

# Exploratory Noxious Weed Survey of the Middle and Upper Columbia Slough Watersheds



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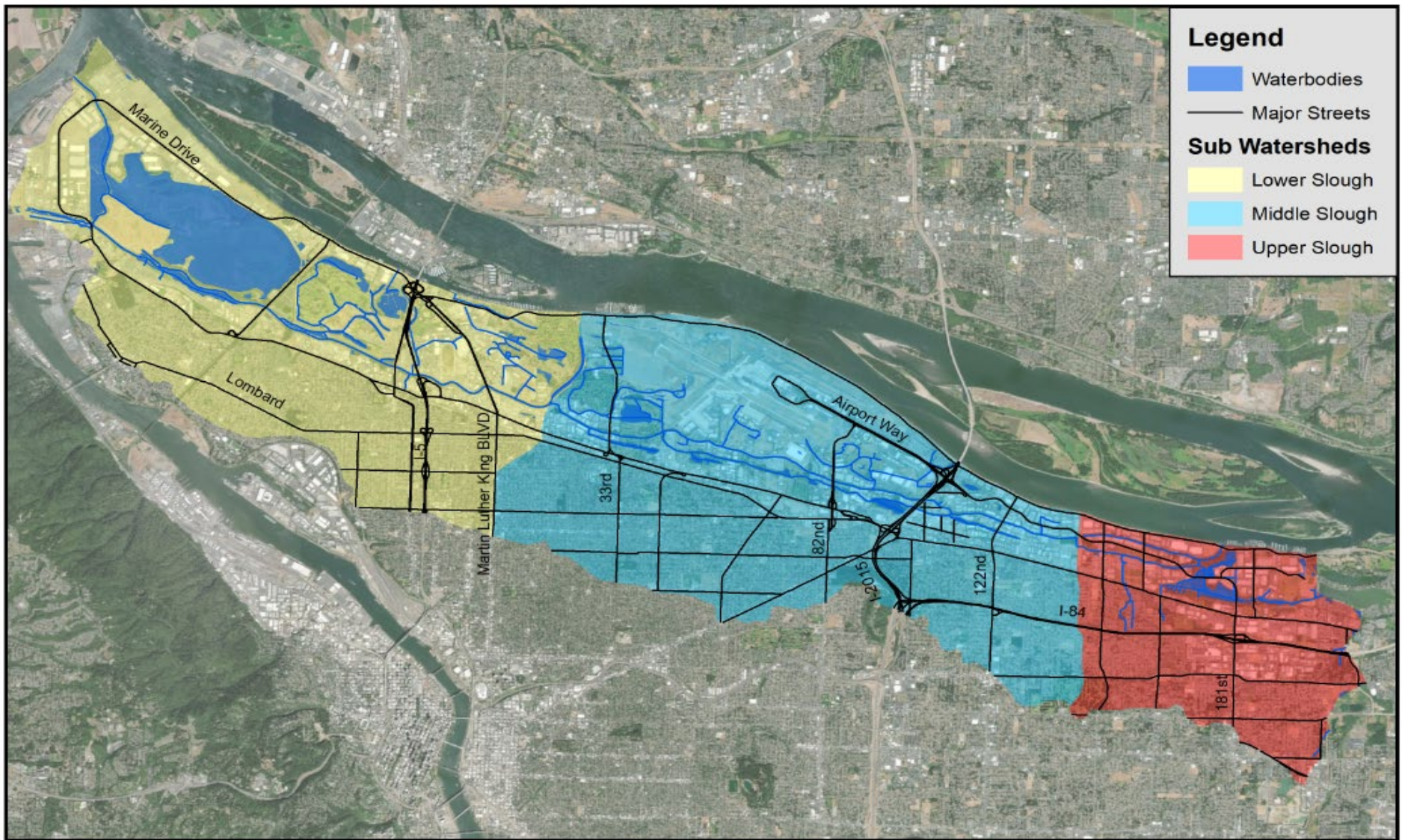
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# The Story: MCDD

- Manages drainage in the Columbia corridor
  - 27 miles of levee
  - 45 miles of waterway
  - 12 pump stations
- Aquatic Weeds
  - 2014 – Parrot Feather Observed
  - 2015 – Parrot Feather Middle Slough Mainstem
- Increasing maintenance resources allocated
  - Conveyance checks have doubled
  - Powered rake system: 1 hr/day to 4hrs/day
  - Increased number of blockages cleared



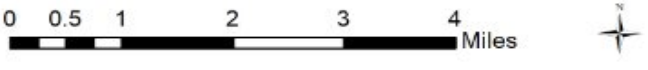
# The Story: Columbia Slough Watershed



**Legend**

- Waterbodies
- Major Streets
- Sub Watersheds**
- Lower Slough
- Middle Slough
- Upper Slough

Created on 8/25/2016 by Mosaic Ecology LLC for use by MCDD.  
Coordinate System: NAD 83 Projection: NAD\_1983\_HARN\_Stateplane\_Oregon\_North\_FIPS\_3601\_Feet\_Intl  
Sources: METRO RLIS Database; USDA



# The Survey

**Primary Goal:** To better understand the presence and extent of aquatic weeds that will impede conveyance in the Middle and Upper Columbia Slough.

## Primary Targets

- Aquatic primrose (*Ludwigia spp.*)
- Parrot feather (*Myriophyllum aquaticum*)
- Eurasian milfoil (*Myriophyllum spicatum*)
- Fragrant water lily (*Nymphaea odorata*)
- Curly pondweed (*Potamogeton crispus*)

## Other Goals

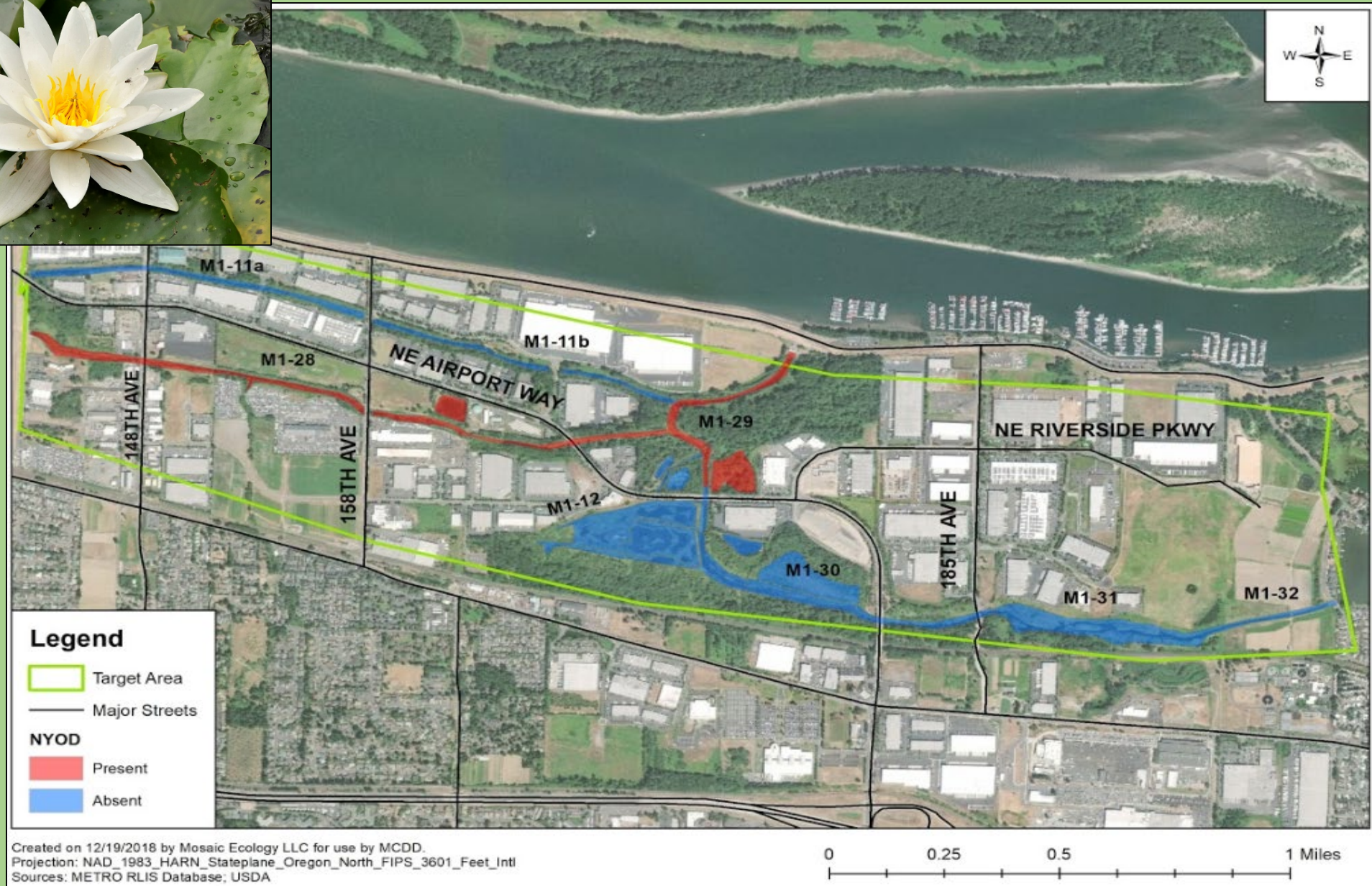
- Identify terrestrial weeds of significance
- Provide recommendations for immediate and long term control



# Data Collection



# Ex: White Water Lily



# Ex: White Water Lily Distribution



# Ex: Parrot Feather





# Primary Target Summary



**Middle Slough**

**Not Observed**

**Upper Slough**

**Not Observed**



**Light Distribution**

**Increasing in Presence**



**High Distribution**

**Not Observed**



**High Distribution**

**High Distribution**



**Light Distribution**

**Light Distribution**

# Next Steps: Immediate Action

- Containment Strategy
  - Survey non-occupied areas
  - Treat populations at <5% cover or that are rapidly expanding
- Species specific treatments
- Created thresholds for action



Target Species	Area of Control	Point of Action (POA)	Treatment
<i>Ludwigia peploides</i>	Not yet observed	<5% cover	Hand pull/thatch rake
		>5% cover, with suitable emergent leaf area	Chemical Application: 3% glyphosate
<i>Myriophyllum aquaticum</i>	Buffalo Slough	<5% cover	Hand pull/thatch rake
	Whitaker Slough	<5% cover	Hand pull/thatch rake
	Middle Slough mainstem: NE 142nd to I-205	<5% cover	Hand pull/thatch rake
<i>Myriophyllum spicatum</i>	Not recommended for immediate control	N/A	Future research for control recommended
<i>Nymphaea odorata</i>	Middle Slough mainstem	<5% cover	Chemical Application: 3% glyphosate
	Upper Slough mainstem: 4-Corners Natural Area	>20% cover	Chemical Application: 3% glyphosate
	Ponds: 4-Corners Natural Area	>20% cover	Chemical Application: 3% glyphosate
<i>Potamogeton crispus</i>	Whitaker Ponds	>50% cover	Future research for control recommended

# Next Steps: Long Term

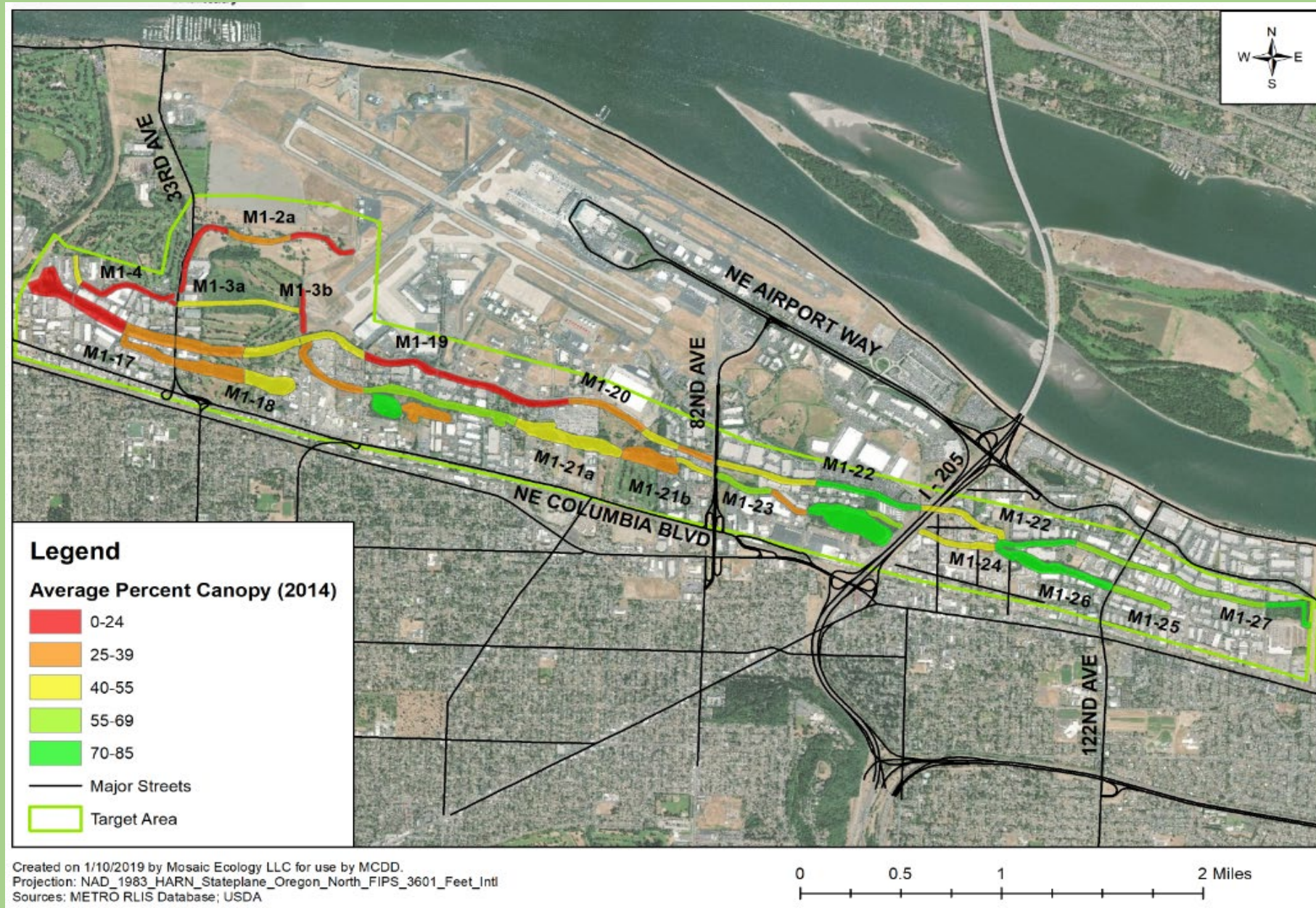
- Milfoil Weevil
- Emerging Technologies
- Flow Augmentation
- Nutrient Loading
- Canopy Cover



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# Next Steps: Long Term



# Next Steps: Columbia Slough Aquatic Weed Group?

## Stakeholders and potential partners help:

- Explore long and short-term strategies
- Map and review current projects in the Columbia Corridor
- Assess and prioritize projects
- Shared project funding and management

## For more information:

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# Thank You!



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