

Operational Plan for Terrestrial Invasive Plants in the Thompson-Nicola Region

January 2024

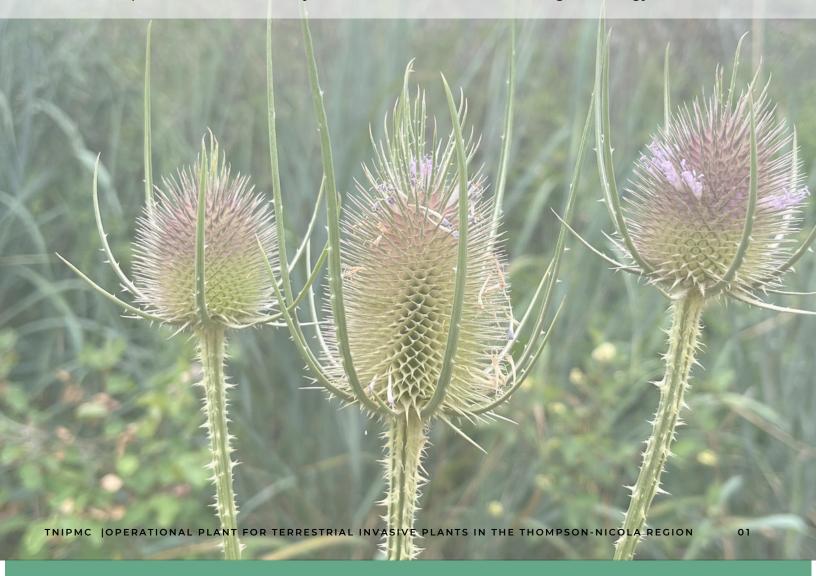
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- Ashli Oe- Spectrum Resource Group
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INTRODUCTION

This regional operational plan acts as a guiding document for invasive plant management throughout the Thompson-Nicola Region and reflects local priorities for invasive plant management.

It provides a common approach to managing invasive plants with a goal of coordinating invasive plant management practices across jurisdictions. This will ensure that common management goals and objectives are being achieved across the region in an effective and efficient manner.

The guidance provided in the plan is applicable to anyone managing invasive plants within the Thompson Nicola Region, including organizations, agencies, groups and individuals. The plan highlights priority invasive plants that have the greatest potential for spread, resulting in severe economic, environmental and/or social impacts.

This plan, coordinated and maintained by the Thompson-Nicola Invasive Plant Management Committee, is a living document and will be updated on an annual basis, or as circumstances warrant, to reflect changes in invasive plant presence in the region.



SCOPE

The plan addresses terrestrial, including riparian, invasive plants within the Thompson- Nicola Regional District (TNRD) boundaries.

The plan excludes native plants, animals and organisms, invasive terrestrial and aquatic animals and aquatic invasive plants within and beyond the TNRD.

WHY CARE?

The Thompson- Nicola Region covers ~45,000km2 of BC's land base that encompasses a variety of ecosystem classes such as Interior Douglas Fir, Montane Spruce, Interior Cedar-Hemlock, Engelmann spruce, Bunchgrass, Sub-boreal Spruce, Ponderosa Pine, and Alpine Tundra. These ecosystems support a rich diversity of plants and wildlife, numerous industries including agriculture, forestry and mining and offers a variety of recreational opportunities for residents and visitors. These resources and values are being threatened by invasive plants:



Agriculture

There are over 83,000 hectares of land being farmed in the region, either for livestock production, fruit and vegetable production and/or other commodities, such as forage and silage. In addition, there are hundreds of thousands of hectares of land being used as rangelands. Impacts of invasive plants on agricultural industry include harboring insects and diseases of crops, reducing crop quality and market opportunities, and decreasing farm income and grazing opportunities.



Forestry

As a provincially recognized forest center, Kamloops and the Central Interior of B.C. account for the second highest concentration of value-added plants, related to forestry, in the province (Venture Kamloops, 2020). Invasive plants may impact forest yields and regeneration success of planted and native trees.





The Thompson-Nicola Region is famous for its vineyards, skiing, golfing, hiking, boating and camping. In 2019, 1.9 M people visited the Kamloops area, spending \$303 M (Venture Kamloops, 2020). Tourism ,and the revenue it generates, can be compromised by invasive plants by decreasing aesthetics, accessibility and usability of many of the resources and services that draw visitors to the region.

Society



Natural areas across the region support a wealth of recreational activities including hunting, fishing, swimming, hiking, bird watching, and mountain biking. These valued areas are being impacted by invasive plants by reducing aesthetics, accessibility and usability of recreational areas. They can also impact human health, property values, and infrastructure and be a financial burden on citizens due to management costs and infrastructure repairs.

ABOUT THE TNIPMC

The Thompson Nicola Invasive Plant Management Committee (TNIPMC) encourages multi-party collaboration on invasive plant management throughout the Thompson-Nicola Regional District (TNRD). The TNIPMC is administered by the TNRD and is comprised of key partners whose values are impacted by invasive plants.



AN INVASIVE PLANT-FREE TNRD



OUR MISSION

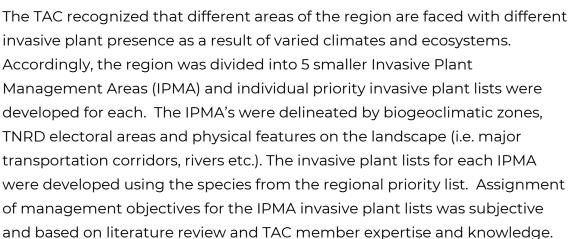
To ensure that agencies, organizations, and the public work together to stop the spread and introduction of invasive plants in the TNRD, through management, education, coordination and communication.



CRITERIA FOR PRIORITIZING INVASIVE SPECIES MANAGEMENT ACTIVITIES

The development of this plan was guided by a Technical Advisory Committee (TAC) that was comprised of experienced land managers representing several perspectives including Provincial and Local governments, and various stewardship groups.

The TAC compiled a working list of 72 invasive plants that was derived from federal, provincial and locally regulated invasive plant species. Additional invasive plants were identified in the region through the Invasive Alien Plant Program reports and TAC expertise. Each of these species went through a risk assessment process that addressed the plants current regional distribution, ability to disperse, biology/reproduction, ecology (preferred habitat), impacts and management feasibility. The plants were placed in their initial categories based on their risk assessment score.



It is important to recognize that there are additional invasive plants in the region that are not included in the priority lists provided. These invasive plants are either outside the scope of this plan OR require more data to be considered a regional priority invasive plant. These additional plants should also be considered during management planning. A list of additional invasive plants within the region are available in Appendix III.











INVASIVE PLANT CATEGORIES & MANAGEMENT OBJECTIVES

The following table lists the invasive plant categories, management objectives and management expectations for the priority invasive species included in this plan. Each priority invasive plant in the region has been assigned to a category based on the outcomes of a risk assessment and current distribution across the region/IPMA.

It is recognized that invasive plant management goals will vary at regional and local scales. It is important to clarify that resource investment may vary between categories for each land manager, depending on their land management objectives.

PREVENT

Early detection of newly arrived invasive species, followed by a wellcoordinated rapid response, will increase the likelihood of eradicating new invasions of plants in this category. Plants within the "Prevent" category have not been confirmed within the Thompson-Nicola Region. These species pose high risk to the province, region and/or IPMA. It is expected that land managers prioritize these species for surveillance and carry out best managemet practices to prevent these plants from establishing on thier lands.. All species within this category should be immediately reported to the TNIPMC who will assist in coordinating an immediate management response:

- Email: invasiveplants@tnrd.ca
- Phone: 1-877-377-8673

treatment is required until the infestation can be deemed **ERADICATE** eradicated. All species within this category should be immediately

- Email: invasiveplants@tnrd.ca
- Phone: 1-877-377-8673.

B CONTROL

Category B species are known to exist in the region/IPMA in limited distribution. If left untreated, these plants have significant potential to spread throughout the region/IPMA. Control to prevent spread can be achieved through annual treatment and monitoring of ALL infestations in the region/IPMA.

C CONTAIN & SITE SPECIFIC CONTROL

Category C species are present in abundance throughout the region/IPMA but they have not yet infested all potential habitats. Eradication of these plants is not likely however management can still take place in areas that are highly valued and/or are relatively invasive free.

The containment areas for select category C species is available in Appendix II. It is expected that land managers control all invasive plants outside of the containment area and may choose to control select infestations within the containment area to protect specific land values.

Land manager managers may choose to create their own containment areas to protect certain values. Similarly, it is expected land managers control all invasive plants outside of these containment area.

D-MONITOR & SITE SPECIFIC CONTROL

Category D species are common and widespread, occupying most or all potential habitats within the region/IPMA. Widespread control of these species is not currently possible unless funding and resources are significantly increased. In this category, management efforts are carried out to prevent spread into un-infested habitat and protect local area land values. It is expected that land managers will monitor the impact of the species on local area land values and carry out control based on specific land management objectives. The use of biological control may be considered where agents are available.







ARE CATEGORY A & B SPECIES MORE IMPORTANT THAN C AND D?

NO! Land managers are encouraged to manage category C and D species to protect their values and/or achieve their specific management goals. For example, Hoary alyssum and Spotted Knapweed are listed in category C and D respectively at a regional scale;



however that DOES NOT mean land managers should make them less of a priority. All land managers, including provincial government agencies, are encouraged to allocate resources to manage category C and D species, if it will help achieve their overall management objectives.

INVASIVE PLANT LISTS

A region wide invasive plant list has been developed to assist managing invasive plants at a regional level. To address the reality that different areas of the region are facing different invasive plant issues, five Invasive Plant Management Areas (IPMAs) have been established, each with their own corresponding priority invasive plant lists. These lists are available in Appendix I.

MONITORING PROGRESS

Tracking the progress of a coordinated invasive plant management effort within the region is a key element to evaluating the overall success of this operational plan.

Recommendations for annual monitoring to address progress includes:

- Reviewing regional priority species and updating regional priority plant list.
- Reviewing priority species for each IPMA and update IPMA priority plant lists.
- Opportunity for all partners/stakeholders to provide input on regional/IMPA priorities and coordinate activities.
- Monitoring eradication efforts to ensure plants reported under this category are eradicated.
- Monitoring containment efforts by reviewing containment areas and adjusting containment as required.
- Tracking and evaluating regional management efforts (i.e. # treatments, area treated etc)

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APPENDIX 1

REGIONAL PRIORITY INVASIVE PLANT LISTS

THOMPSON-NICOLA REGION

- The Thompson Nicola Region includes electoral areas A Wells Gray Country, B Thompson Headwaters, E Bonaparte Plateau, I Blue Sky Country, J Copper Desert Country, L Grasslands, M Beautiful Nicola Valley North, N Beautiful Nicola Valley South, O Lower North Thompson, P Rivers and the Peaks.
- Municipalities within the region include: Ashcroft, Barriere, Cache Creek, Chase, Clearwater, Clinton, Kamloops, Logan Lake, Lytton, Merritt, and Sun Peaks
- Major transportation corridors include Highways 1, 5, 5A, 8, 12, 24, 97, 97C and 97D
- The TNRD borders the following regional districts: Fraser-Fort George, Cariboo, Squamish-Lillooet, Fraser Valley, Central Okanagan, North Okanagan, and Columbia Shuswap

The Thompson - Nicola Region is one of the most biophysically diverse regions in the province. Ecosystems range from the coastal transition zone in the western part of the region (west Fraser) through the interior dry grasslands to the interior temperate rainforest.



Common Name	Latin Name	Management Objective
Bur chervil	Anthriscus caucalis	Prevent
Chameleon plant	Houttuynia cordata	Prevent
Common crupina	Crupina vulgaris	Prevent
Garlic mustard	Alliaria petiolata	Prevent
Giant hogweed	Heracleum mantegazzianum	Prevent
Giant mannagrass/Reed sweetgrass	Glyceria maxima	Prevent
Italian arum	Arum italicum	Prevent
Jointed goatgrass	Aegilops cylindrica	Prevent
Longspine sandbur	Cenchrus longispinus	Prevent
Mouse-ear-hawkweed	Pilosella officinarum	Prevent
North Africa grass	Ventenata dubia	Prevent
Purple nutsedge	Cyperus rotundus	Prevent
Shiny geranium	Geranium lucidum	Prevent
Velvetleaf	Abutilon theophrasti	Prevent
Wild oats	Avena fatua	Prevent
Yellow nutsedge	Cyperus esculentus	Prevent
Black henbane	Hyoscyamus niger	A-Eradicate
Black knapweed	Centaurea nigra	A-Eradicate
Bohemian knotweed	Fallopia x bohemica	A-Eradicate
Brown knapweed	Centaurea jacea	A-Eradicate
Caraway	Carum carvi	A-Eradicate
Carpet burweed	Soliva sessilis	A-Eradicate
Common bugloss	Anchusa officinalis	A-Eradicate
Common cocklebur	Xanthium orientale	A-Eradicate
Cutleaf blackberry	Rubus laciniatus	A-Eradicate
Cypress spurge	Euphorbia cyparissias	A-Eradicate
Dames rocket	Hesperis matronalis	A-Eradicate
Fernleaf Yarrow	Achillea filipendulina	A-Eradicate
Garden yellow loosestrife	Lysimachia vulgaris	A-Eradicate
Giant knotweed	Fallopia sachalinensis	A-Eradicate
Himalayan balsam	Impatiens glandulifera	A-Eradicate
Himalayan blackberry	Rubus armeniacus	A-Eradicate
Himalayan knotweed	Polygonum polystachyum	A-Eradicate
Japanese butterbur	Petasites japonicus	A-Eradicate
Marsh plume thistle	Cirsium palustre	A-Eradicate
Meadow knapweed	Centaurea x moncktonii	A-Eradicate

Myrtle spurge	Euphorbia myrsinities	A-Eradicate
Perennial pepperweed	Lepidium latifolium	A-Eradicate
Persian cornflower	Centaurea dealbata	A-Eradicate
Phragmites		A-Eradicate
Puncturevine	Tribulus terrestris	A-Eradicate
Purple loosestrife	Lythrum salicaria	A-Eradicate
Queen Annes lace	Daucus carota	A-Eradicate
Rush skeletonweed	Chondrilla juncea	A-Eradicate
Scotch broom	Cytisus scoparius	A-Eradicate
Sweet fennel	Foeniculum vulgare	A-Eradicate
Tansy ragwort	Senecio jacobaea	A-Eradicate
Teasel	Dipsacus fullonum	A-Eradicate
Tree of Heaven	Ailanthus altissima	A-Eradicate
Wild 4 O'clock	Mirabilis nyctaginea	A-Eradicate
Wild chervil	Anthriscus sylvestris	A-Eradicate
Wild parsnip	Pastinaca sativa	A-Eradicate
Bighead knapweed	Centaurea macrocephala	B- Control
Hoary cress	Cardaria spp.	B-Control
Japanese knotweed	Fallopia japonica	B-Control
Poison hemlock	Conium maculatum L	B- Control
Scotch thistle	Onopordum acanthium	B-Control
Yellow flag iris	Iris pseudacorus	B-Control
Baby's breath	Gypsophila paniculata	C-Contain & Site Specific Control
Blueweed	Echium vulgare	C-Contain & Site Specific Control
Bulbous bluegrass	Poa bulbosa	C- Contain & Site Specific Control
Common tansy	Tanacetum vulgare	C- Contain & Site Specific Control
Field scabious	Knautia arvensis	C- Contain & Site Specific Control
Hoary alyssum	Berteroa incana	C- Contain & Site Specific Control
Leafy spurge	Euphorbia esula	C- Contain & Site Specific Control
Meadow Goats beard	Tragopogon pratensis	C- Contain & Site Specific Control
Nodding thistle	Carduus nutans	C- Contain & Site Specific Control
Orange hawkweed 1	Hieracium aurantiacum	C- Contain & Site Specific Control
Plumeless thistle	Carduus acanthoides	C- Contain & Site Specific Control

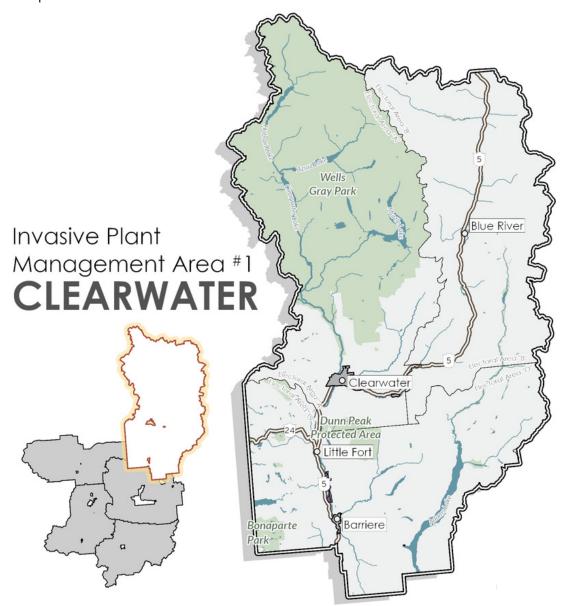
Russian knapweed	Centaurea repens	C- Contain & Site Specific Control
St. Johns wort	Hypericum perforatum	C- Contain & Site Specific Control
Whiplash hawkweed	Hieracium flagellare	C- Contain & Site Specific Control
Yellow bedstraw	Galium verum	C- Contain & Site Specific Control
Bladder campion	Silene cucubalus	D- Monitor & Site Specific Control
Bull thistle	Cirsium vulgare	D- Monitor & Site Specific Control
Bur buttercup	Ranunculus testiculatus	D- Monitor & Site Specific Control
Burdock	Arctium minus	D- Monitor & Site Specific Control
Canada thistle	Cirsium vulgare	D- Monitor & Site Specific Control
Chicory	Cichorium intybus	D- Monitor & Site Specific Control
Chinese boxthorn	Lycium barbarum	D- Monitor & Site Specific Control
Common toadflax	Linaria vulgaris	D- Monitor & Site Specific Control
Dalmatian toadflax	Linaria dalmatica	D- Monitor & Site Specific Control
Diffuse knapweed	Centaurea diffusa	D- Monitor & Site Specific Control
Field bindweed	Convolvulus arvensis	D- Monitor & Site Specific Control
Hounds tongue	Cynoglossum officinale	D- Monitor & Site Specific Control
Mountain bluet	Centaurea montana	D- Monitor & Site Specific Control
Night flowering catchfly	Silene noctiflora	D- Monitor & Site Specific Control
Oxeye daisy	Leucanthemum vulgare	D- Monitor & Site Specific Control
Russian olive	Elaeagnus angustifolia	D- Monitor & Site Specific Control
Scentless chamomile	Matricaria maritima	D- Monitor & Site Specific Control
Spotted knapweed	Centaurea maculosa	D- Monitor & Site Specific Control
Sulphur cinquefoil	Potentilla recta	D- Monitor & Site Specific Control
Western goats beard	Tragopogon dubius	D- Monitor & Site Specific Control
Yellow hawkweed species		D- Monitor & Site Specific Control

Foot Notes:

1. Priority areas for treatment within OH containment area include high elevation areas/ alpine habitat.

IPMA 1- CLEARWATER

- This management area includes TNRD electoral areas A, B and O.
- Municipalities and communities within this IPMA include, but are not limited to: Albreda, Blue River, Avola, Vavenby, Clearwater, Little Fort, and Barriere.
- The management area is comprised of several ecosystem types: Engelmann Spruce-Subalpine Fir, Interior Cedar Hemlock, Interior Douglas Fir, and Montane Spruce. The area is generally wet and cool.
- Major transportation corridors include Highway 5 and 24.
- This IPMA borders the following regional districts: Fraser-Fort George, Columbia Shuswap and Cariboo.



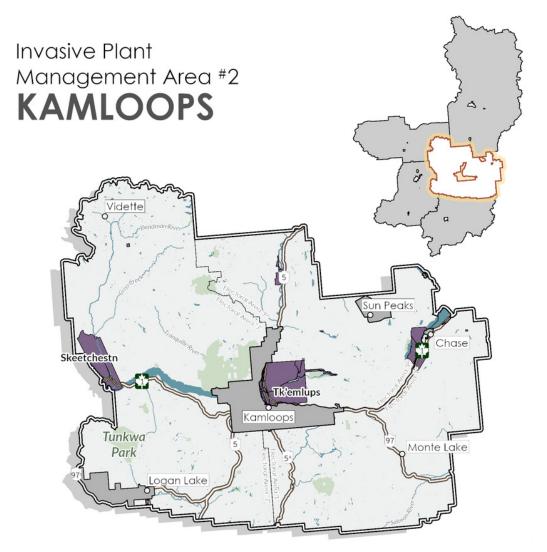
Common Name	Latin Name	Management Objective
Bur chervil	Anthriscus caucalis	Prevent
Chameleon plant	Houttuynia cordata	Prevent
Common crupina	Crupina vulgaris	Prevent
Garlic mustard	Alliaria petiolata	Prevent
Giant hogweed	Heracleum mantegazzianum	Prevent
Giant mannagrass/Reed sweetgrass	Glyceria maxima	Prevent
Italian arum	Arum italicum	Prevent
Jointed goatgrass	Aegilops cylindrica	Prevent
Longspine sandbur	Cenchrus longispinus	Prevent
Mouse-ear-hawkweed	Pilosella officinarum	Prevent
North Africa grass	Ventenata dubia	Prevent
Purple nutsedge	Cyperus rotundus	Prevent
Velvetleaf	Abutilon theophrasti	Prevent
Shiny geranium	Geranium lucidum	Prevent
Wild oats	Avena fatua	Prevent
Yellow nutsedge	Cyperus esculentus	Prevent
Baby's breath	Gypsophila paniculata	A-Eradicate
Bighead knapweed	Centaurea macrocephala	A-Eradicate
Black henbane	Hyoscyamus niger	A-Eradicate
Black knapweed	Centaurea nigra	A-Eradicate
Blueweed	Echium vulgare	A-Eradicate
Bohemian knotweed	Fallopia x bohemica	A-Eradicate
Brown knapweed	Centaurea jacea	A-Eradicate
Bulbous bluegrass	Poa bulbosa	A-Eradicate
Caraway	Carum carvi	A-Eradicate
Carpet burweed	Soliva sessilis	A-Eradicate
Common bugloss	Anchusa officinalis	A-Eradicate
Common cocklebur	Xanthium orientale	A-Eradicate
Cutleaf blackberry	Rubus laciniatus	A-Eradicate
Cypress spurge	Euphorbia cyparissias	A-Eradicate
Dame's rocket	Hesperis matronalis	A-Eradicate

Fernleaf yarrow	Achillea filipendulina	A-Eradicate
Field scabious	Nove to the second seco	
	Knautia arvensis	A-Eradicate
Garden yellow loosestrife	Lysimachia vulgaris	A-Eradicate
Giant knotweed	Fallopia sachalinensis	A-Eradicate
Himalayan balsam	Impatiens glandulifera	A-Eradicate
Himalayan blackberry	Rubus armeniacus	A-Eradicate
Himalayan knotweed	Polygonum polystachyum	A-Eradicate
Hoary cress	Cardaria spp.	A-Eradicate
Japanese butterbur	Petasites japonicus	A-Eradicate
Jointed goatgrass*	Aegilops cylindrica	A-Eradicate
Leafy spurge	Euphorbia esula	A-Eradicate
Marsh plume thistle	Cirsium palustre	A-Eradicate
Meadow knapweed	Centaurea x moncktonii	A-Eradicate
Myrtle spurge	Euphorbia myrsinities	A-Eradicate
Nodding thistle	Carduus nutans	A-Eradicate
Perennial pepperweed	Lepidium latifolium	A-Eradicate
Persian cornflower	Centaurea dealbata	A-Eradicate
Phragmites		A-Eradicate
Poison hemlock	Conium maculatum L	A-Eradicate
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Japanese knotweed	Fallopia japonica	B-Control
Meadow goats beard	Tragopogon pratensis	B-Control
Plumeless thistle	Carduus acanthoides	B-Control
Yellow flag iris	Iris pseudacorus	B-Control
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St. Johns wort	Hypericum perforatum	C- Contain & Site Specific Control
Whiplash hawkweed	Hieracium flagellare	C- Contain & Site Specific Control
Bladder campion	Silene cucubalus	D- Monitor & Site Specific Control
Bull thistle	Cirsium vulgare	D- Monitor & Site Specific Control
Bur buttercup	Ranunculus testiculatus	D- Monitor & Site Specific Control
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Oxeye daisy	Leucanthemum vulgare	D- Monitor & Site Specific Control
Russian olive	Elaeagnus angustifolia	D- Monitor & Site Specific Control
Scentless chamomile	Matricaria maritima	D- Monitor & Site Specific Control
Spotted knapweed	Centaurea maculosa	D- Monitor & Site Specific Control
Sulphur cinquefoil	Potentilla recta	D- Monitor & Site Specific Control
Western goat's beard	Tragopogon dubius	D- Monitor & Site Specific Control
Yellow hawkweed species		D- Monitor & Site Specific Control

IPMA 2- KAMLOOPS

- This management area includes TNRD electoral areas J, P, and L.
- Municipalities and communities within this IPMA include, but are not limited to McLure, Heffley Creek, Sun Peaks, Kamloops, Pritchard, Westwold, Red Lake, Savona and Logan Lake.
- The area is moist and cool north of Kamloops, very hot and dry around Kamloops and dry and cool in the Logan Lake area.
- This management area is comprised of several ecosystem types: Sub-boreal spruce, Engelmann Spruce, Interior Cedar Hemlock, Montane Spruce, Ponderosa Pine, Bunchgrass and Interior Douglas Fir.
- Major transportation corridors include: HWY 1, 97, 5, 5A and 97C.
- This IPMA borders the following regional districts: Columbia-Shuswap and North Okanagan



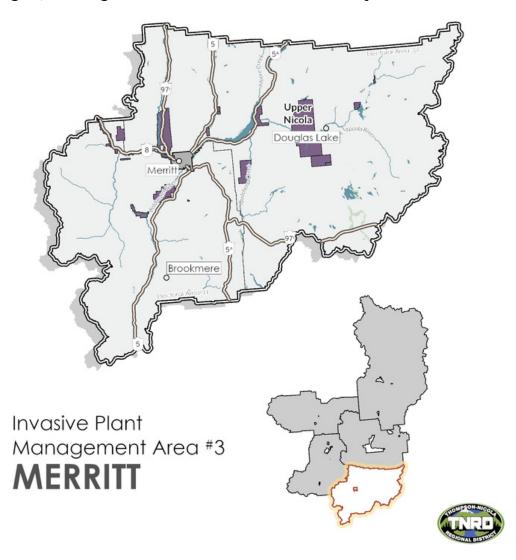
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Garlic mustard	Alliaria petiolata	Prevent
Giant Hogweed	Heracleum mantegazzianum	Prevent
Giant mannagrass/Reed sweetgrass	Glyceria maxima	Prevent
Italian arum	Arum italicum	Prevent
Jointed goatgrass	Aegilops cylindrica	Prevent
Longspine sandbur	Cenchrus longispinus	Prevent
Mouse-ear-hawkweed	Pilosella officinarum	Prevent
North Africa grass	Ventenata dubia	Prevent
Purple nutsedge	Cyperus rotundus	Prevent
Shiny geranium	Geranium lucidum	Prevent
Velvetleaf	Abutilon theophrasti	Prevent
Wild oats	Avena fatua	Prevent
Yellow nutsedge	Cyperus esculentus	Prevent
Bighead knapweed	Centaurea macrocephala	A-Eradicate
Black henbane	Hyoscyamus niger	A-Eradicate
Black knapweed	Centaurea nigra	A-Eradicate
Bohemian knotweed	Fallopia x bohemica	A-Eradicate
Brown knapweed	Centaurea jacea	A-Eradicate
Caraway	Carum carvi	A-Eradicate
Carpet burweed	Soliva sessilis	A-Eradicate
Common bugloss	Anchusa officinalis	A-Eradicate
Common cocklebur	Xanthium orientale	A-Eradicate
Cutleaf blackberry	Rubus laciniatus	A-Eradicate
Cypress spurge	Euphorbia cyparissias	A-Eradicate
Dames rocket	Hesperis matronalis	A-Eradicate
Fernleaf yarrow	Achillea filipendulina	A-Eradicate
Field scabious	Knautia arvensis	A-Eradicate
Garden yellow loosestrife	Lysimachia vulgaris	A-Eradicate

Giant knotweed	Fallopia sachalinensis	A-Eradicate
Himalayan balsam	Impatiens glandulifera	A-Eradicate
Himalayan blackberry	Rubus armeniacus	A-Eradicate
Himalayan knotweed	Polygonum polystachyum	A-Eradicate
Japanese butterbur	Petasites japonicus	A-Eradicate
Marsh plume thistle	Cirsium palustre	A-Eradicate
Meadow knapweed	Centaurea x moncktonii	A-Eradicate
Myrtle spurge	Euphorbia myrsinities	A-Eradicate
Perennial pepperweed	Lepidium latifolium	A-Eradicate
Persian cornflower	Centaurea dealbata	A-Eradicate
Phragmites		A-Eradicate
Puncturevine	Tribulus terrestris	A-Eradicate
Purple loosestrife	Lythrum salicaria	A-Eradicate
Queen Annes lace	Daucus carota	A-Eradicate
Rush skeletonweed	Chondrilla juncea	A-Eradicate
Scotch broom	Cytisus scoparius	A-Eradicate
Sweet fennel	Foeniculum vulgare	A-Eradicate
Tansy ragwort	Senecio jacobaea	A-Eradicate
Teasel	Dipsacus fullonum	A-Eradicate
Tree of Heaven	Ailanthus altissima	A-Eradicate
Whiplash hawkweed	Hieracium flagellare	A-Eradicate
Wild 4 O'clock	Mirabilis nyctaginea	A-Eradicate
Wild chervil	Anthriscus sylvestris	A-Eradicate
Wild parsnip	Pastinaca sativa	A-Eradicate
Blueweed	Echium vulgare	B- Control
Hoary cress	Cardaria spp.	B- Control
Japanese knotweed	Fallopia japonica	B- Control
Meadow goats beard	Tragopogon pratensis	B- Control
Poison hemlock	Conium maculatum L	B- Control
Scotch thistle	Onopordum acanthium	B- Control
Yellow flag iris	Iris pseudacorus	B- Control
Baby's breath	Gypsophila paniculata	C- Contain & Site Specific Control

Bulbous bluegrass	Poa bulbosa	C- Contain & Site Specific Control
Common tansy	Tanacetum vulgare	C- Contain & Site Specific Control
Hoary alyssum	Berteroa incana	C- Contain & Site Specific Control
Leafy spurge	Euphorbia esula	C- Contain & Site Specific Control
Nodding thistle	Carduus nutans	C- Contain & Site Specific Control
Orange hawkweed	Hieracium aurantiacum	C- Contain & Site Specific Control
Plumeless thistle	Carduus acanthoides	C- Contain & Site Specific Control
Russian knapweed	Centaurea repens	C- Contain & Site Specific Control
St. Johns wort	Hypericum perforatum	C- Contain & Site Specific Control
Yellow bedstraw	Galium verum	C- Contain & Site Specific Control
Bladder campion	Silene cucubalus	D- Monitor & Site Specific Control
Bull thistle	Cirsium vulgare	D- Monitor & Site Specific Control
Bur buttercup	Ranunculus testiculatus	D- Monitor & Site Specific Control
Burdock	Arctium minus	D- Monitor & Site Specific Control
Canada thistle	Cirsium vulgare	D- Monitor & Site Specific Control
Chicory	Cichorium intybus	D- Monitor & Site Specific Control
Chinese boxthorn	Lycium barbarum	D- Monitor & Site Specific Control
Common toadflax	Linaria vulgaris	D- Monitor & Site Specific Control
Dalmatian toadflax	Linaria dalmatica	D- Monitor & Site Specific Control
Diffuse knapweed	Centaurea diffusa	D- Monitor & Site Specific Control
Field bindweed	Convolvulus arvensis	D- Monitor & Site Specific Control
Hounds tongue	Cynoglossum officinale	D- Monitor & Site Specific Control
Mountain bluet	Centaurea montana	D- Monitor & Site Specific Control
Night flowering catchfly	Silene noctiflora	D- Monitor & Site Specific Control
Oxeye daisy	Leucanthemum vulgare	D- Monitor & Site Specific Control
Russian olive	Elaeagnus angustifolia	D- Monitor & Site Specific Control
Scentless chamomile	Matricaria maritima	D- Monitor & Site Specific Control
Spotted knapweed	Centaurea maculosa	D- Monitor & Site Specific Control
Sulphur cinquefoil	Potentilla recta	D- Monitor & Site Specific Control
Western goats beard	Tragopogon dubius	D- Monitor & Site Specific Control
Yellow hawkweed species		D- Monitor & Site Specific Control

IMPA 3- MERRITT

- This management area includes TNRD electoral areas M and N.
- Municipalities and communities within this IPMA include, but are not limited to: Merritt, Upper Nicola, Lower Nicola, Quilchena, Douglas Lake, Aspen Grove, Kingsvale, Brookmere and Kane Valley.
- The area is characterized as very hot and dry except for the western perimeter which receives more rainfall and is moist and warm.
- This management area is comprised several ecosystem types: Montane Spruce, Ponderosa Pine, Bunchgrass, Engelmann Spruce and Interior Douglas Fir.
- Major transportation corridors include: HWY 5, 5A, 8 and 97C.
- This IPMA borders the following regional districts: North Okanagan, Central Okanagan, Okanagan-Smilkameen and Fraser Valley.



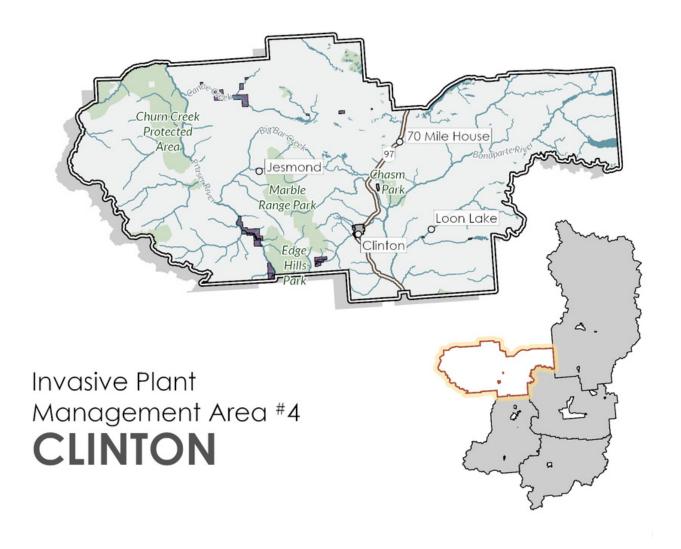
Common Name	Latin Name	Management Objective
Bur chervil	Anthriscus caucalis	Prevent
Chameleon plant	Houttuynia cordata	Prevent
Common crupina	Crupina vulgaris	Prevent
Garlic mustard	Alliaria petiolata	Prevent
Giant hogweed	Heracleum mantegazzianum	Prevent
Giant mannagrass/Reed sweetgrass	Glyceria maxima	Prevent
Italian arum	Arum italicum	Prevent
Jointed goatgrass	Aegilops cylindrica	Prevent
Longspine sandbur	Cenchrus longispinus	Prevent
Mouse-ear-hawkweed	Pilosella officinarum	Prevent
North Africa grass	Ventenata dubia	Prevent
Purple nutsedge	Cyperus rotundus	Prevent
Shiny geranium	Geranium lucidum	Prevent
Velvetleaf	Abutilon theophrasti	Prevent
Wild oats	Avena fatua	Prevent
Yellow nutsedge	Cyperus esculentus	Prevent
Black henbane	Hyoscyamus niger	A-Eradicate
Black knapweed	Centaurea nigra	A-Eradicate
Bohemian knotweed	Fallopia x bohemica	A-Eradicate
Brown knapweed	Centaurea jacea	A-Eradicate
Bulbous bluegrass	Poa bulbosa	A-Eradicate
Caraway	Carum carvi	A-Eradicate
Carpet burweed	Soliva sessilis	A-Eradicate
Common bugloss	Anchusa officinalis	A-Eradicate
Common cocklebur	Xanthium orientale	A-Eradicate
Cutleaf blackberry	Rubus laciniatus	A-Eradicate
Cypress spurge	Euphorbia cyparissias	A-Eradicate
Dame's rocket	Hesperis matronalis	A-Eradicate
Fernleaf yarrow	Achillea filipendulina	A-Eradicate
Garden yellow loosestrife	Lysimachia vulgaris	A-Eradicate
Giant knotweed	Fallopia sachalinensis	A-Eradicate

Himalayan balsam	Impatiens glandulifera	A-Eradicate
Himalayan blackberry	Rubus armeniacus	A-Eradicate
Himalayan knotweed	Polygonum polystachyum	A-Eradicate
Japanese butterbur	Petasites japonicus	A-Eradicate
Japanese knotweed	Fallopia japonica	A-Eradicate
Marsh plume thistle	Cirsium palustre	A-Eradicate
Meadow knapweed	Centaurea x moncktonii	A-Eradicate
Myrtle spurge	Euphorbia myrsinities	A-Eradicate
Orange hawkweed	Hieracium aurantiacum	A-Eradicate
Perennial pepperweed	Lepidium latifolium	A-Eradicate
Persian cornflower	Centaurea dealbata	A-Eradicate
Phragmites		A-Eradicate
Plumeless thistle	Carduus acanthoides	A-Eradicate
Poison hemlock	Conium maculatum L	A-Eradicate
Puncturevine	Tribulus terrestris	A-Eradicate
Purple loosestrife	Lythrum salicaria	A-Eradicate
Queen Annes lace	Daucus carota	A-Eradicate
Rush skeletonweed	Chondrilla juncea	A-Eradicate
Scotch broom	Cytisus scoparius	A-Eradicate
Sweet fennel	Foeniculum vulgare	A-Eradicate
Tansy ragwort	Senecio jacobaea	A-Eradicate
Teasel	Dipsacus fullonum	A-Eradicate
Tree of Heaven	Ailanthus altissima	A-Eradicate
Velvetleaf	Abutilon theophrasti	A-Eradicate
Whiplash hawkweed	Hieracium flagellare	A-Eradicate
Wild 4 O'clock	Mirabilis nyctaginea	A-Eradicate
Wild chervil	Anthriscus sylvestris	A-Eradicate
Wild parsnip	Pastinaca sativa	A-Eradicate
Yellow bedstraw	Galium verum	A-Eradicate
Bighead knapweed	Centaurea macrocephala	B-Control
Common tansy	Tanacetum vulgare	B-Control
Hoary alyssum	Berteroa incana	B-Control

Hoary cress	Cardaria spp.	B-Control
Leafy spurge	Euphorbia esula	B-Control
Meadow goat's beard	Tragopogon pratensis	B-Control
Russian knapweed	Centaurea repens	B-Control
Scotch thistle	Onopordum acanthium	B-Control
St. Johns wort	Hypericum perforatum	B-Control
Yellow flag iris	Iris pseudacorus	B-Control
Baby's breath	Gypsophila paniculata	C- Contain & Site Specific Control
Blueweed	Echium vulgare	C- Contain & Site Specific Control
Field scabious	Knautia arvensis	C- Contain & Site Specific Control
Nodding thistle	Carduus nutans	C- Contain & Site Specific Control
Bladder campion	Silene cucubalus	D- Monitor & Site Specific Control
Bull thistle	Cirsium vulgare	D- Monitor & Site Specific Control
Bur buttercup	Ranunculus testiculatus	D- Monitor & Site Specific Control
Burdock	Arctium minus	D- Monitor & Site Specific Control
Canada thistle	Cirsium vulgare	D- Monitor & Site Specific Control
Chicory	Cichorium intybus	D- Monitor & Site Specific Control
Chinese boxthorn	Lycium barbarum	D- Monitor & Site Specific Control
Common toadflax	Linaria vulgaris	D- Monitor & Site Specific Control
Dalmatian toadflax	Linaria dalmatica	D- Monitor & Site Specific Control
Diffuse knapweed	Centaurea diffusa	D- Monitor & Site Specific Control
Field bindweed	Convolvulus arvensis	D- Monitor & Site Specific Control
Hounds tongue	Cynoglossum officinale	D- Monitor & Site Specific Control
Mountain bluet	Centaurea montana	D- Monitor & Site Specific Control
Night flowering catchfly	Silene noctiflora	D- Monitor & Site Specific Control
Oxeye daisy	Leucanthemum vulgare	D- Monitor & Site Specific Control
Russian olive	Elaeagnus angustifolia	D- Monitor & Site Specific Control
Scentless chamomile	Matricaria maritima	D- Monitor & Site Specific Control
Spotted knapweed	Centaurea maculosa	D- Monitor & Site Specific Control
Sulphur cinquefoil	Potentilla recta	D- Monitor & Site Specific Control
Western goat's beard	Tragopogon dubius	D- Monitor & Site Specific Control
Yellow hawkweed species		D- Monitor & Site Specific Control

IPMA 4- CLINTON

- This management area includes TNRD electoral area E.
- Municipalities and communities within this IPMA include, but are not limited to: Clinton, Kelly Lake, High Bar, Big Bar Creek, Jesmond, Canoe Creek, Loon Lake and 70 Mile House.
- The area is mostly dry cool with moist cool climatic zones on higher plateaus and very hot dry areas along the Fraser River.
- The management area is comprised of several ecosystem types, including but not limited to, Interior Douglas Fir, Sub-boreal Pine-Spruce, Sub-boreal Pine, Montane Spruce, Engelmann Spruce- Subalpine Fir, and Bunchgrass.
- Major transportation corridors include: HWY 24 and 97
- This IMPA borders the following regional districts: Squamish-Lillooet and Cariboo.



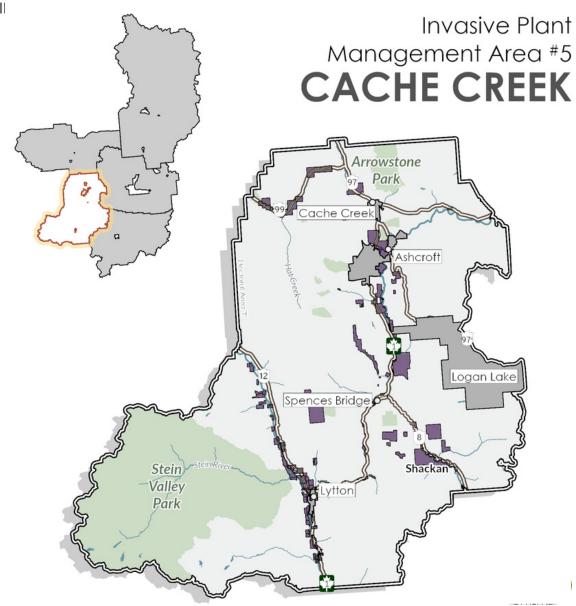
Common Name	Latin Name	Management Objective
Bur chervil	Anthriscus caucalis	Prevent
Chameleon plant	Houttuynia cordata	Prevent
Common crupina	Crupina vulgaris	Prevent
Garlic mustard	Alliaria petiolata	Prevent
Giant hogweed	Heracleum mantegazzianum	Prevent
Giant mannagrass/Reed sweetgrass	Glyceria maxima	Prevent
Italian arum	Arum italicum	Prevent
Jointed goatgrass	Aegilops cylindrica	Prevent
Longspine sandbur	Cenchrus longispinus	Prevent
Mouse-ear-hawkweed	Pilosella officinarum	Prevent
North Africa grass	Ventenata dubia	Prevent
Purple nutsedge	Cyperus rotundus	Prevent
Shiny geranium	Geranium lucidum	Prevent
Velvetleaf	Abutilon theophrasti	Prevent
Wild oats	Avena fatua	Prevent
Yellow nutsedge	Cyperus esculentus	Prevent
Bighead knapweed	Centaurea macrocephala	A-Eradicate
Black henbane	Hyoscyamus niger	A-Eradicate
Black knapweed	Centaurea nigra	A-Eradicate
Bohemian knotweed	Fallopia x bohemica	A-Eradicate
Brown knapweed	Centaurea jacea	A-Eradicate
Caraway	Carum carvi	A-Eradicate
Carpet burweed	Soliva sessilis	A-Eradicate
Common bugloss	Anchusa officinalis	A-Eradicate
Common cocklebur	Xanthium orientale	A-Eradicate
Cutleaf blackberry	Rubus laciniatus	A-Eradicate
Cypress spurge	Euphorbia cyparissias	A-Eradicate
Dame's rocket	Hesperis matronalis	A-Eradicate
Fernleaf yarrow	Achillea filipendulina	A-Eradicate
Field scabious	Knautia arvensis	A-Eradicate
Garden yellow loosestrife	Lysimachia vulgaris	A-Eradicate

Giant knotweed	Fallopia sachalinensis	A-Eradicate
Himalayan balsam	Impatiens glandulifera	A-Eradicate
Himalayan blackberry	Rubus armeniacus	A-Eradicate
Himalayan knotweed	Polygonum polystachyum	A-Eradicate
Hoary cress	Cardaria spp.	A-Eradicate
Japanese butterbur	Petasites japonicus	A-Eradicate
Japanese knotweed	Fallopia japonica	A-Eradicate
Marsh plume thistle	Cirsium palustre	A-Eradicate
Meadow knapweed	Centaurea x moncktonii	A-Eradicate
Mouse-ear-hawkweed	Pilosella officinarum	A-Eradicate
Myrtle spurge	Euphorbia myrsinities	A-Eradicate
Nodding thistle	Carduus nutans	A-Eradicate
Orange hawkweed	Hieracium aurantiacum	A-Eradicate
Perennial pepperweed	Lepidium latifolium	A-Eradicate
Persian cornflower	Centaurea dealbata	A-Eradicate
Phragmites		A-Eradicate
Plumeless thistle	Carduus acanthoides	A-Eradicate
Poison hemlock	Conium maculatum L	A-Eradicate
Puncturevine	Tribulus terrestris	A-Eradicate
Purple loosestrife	Lythrum salicaria	A-Eradicate
Queen Annes lace	Daucus carota	A-Eradicate
Rush skeletonweed	Chondrilla juncea	A-Eradicate
Scotch broom	Cytisus scoparius	A-Eradicate
Scotch thisle	Onopordum acanthium	A-Eradicate
Sweet fennel	Foeniculum vulgare	A-Eradicate
Tansy ragwort	Senecio jacobaea	A-Eradicate
Teasel	Dipsacus fullonum	A-Eradicate
Tree of Heaven	Ailanthus altissima	A-Eradicate
Whiplash hawkweed	Hieracium flagellare	A-Eradicate
Wild 4 O'clock	Mirabilis nyctaginea	A-Eradicate
Wild chervil	Anthriscus sylvestris	A-Eradicate
Wild parsnip	Pastinaca sativa	A-Eradicate

Yellow bedstraw	Galium verum	A-Eradicate
Baby's breath	Gypsophila paniculata	B-Control
Blueweed	Echium vulgare	B-Control
Common tansy	Tanacetum vulgare	B-Control
Hoary alyssum	Berteroa incana	B-Control
St. Johns wort	Hypericum perforatum	B-Control
Yellow flag iris	Iris pseudacorus	B-Control
Bulbous bluegrass	Poa bulbosa	C- Contain & Site Specific Control
Leafy spurge	Euphorbia esula	C- Contain & Site Specific Control
Meadow goats beard	Tragopogon pratensis	C- Contain & Site Specific Control
Russian knapweed	Centaurea repens	C- Contain & Site Specific Control
Bladder campion	Silene cucubalus	D- Monitor & Site Specific Control
Bull thistle	Cirsium vulgare	D- Monitor & Site Specific Control
Bur buttercup	Ranunculus testiculatus	D- Monitor & Site Specific Control
Burdock	Arctium minus	D- Monitor & Site Specific Control
Canada thistle	Cirsium vulgare	D- Monitor & Site Specific Control
Chicory	Cichorium intybus	D- Monitor & Site Specific Control
Chinese boxthorn	Lycium barbarum	D- Monitor & Site Specific Control
Common toadflax	Linaria vulgaris	D- Monitor & Site Specific Control
Dalmatian toadflax	Linaria dalmatica	D- Monitor & Site Specific Control
Diffuse knapweed	Centaurea diffusa	D- Monitor & Site Specific Control
Field bindweed	Convolvulus arvensis	D- Monitor & Site Specific Control
Hounds tongue	Cynoglossum officinale	D- Monitor & Site Specific Control
Mountain bluet	Centaurea montana	D- Monitor & Site Specific Control
Night flowering catchfly	Silene noctiflora	D- Monitor & Site Specific Control
Oxeye daisy	Leucanthemum vulgare	D- Monitor & Site Specific Control
Russian olive	Elaeagnus angustifolia	D- Monitor & Site Specific Control
Scentless chamomile	Matricaria maritima	D- Monitor & Site Specific Control
Spotted knapweed	Centaurea maculosa	D- Monitor & Site Specific Control
Sulphur cinquefoil	Potentilla recta	D- Monitor & Site Specific Control
Western goat's beard	Tragopogon dubius	D- Monitor & Site Specific Control
Yellow hawkweed species		D- Monitor & Site Specific Control

IPMA 5- CACHE CREEK

- This management area includes TNRD electoral area I.
- Municipalities and communities within this IPMA include, but are not limited to:
 Cache Creek, Upper Hat Creek, Ashcroft, Lytton, Kanaka Bar and Falls Creek.
- The area ranges from very dry hot to dry cool.
- This management area is comprised of several ecosystem types, including but not limited to, Ponderosa Pine, Interior Douglas Fir, Engelmann Spruce-Subalpine fir and Montane Spruce.
- Major transportation corridors include: HWY 1, 8, 97, 97C, 99.
- This IPMA borders the following regional districts: Fraser Valley and Squamish-Lill



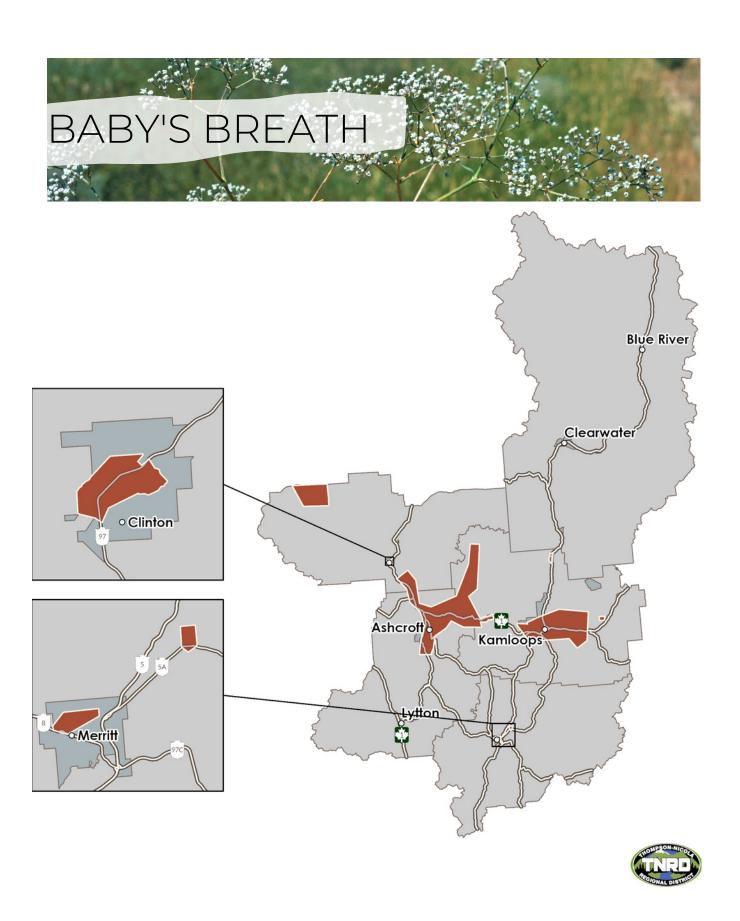
Common Name	Latin Name	Management Objective
Bur chervil	Anthriscus caucalis	Prevent
Chameleon plant	Houttuynia cordata	Prevent
Common crupina	Crupina vulgaris	Prevent
Garlic mustard	Alliaria petiolata	Prevent
Giant hogweed	Heracleum mantegazzianum	Prevent
Giant mannagrass/Reed sweetgrass	Glyceria maxima	Prevent
Italian arum	Arum italicum	Prevent
Jointed goatgrass	Aegilops cylindrica	Prevent
Longspine sandbur	Cenchrus longispinus	Prevent
Mouse-ear-hawkweed	Pilosella officinarum	Prevent
North Africa grass	Ventenata dubia	Prevent
Purple nutsedge	Cyperus rotundus	Prevent
Shiny geranium	Geranium lucidum	Prevent
Velvetleaf	Abutilon theophrasti	Prevent
Wild oats	Avena fatua	Prevent
Yellow nutsedge	Cyperus esculentus	Prevent
Bighead knapweed	Centaurea macrocephala	A-Eradicate
Black henbane	Hyoscyamus niger	A-Eradicate
Black knapweed	Centaurea nigra	A-Eradicate
Bohemian knotweed	Fallopia x bohemica	A-Eradicate
Brown knapweed	Centaurea jacea	A-Eradicate
Bulbous bluegrass	Poa bulbosa	A-Eradicate
Caraway	Carum carvi	A-Eradicate
Carpet burweed	Soliva sessilis	A-Eradicate
Common bugloss	Anchusa officinalis	A-Eradicate
Common cocklebur	Xanthium orientale	A-Eradicate
Cutleaf blackberry	Rubus laciniatus	A-Eradicate
Cypress spurge	Euphorbia cyparissias	A-Eradicate
Dames rocket	Hesperis matronalis	A-Eradicate
Fernleaf yarrow	Achillea filipendulina	A-Eradicate
Field scabious	Knautia arvensis	A-Eradicate

Garden yellow loosestrife	Lysimachia vulgaris	A-Eradicate
Giant knotweed	Fallopia sachalinensis	A-Eradicate
Himalayan balsam	Impatiens glandulifera	A-Eradicate
Himalayan blackberry	Rubus armeniacus	A-Eradicate
Himalayan knotweed	Polygonum polystachyum	A-Eradicate
Japanese butterbur	Petasites japonicus	A-Eradicate
Japanese knotweed	Fallopia japonica	A-Eradicate
Marsh plume thistle	Cirsium palustre	A-Eradicate
Meadow knapweed	Centaurea x moncktonii	A-Eradicate
Myrtle spurge	Euphorbia myrsinities	A-Eradicate
Nodding thistle	Carduus nutans	A-Eradicate
Orange hawkweed	Hieracium aurantiacum	A-Eradicate
Perennial pepperweed	Lepidium latifolium	A-Eradicate
Persian cornflower	Centaurea dealbata	A-Eradicate
Phragmites		A-Eradicate
Plumeless thistle	Carduus acanthoides	A-Eradicate
Poison hemlock	Conium maculatum L	A-Eradicate
Puncturevine	Tribulus terrestris	A-Eradicate
Purple loosestrife	Lythrum salicaria	A-Eradicate
Queen Annes lace	Daucus carota	A-Eradicate
Rush skeletonweed	Chondrilla juncea	A-Eradicate
Scotch broom	Cytisus scoparius	A-Eradicate
Scotch thistle	Onopordum acanthium	A-Eradicate
Sweet fennel	Foeniculum vulgare	A-Eradicate
Tansy ragwort	Senecio jacobaea	A-Eradicate
Teasel	Dipsacus fullonum	A-Eradicate
Tree of Heaven	Ailanthus altissima	A-Eradicate
Whiplash hawkweed	Hieracium flagellare	A-Eradicate
Wild 4 O'clock	Mirabilis nyctaginea	A-Eradicate
Wild chervil	Anthriscus sylvestris	A-Eradicate
Wild parsnip	Pastinaca sativa	A-Eradicate
Yellow bedstraw	Galium verum	A-Eradicate

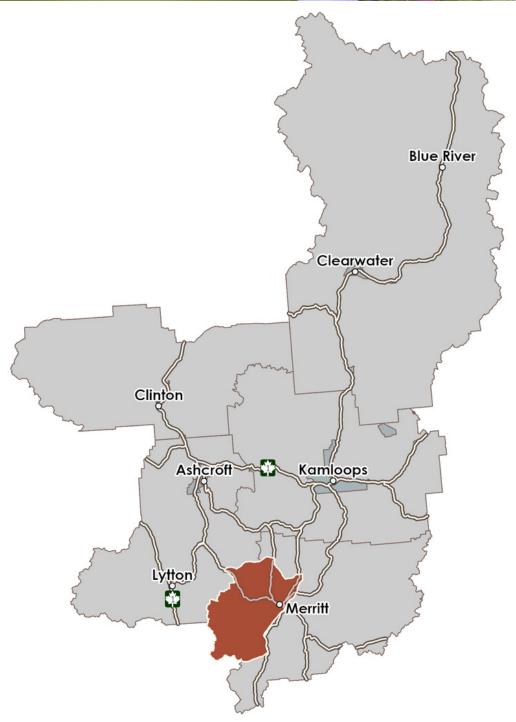
Common tansy	Tanacetum vulgare	B-Control
Hoary alyssum	Berteroa incana	B-Control
Hoary cress	Cardaria spp.	B-Control
St. Johns wort	Hypericum perforatum	B-Control
Yellow flag iris	Iris pseudacorus	B-Control
Baby's breath	Gypsophila paniculata	C- Contain & Site Specific Control
Blueweed	Echium vulgare	C- Contain & Site Specific Control
Leafy spurge	Euphorbia esula	C- Contain & Site Specific Control
Meadow goat's beard	Tragopogon pratensis	C- Contain & Site Specific Control
Russian knapweed	Centaurea repens	C- Contain & Site Specific Control
Bladder campion	Silene cucubalus	D- Monitor & Site Specific Control
Bull thistle	Cirsium vulgare	D- Monitor & Site Specific Control
Bur buttercup	Ranunculus testiculatus	D- Monitor & Site Specific Control
Burdock	Arctium minus	D- Monitor & Site Specific Control
Canada thistle	Cirsium vulgare	D- Monitor & Site Specific Control
Chicory	Cichorium intybus	D- Monitor & Site Specific Control
Chinese boxthorn	Lycium barbarum	D- Monitor & Site Specific Control
Common toadflax	Linaria vulgaris	D- Monitor & Site Specific Control
Dalmatian toadflax	Linaria dalmatica	D- Monitor & Site Specific Control
Diffuse knapweed	Centaurea diffusa	D- Monitor & Site Specific Control
Field bindweed	Convolvulus arvensis	D- Monitor & Site Specific Control
Hounds tongue	Cynoglossum officinale	D- Monitor & Site Specific Control
Mountain bluet	Centaurea montana	D- Monitor & Site Specific Control
Night flowering catchfly	Silene noctiflora	D- Monitor & Site Specific Control
Oxeye daisy	Leucanthemum vulgare	D- Monitor & Site Specific Control
Russian olive	Elaeagnus angustifolia	D- Monitor & Site Specific Control
Scentless chamomile	Matricaria maritima	D- Monitor & Site Specific Control
Spotted knapweed	Centaurea maculosa	D- Monitor & Site Specific Control
Sulphur cinquefoil	Potentilla recta	D- Monitor & Site Specific Control
Western goat's beard	Tragopogon dubius	D- Monitor & Site Specific Control
Yellow hawkweed species		D- Monitor & Site Specific Control

APPENDIX II

REGIONAL CONTAINMENT AREAS

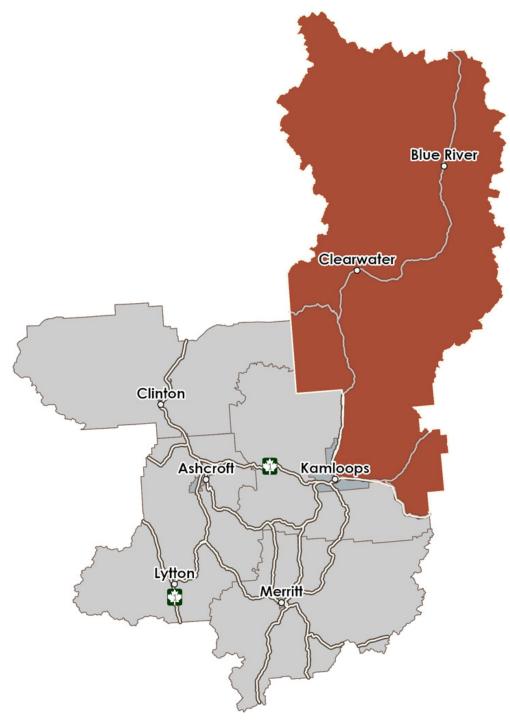






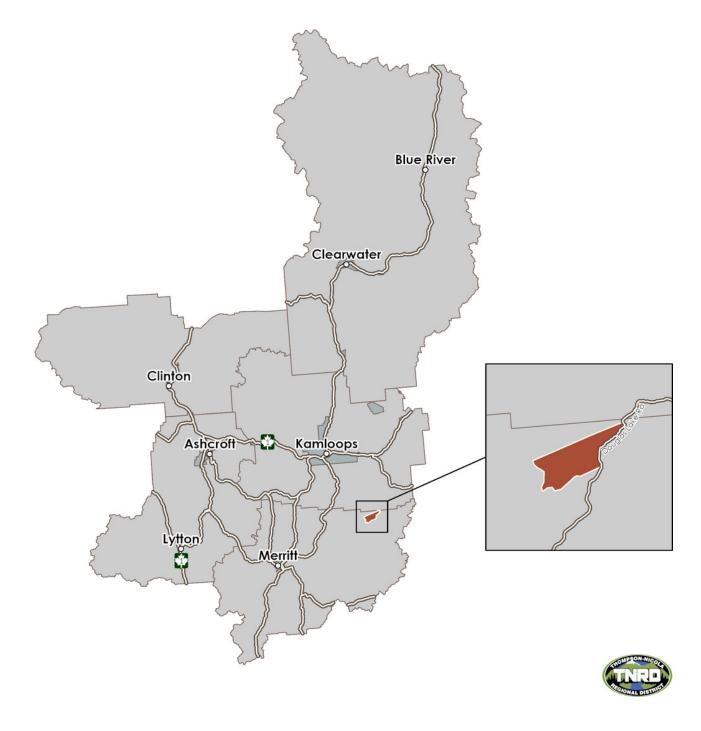




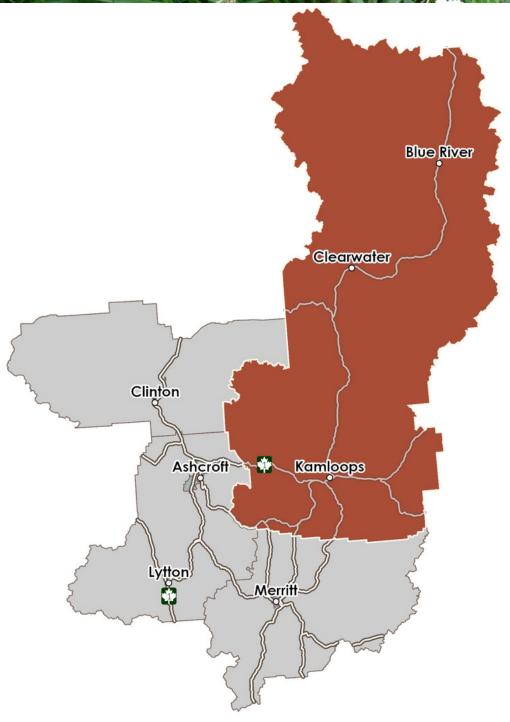






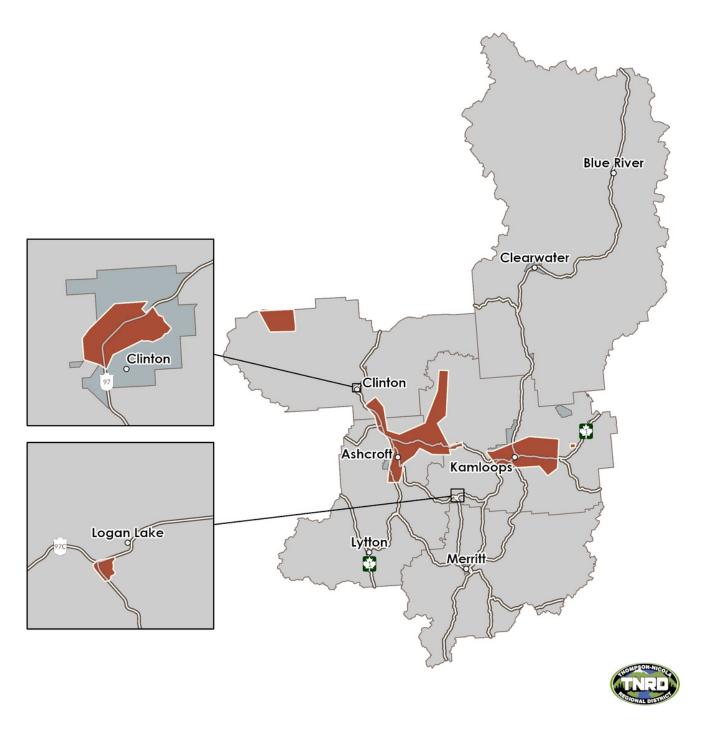




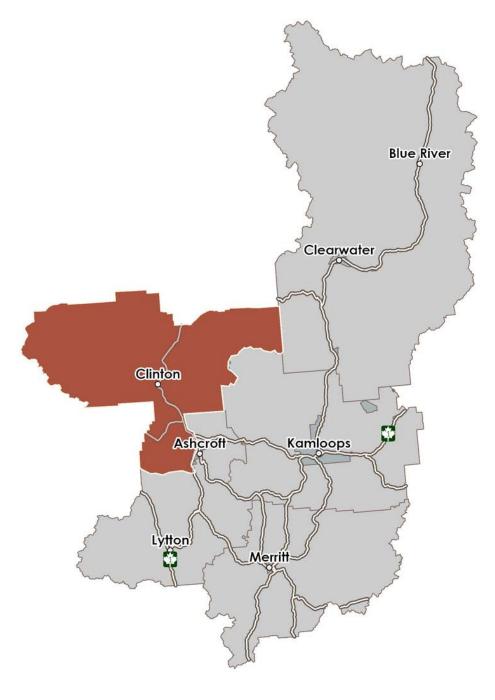






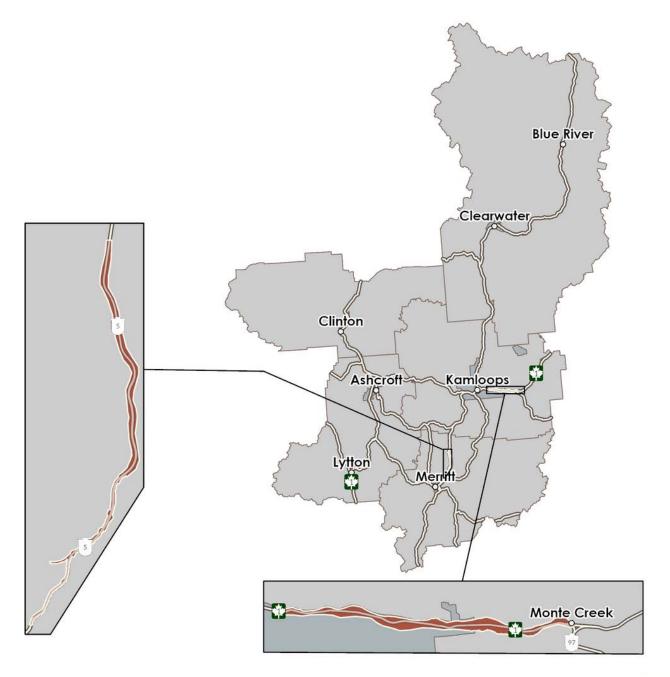






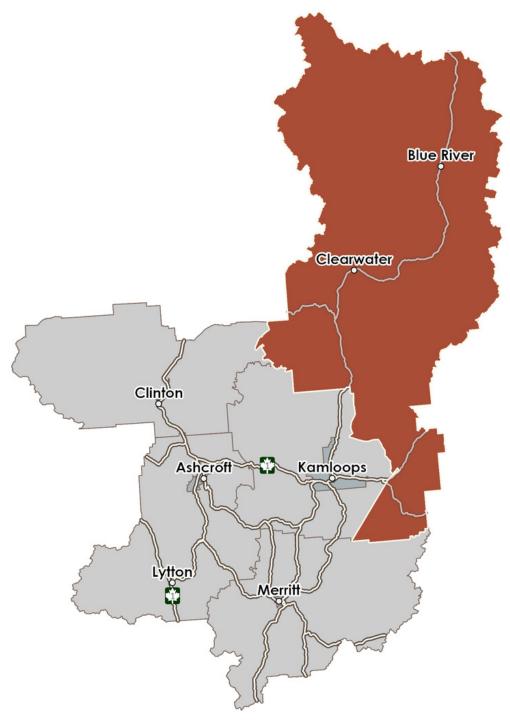




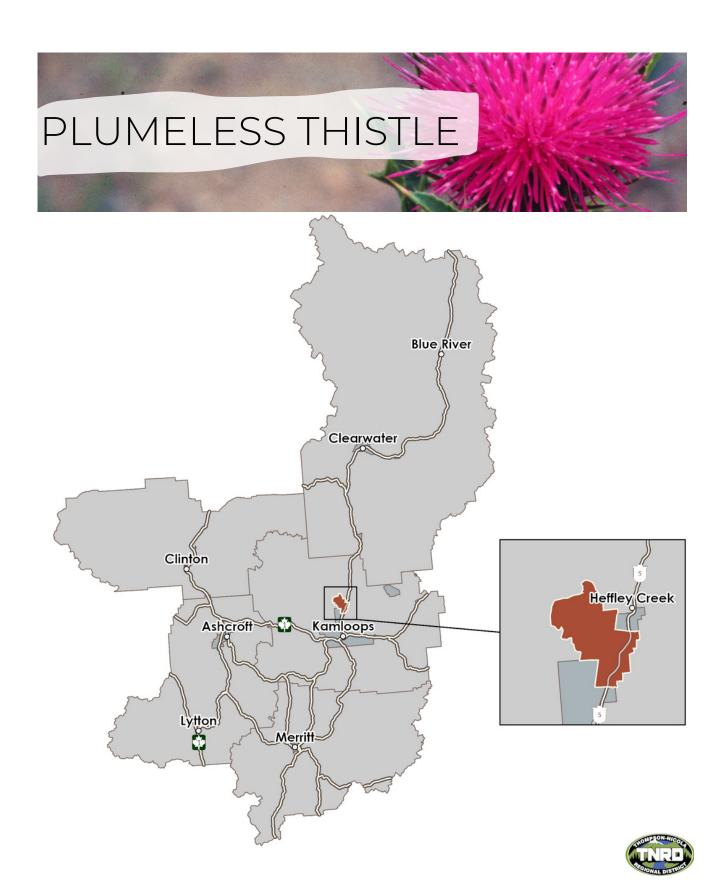




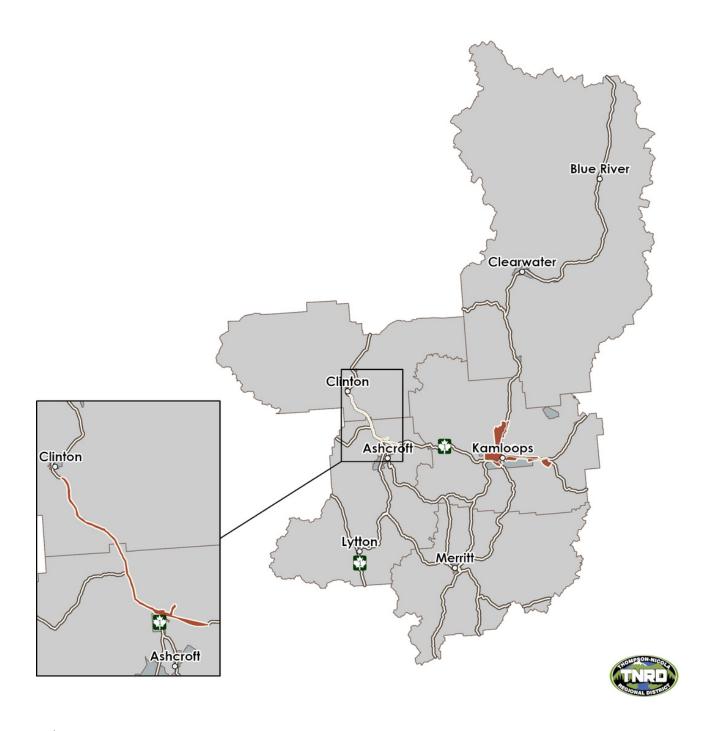




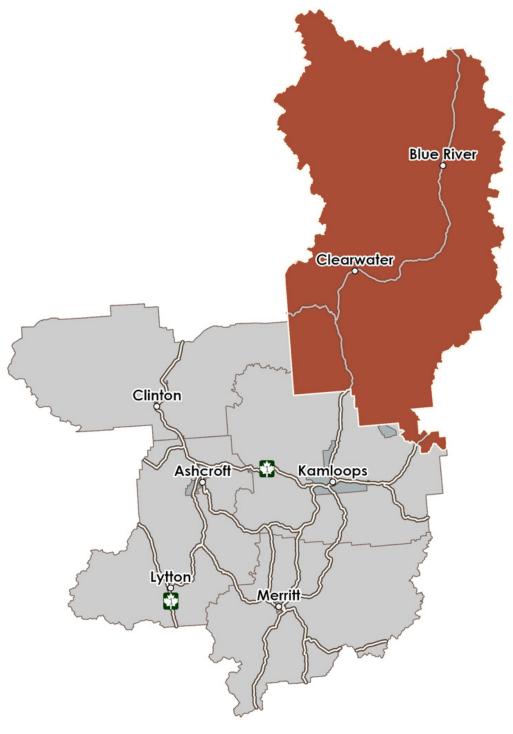




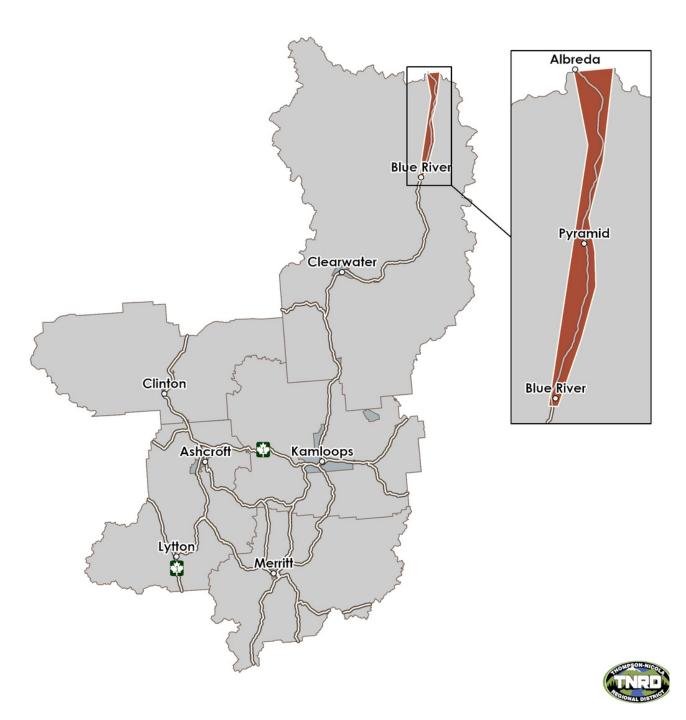




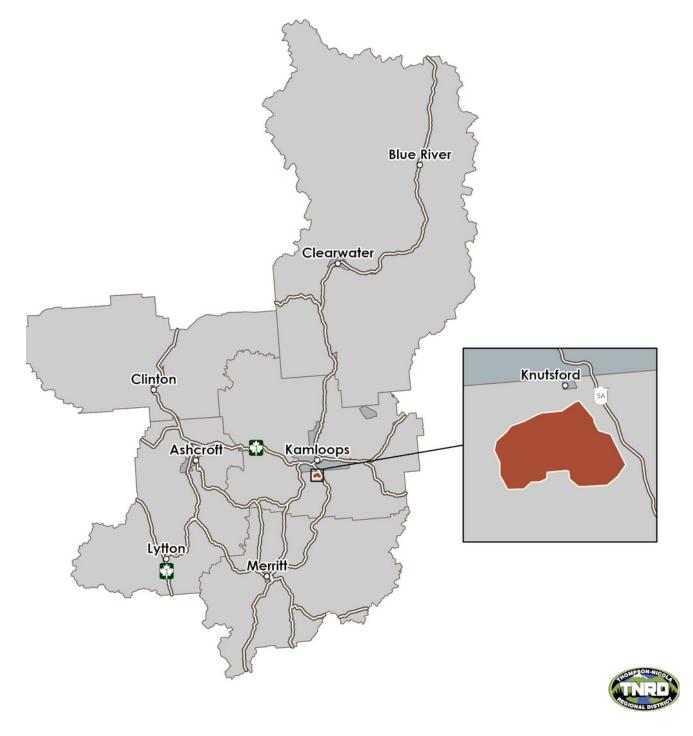












APPENDIX III

Additional Invasive Plants in the ThompsonNicola Region

Common Name	Latin Name	Status
Alfalfa	Medicago sativa	Widespread
American Black Nightshade	Solanum americanum	More inventory required
American elm*	Ulmus americana	More inventory required
Annual Hawksbeard	Crepus tectorum	Widespread, low impact
Annual Sow thistle	Sonchus oleraceus	Low impact
Bachelors Button	Centaurea cyanus	Low impact
Bittersweet nightshade	Solanum dulcamara	More inventory required
Black cherry*	Prunus serotine	More inventory required
Black locust	Robinia pseudoacacia	More inventory required
Black Nightshade	Solanum nigrum	More inventory required
Blue Flax	Linum perenne	More inventory required
Bouncing-bett	Saponaria officianalis	Limited distribution, low impact
Buffalo bur	Solanum rostratum	More inventory required
Bulbous bluegrass	Poa bulbosa	More inventory required
Cheat grass	Bromus tectorum	Widespread
Cherry-laurel*	Prunus laurocerasus	More inventory required
Chinaberry*	Melia azedarach	More inventory required
Chinese Elm*	Ulmus parvifolia	More inventory required
Cluster pine or Maritime pine*	Pinus pinaster Aiton	More inventory required
Common comfrey	Symphytum officinale	Limited distribution, low impact
Common Dodder	Cuscuta epithymum	More inventory required
Common Evening Primrose	oenothera biennis	More inventory required
Common hawthorn*	Crataegus monogyna	More inventory required
Common Mallow	Malva neglecta	More inventory required
Common Reed	Phragmites australis	More inventory required
Common Reed	Campanula rapunculoides	Limited distribution
Common Storks Bill	Erodium cicutarium	More inventory required
Creeping buttercup	Ranunculus repens	Widespread, low impact
Curled Dock	Rumex crispus	Widespread, low impact
Cut-leaved nightshade	Solanum triflorum	More inventory required
Eastern Nightshade	Solanum emulans	More inventory required
English holly	llex aquifolium	Not likely to occur in region
English Ivy	Hedera helix	Not likely to occur in region

^{*} Species not known to occur within the Thompson-Nicola Region

English or Common elm*	Ulmus procera	More inventory required		
European hawkweed	Hieracium lachenalii	Widespread		
Eyebright	Euphrasia nemorosa	More inventory required		
February Daphne	Daphne mezereum	More inventory required		
German madwort	Asperugo procumbens	Widespread		
Golden chain tree*	Laburnum anagyroides	More inventory required		
Golden clematis	Clematis tangutica	More inventory required		
Golden Willow*	Salix alba 'Vitellina'	More inventory required		
Goldmoss stonecrop	Sedum acre	More inventory required		
Gorse	Ulex europaeus	More inventory required		
Green Foxtail	Setaria viridis	More inventory required		
Groundsel	Senecio vulgaris	More inventory required		
Hairy cat's ear	Hypochaeris radicata	More inventory required		
Hairy nightshade	Solanum physalifolium	More inventory required		
Hedge false bindweed	Calystegia sepium	Widespread, low impact		
Japanese raisin tree*	Hovenia dulcis	More inventory required		
King Devil Hawkweed	Hieracium floribundum	More inventory required		
Kochia	Kochia scoparia	Widespread, low impact		
Lens Podded Hoary Cress	Cardaria chalepensis	More inventory required		
Lens Podded Hoary Cress	Ranunculus acris	More inventory required		
Mullein	Verbascum thapsus	Widespread, low impact		
Norway maple*	Acer platanoides	Widespread		
Perennial Sow thistle	Sonchus arvensis	Widespread, low impact		
Princess tree or Royal Paulownia	Paulownia tomentosa	Widespread		
Reed Canary Grass	Phalaris arundinacea	Widespread		
Round Leaved Mallow	Malva pusilla	More inventory required		
Russian Thistle	Elaeagnus angustifolia	Widespread, low impact		
Russian Thistle	Salsola tragus	Widespread		
Sheep Sorrel	Rumex acetosella	More inventory required		
Siberian elm	Ulmus pumila	More inventory required		
Squarrose knapweed	Centaurea virgata	More inventory required		
Staghorn sumac	Rhus typhina	More inventory required		
Tamarisk	Tamarix ramosissima	More inventory required		

^{*} Species not known to occur within the Thompson-Nicola Region

White Cockle	Silene latifolia	More inventory required	
White poplar*	Populus alba	More inventory required	
White Sweet clover	Melilotus albus	Widespread	
Wild Buckwheat	?	More inventory required	
Wild Mustard	Tribulus terrestris	Widespread, low impact	
Wormwood	Artemisia absinthium	Widespread, low impact	
Wych or Scots Elm*	Ulmus glabra	More inventory required	
Yellow chamomile/Golden Marguerite	Cota tinctoria	More inventory required	

^{*} Species not known to occur within the Thompson-Nicola Region

APPENDIX IV

Priority Invasive Plants in the Thompson-Nicola Region

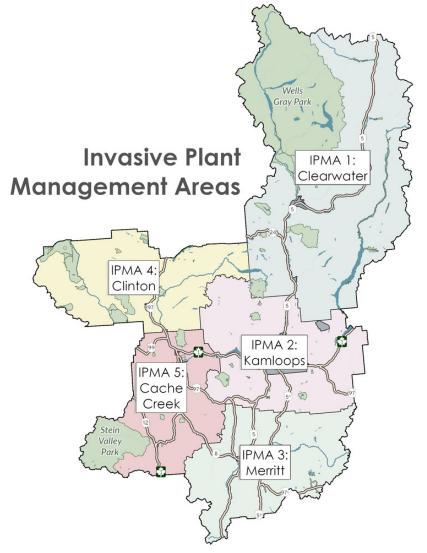
Printable Summary

OPERATIONAL PLAN FOR INVASIVE PLANT MANAGEMENT IN THE THOMPSON-NICOLA REGION



The Operational Plan For Invasive Plant Management in the Thompson-Nicola Region, as a tool to enhance cross jurisdiction collaboration and coordination of invasive plants within the region.

The following information is a summary of the plan, which was developed to enhance cross jurisdiction coordination for invasive plant management within the Thompson-Nicola Region.







The following table lists the invasive plant categories, management objectives and management expectations for the priority invasive species included in this plan. Each priority invasive plant in the region has been assigned to a category based on the outcomes of a risk assessment and current distribution across the region/IPMA.

It is recognized that invasive plant management goals will vary at regional and local scales. It is important to clarify that resource investment may vary between categories for each land manager, depending on their land management objectives.

PRFVFNT

Early detection of newly arrived invasive species, followed by a wellcoordinated rapid response, will increase the likelihood of eradicating new invasions of plants in this category. Plants within the "Prevent" category have not been confirmed within the Thompson-Nicola Region. These species pose high risk to the province, region and/or IPMA. It is expected that land managers prioritize these species for surveillance and carry out best management practices to prevent these plants from establishing on their lands. All species within this category should be immediately reported to the TNIPMC who will assist in coordinating an immediate management response:

• Email: invasiveplants@tnrd.ca

• Phone: 1-877-377-8673

Plants listed in this category are are present in very limited treatment is required until the infestation can be deemed **ERADICATE** eradicated. All species within this category should be immediately management response:

• Email: invasiveplants@tnrd.ca

• Phone: 1-877-377-8673

INVASIVE PLANT CATEGORIES & MANAGEMENT OBJECTIVES



B CONTROL

Category B species are known to exist in the region/IPMA in limited distribution. If left untreated, these plants have significant potential to spread throughout the region/IPMA. Control to prevent spread can be achieved through annual treatment and monitoring of ALL infestations in the region/IPMA.

C CONTAIN & SITE SPECIFIC CONTROL

Category C species are present in abundance throughout the region/IPMA but they have not yet infested all potential habitats. Eradication of these plants is not likely however management can still take place in areas that are highly valued and/or are relatively invasive free.

The containment areas for select category C species is available in Appendix II. It is expected that land managers control all invasive plants outside of the containment area and may choose to control select infestations within the containment area to protect specific land values.

Land manager managers may choose to create their own containment areas to protect certain values. Similarly, it is expected land managers control all invasive plants outside of these containment area.

D-MONITOR & SITE SPECIFIC CONTROL

Category D species are common and widespread, occupying most or all potential habitats within the region/IPMA. Widespread control of these species is not currently possible unless funding and resources are significantly increased. In this category, management efforts are carried out to prevent spread into un-infested habitat and protect local area land values. It is expected that land managers will monitor the impact of the species on local area land values and carry out control based on specific land management objectives. The use of biological control may be considered where agents are available.

PRIORITY INVASIVE PLANTS BY INVASIVE PLANT MANAGEMENT AREA IN THE THOMPSON- NICOLA REGION

C A A A A D B A A C D D D D D P	C B A A D C A A D D D P	B A A A D B A A C D D D	C A A D C A A D D D D
A A A B B A A C D D D D D D	A A D C A A D D D D	A A D B A C D D D	A A D C A A A D
A D B A A C D D D D D	A D C A A D D D	A D B A A C D D	A D C A A D D
D B A A C D D D D P	D C A A A D D D	D B A C D D	D C A A A D
B A A A C C D D D D D D D D D D D D D D D	A A A D D	B A A C C D D	C A A A D
A A C D D D D	A A A D D	A A C D D	A A A D
A C D D D D	A A D D	A C D D	A A D
C D D D	A D D	C D	A D
D D P D	D D	D D	D
D P	D	D	570
P D			D
D	Р		
		Р	Р
100	D	D	D
D	D	D	D
A	Α	Α	Α
Α	Α	Α	А
Р	Р	Р	Р
D	D	D	D
D	D	D	D
А	Α	Α	A
А	Α	Α	А
P	Р	P	Р
С	В	В	В
D	D	D	D
А	Α	А	А
А	Α	А	А
D	D	D	D
А	Α	Α	А
D	D	D	D
А	Α	А	А
D	D	D	D
Α	С	A	А
Α	Α	Α	А
P	Р	Р	Р
P	Р	Р	Р
Α	Α	А	А
P	Р	Р	Р
Α	Α	Α	Α
Α	Α	Α	Α
А	А	Α	Α
С	В	В	В
	В	Α	В
	D A A A D A A A P P A A A A A A A A A A	D D D D D D D D D D D D D D D D D D D	D D D D D D D D D D D D D D D D D D D

Hounds tongue	Cynoglossum officinale	D	D	D	D	D	D
Italian arum	Arum italicum	Р	Р	Р	Р	Р	Р
Japanese butterbur	Petasites iaponicus	Α	Α	Α	Α	Α	А
Purple nutsedge	Cyperus rotundus	Р	Р	P	Р	Р	Р
Queen Annes lace	Daucus carota	Α	А	А	Α	Α	А
Rush skeletonweed	Chondrilla juncea	Α	А	А	Α	Α	А
Russian knapweed	Centaurea repens	С	А	С	В	С	С
Russian olive	Elaeagnus angustifolia	D	D	D	D	D	D
Scentless chamomile	Matricaria maritima	D	D	D	D	D	D
Scotch broom	Cytisus scoparius	A	А	Α	Α	Α	Α
Scotch thisle	Onopordum acanthium	В	А	В	В	Α	Α
Shiny geranium	Geranium lucidum	Р	Р	P	Р	Р	Р
Spotted knapweed	Centaurea maculosa	D	D	D	D	D	D
St. Johns wort	Hypericum perforatum	С	С	С	В	В	В
Sulphur cinquefoil	Potentilla recta	D	D	D	D	D	D
Sweet fennel	Foeniculum vulgare	Α	Α	Α	Α	Α	Α
Tansy ragwort	Senecio jacobaea	Α	А	Α	Α	Α	Α
Teasel	Dipsacus fullonum	Α	А	А	Α	Α	Α
Tree of Heaven	Ailanthus altissima	Α	Α	Α	Α	Α	Α
Velvetleaf	Abutilon theophrasti	Α	А	Α	Α	.A	Α
Western goat's beard	Tragopogon dubius	D	D	D	D	D	D
Whiplash hawkweed	Hieracium flagellare	С	С	Α	Α	Α	Α
Wild 4 O'clock	Mirabilis nyctaginea	A	А	Α	Α	А	А
Wild chervil	Anthriscus sylvestris	A	А	А	Α	Α	А
Wild oats	Avena fatua	Р	Р	Р	Р	Р	Р
Wild parsnip	Pastinaca sativa	А	А	Α	А	Α	Α
Yellow bedstraw	Galium verum	С	A	С	Α	А	А
Yellow flag iris	Iris pseudacorus	В	В	В	В	В	В
Yellow hawkweed species		D	D	D	D	D	D
Yellow nutsedge	Cyperus esculentus	Р	Р	Р	Р	Р	Р

REGIONAL CONTAINMENT AREAS

