

# **Manning Park Invasive Plant Inventory Summary**

**Ministry of Water, Land and Air Protection  
Ecosystem Stewardship  
Okanagan Region**

Compiled by:

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## **Overview**

EC Manning Park boasts a unique combination of cultural, conservation and wildlife values and encompasses the transition area between the wet coastal ranges and the dry interior plateau. For these reasons, as well as the limited distribution of invasive plants, it is critical to implement effective, proactive invasive plant control and monitoring strategies while expanding inventory boundaries. In addition, the potential risk of invasive plant seeds and plant parts being transported is great as there will be ongoing fuel reduction projects occurring within the inventory areas.

An Invasive Plant Inventory was completed on August 9 and 10, 2004 by Crystal Klym (Invasive Plant Program Technician), Kirk Illingworth (Area Ranger), Jackie Zinger (Ranger) and Kerry Hinds (Ranger).

Specific areas were prioritized for Invasive Plant Inventory due to time constraints and the size of the Park. These areas were selected based on high use, disturbance and risk of Invasive Plant transportation due to vectors (humans, wildlife, vehicles, etc). Areas inventoried include:

- Highway 3 from Manning Park Resort turnoff to the East Gate.
- Blackwell Road from Highway 3 to the Telus microwave tower.
- Gibson Pass Road from Manning Park Resort to the gate which restricts summer vehicle access to the ski hill.
- All pullouts and campgrounds between Manning Park Resort and the East Gate.
- High use trails (assessed to a minimum 250 meters if no invasive plants were observed) and horse corral area.
- The Manning Park Resort residential area and contractor maintenance area.


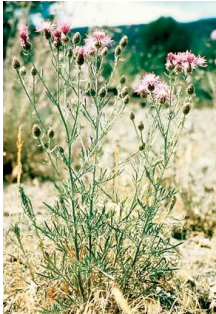


Invasive plant infestations were observed to be restricted to roadsides, pullouts and campgrounds. Upon completion of the Invasive Plant Inventories, it was concluded that mechanical control on identified invasive plants be started immediately (prior to fall seed set) and followed up annually. In addition, potential biological control release sites were identified for spotted knapweed and St.John's-wort. Additional inventories are recommended on trails throughout the park and from Manning Park Resort to the West Gate.

## **Invasive Plant Inventory Procedures**

Invasive plant inventories were completed to Field Data Capture Criteria standards and Pest Management Plan #671-0003-2002/2007. Updated Ministry of Forests' field forms (Site & Invasive Plant Inventory Record) were used instead of the forms provided in the Field Data Capture Criteria document.

# Invasive Plant Inventory Results

## *Invasive Plant Species*

<p><b>St. John's Wort</b> occurs throughout Manning Park and is recommended for biological control in 2004/2005. A release site was selected on the lower section of Blackwell Road where a dense, continuous distribution of St. John's-Wort occurs.</p>	
<p><b>Spotted knapweed</b> occurs continuously, with a few breaks in distribution, along Highway 3 (including Blowdown pullout). Sporadically occurring patches and individuals occur on Blackwell Road, Bonnevier trailhead (behind the East Gate bear), McDermont Meadows (decommissioned group site), Coldspring Campground and Mule Deer Campground.</p>	
<p><b>Canada thistle</b> occurs continuously, with a few breaks in distribution, along Highway 3 and Gibson Pass Road. Sporadically occurring patches and individuals occur on Blackwell Road, Bonnevier trailhead, McDermont Meadows, Hampton Campground, Mule Deer Campground and the Manning Park Resort residential area.</p>	
<p><b>Oxeye daisy</b> occurs continuously, with a few breaks in distribution, along the lower portion of Blackwell Road. Isolated patches occur on Boyd Meadows trail, McDermont Meadows, Manning Park Resort residential area and Telus microwave tower (this infestation was removed; however, it is critical to ensure that it is monitored and controlled annually).</p>	

**Bull thistle** occurs sporadically along Highway 3, Gibson Pass Road and Blackwell Road. Bull thistle individuals also occur in Mule Deer Campsite, McDermont Meadows, Coldspring Campground and around Manning Park Resort.



A single patch of **yellow toadflax** occurs at the pullout between the Similkameen/Windy Joe trailhead and the bridge on Gibson Pass Road



Three patches of **Dalmatian toadflax** occur within the inventoried area of Manning Park: 1) Visitor's Centre 2) Blackwell Road 3) McDermont Meadows.



# Invasive Plant Management Recommendations

## Mechanical Control

The following table details invasive plant infestation locations and mechanical control strategies specific to each invasive plant species. Crew days are estimated based on an eight-hour day for one individual to complete the recommended treatment.

EC Manning PP Invasive Plant Mechanical Control Summary Updated November 09, 2004				
Location of Infestation	Invasive Plant Species	Control Method	Involvement	Crew Days*
<b>Blackwell Road</b> from UTM: 10. 662779E. 5438049N to, and including, the Telus microwave tower  Note: Oxeye daisy and common tansy were pulled on August 10 at the Telus microwave tower	Canada thistle	Cut plants at base prior to seed set; bag and remove from site - <b>Completed</b>	MWLAP	0.75
	St. John's-wort	Hand pull plants ensuring that all roots are removed; bag and remove from site - <b>Completed</b>	MWLAP	
	Common tansy	Hand pull plants ensuring that all roots are removed; bag and remove from site	MWLAP	
<b>Gibson Pass Road</b> from Highway 3 to the summer gate restricting vehicle access to the ski hill	Canada thistle	Weed whack patches along road right-of-way prior to seed - <b>Completed</b>	MoT	2
	Yellow toadflax	Dig, removing all root parts; bag and remove from site - <b>Completed</b>	MWLAP	
<b>Gibson Pass Road:</b> pullout between Windy Joe/Similkameen trailhead and bridge	Canada thistle	Weed whack patches prior to seed set - <b>Completed</b>	MWLAP	2.5
	Common tansy	Weed whack patches prior to seed set within pullout and down slope towards river	MWLAP	
<b>Blowdown</b> pullout	Canada thistle	Weed whack patches prior to seed set within pullout and down slope towards river	MWLAP	2.5
	Bull thistle	Weed whack prior to seed set	MWLAP	
	Canada thistle	Weed whack around campsite #56	MWLAP	
<b>Hampton Campground</b> in identified areas	Canada thistle	Weed whack around campsite #93	MWLAP	2.5
	Canada thistle	Weed whack around campsite #9	MWLAP	
<b>Mule Deer Campground</b> in identified areas	Common tansy	Hand pull plants around campsite #43; ensure that all roots are removed	MWLAP	2.5
	Bull thistle	Weed whack by outhouses	MWLAP	
	Canada thistle	Weed whack prior to seed set	MWLAP	
<b>McDermont Meadows:</b> old road and decommissioned group site	Bull thistle	Weed whack prior to seed set	MWLAP	2.5
	Spotted knapweed	Hand pull plants; ensure that taproot is removed and plants are pulled prior to seed set	MWLAP	
<b>Coldspring Campground:</b> in opening between entrance and outhouses	St. John's-Wort	Dig, removing all root parts prior to seed set	MWLAP	2.5
	Spotted knapweed	Hand pull plants ensuring that all roots are removed	MWLAP	
	Canada thistle	Cut plants at base prior to seed set	MWLAP	
<b>Residential Area:</b> around houses at UTM: 10. 662214E. 5436839N	Canada thistle	Weed whack prior to seed set	MPResort	0.5
	Hound's tongue	Dig and bag - <b>High Priority</b>	MPResort	
<b>Residential Area:</b> near maintenance buildings (snow cats, etc.) in open, disturbed area	St. John's-Wort	Weed whack prior to seed set	MPResort	0.5
	Spotted knapweed	Hand pull plants ensuring that all roots are removed	MPResort	
	Canada thistle	Weed whack prior to seed set (UTMs 662835E. 5436882N)	MPResort	
<b>Residential Area:</b> in identified areas (see UTM)	Canada thistle	Weed whack prior to seed set (UTMs 662835E. 5436937N)	MPResort	0.5
	Canada thistle	Weed whack prior to seed set (UTMs 662835E. 5436937N)	MPResort	
<b>Contractor maintenance area:</b> large soil stockpile between access road and building	Canada thistle	Weed whack prior to seed set	MPResort	1
	Hound's tongue	Dig and bag - <b>High Priority</b>	MPResort	
<b>Visitor's Centre</b>	Canada thistle	Weed whack at the entrance to the old ballfield from the Visitor's Centre - <b>Completed</b>	MWLAP	0.25
	Dalmatian toadflax	Dig, removing all root parts (UTMs 663151E. 5436869N) - <b>Completed</b>	MWLAP	
<b>TOTAL DAYS*</b>				<b>7</b>

\* Based a 8 hour day/person

## **2005 Biological Control**

Biological control releases are recommended for spotted knapweed (two releases of *Cyphocleonus achates* and three releases of *Larinus minutus*), Dalmatian toadflax (one release of *Mecinus janthinus*) and St.John's-Wort (two releases of *Chrysolina* sp.). These requests will be placed with Juliet Craig, Invasive Plant Program Technician (Ministry of Forests) for the 2005 field season.

## **2005 Inventory**

Expanding the Invasive Plant Inventory is recommended in the following field seasons. Areas of focus include:

- Highway 3 from Manning Park Resort to the West Gate.
- All pullouts, day use areas, campgrounds and trailheads from Manning Park Resort to the West Gate.
- High use trails (within forested, parkland and sub-alpine zones) including, but not limited to, Monument 78/ 83 (oxeye daisy was observed, but not inventoried, on this trail), Viewpoint Loop, Paintbrush Nature Trail and all trails stemming from Gibson Pass Road (particularly any horse use/mountain bike trails).
- Gibson Pass Ski Area (from Perdue Creek West).
- All XC ski trails.

An overview map is attached which outlines areas inventoried on August 9<sup>th</sup> and 10<sup>th</sup> (blue) and recommended inventory areas (green).

## **Monitoring**

Areas of concern due to high sensitivity, which were identified during this inventory, include the sub-alpine meadow area near Blackwell Peak and Boyd's meadow. It is critical to monitor pristine areas which have a high risk of being affected by infestations on adjacent roads, trails, etc. At this time infestations appear to be restricted to disturbances, roads and residential/commercial areas. Keeping the infestations within their current boundaries is critical for maintaining the ecological integrity of Manning Park.