Neighbor Program and some larger scale treatments were carried out near Westwold, to protect high value areas from invasive plants threatening the TNRD and Regional District of North Okanagan (RDNO) shared border.

## Local Government



Local governments, such as the TNRD and City of Kamloops, continue to administer invasive plant management and education and outreach programs. The TNRD invasive plant program continues to be well received by TNRD residents. In 2021, the TNRD extended its invasive plant program services to member municipalities to help fill this management gap. Residents of Clearwater, Sunpeaks, Merritt, Logan Lake and Cache Creek will have access to the program services starting in 2022. The Elephant Hill Wildfire Invasive Plant Program, administered by the TNRD, continued to carry out invasive plant management on private and Crown land. Through this program, a partnership was formed with the Village of Clinton for a full time seasonal employee to carry out management activities within the municipality on both municipal and private lands. The Elephant Hill Wildfire Program will end at the end of this year.

## First Nations



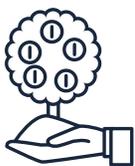
Several First Nations groups within the region have been actively developing and implementing invasive plant management programs for their reserve lands. This includes Lower Nicola Indian Band and Big Bar Indian Band. Tk'emlúps te Secwépemc continues to manage invasive plants on their reserve lands (reserves 1 through 6) mainly through aerial treatments over large areas.

## Utility Companies



Utility companies, such as BC Hydro, Trans Mountain Pipeline and BC Hydro are actively managing invasive plants on their right of ways in accordance with their management plans. Private land owners who have utility lines running through their private land are encouraged to reach out to the respective company regarding invasive plant concerns and management.

## Non Profit Organizations



The Nature Conservancy of Canada is actively surveying and managing invasive plants on their owned properties to protect native biodiversity. The Invasive Species Council of BC were recipients of \$8 M in Recovery Grant Funding. This funding was used to support jobs and help communities cope with the ongoing impacts of the COVID-pandemic. The ISCBC administered 11, four-person, action teams across the province, including one team in Ashcroft to help service the Thompson Nicola Region. The action team was a great benefit for addressing supplemental management in areas where land managers were lacking resources to manage. This included areas such as select BC Parks and MoTI gravel pits and select road right of ways.

## BC HYDRO

\$25,000 investment  
Mandatory invasive plant training for all employees

## CANADIAN RED CROSS

\$340,000 invested  
400 Ha surveyed  
45 Ha treated

## ENBRIDGE

\$55,000 investment  
Treatments along the Coquihalla pass

## TK'EMLÚPS TE SECWÉPEMC

\$200,000 invested  
800 Ha of land aerially treated

## MINISTRY OF FORESTS LANDS NATURAL RESOURCE OPERATIONS AND RURAL DEVELOPMENT

\$118,000 invested  
Treated provincial and regional high priority invasive plants  
1 First Nation contract issued in the North Thompson

## INVASIVE SPECIES COUNCIL OF BC

Recipient of \$8Million in Recovery Grant Funding  
11 action teams situated across the Province, including Ashcroft.  
Ashcroft Action Team treated 64 Ha of invasive plants and surveyed 997 ha of land  
Contractors carried out 169 treatments at 30 gravel pits covering 19.6 Ha of invasive plants  
Continuation of Healthy Habitats Youth Program with 2 weed pull events in the region

## CITY OF KAMLOOPS

\$75,000 investment  
4ha of invasive plants managed  
800 Ha of land surveyed

## MINISTRY OF TRANSPORTATION AND INFRASTRUCTURE

\$221,000 investment  
Treated provincial and regional high priority invasive plants along select roadways and gravel pits  
Continued delivery of the Good Neighbor Program  
664 Ha treated

## BC PARKS

\$3,000 invested  
Treatment of high priority plants  
Treatments in Buse Lake Protected Area and Juniper and Paul lake Provincial Parks  
Additional signs for select parks

## NATURE CONSERVANCY OF CANADA

\$25,000 invested  
Treatment on NCC owned properties

## THOMPSON-NICOLA REGIONAL DISTRICT

\$240,000 investment  
1,385 Ha treated on private land  
17.3 Ha treated on TNRD owned land  
64 private land consultations  
82 sprayer loan outs  
16 biological control releases on private land  
16.5 tonnes of invasive plants disposed at TNRD facilities



BC Parks Boot Brush Station,  
6 Mile Hill Protected Areas

# RESEARCH

Thompson Rivers University, Fraser Lab, continues to carry out research on specific invasive plant questions. Below is a summary of on-going and completed invasive plant research.

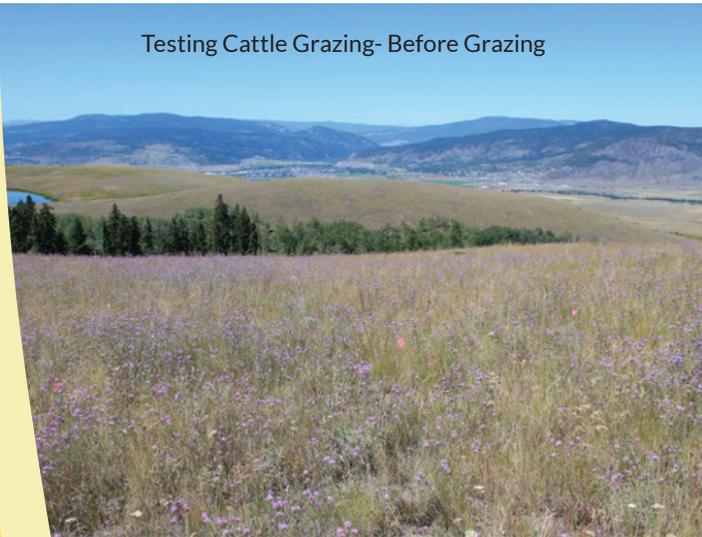
## Completed Research

- Unexpected responses in ecologically based weed management.
- Legacy effects of Spotted knapweed on native plant restoration.
- Soil legacy effects on growth of native and non-native species in temperate grasslands in the southern interior of BC.

## On-going & Proposed Research

- Nitrogen input-output dynamics in soils under invasive and noninvasive plant conditions. The main objective of the experiment is to study the dynamics of nitrogen fixation and mineralization in soils in invasive and non-invasive plant treatments.
- The Economics and Control of Invasive Plants in British Columbia. The project will focus on the invasive plant species that affect grasslands in British Columbia. The research will consider the two most notorious non-indigenous invasive plants affecting grasslands and the cost of their control to the province.
- Testing Targeted Cattle Grazing to Suppress Spotted knapweed. This research tested the efficacy of targeted cattle grazing to help control *C. stoebe* in native, semi-arid rangelands. This research is near its completion and preliminary results show that targeted cattle grazing is effective at suppressing knapweed seed production, and may aid in restoring native plant communities.

Testing Cattle Grazing- Before Grazing



Testing Cattle Grazing-After Grazing



Hoary Cress Management, Shuswap Road

# IMPROVING COORDINATION

Invasive plants are not constrained by jurisdictional boundaries. The most successful efforts to combat invasive plants are those that enlist a broad alliance of partners working across jurisdictions toward mutual goals. It is through these networks that the identification of mutual priorities take place. This year, the TNIPMC:

- Coordinated the development of the Operational Plan for Terrestrial Invasive Plant Management in the Thompson-Nicola Region. This plan acts as a guiding document for invasive plant management throughout the Thompson-Nicola Region. It reflects local priorities for invasive plant management and a common approach to managing invasive plants across jurisdictions, This tool will help ensure that common management goals and objectives are being achieved across the region.
- Hosted a regional land manager meeting in February. The purpose of this meeting was to provide an opportunity for land managers to gather and share operational plans and needs for 2021. It also provided an opportunity for land managers to network and collaborate on management activities where feasible. A total of 28 land managers from a variety of organizations attended the session.
- Remained an active member of the Regional Invasive Species Organization Working Group (RISOWG). This working groups consists of regional invasive species organizations across the province that meet monthly to share knowledge and expertise and identify opportunities for collaboration and partnerships for outreach presentations and program delivery.



Nodding Thistle & Spotted Knapweed, HWY 5



Scotch Thistle Infestation Near TNRD/RDNO Border

## INFLUENCING OPERATIONAL POLICIES

Invasive plant management within the TNRD is greatly impacted by the efforts in surrounding jurisdictions as well as policy and management strategies of higher levels of government (provincial and federal). This may include informal and formal mechanisms of communication to surrounding jurisdiction and higher levels of government. The TNIPMC acts as a collective voice escalating concerns around management and/or policy related to invasive plants.

This year, the TNIPMC made recommendation to the TNRD board to raise concerns to Provincial Government leaders about inadequate resources for effective invasive plant management on Crown land. Letters from the TNRD board were sent to the following Provincial Ministers: Honorable Kathrine Conroy (MFLNRORD,) Honorable George Heyman (MOECCS) and Honorable Rob Fleming (MoTI). In addition, there was a virtual meeting about this topic between select TNRD board members and Ministers Conroy and Heyman at the Union of BC Municipalities 2021 fall conference. Both Ministers recognized the need for stable long-term funding for Provincial invasive plant programs.



Thompson-Nicola  
**INVASIVE PLANT**  
management committee



**THOMPSON-NICOLA**  
REGIONAL DISTRICT

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