DRAFT INLAND STRANDED OIL HABITAT FACT SHEET FOR RESPONSE: **ROOTED-FLOATING AQUATICS (RFA)**

I. Habitat Description

Rooted-Floating Aquatics (RFA) represent portions of lakes, ponds, marshes, backwaters, or channel borders that are >10% vegetated with water lilies (*Nymphaea* and *Nuphar*) or American Lotus (*Nelumbo*). This general class is dominated by rooted-floating aquatics, but may have inclusions of submersed, nonrooted-floating aquatics, or emergent vegetation. It is typically found growing between water depths of 0.25 and 2 m. This general class remains permanently flooded all year.





II. Sensitivity to Oil Spills

Rooted-floating aquatic habitats are highly sensitive to oil spills. The biological diversity in this habitat is significant. They provide critical habitat for many types of plants and animals. This habitat also supports a wide variety of fish, amphibians, reptiles, birds and mammals. In these

habitats, detritus-based food webs are of fundamental importance. Oil may inhibit the ability of plants to decompose, adversely affecting organisms within the detritus food web. *Oil removal is often driven by the threat* of wetland animals becoming oiled.

III. Sensitivity to Response Methods

Methods Causing Least Adverse Habitat Impacts

Exclusion or Deflection Booming

- Boom can be used to exclude or deflect the spill away from sensitive resources.
- Effectiveness is increased by positioning boom at appropriate angles for the current speed (Ops Manual).

Debris/ Vegetation Removal

- Removal will release trapped oil and speed natural flushing rates.
- Debris may be associated with nests or living areas (e.g., beaver lodges), so impacts on resident animal habitat may need consideration.
- If oil is trapped in floating vegetation, may be only way to recover the oil in the absence of water currents.
- May be appropriate to prevent secondary oiling of wildlife
- Trampling of vegetation may be reduced by controlling access routes, using boards placed on surface, or conducting operations from boats

Methods Causing Some Adverse Habitat Impact

Containment Booming

• Use containment booms to keep oil from spreading.

Natural Attenuation/Phytoremediation

- Least impact for small to moderate spills and lighter oils; avoids damage often associated with cleanup activities.
- Seeding or planting may be used to assist in oil degradation.

Sorbents

- Deploy in boom to recover sheen in low-current areas and along shore.
- Care is necessary during placement and recovery to minimize disturbance of streamside vegetation and drive oil into the sediment.
- Snare and pom-poms are used along shorelines or in light sheen situations.

In-Situ Burning

- May be one of the least physically damaging means of heavy oil removal.
- May be difficult to protect stream-side vegetation.
- Burn only in calm water with no current where containment and maintenance of minimum slick thickness (1-3 millimeters) is possible.
- Heavy ends get left behind and will need to be recovered.
- Appropriate approval is required (State air permit, RRT approval).

Herding Agents/ Physical Herding

- May be the only means to flush oil trapped in log jams, beaver dams, behind rocks, and in vegetation/debris along banks to downstream collection areas.
- Most effective on lighter oils.
- Care should be taken not to drive oil into the water column or sediment.
- Appropriate approval required (RRT) for chemical additives.

Hand Tool Oil Removal/Cleaning

- Used where persistent oil occurs in heavy amounts and where sensitive resources using the wetland are likely to be oiled.
- Trampling of vegetation and substrate can be limited by placing boards on the surface and limiting traffic.

Methods Causing Probable Adverse Habitat Impact

Heavy/Light Equipment Oil Removal

- May be needed where oil has heavily contaminated bottom sediments.
- May require very intrusive recovery techniques.
- Trampling of vegetation and substrate may be reduced by controlling access routes, using boards placed on surface, or using a helicopter to bring in equipment.

Methods Causing Probable Adverse Habitat Impact

Sediment Removal

- Vacuum and run through geotube to dewater. Treat the water and dispose sediment.
- Excavate the sediment. Dewater the area before excavation.
- The hydrology may change and vegetation may be difficult to restore.