

WEEDS CROSS BORDERS PROJECT: A Canada-US Collaboration

Presented by Lisa Scott, MSc, RPBio
September 19, 2006

**Meeting the Challenge Conference:
Invasive Plants in PNW Ecosystems**



**Weeds know no
boundaries –
no place is immune**

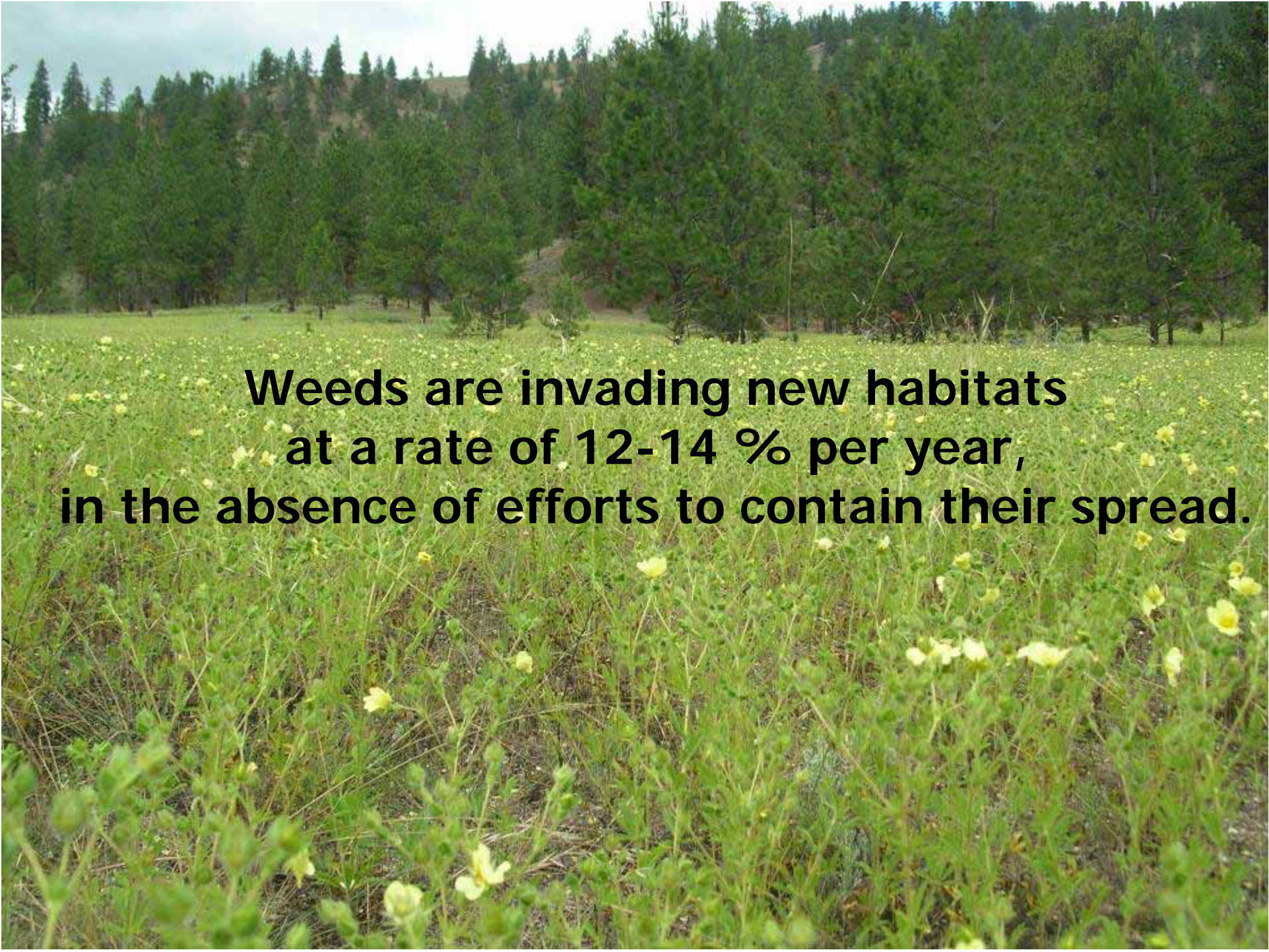


Invasive plants are a serious threat to the economy and biodiversity of the Okanagan region in BC & WA



Invasive plants are impacting Species and Habitats at Risk





**Weeds are invading new habitats
at a rate of 12-14 % per year,
in the absence of efforts to contain their spread.**

Invasive plants do not recognize political boundaries. They freely travel our waterways, railways and highways, dispersing their seed along the way.



IDENTIFYING THE PROBLEM

DIFFERENT LEGAL REQUIREMENTS

FOR

WASHINGTON STATE

&

BRITISH COLUMBIA



MUSK (Nodding) THISTLE



Washington State
Law RCW 17-10:
MANDATORY TO STOP
SEED PRODUCTION

Canada:
Focus on biocontrol
Seeds blowing
across fence



MIRABILIS

Wildfour O'clock

Washington state:

Eradication required

Canada:

No control required



PUNCTUREVINE

**Washington
State:**

Class B Weed

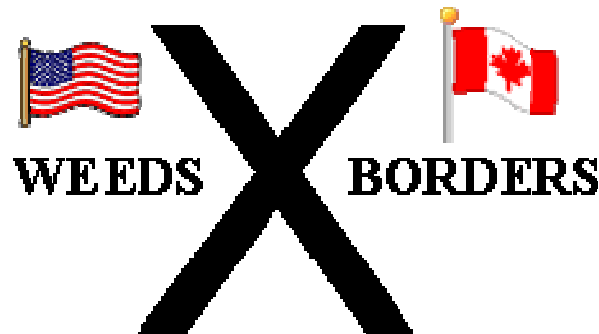
Canada:

Control Required

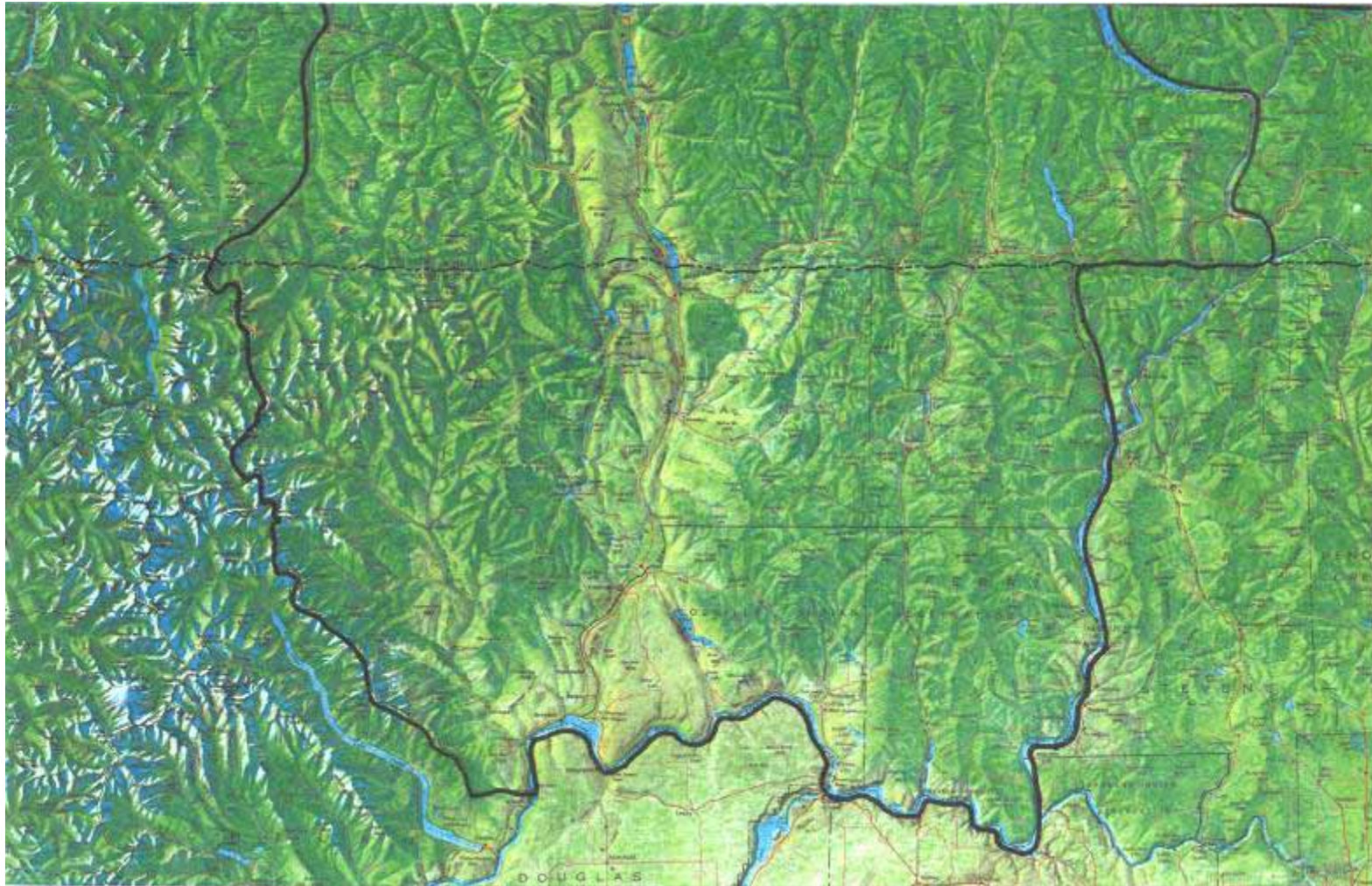


THE PROJECT

CROSS BORDERS COOPERATIVE WEED MANAGEMENT PROJECT



CROSS BORDERS WEED MANAGEMENT AREA



PARTNERSHIPS!



Okanogan County
Weed Control Board

Canada

Agriculture and Agri-Food Canada



Funding

\$50,000 awarded by United States Federal Highway Administration (2004)

BC Inter-Ministry Invasive Plant Committee (2005)

Pulling Together Initiative (2006-07)

Canadian Invasive Alien Species Partnership Program (2006-07)



Priority Areas

- **Roads**

- State/Provincial Highways –
3, 97, 20 & 21
- County Roads – Toroda
Creek, Chopaka & Nighthawk

- **Waterways**

- Lake Osoyoos & Kettle River

- **All along the border**



PRIORITY

WEEDS

PUNCTUREVINE





MUSK (Nodding) THISTLE



MIRABILIS

WILD 4 O'CLOCK



LEAFY SPURGE



ORANGE & MEADOW HAWKWEED



PURPLE LOOSESTRIFE



Integrated Approach

Education

- Series of Press Releases
- Flier
- Laminated Posters
- Legislative Tours

10 OLIVER CHRONICLE Wednesday, July 7, 2004

Noxious weed control efforts now cross-border endeavour

A US\$50,000 grant has been received from the U.S. Department of Transportation to go towards a two-year Cross Borders Weed Project that involves the Okanagan-Similkameen and Boundary regions in BC and Okanagan and Ferry Counties in Washington State. The SOS

watch your local newspaper for alerts on other invasive plants.

One of the weeds on the Cross Borders list is nodding or 'musk' thistle, which has a limited distribution in the Okanagan. It usually occurs in isolated pockets along dry roadsides and disturbed habitats. It is presently not legally categorized in British Columbia; however, in Washington State it is designated as a 'Class A' weed (non-native species with a limited distribution). Preventing new infestations and eradication is the primary goal for this designation.

Nodding thistle belongs to the Sunflower family. It is distinguished by its nodding flower heads and dark green stem/leaf colour. It is a biennial, growing up to 2.4 m tall with either solitary or branching non-spiny stems at the base. The leaves are alternate and deeply lobed with a spiny white margin. It has terminal and solitary flower heads that are 2.5 - 5.0 cm in diameter with spiny apical beaks, and are a dark purple colour. Nodding thistle is similar in appearance to the indigenous wavy leaf thistle, however this native species is generally lighter in colour with hairy leaf surfaces.

Flowering occurs from May to July followed by seed maturation and dispersal over 1 - 3 weeks. Seeds germinate in the fall and form and over-wintering rosette. The rosettes bolt the following spring between April and June. Each plant produces an average of 10,000 seeds that may remain viable for at least 10 years. Seeds disperse via wind, water, wildlife, livestock and humans.

This invasive plant was introduced from Eurasia. It is a highly competitive weed, invading grasslands and low elevation open forests, disturbed sites, pastures and rangelands. It is best controlled through preventing seed production. This can be accomplished by cutting or mowing second year plants at the base of the stem after flowering occurs, but before seed set.

Pulling is also an effective control method provided the root crown is removed in its entirety. These control options require repeated visits because flowering occurs over a 4-7 week interval. Biological control agents are available for nodding thistle when it grows in dense stands. The weevil *Rhynchus conicus* is in use in British Columbia.

This bioagent feeds on the leaves of nodding thistle and decreases seed production by boring into the flower head at the larval stage. The weevil has shown to reduce nodding thistle stands significantly. Chemical control options are available, however, they are best timed to the rosette or very early stage of growth.

Please report any sightings of nodding thistle to the SOS Weed Program Coordinator, Lisa Scott at ph: (250) 404-0115.

A close up of the nodding thistle

Weed Committee has joined forces with the Okanagan County Noxious Weed Control Board, Boundary Weed Management Committee, BC Ministry of Transportation, Washington State Department of Transportation, Cascade and Columbia River Railroad.

The project is an attempt to promote an integrated and coordinated approach to weed management and the improvement of desirable vegetation through information exchange, education and training, coordination of inventory and control efforts, and sharing of resources when appropriate.

The participants recognize that through the development of an area-wide coordinated and cooperative approach to weed management, they can more effectively advance the actions necessary to achieve both the goals and objectives of the overall area and the respective individual and organizational responsibilities. One of the cooperative goals is to update our inventory on invasive plants that are high priority in BC and WA. Therefore, we will be highlighting several target species during the course of the summer, so

Nodding thistle resembles the indigenous wavy leaf thistle



WHAT IS ALL THE FUSS ABOUT NOXIOUS WEEDS?

Noxious weeds are invasive, non-native plant species. Many arrived from Europe and Asia as seed contaminants. For medicinal purposes, we were started as ornamental flowers. In their native homelands, they have natural predators or diseases that prevent them from outcompeting other plant species. In introduced areas, such as here, their natural enemies are not present to keep them in check. Not all introduced plant species are harmful, but those that are spread quickly, replacing the native plants and grasses that are essential for healthy habitat. Weed control options include prevention, chemical, mechanical, cultural, and biological methods. Biological control is the use of natural enemies, mainly insects, that have been studied and introduced to help fight many of the more widespread noxious weeds. Practical control methods vary depending on the weed species, as well as the size and location of the population.

DALMATIAN TOADFLAX



Dalmatian Toadflax is a perennial, self-seeding plant. It is native to Europe and Asia. It is a member of the Linum family. It is a yellow-flowered plant. It is a common weed in pastures and fields. It is a highly invasive species. It is a major pest of agriculture. It is a highly competitive plant. It is a highly persistent plant. It is a highly resilient plant. It is a highly adaptable plant. It is a highly versatile plant. It is a highly durable plant. It is a highly robust plant. It is a highly sturdy plant. It is a highly strong plant. It is a highly tough plant. It is a highly hardy plant. It is a highly resilient plant. It is a highly adaptable plant. It is a highly versatile plant. It is a highly durable plant. It is a highly robust plant. It is a highly sturdy plant. It is a highly strong plant. It is a highly tough plant. It is a highly hardy plant.

Mecynus janthinus



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DIFFUSE KNAPWEED



Diffuse Knapweed is a perennial, self-seeding plant. It is native to Europe and Asia. It is a member of the Linum family. It is a yellow-flowered plant. It is a common weed in pastures and fields. It is a highly invasive species. It is a major pest of agriculture. It is a highly competitive plant. It is a highly persistent plant. It is a highly resilient plant. It is a highly adaptable plant. It is a highly versatile plant. It is a highly durable plant. It is a highly robust plant. It is a highly sturdy plant. It is a highly strong plant. It is a highly tough plant. It is a highly hardy plant.

Larinus minutus



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HOUSTONSTONGUE



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WEED INVASION!

HOW DO WEEDS SPREAD?



WEEDS CAN SPREAD IN MANY WAYS. SEEDS CAN BE SPREAD BY WIND, WATER, ANIMALS, AND HUMANS. ROOTS CAN SPREAD BY VEGETATIVE GROWTH. WEEDS CAN ALSO SPREAD BY BULBS, TUBERS, AND OTHER STORAGE ORGANS.



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WHY CARE?

WEEDS CAN CAUSE ECONOMIC DAMAGE TO AGRICULTURE AND NATURAL RESOURCES. THEY CAN ALSO CAUSE ENVIRONMENTAL DAMAGE BY REDUCING BIODIVERSITY AND SOIL FERTILITY. WEEDS CAN ALSO CAUSE HEALTHY DAMAGE BY BLOCKING VIEWS AND CAUSING ALLERGIC REACTIONS.

WHAT CAN I DO?

YOU CAN PREVENT WEEDS FROM SPREADING BY CLEANING YOUR EQUIPMENT AND VEHICLES. YOU CAN ALSO REMOVE WEEDS BY HAND OR WITH HERBICIDES. YOU CAN ALSO REPORT WEEDS TO YOUR LOCAL WEED CONTROL AGENCY.

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perry@wsu.edu
Phone: 509-775-0100
Fax: 509-775-0100

EURASIAN WATERMILFOIL



EURASIAN WATERMILFOIL is a highly invasive aquatic plant. It is native to Europe and Asia. It is a member of the Lemnaceae family. It is a floating-leaved plant. It is a common weed in lakes and ponds. It is a highly competitive plant. It is a highly persistent plant. It is a highly resilient plant. It is a highly adaptable plant. It is a highly versatile plant. It is a highly durable plant. It is a highly robust plant. It is a highly sturdy plant. It is a highly strong plant. It is a highly tough plant. It is a highly hardy plant.

HOARY ALYSSUM, Berteroa incana



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BUFFALO BUR



VELVET LEAF



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ORANGE HAWKWEED



MEADOW HAWKWEED



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Federal Legislative Tours



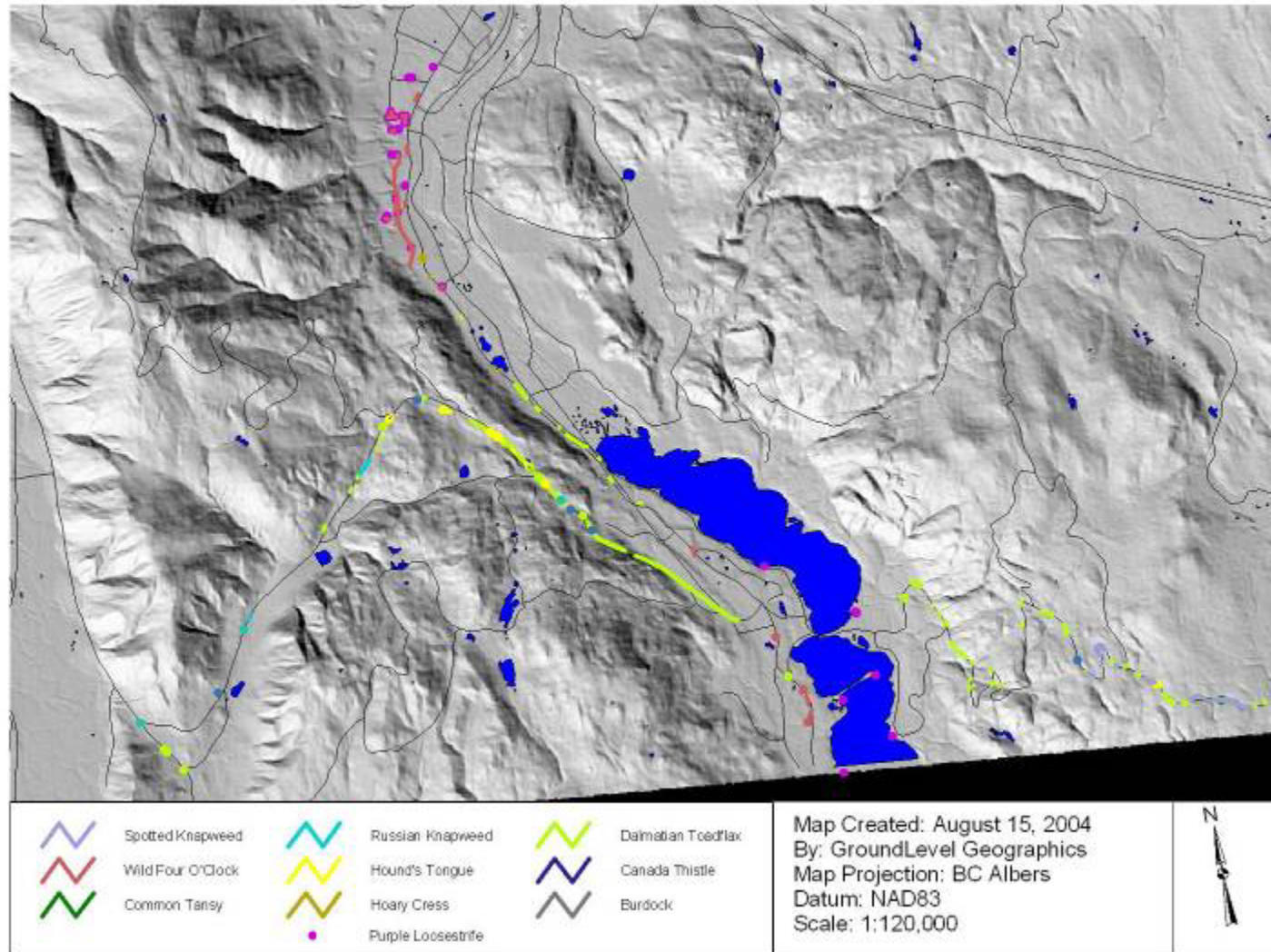
Attending the tours



- US Congressmen
- US Senator
- Washington State Representatives
- Washington State Senators
- Washington State Dept. of Agriculture
- Washington State Dept. of Ecology
- County Commissioners
- Members of Legislative Assembly
 - Minister of Water, Land and Air Protection
 - Minister of Agriculture
 - Minister of Transportation
 - Minister of Forests

Inventory and Mapping

Invasive Plant Survey 2004 - Regional District of Okanagan Similkameen



Treatment - IPM

- Mowing
- Site specific herbicide applications
- Hand pull crews
- Re-vegetation
- Biocontrol agents



Future

- Monitoring and follow-up treatment
- Seek additional funding





ANY QUESTIONS?

