Unified Lower Eagle River Chain of Lakes Commission

Eagle River Chain of Lakes Aquatic Invasive Species Project

Informational Meeting

November 10, 2016

Eddie Heath

Onterra LLC

Lake Management Planning

Outline

- AIS project overview
- 2016 EWM monitoring results
  - Pilot hand-harvesting program on Voyageur
  - Chain-wide
  - 1 YAT on Cranberry & Watersmeet
- 2016 EWM Control Strategy

AIS Project Overview

Fall/Winter	• Results are reported upon – Info meeting & report • Control strategy is developed for following year
Early Spring	• Pretreatment Confirmation & Refinement Survey completed by Onterra
Spring	• Herbicide treatment conducted by third party applicator
Late-Spring	• ESAIS Survey: full-chain meander surveys completed by Onterra
Early-summer	• Survey results are made into basemaps for upload onto GPS units by Onterra
Summer	• Trained ERC volunteers search lakes for EWM not located during Onterra's ESAIS Survey
Late-Summer	• Onterra re-surveys all EWM marked within the ESAIS Survey or by volunteer surveys • Onterra conducts pre/post treatment monitoring
Fall/Winter	• Results are reported upon – Info meeting & report • Control strategy is developed for following year

No Herbicide Treatment in 2016

Evolved Control Strategy

- **EWM populations have been greatly reduced**
  - Remnant areas too small to effectively controlled using herbicides
  - Below levels that cause ecological impacts or cause reductions in ecosystem services
- **Maintain positive strides**
  - ULERCLC does not want to abandon management and simply wait for EWM populations to reach levels that are again applicable for herbicide control
  - Need to balance a level of EWM population tolerance while not allowing population to return to pre-management levels
  - Pilot a professional-based hand-harvesting program in 2016
    - Challenges: water clarity, native plant abundance, traffic, etc.

Hand Removal vs. Diver-Assisted Suction Harvester (DASH)

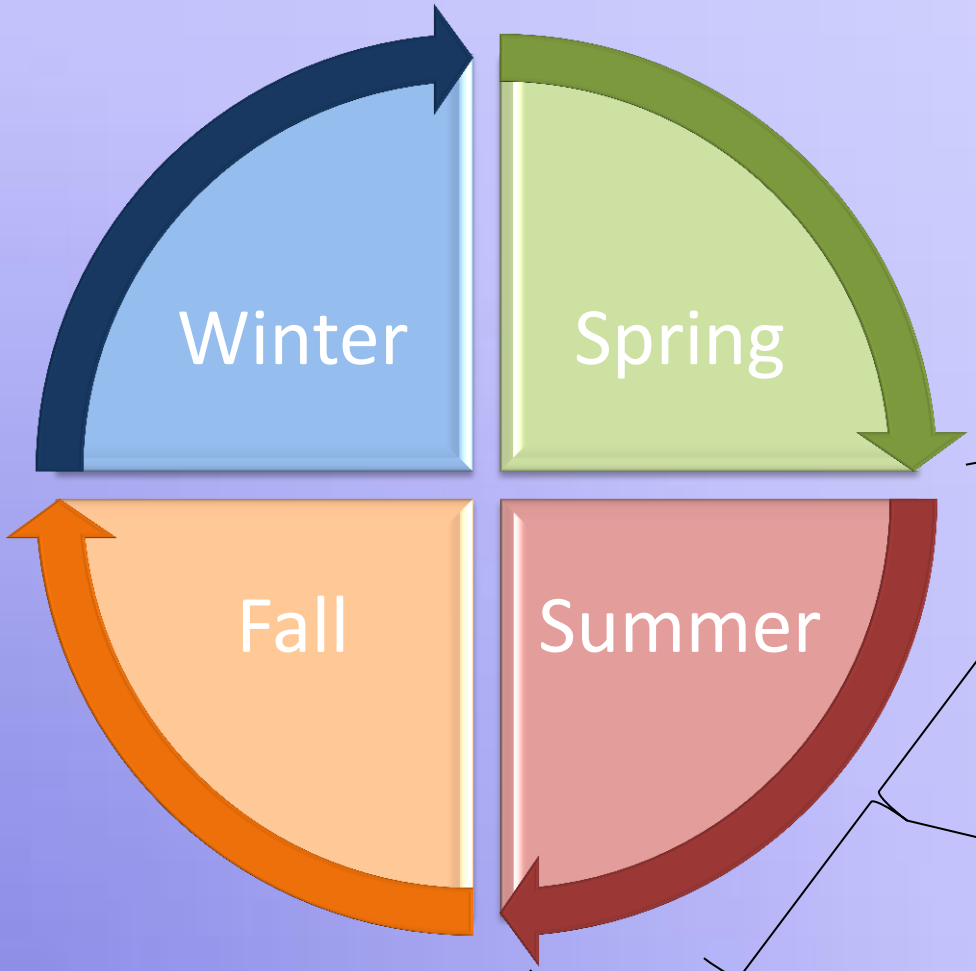
Hand Removal

- Can be volunteer-based or contractors are available
- Used for small colonies and scattered individual plants
- Does not require a permit

DASH

- Typically used by contractors
- Used for colonies (not highly maneuverable)
- Requires mechanical harvesting permit

Hand-Harvest Control & Monitoring Strategy



Results Reporting

Early-Season
AIS Survey
(Pre- Hand-Harvest)

Professional & Volunteer
Hand-Harvesting Occurs

Late-Summer EWM Peak-Biomass Survey
(Post Hand-Harvest)

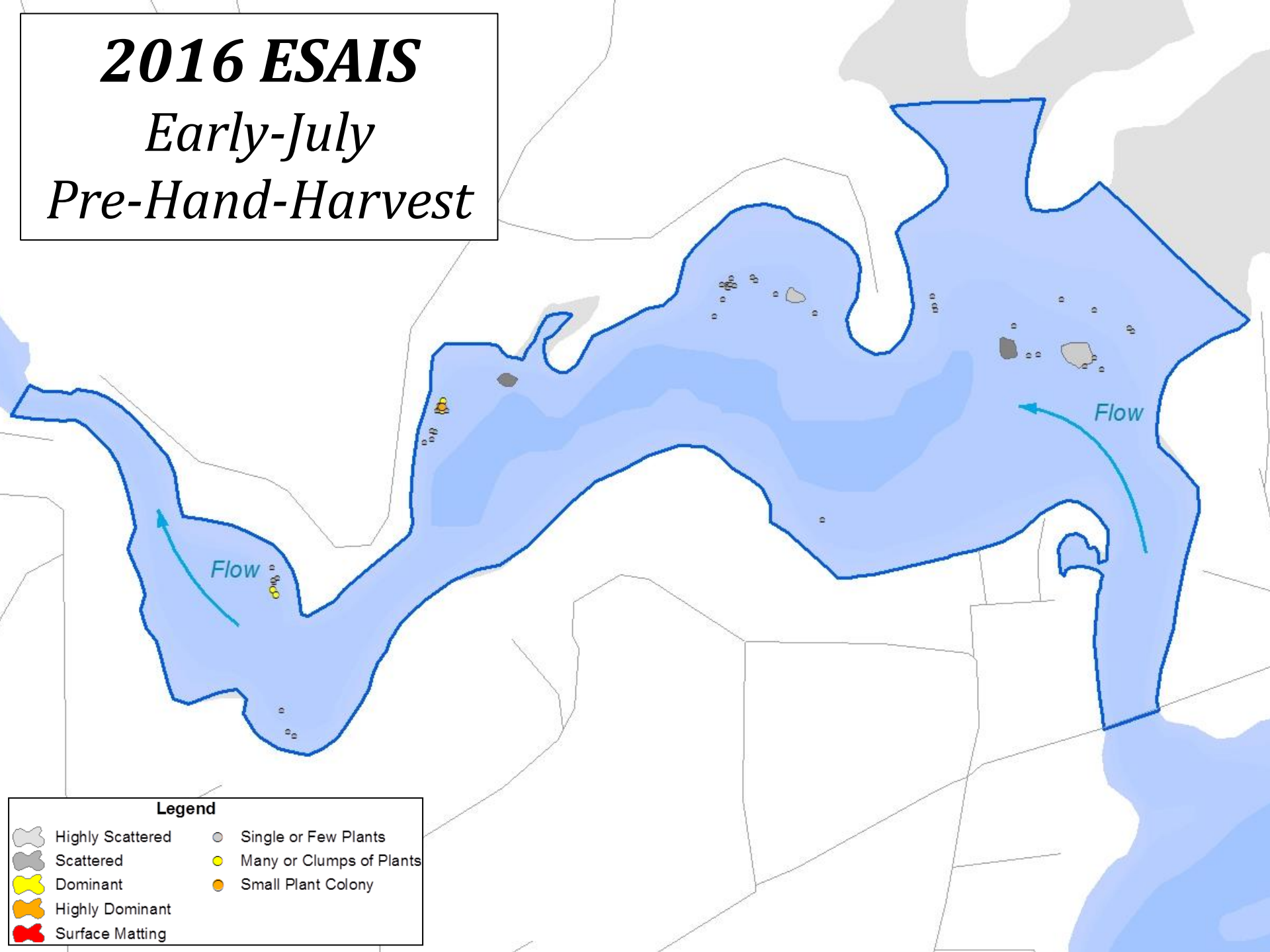
Voyageur Lake EWM Removal Report 2016

PO Box 1134 Minocqua, WI 54548

2016 ESAIS

Early-July

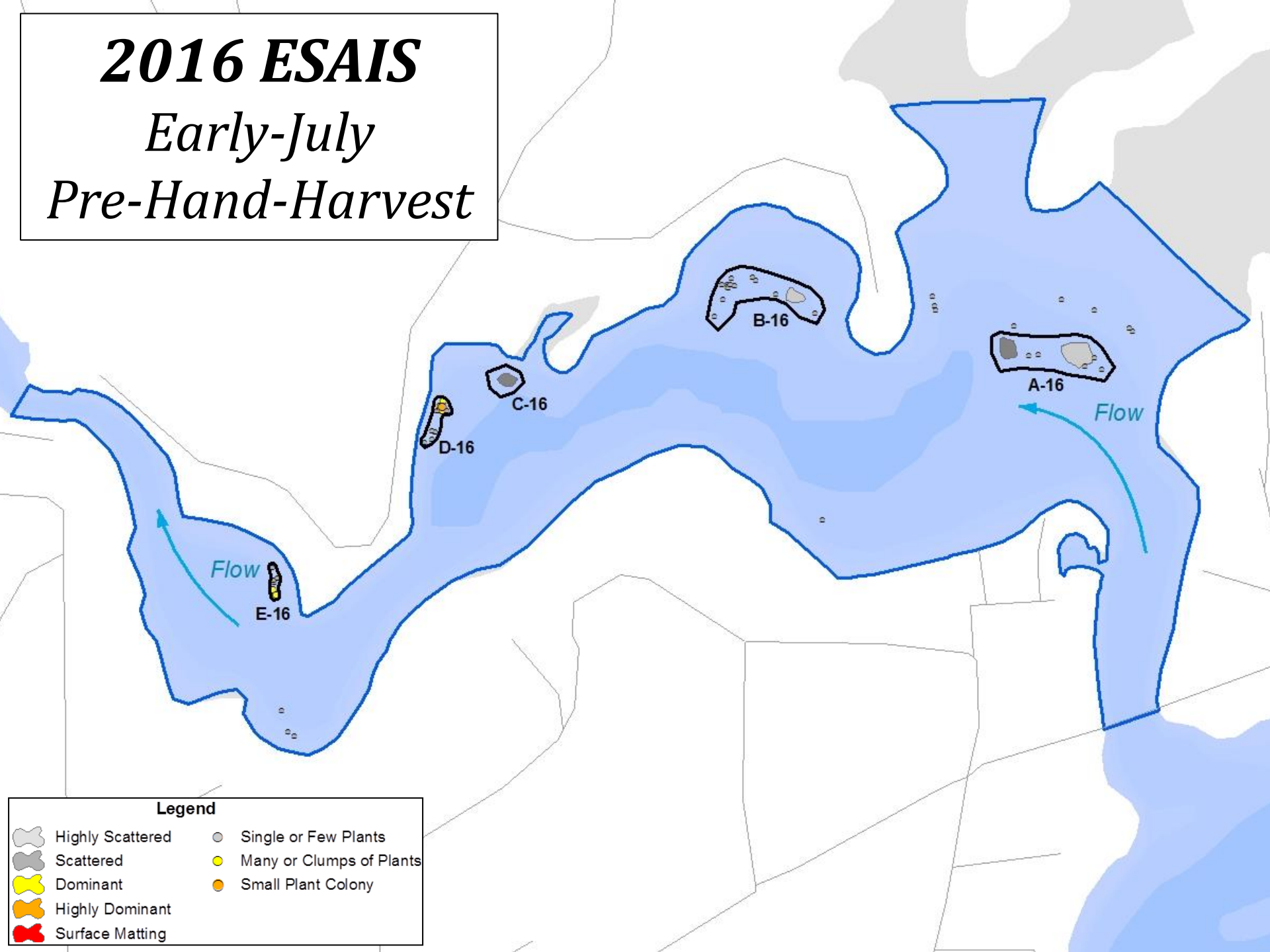
Pre-Hand-Harvest



2016 ESAIS

Early-July

Pre-Hand-Harvest



2016 ESAIS

Early-July

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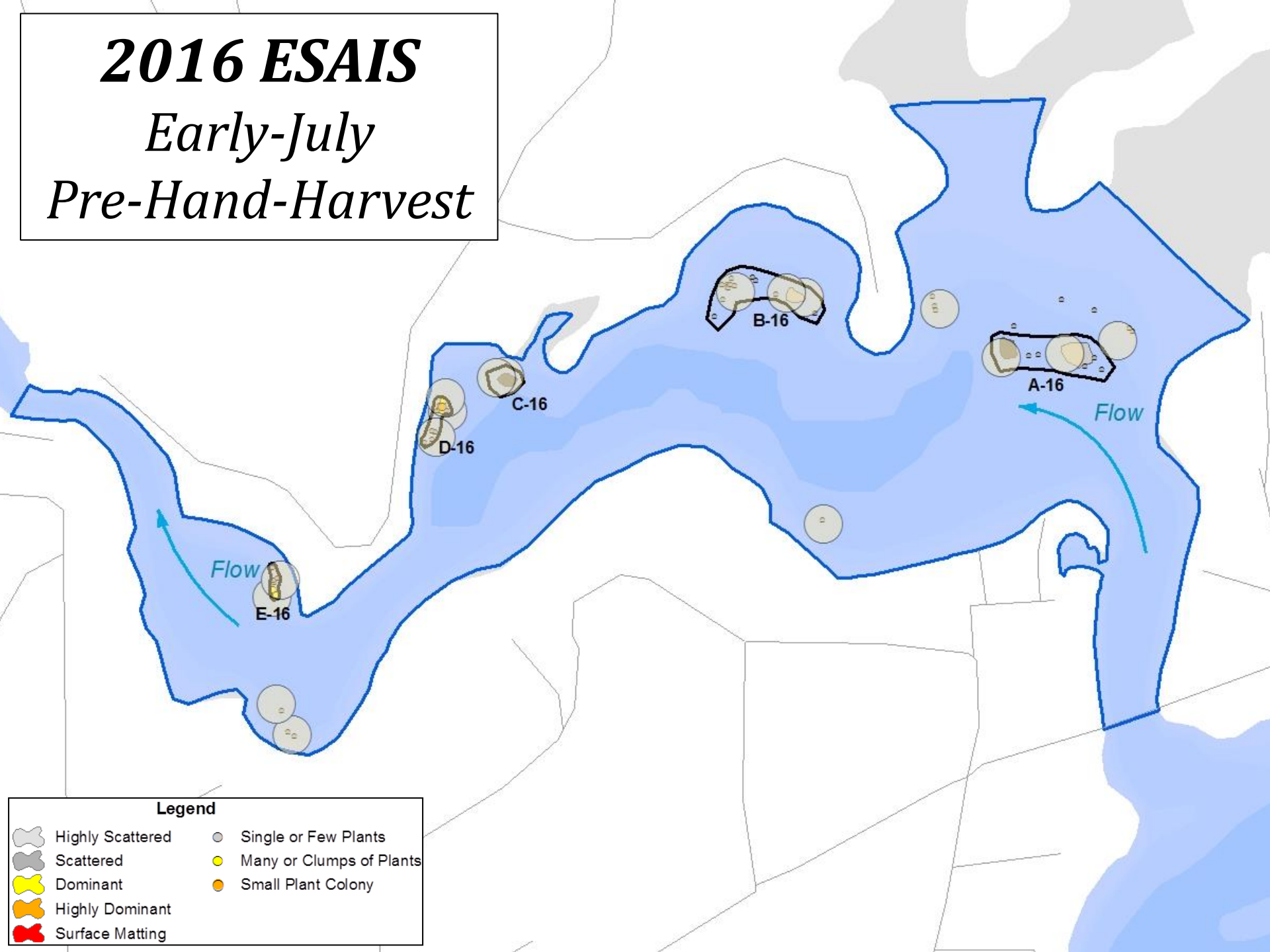
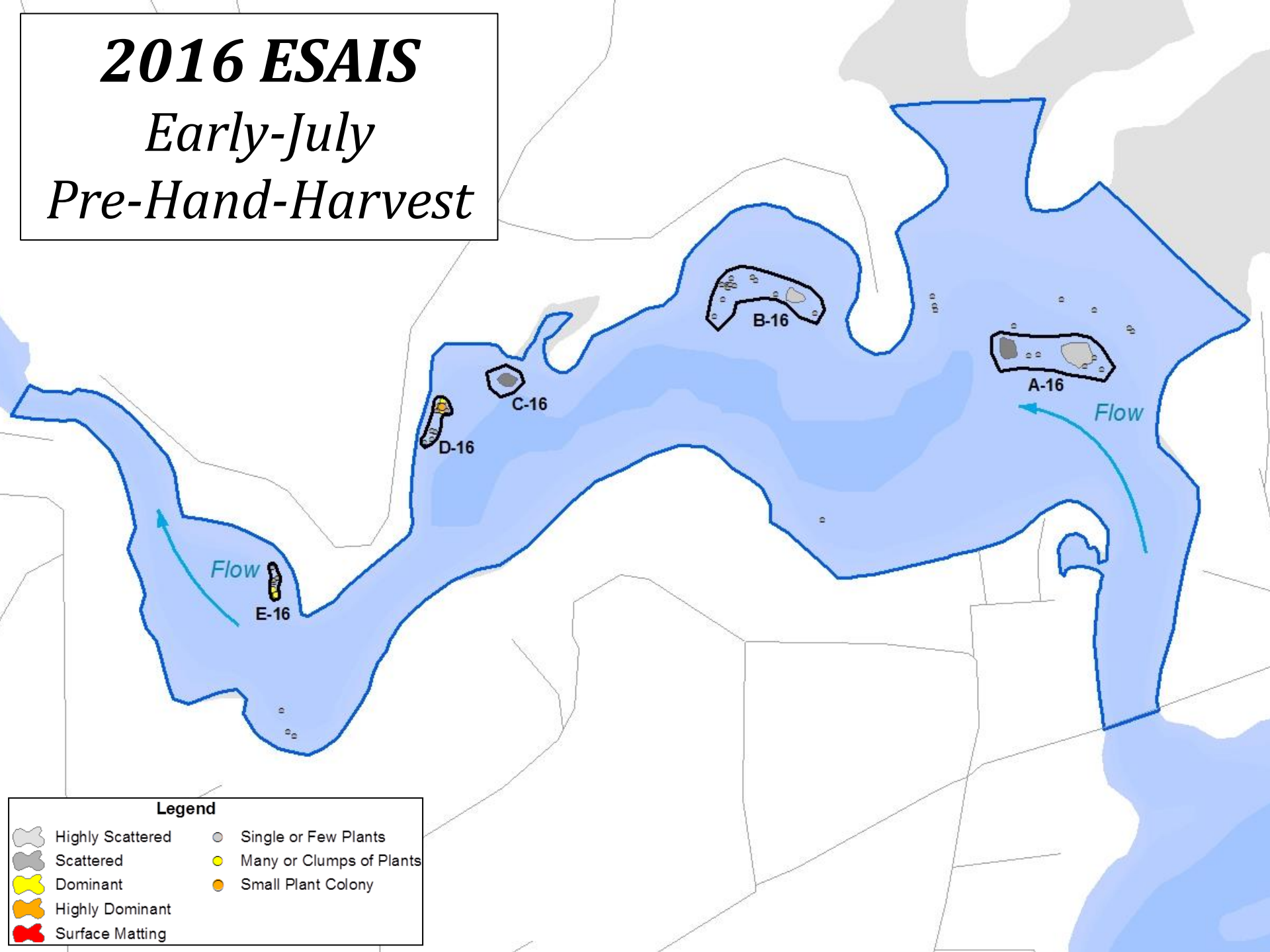


2016 ESAIS

Early-July

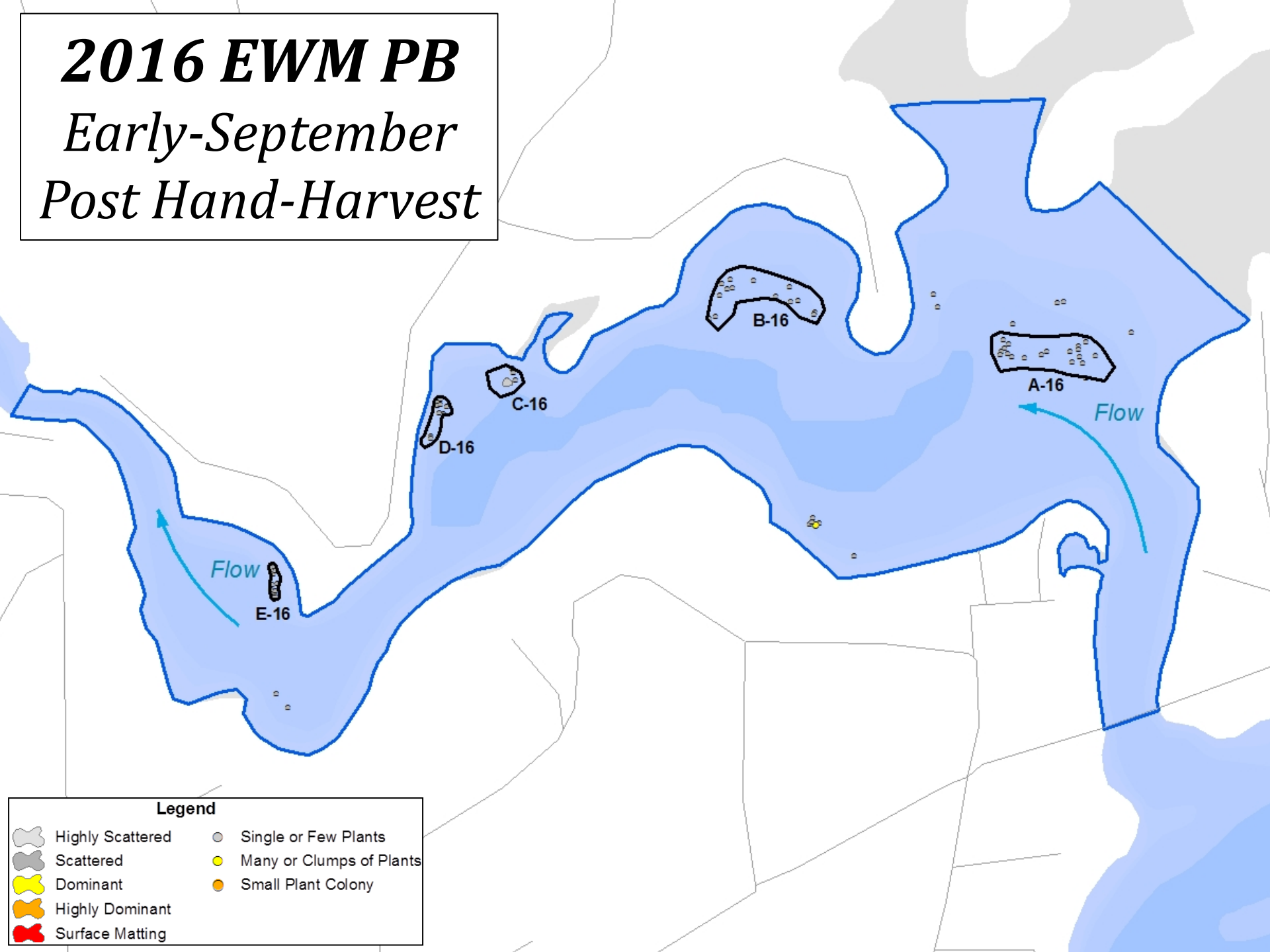
Pre-Hand-Harvest



2016 EWM PB

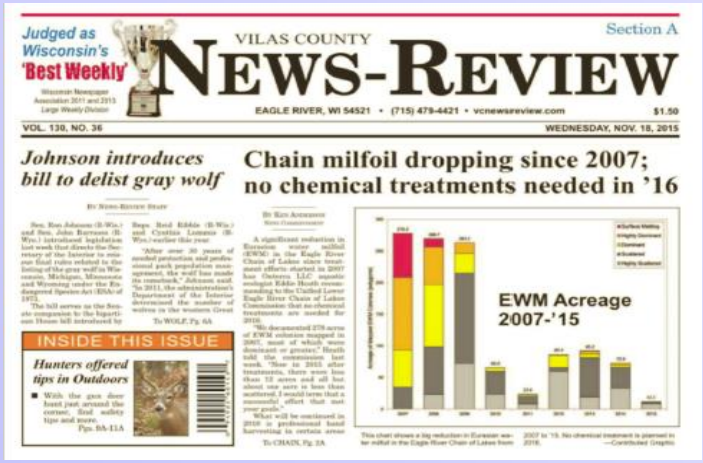
Early-September

Post Hand-Harvest



Hand-Harvesting Conclusions

- Initial results show promise
  - EWM reductions in some sites
  - Maintained low EWM populations in others
- Realities uncovered
  - Effectiveness & selectivity
  - Costs & techniques
- Side benefit is the positive public relations it brought



Judged as Wisconsin's 'Best Weekly'

VILAS COUNTY NEWS-REVIEW

Section A

EAGLE RIVER, WI 54521 • (715) 479-4421 • vcnewsreview.com $1.50

VOL. 130, NO. 36 WEDNESDAY, NOV. 18, 2015

Johnson introduces bill to delist gray wolf

Chain milfoil dropping since 2007; no chemical treatments needed in '16

EWM Acreage 2007-'15

INSIDE THIS ISSUE

Hunters offered tips in Outdoors

WAEO - WJFW 1966-2016 12 CELEBRATING 50 YEARS

HOME | NEWS | WEATHER | SPORTS | PROGRAMMING | WJFW DEALS | CONTESTS | FEATUR

NEWS STORIES

Divers remove aquatic invasive species by hand on Eagle River Chain

Submitted: 07/21/2016

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Stephanie Haines
Reporter/Anchor
shaines@wjfw.com

EAGLE RIVER - It pains many people in the Northwoods to hear the words Eurasian watermilfoil.

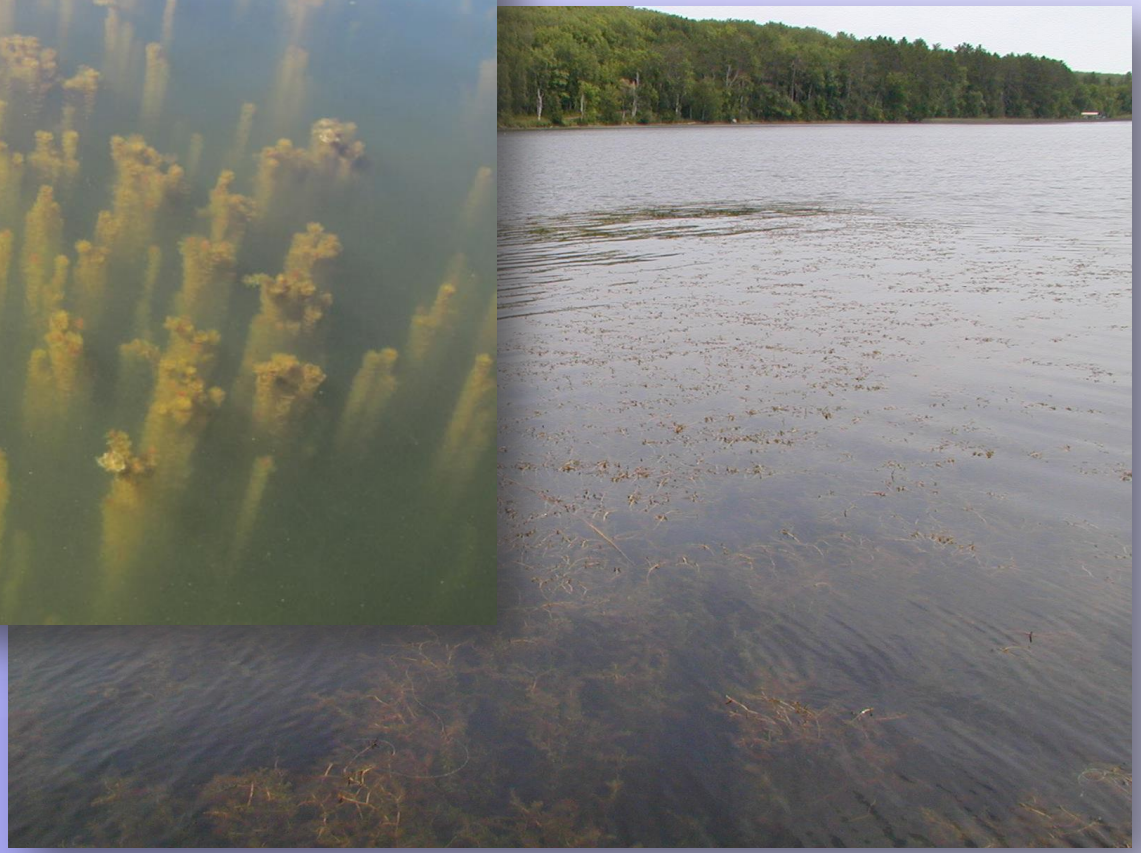
Chain-wide Monitoring Results

Professional AIS Mapping

Point-Based Mapping

- Single plants to colonies or areas less than 40-feet in diameter
- Abundance descriptions:
  - Single or Few Plants
  - Clumps of Plants
  - Small Plant Colony

More AIS than can be mapped using Point-based Methods



Professional AIS Mapping

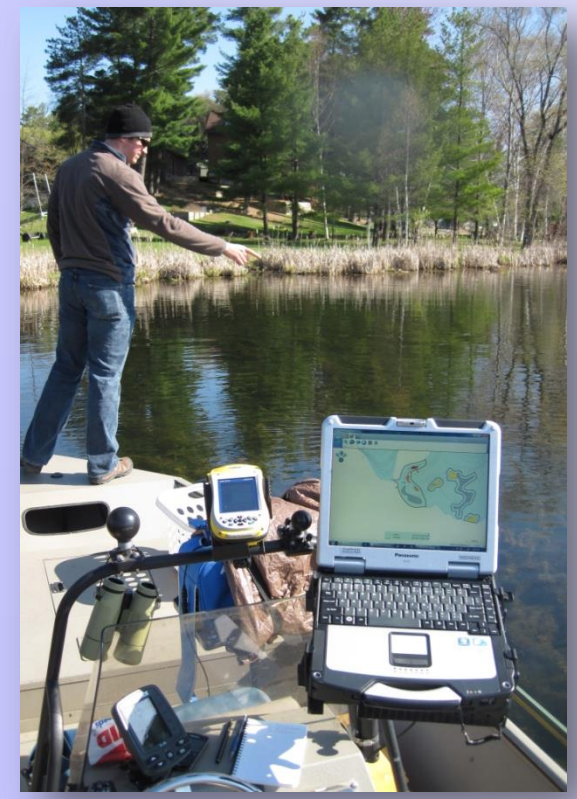
Polygon-Based Mapping

- Colonies or areas over 40-feet diameter
- Boundary at target plant extent or morphological feature (depth contour, shoreline)
- Density ratings:

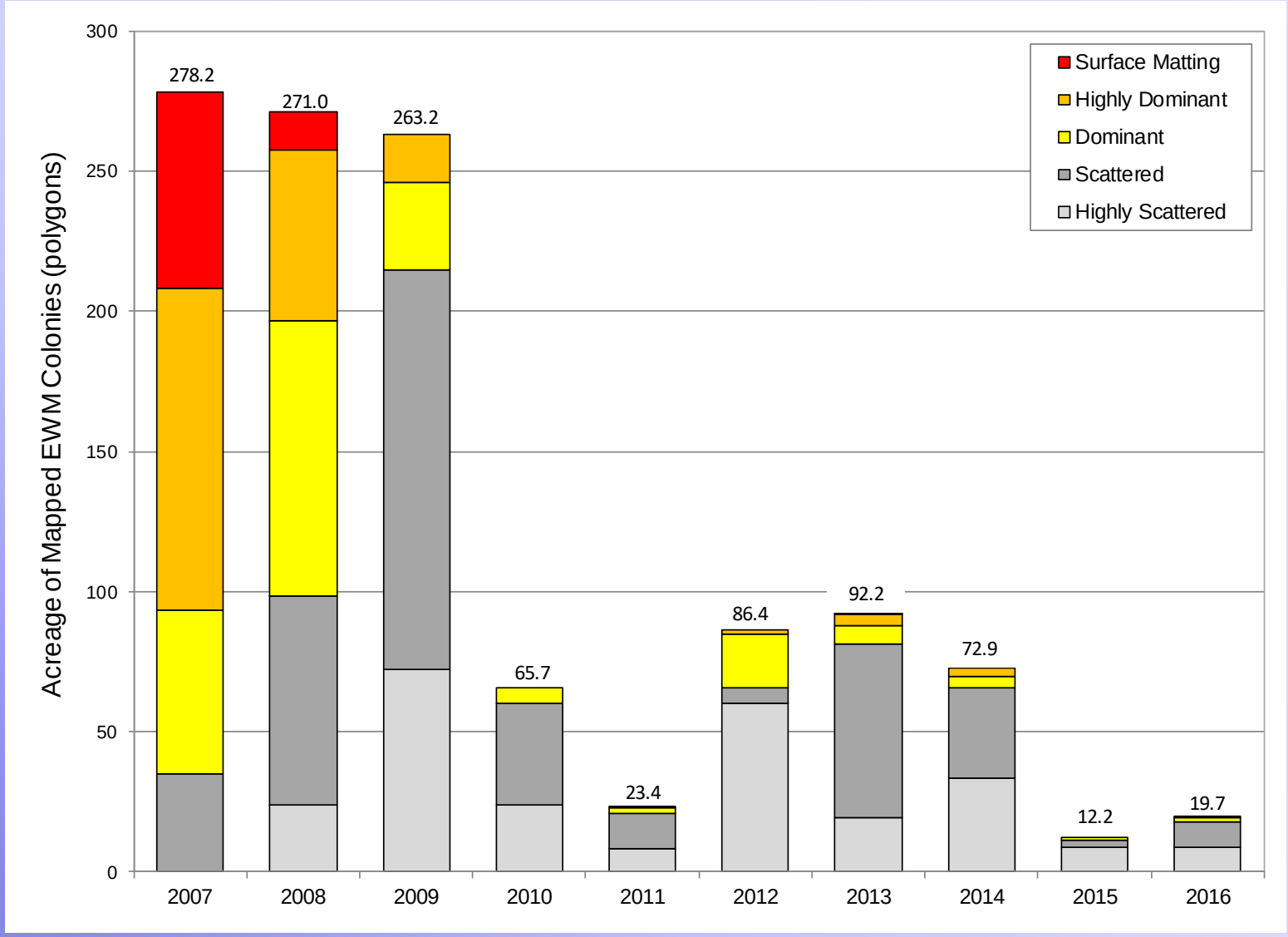
May not represent true colonies or "beds"

Increase in Ecological Impact

- Highly Scattered
- Scattered
- Dominant
- Highly Dominant
- Surface Matting

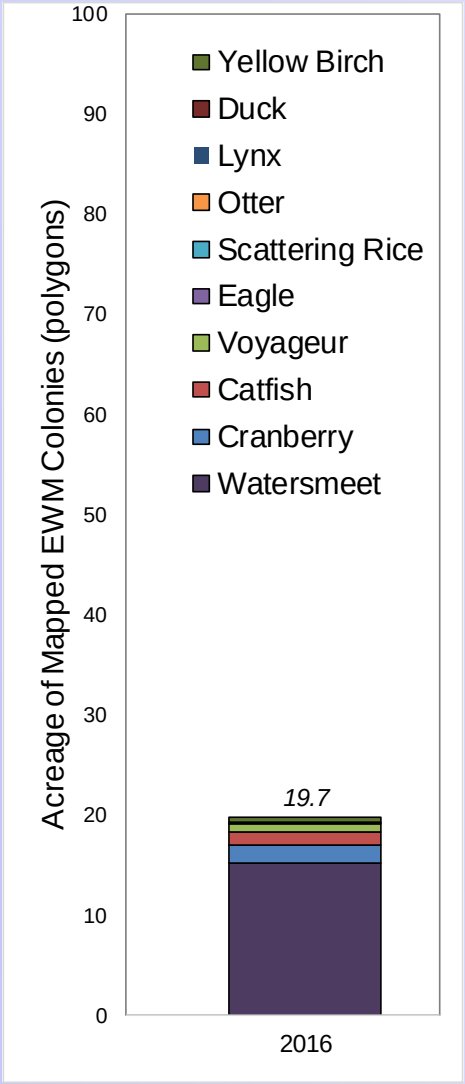


EWM Colonies

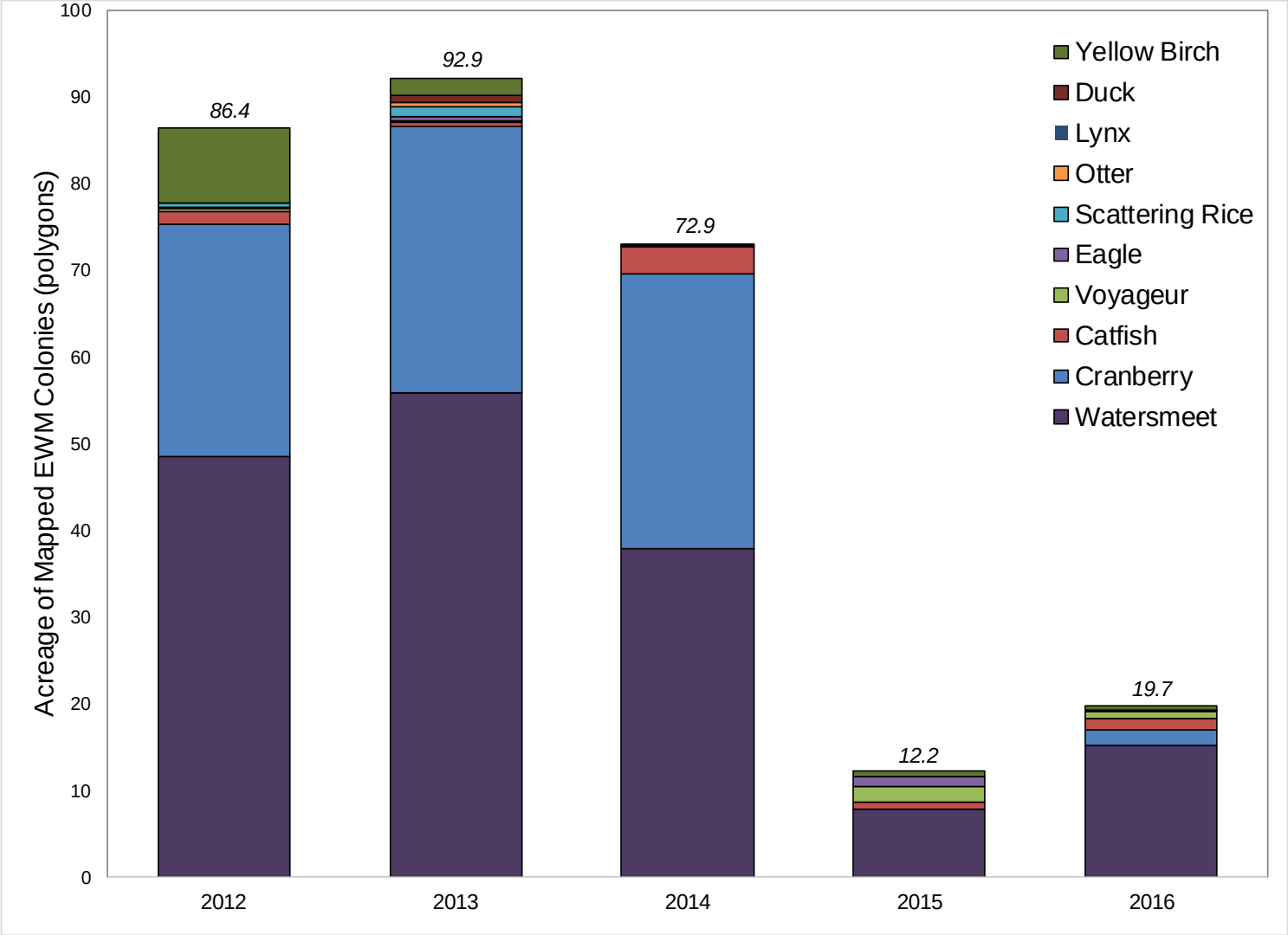


EWM Colonies

- 15.1 acres of colonized EWM in Watersmeet (77%)
- 2015 Control Strategy
  - Target Cranberry Channel for control, but add additional flow monitoring components to understand outcomes
  - Target areas in Watersmeet that are likely to have successful outcomes (outside of main flow)

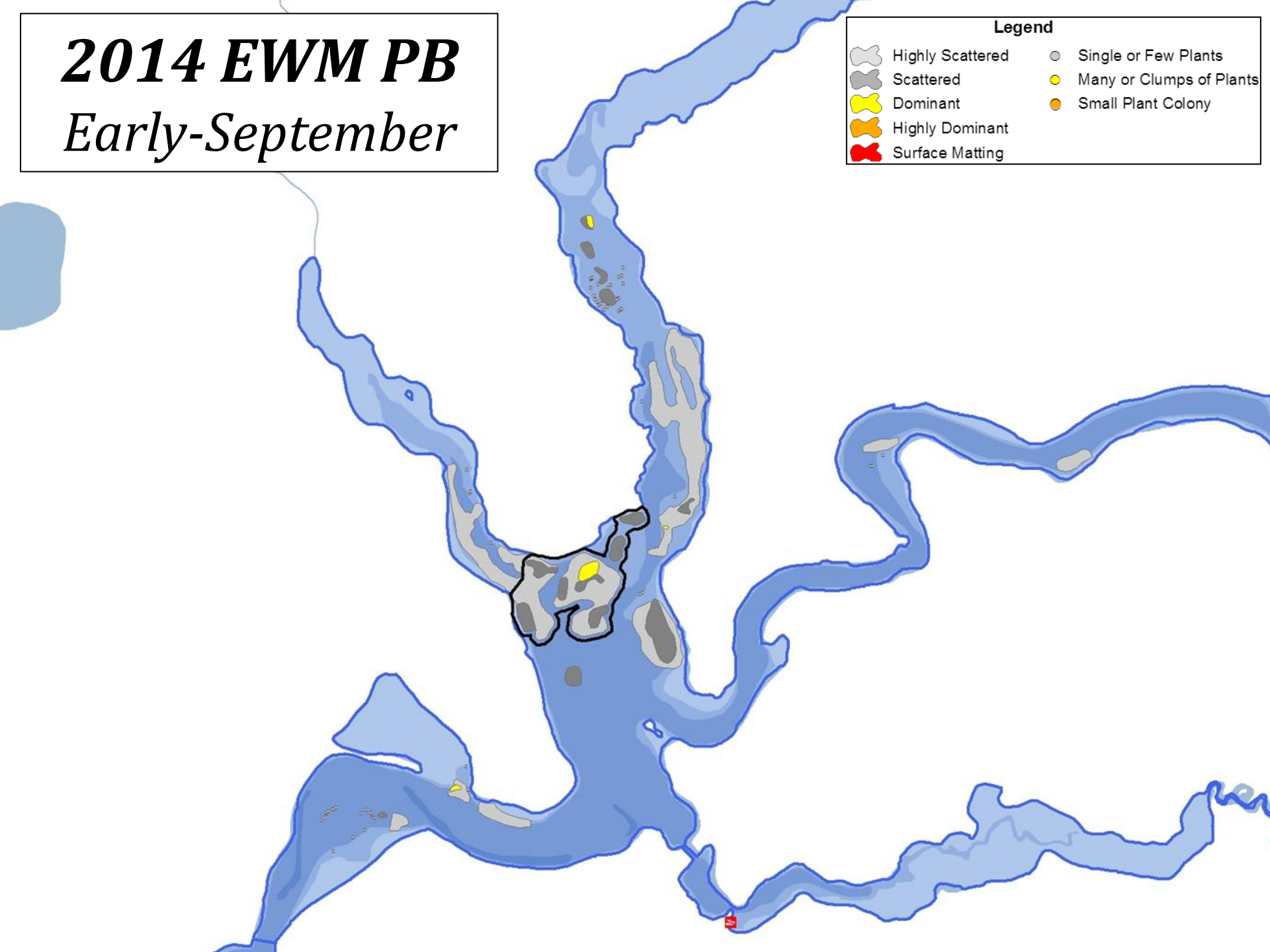


EWM Colonies



2014 EWM PB

Early-September



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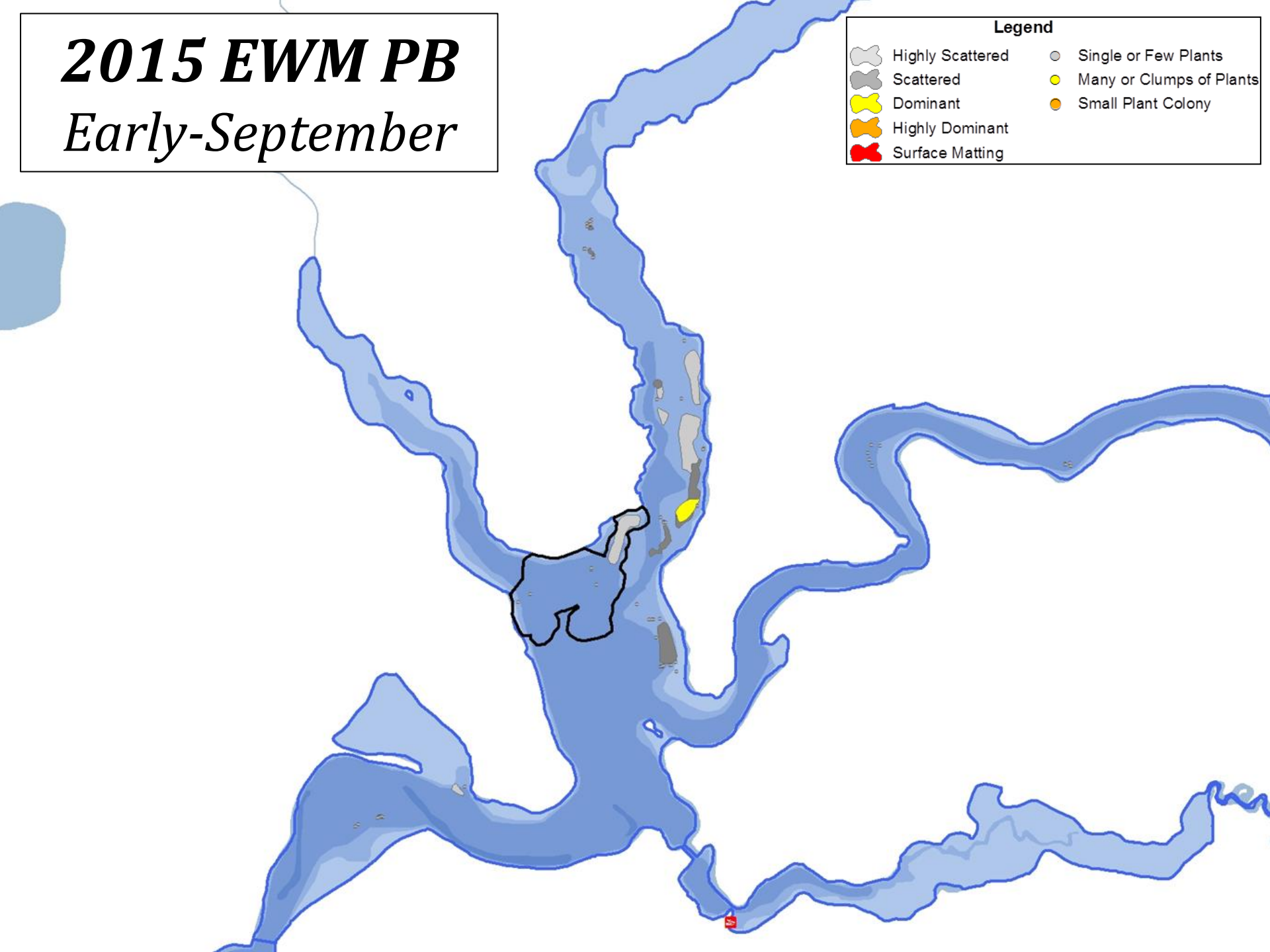

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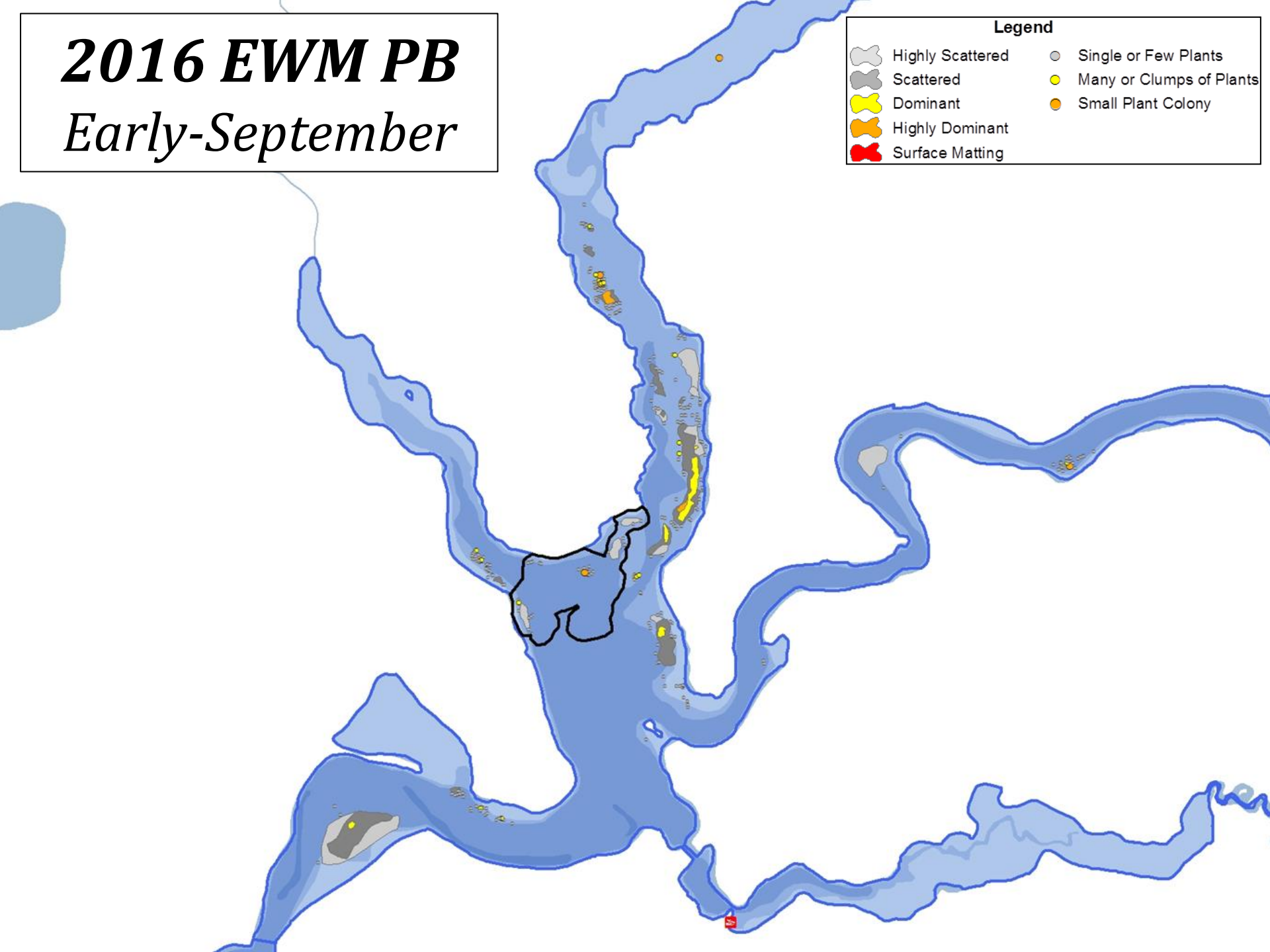

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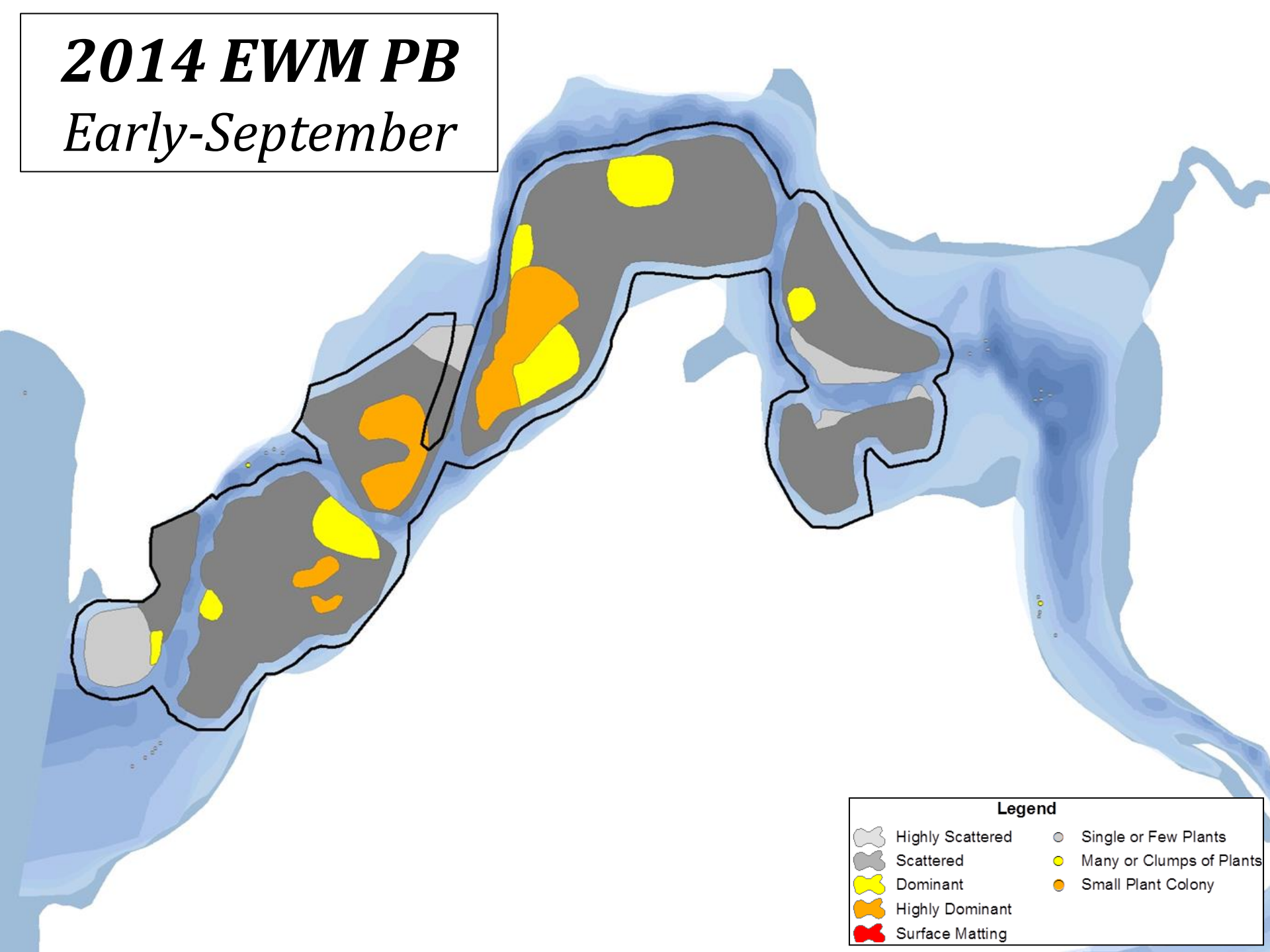

2015 EWM PB

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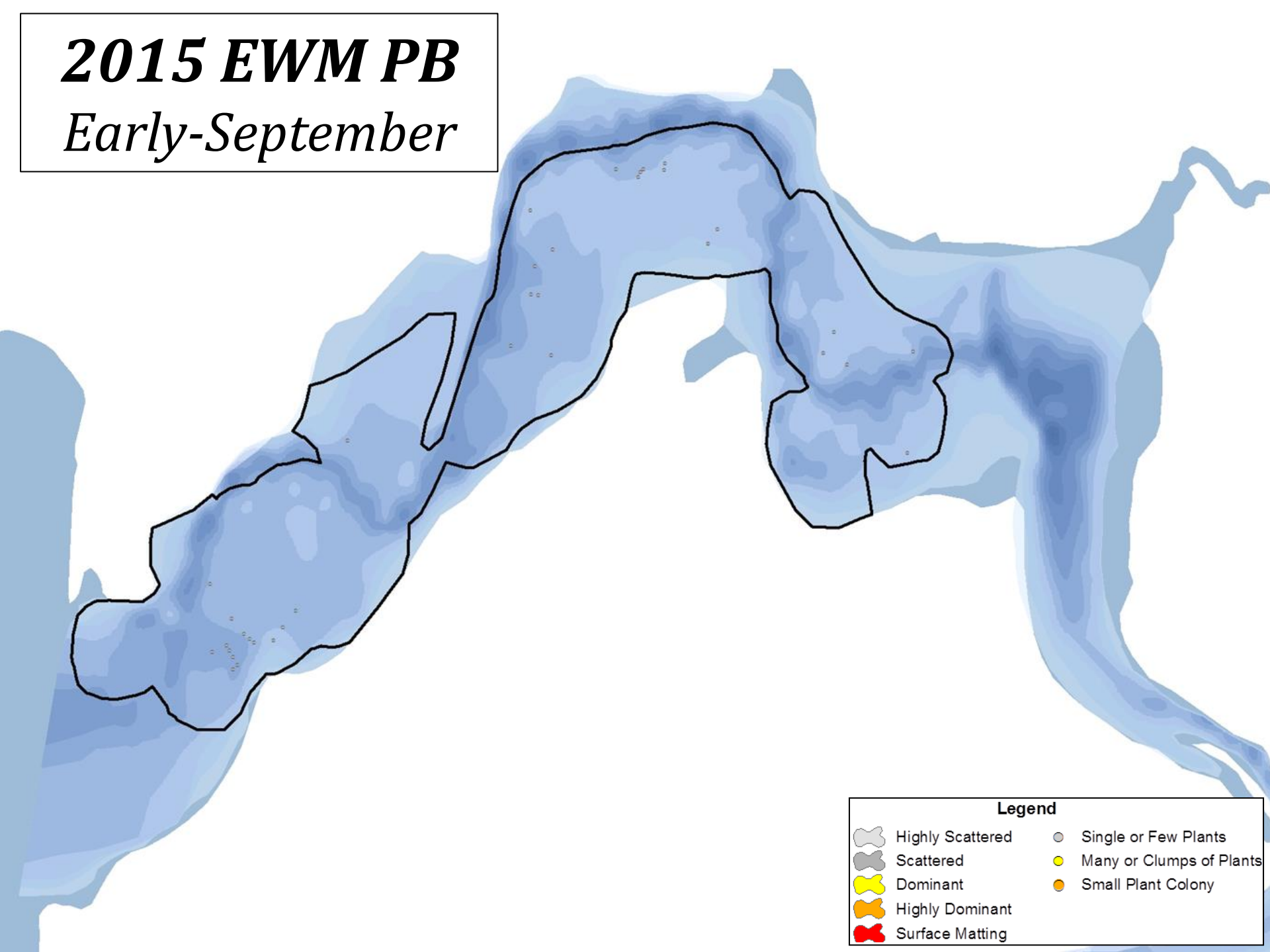

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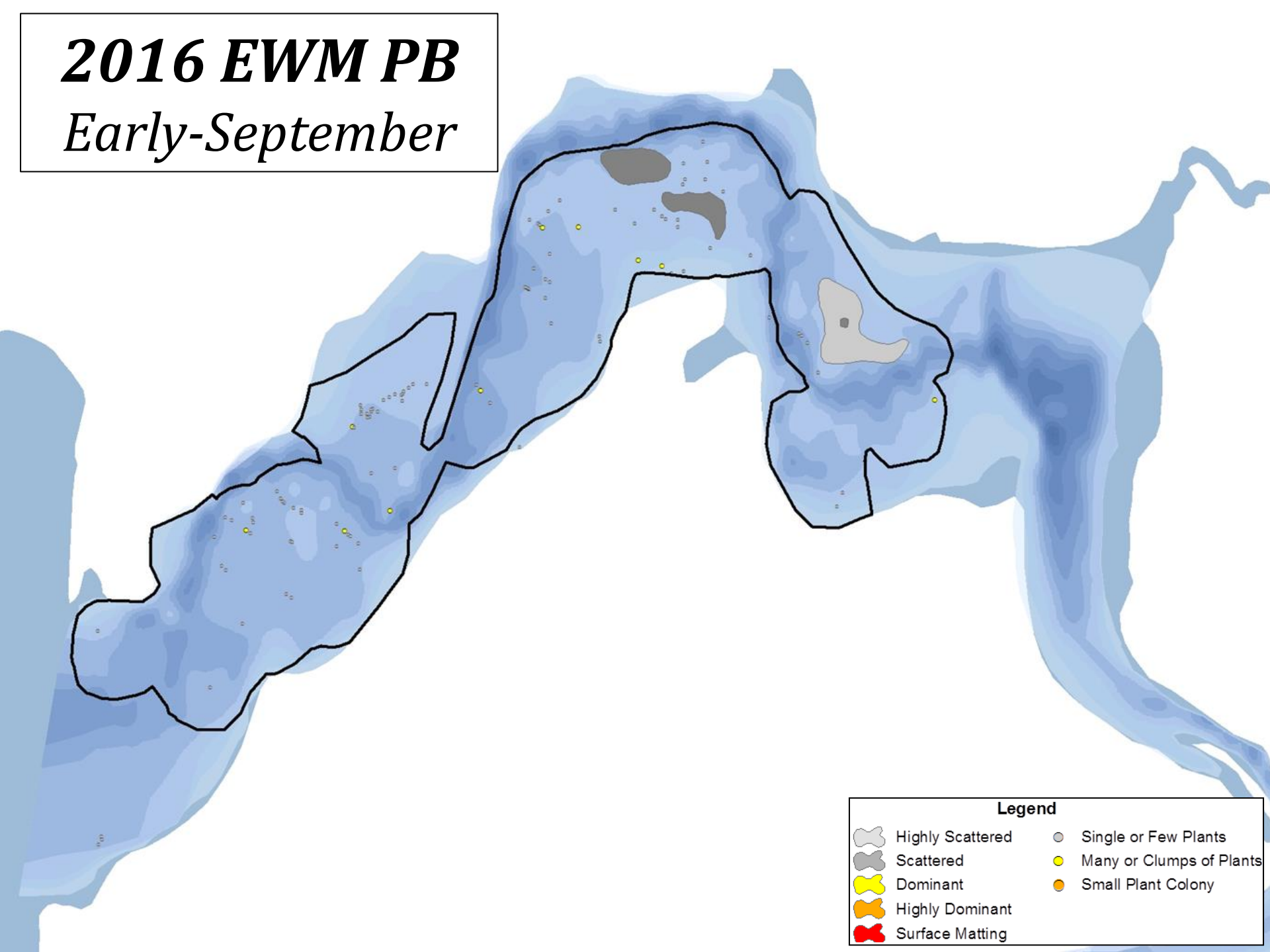

AIS Project Conclusions

Overall, Significant Reduction of EWM

- 2007 – 278 acres of EWM colonies mapped, most of which were *dominant* or greater
- 2016 – < 20 acres of EWM colonies mapped, all but 1.8 acres is > *scattered*

No Herbicide Treatment Proposed AGAIN for 2017

- Working criteria: colonized areas where a sufficiently large treatment area can be constructed to hold CETs (preference to *dominant* or greater density)
- Based on the ESAIS Survey (early July), professional hand-harvesting areas would be constructed

Important to Continue to Improve the ERC

- Ongoing Management Planning effort developing protection & enhancement goals
- Navigate additional science, changing technologies, and new regulations