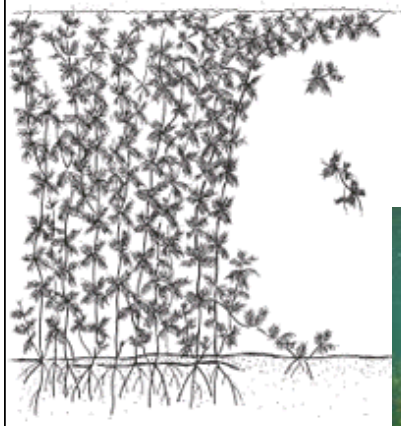
A Canadian Approach to Milfoil Control in the Okanagan Valley:

The Past, Present and Future of Invasive Aquatic Plant Management North of the Border

Eurasian Milfoil



- First Identified in Okanagan Lake in 1970
- Forms dense weed beds
- Reduces habitat for native plants
- Limits light penetration and water flow
- Increases sedimentation

a nuisance and a hazard

Affecting:

- **Boaters**
- Swimmers
- Anglers
- Waterfront property owners

Past Control Methods

Herbicide application

Application in progress, circa 1981

2-4D was used on a trial basis in Okanagan Lake

The public reaction:

Past Control Methods

Diver hand removal and bottom barrier application

• Divers work to remove Milfoil plants by hand, placing plant material into mesh bags.
• Method is effective in managing plant populations on a small scale.

• 'Bottom Barriers' were a preferred method of control for many years.
•Long term observations suggest that Milfoil tends to re-colonize and roots stick to fabric like 'Velcro'.

Past Control Methods

Jetting and Dredging

(Image courtesy of the Maine volunteer lake monitoring program)

Jetting operations were intended to lift Milfoil roots up out of the sediment

Suction pumps are used to transport plant material and mud into settling ponds on shore.

Divers guide the suction head along the lake bottom

Current Control Methods

Rototilling (or De-Rooting)

- Rototilling or de-rooting takes place during the coldest months

Current Control Methods

Harvesting

•Used during the summer to 'mow' dense Milfoil beds
•Machine cuts to a depth of approximately 3 metres
•Plant material is collected and transported to shore

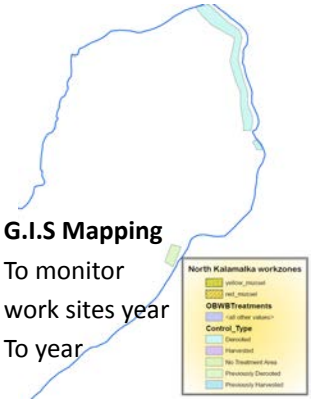
Meanwhile, on the other side of the Mountains…

In Christina lake, Diver hand-removal has been the primary method of control for over 25 years

Recently some investigation has taken place regarding the biological control agent known as the Milfoil Weevil

Due to the relatively small scale of Christina Lake, divers are able to patrol the entire shoreline each summer and remove the majority of Milfoil plants.

Using new technologies to assist in ongoing Milfoil Control operations



G.I.S Mapping

To monitor

work sites year

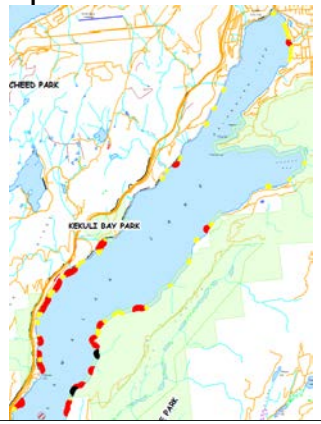
To year

Aquatic Plant surveys

Helps determine efficacy and inform best practices

Managing potential impacts associated with control operations

- Work timing windows exist to protect species during vulnerable portions of their life cycle
- Established zones represent known habitat areas and are excluded from control activities



An evolving process

• Responding to changes in the regulatory environment

The Western Ridged Mussel, a species of concern and a target for protection efforts

- The public good: a dynamic and changing quantity.
- Respecting all stakeholders and seeking balance

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