
Unified Lower Eagle River Chain of Lakes Commission
Eagle River Chain of Lakes
EWM Management Project
Informational Meeting
November 19, 2025
Unified Lower Eagle River Chain of Lakes Commission
Eddie Heath
Onterra LLC
Lake Management Planning
Celebrating 20 Years
Onterra LLC
Lake Management Planning
2005 - 2025
Helping People Who Care for Lakes

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Presentation Outline

- Lake Management Planning
- EWM Population in the ERC
  - Lake-Specific Survey Results
  - Chain-Wide Survey Results
- 2026 Strategy Development Discussion
- Aquatic Plant Management Planning
- Concluding Comments

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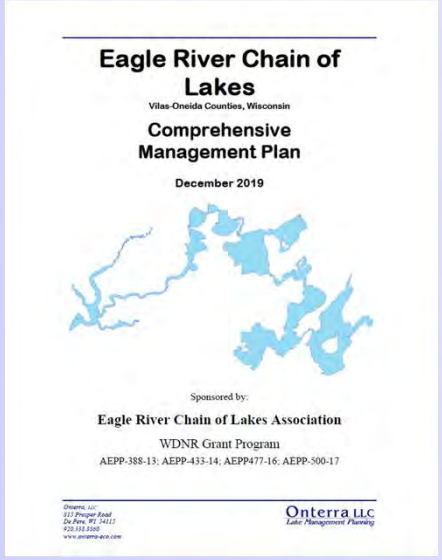
- In 2007, Town of Washington sponsored an Aquatic Plant Management Plan for each project waterbody
  - Outlined EWM population management goals, largely with herbicide use
  - Onterra hired in fall summer 2007 to implement management plan: generically use herbicides for EWM population management

- Through a multi-year phased project, the Eagle River Chain of Lakes Association finalized a *Comprehensive Management Plan* for managing the Eagle River Chain in Dec 2019
  - In addition to aquatic plant related goals - water quality, watershed, shoreline, and education/capacity goals and actions are outlined



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2019 CLMP EWM Management Plan

- Management Goal: *Actively Manage Existing and Reduce the Likelihood of Further AIS Establishment within the Eagle River Chain of Lakes*

AIS Prevention & Containment

- *Continue and expand Clean Boats Clean Waters watercraft inspections at Eagle River Chain of Lakes public access locations*
- *Continue ERCLA Pink Bucket Program*

AIS Early Detection & Response

- *Continue annual early-season AIS monitoring to detect potential occurrences of CLP*
- *Initiate aquatic invasive species rapid response plan upon discovery of new infestation*
- *Continue monitoring and control of the shoreline/wetland invasive plants purple loosestrife, garden yellow loosestrife, and pale-yellow iris on the Eagle River Chain of Lakes*

EWM Management

- *Continue annual monitoring of the Eagle River Chain's EWM population*
- *Enact EWM active management strategy and necessary management strategy assessments*

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Action: Annual EWM Mapping Program

- Onterra surveys entire littoral zone of ERC in late-June/early-July (ESAIS Survey)
- Data are loaded onto dedicated GPS units for volunteers
- Volunteers mark all EWM occurrences outside of where found during ESAIS
- Onterra conducts Focused Late-Season EWM Mapping Survey:
  - –All EWM locations mapped during ESAIS Survey
  - –All current and previous years' management areas
  - –All areas identified through volunteer surveillance

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Action: EWM Management Strategy (2019 CLMP)

- **Goal Statement:** Maintain EWM Populations below levels that cause ecological impacts or cause impacts to navigation or recreation
  - Tolerate low-levels of EWM
  - Use manual removal efforts (includes DASH) to minimize select high-use areas with nuisance EWM conditions
  - Consider herbicide treatments for large & impactful EWM populations
    - Trigger: Colonized EWM of *dominant* or greater density, with preference to high-use areas, that have site attributes that conform with high likelihood of success (>5 acres in size, contained/protected, not in areas of high flow, etc.)
    - No areas met this threshold during 2015-2024 late-season EWM Mapping Surveys
    - *2019 Plan* based upon 2,4-D use patterns, need to consider new BMPs, alternatives analysis, risk assessment, regulatory perspectives for future herbicide treatments

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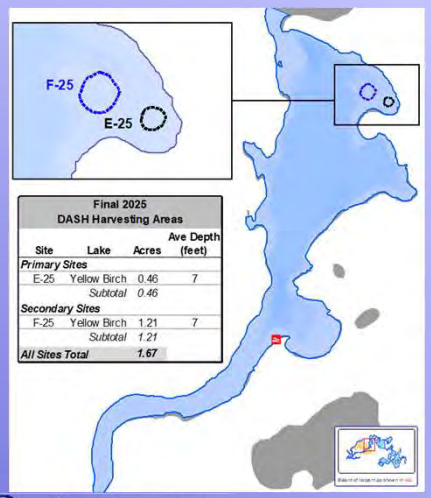
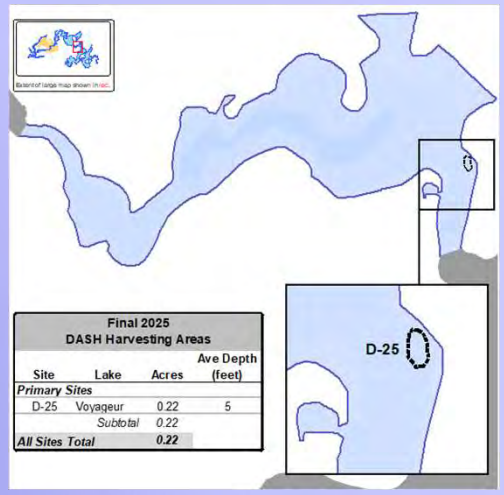
2025 Manual Removal Plan

- Primary/Secondary Strategy (6.13 acres), expectation that not all would be targeted
- Educate and encourage riparians on legal EWM/aquatic plant removal



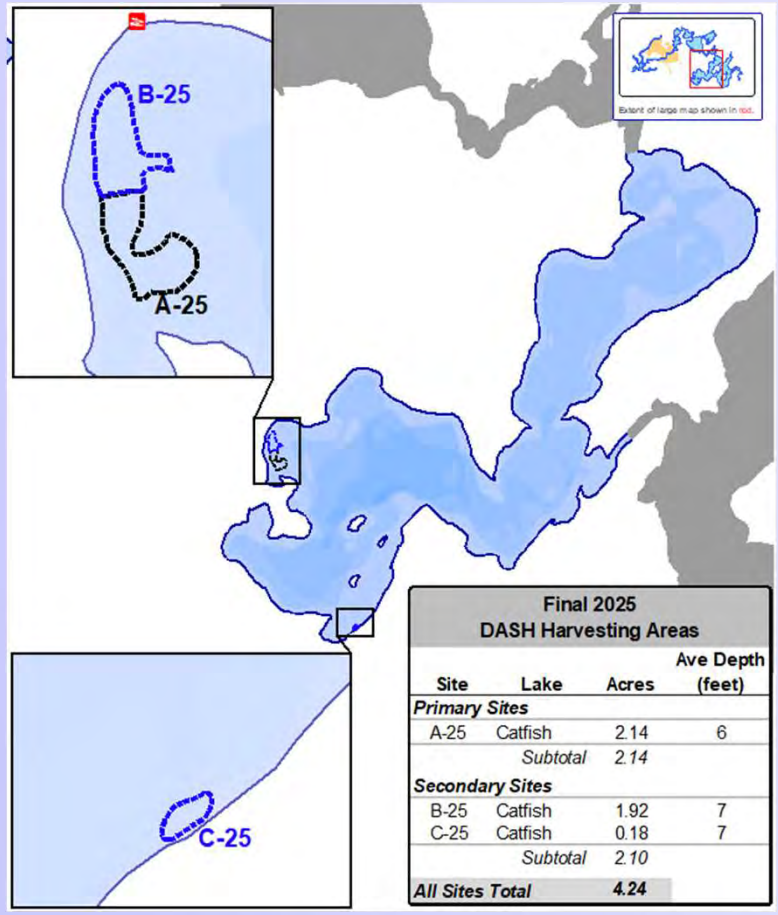
Final 2025 DASH Harvesting Areas

Site	Lake	Acres	Ave Depth (feet)
Primary Sites			
E-25	Yellow Birch	0.46	7
	Subtotal	*0.46*	
Secondary Sites			
F-25	Yellow Birch	1.21	7
	Subtotal	*1.21*	
All Sites Total		*1.67*	



Final 2025 DASH Harvesting Areas

Site	Lake	Acres	Ave Depth (feet)
Primary Sites			
D-25	Voyageur	0.22	5
	Subtotal	*0.22*	
All Sites Total		*0.22*	



Final 2025 DASH Harvesting Areas

Site	Lake	Acres	Ave Depth (feet)
Primary Sites			
A-25	Catfish	2.14	6
	Subtotal	*2.14*	
Secondary Sites			
B-25	Catfish	1.92	7
C-25	Catfish	0.18	7
	Subtotal	*2.10*	
All Sites Total		*4.24*	

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2025 Manual Removal Plan

- 14 days of effort in 2025, targeting Catfish & Voyageur
- Yellow Birch sites were ultimately not targeted in 2025

DASH Aquatic Services LLC

2025 DASH Summary
Eagle River Chain of Lakes

DASH harvesting of Eurasian Water Milfoil took place on Voyageur Lake and Catfish Lake for 14 days with 98 hours of dive/harvest time.
A total of 3508 lbs were harvested between the two lakes.

Voyageur Lake area D-25
3 days were spent on this location and 1186# were harvested

Catfish Lake area A-25 and B-25
10 days were spent on these locations and 2122# were harvested

Catfish Lake area C-25
1 day was spent here and 200# were harvested

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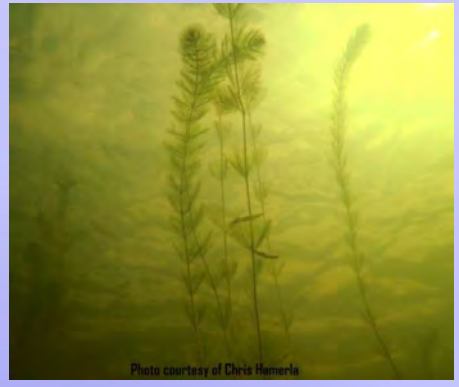
Professional EWM Mapping



Point-Based Mapping

- Single or Few Plants
- Clumps of Plants
- Small Plant Colony

Densities that can Impact navigation

Polygon-Based Mapping

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

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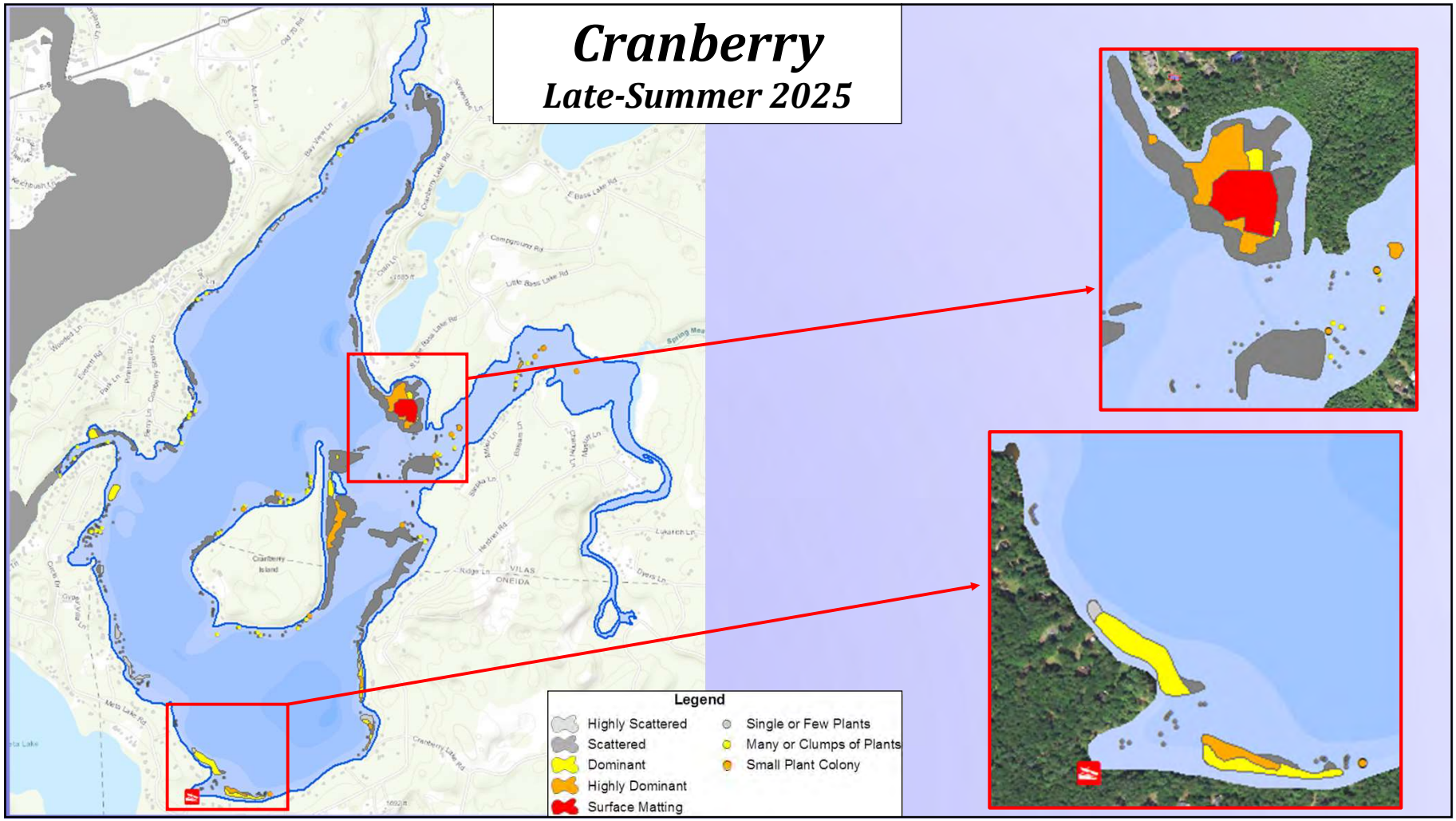
Cranberry
Late-Summer 2025
Legend
Highly Scattered
Scattered
Dominant
Highly Dominant
Surface Matting
Single or Few Plants
Many or Clumps of Plants
Small Plant Colony

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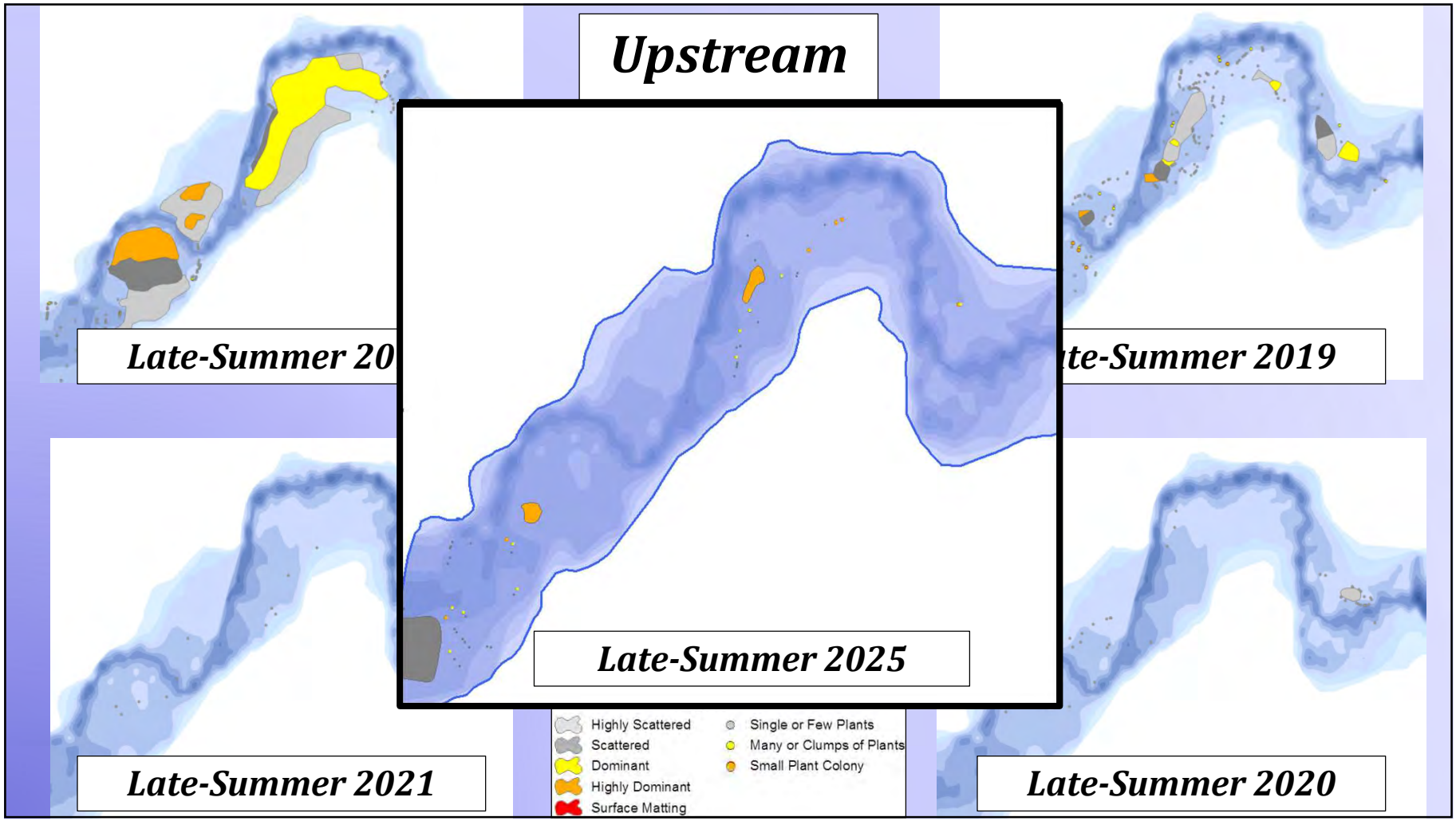
Upstream
Late-Summer 20
te-Summer 2019
Late-Summer 2025
Late-Summer 2021
Late-Summer 2020
Highly Scattered
Scattered
Dominant
Highly Dominant
Surface Matting
Single or Few Plants
Many or Clumps of Plants
Small Plant Colony

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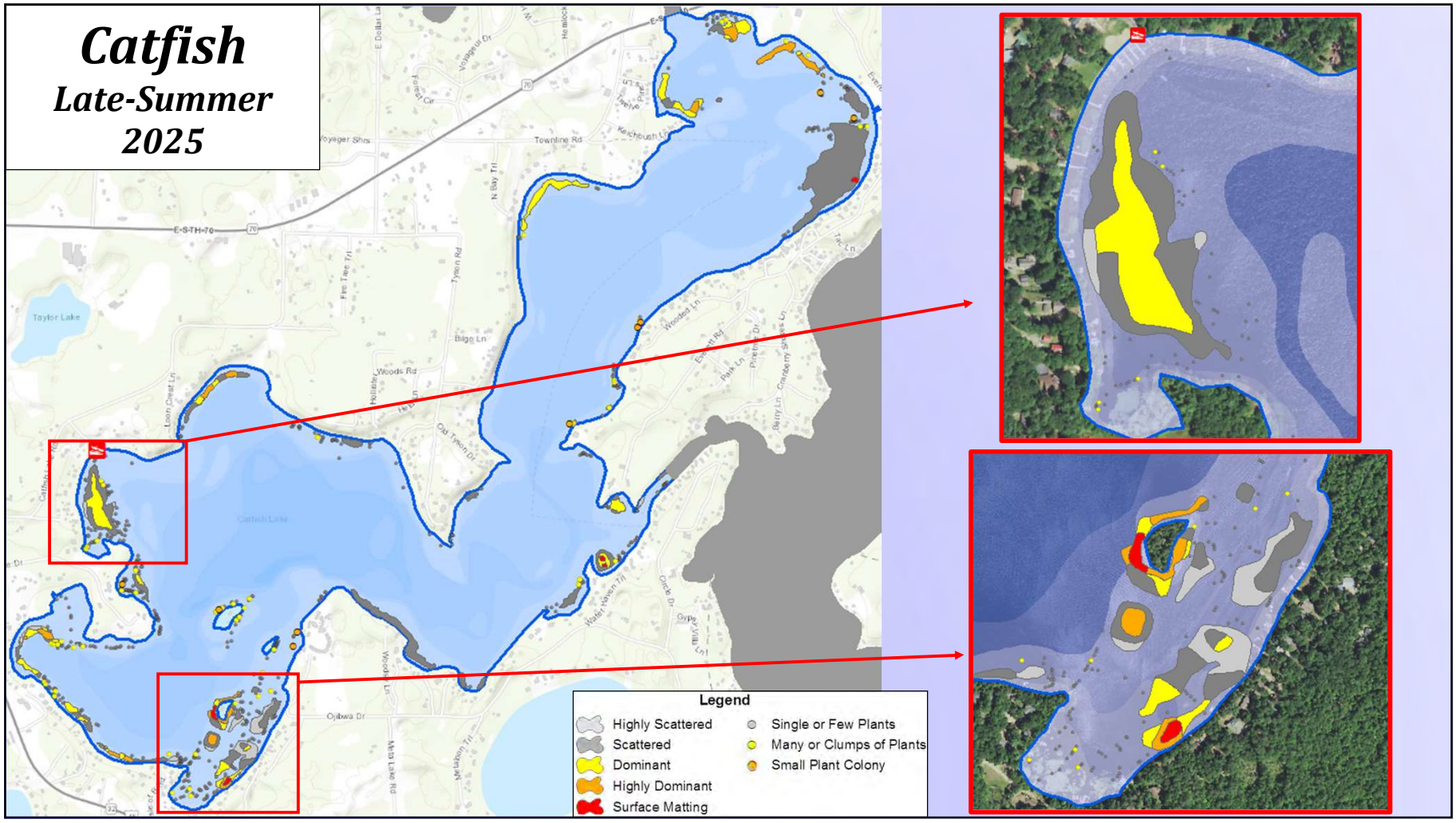
Catfish
Late-Summer
2025
Legend
Highly Scattered
Scattered
Dominant
Highly Dominant
Surface Matting
Single or Few Plants
Many or Clumps of Plants
Small Plant Colony
Taylor Lake
Catfish Lake
E-STH-70
Townline Rd
Bilge Ln
Woods Rd
Ojibwa Dr

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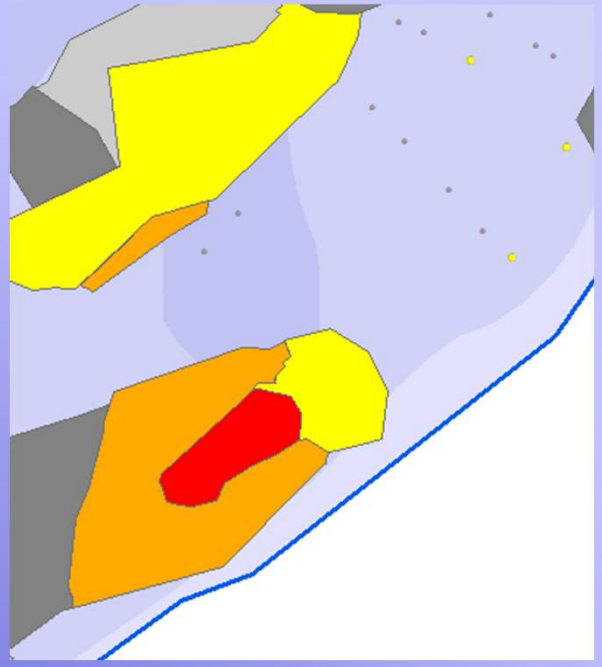
Catfish C-25
Early-Summer 2025

Catfish C-25
Late-Summer 2025



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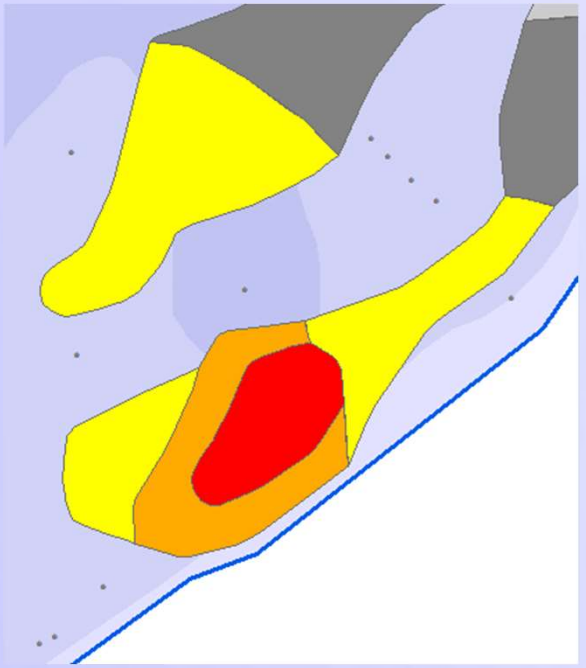
1 Day Harvest
200 lbs



Legend

- Highly Scattered
- Scattered
- Dominant
- Highly Dominant
- Surface Matting
- Single or Few Plants
- Many or Clumps of Plants
- Small Plant Colony

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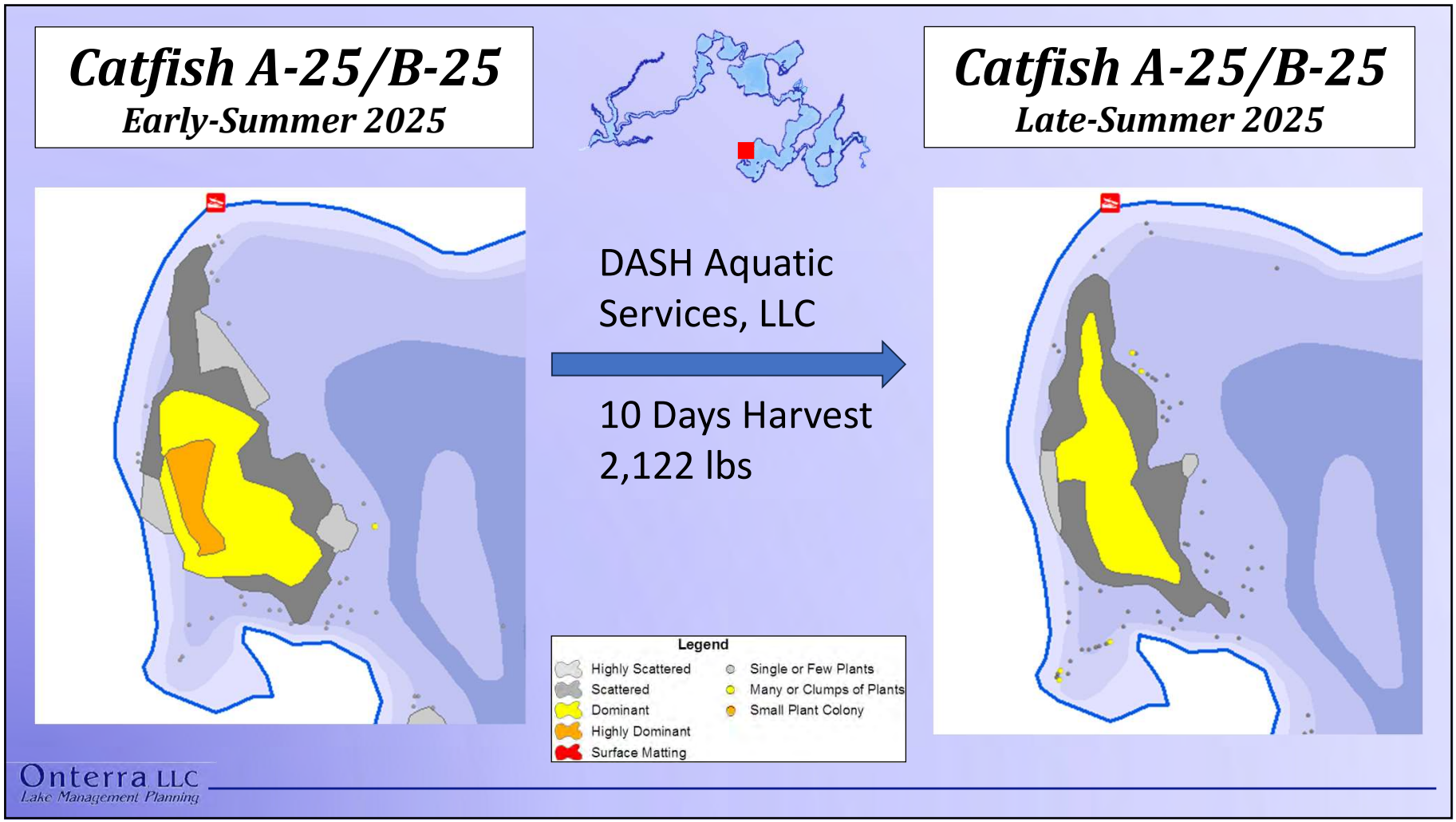
Catfish A-25/B-25
Early-Summer 2025
Catfish A-25/B-25
Late-Summer 2025
DASH Aquatic Services, LLC
10 Days Harvest
2,122 lbs
Legend
Highly Scattered
Scattered
Dominant
Highly Dominant
Surface Matting
Single or Few Plants
Many or Clumps of Plants
Small Plant Colony
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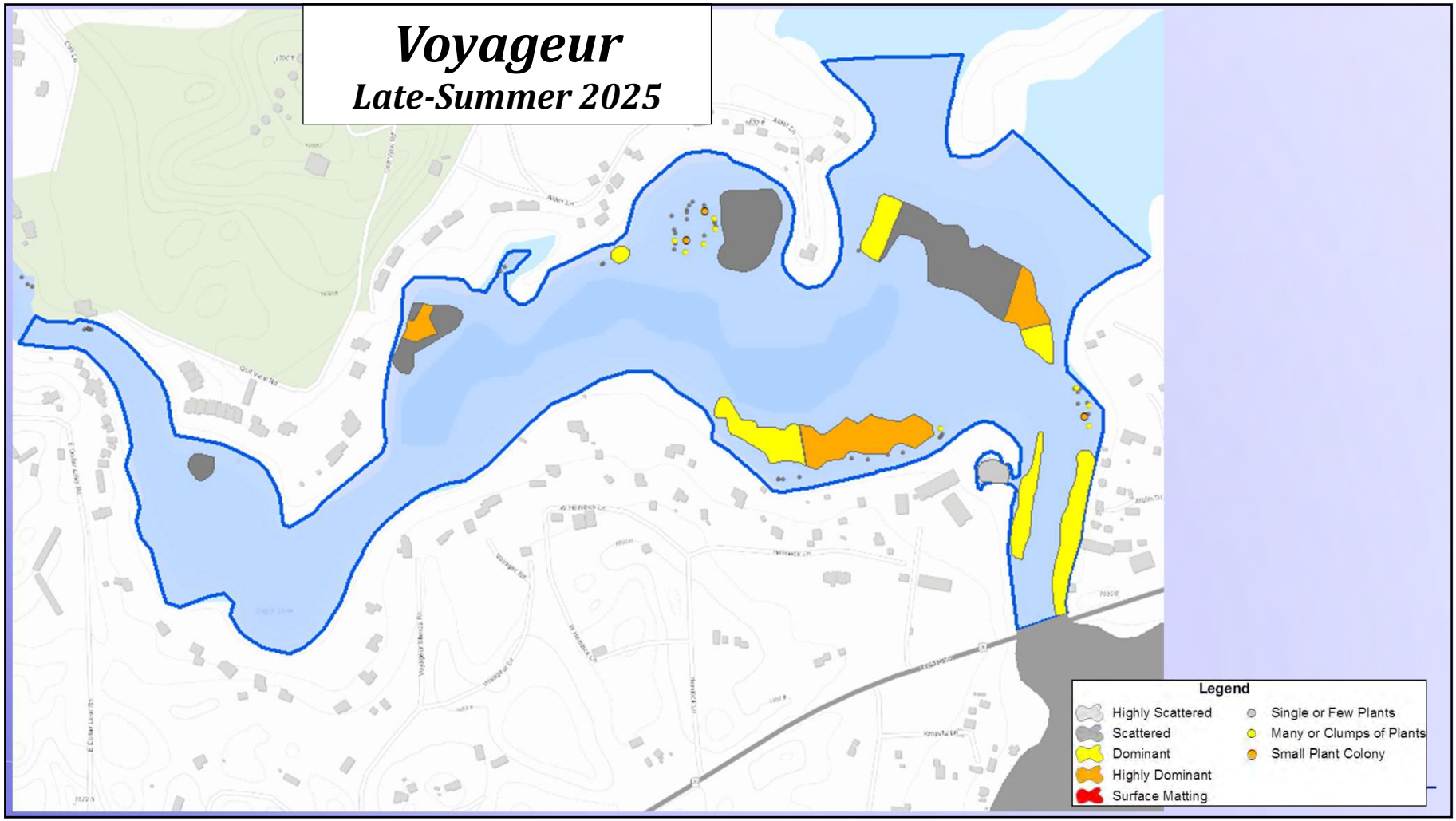
Voyageur
Late-Summer 2025
Legend
Highly Scattered
Scattered
Dominant
Highly Dominant
Surface Matting
Single or Few Plants
Many or Clumps of Plants
Small Plant Colony

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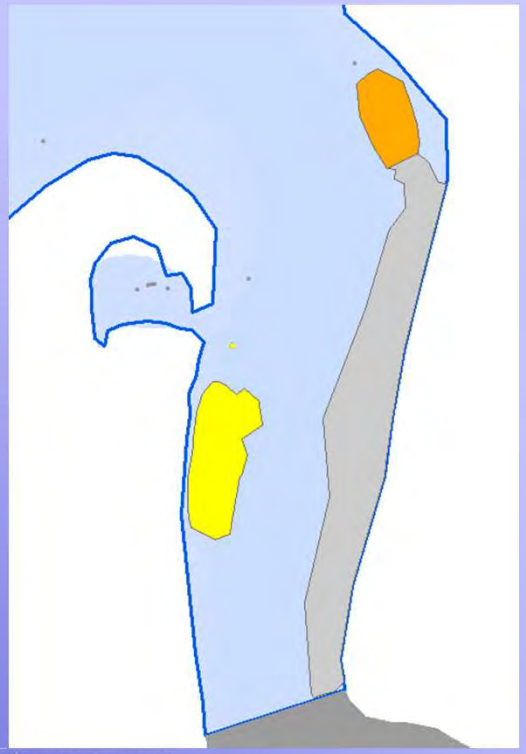
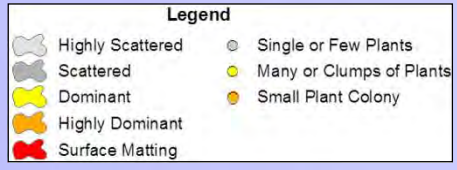
Voyageur D-25
Early-Summer 2025

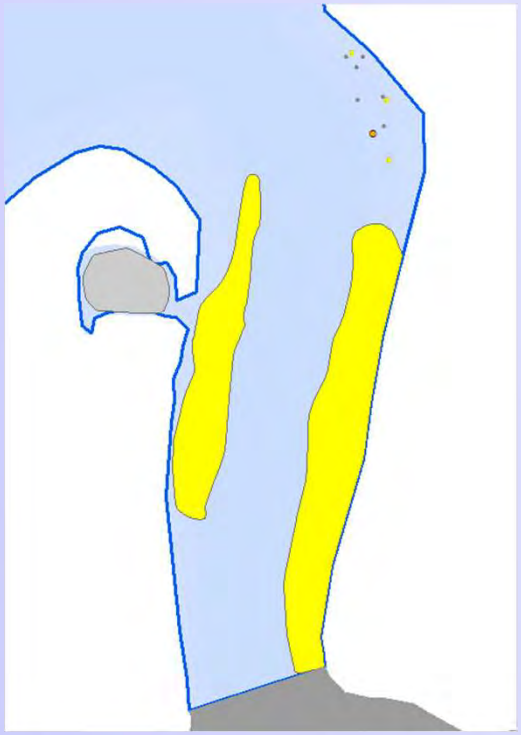
Voyageur D-25
Late-Summer 2025



DASH Aquatic Services, LLC

3 Days Harvest
1,186 lbs





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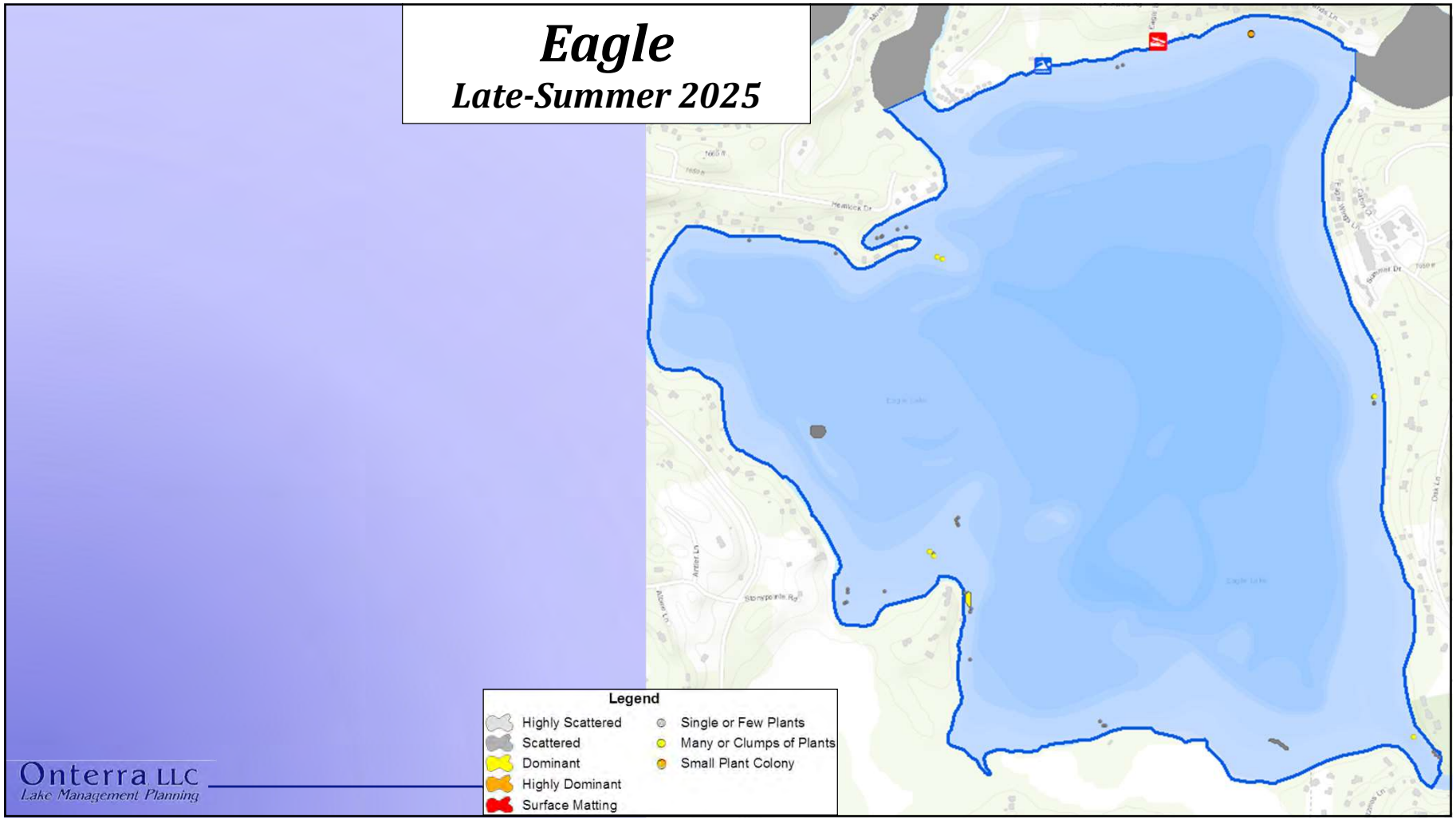
Eagle
Late-Summer 2025
Legend
Highly Scattered
Scattered
Dominant
Highly Dominant
Surface Matting
Single or Few Plants
Many or Clumps of Plants
Small Plant Colony
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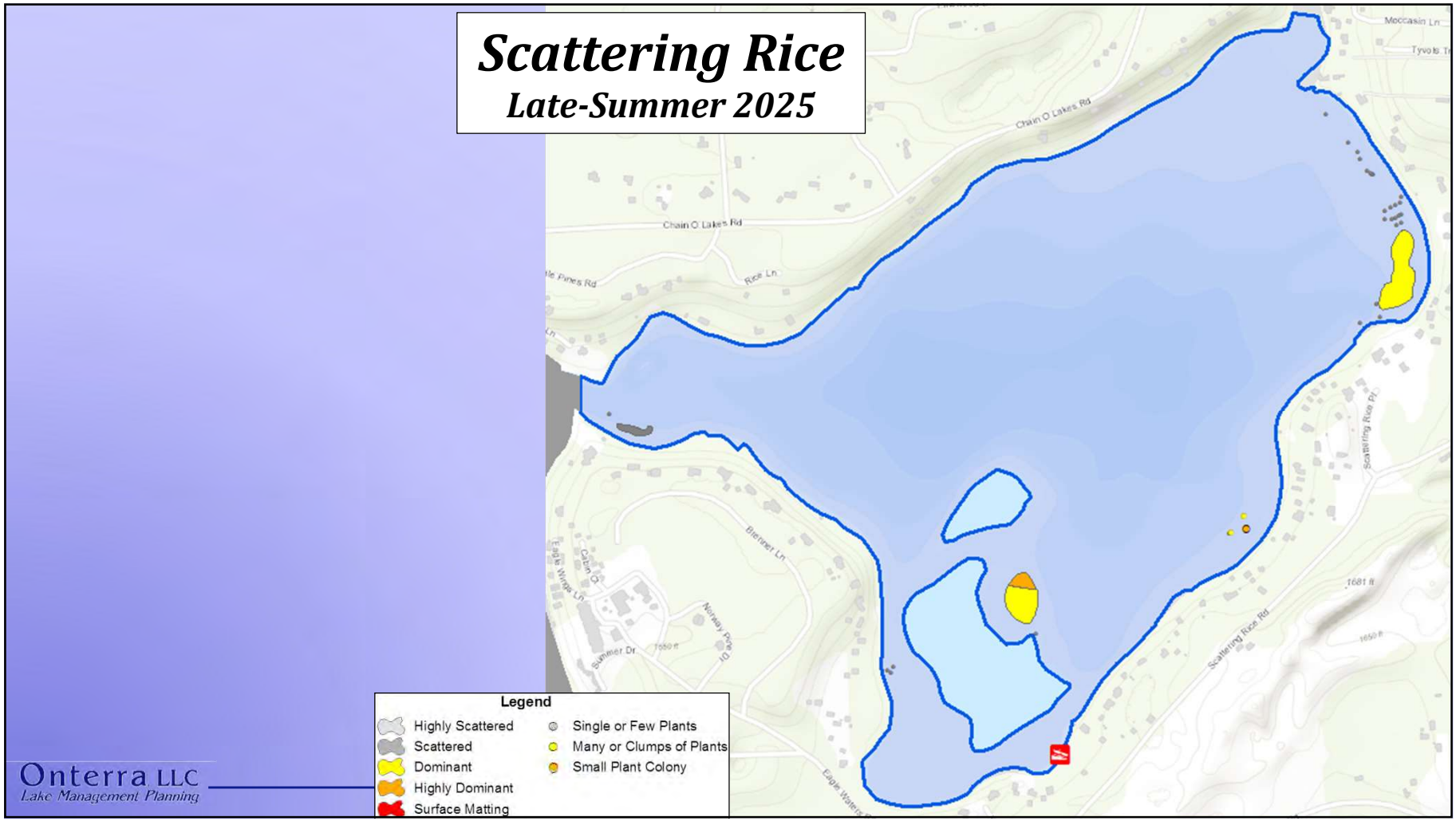
Scattering Rice
Late-Summer 2025
Chain O Lakes Rd
Rice Ln
Scattering Rice Rd
Legend
Highly Scattered
Scattered
Dominant
Highly Dominant
Surface Matting
Single or Few Plants
Many or Clumps of Plants
Small Plant Colony
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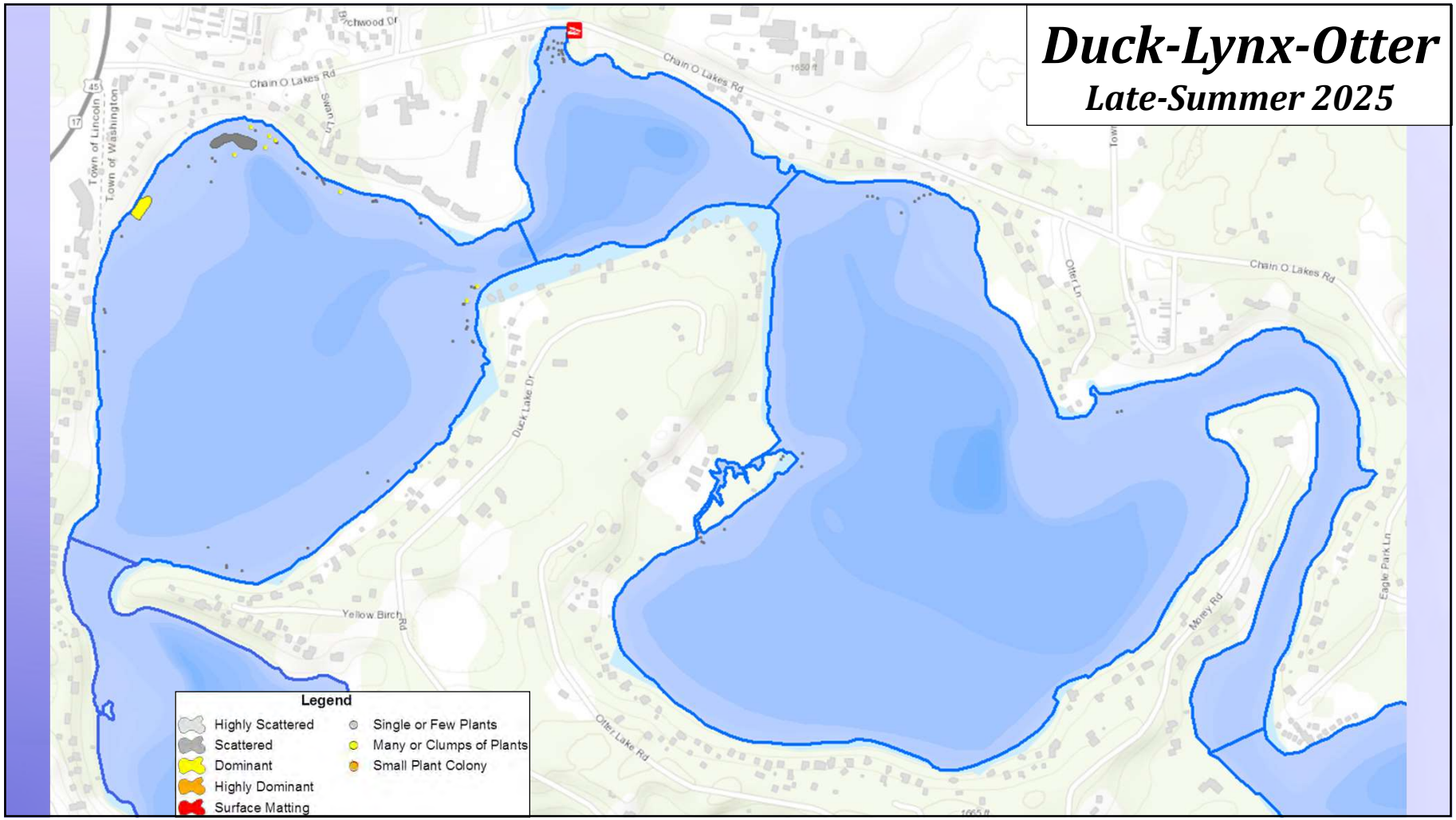
Duck-Lynx-Otter
Late-Summer 2025
Chain O Lakes Rd
Birchwood Dr
Swan Ln
Town of Lincoln
Town of Washington
Duck Lake Dr
Otter Ln
Yellow Birch Rd
Otter Lake Rd
Money Rd
Eagle Park Ln
Legend
Highly Scattered
Scattered
Dominant
Highly Dominant
Surface Matting
Single or Few Plants
Many or Clumps of Plants
Small Plant Colony

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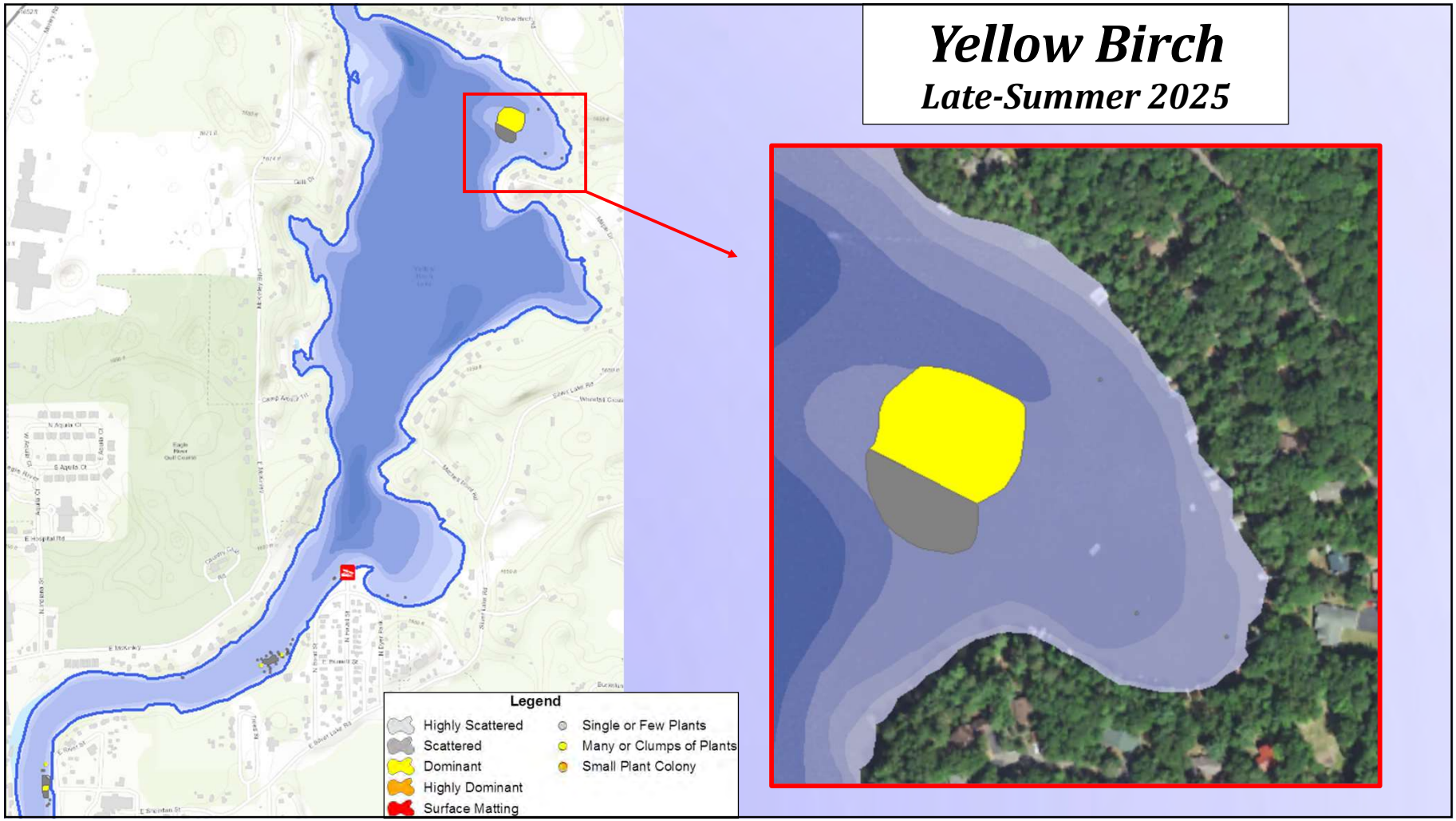
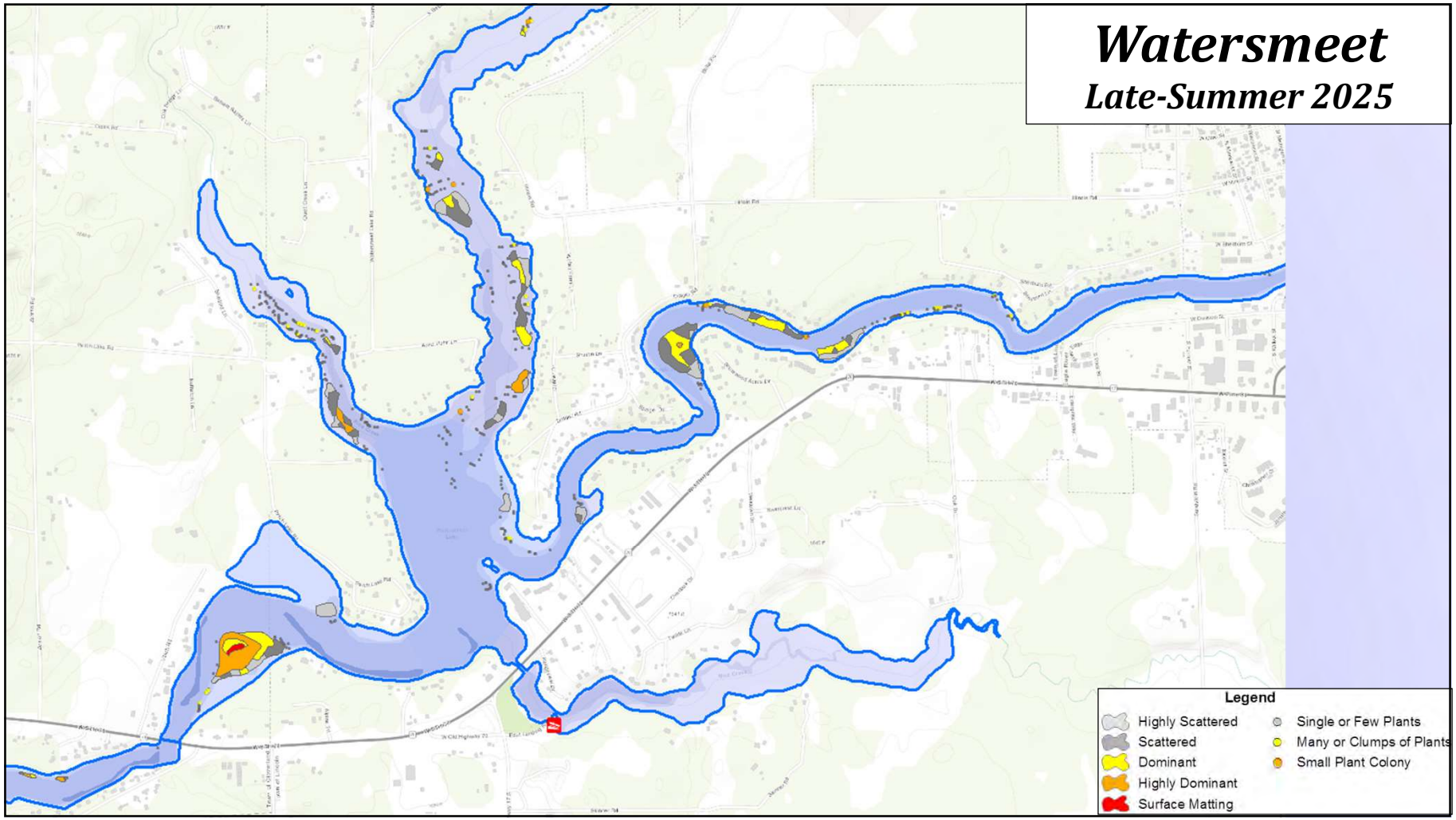

Yellow Birch
Late-Summer 2025
Legend
Highly Scattered
Scattered
Dominant
Highly Dominant
Surface Matting
Single or Few Plants
Many or Clumps of Plants
Small Plant Colony

22


Watersmeet
Late-Summer 2025
Legend
Highly Scattered
Scattered
Dominant
Highly Dominant
Surface Matting
Single or Few Plants
Many or Clumps of Plants
Small Plant Colony

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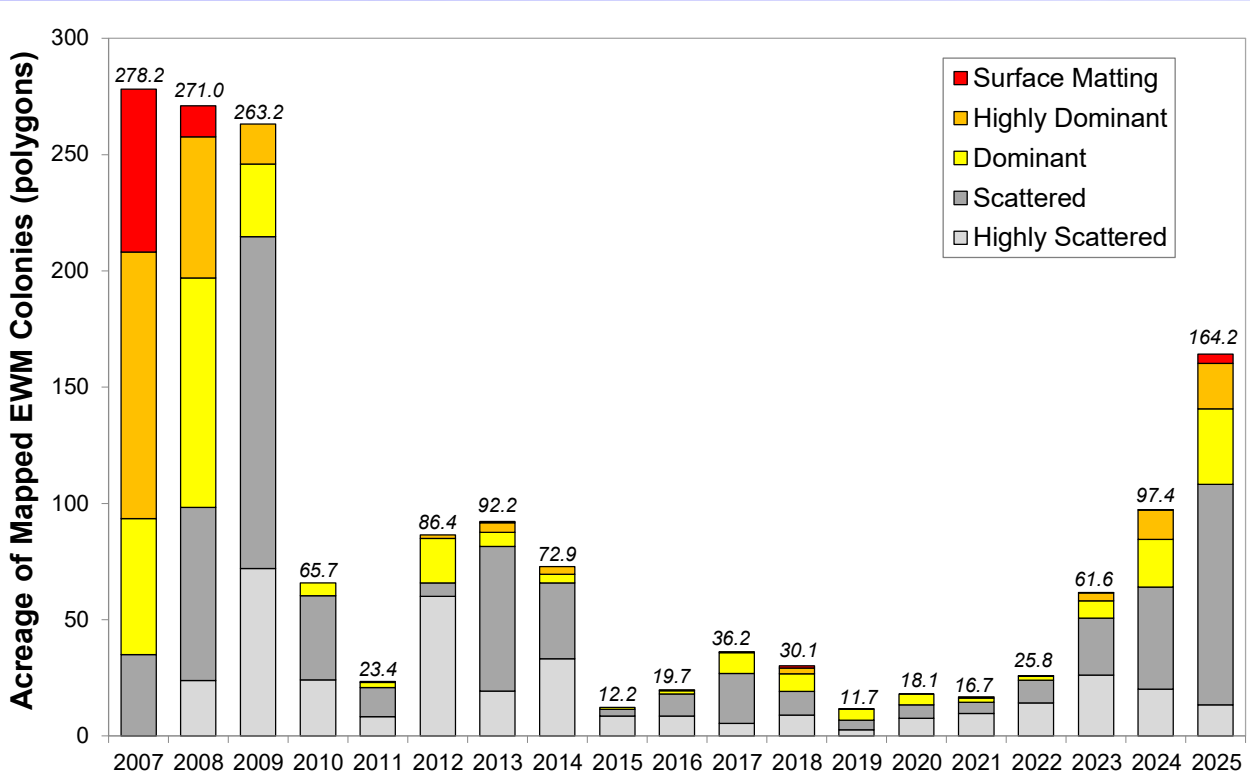
Chain-Wide Results



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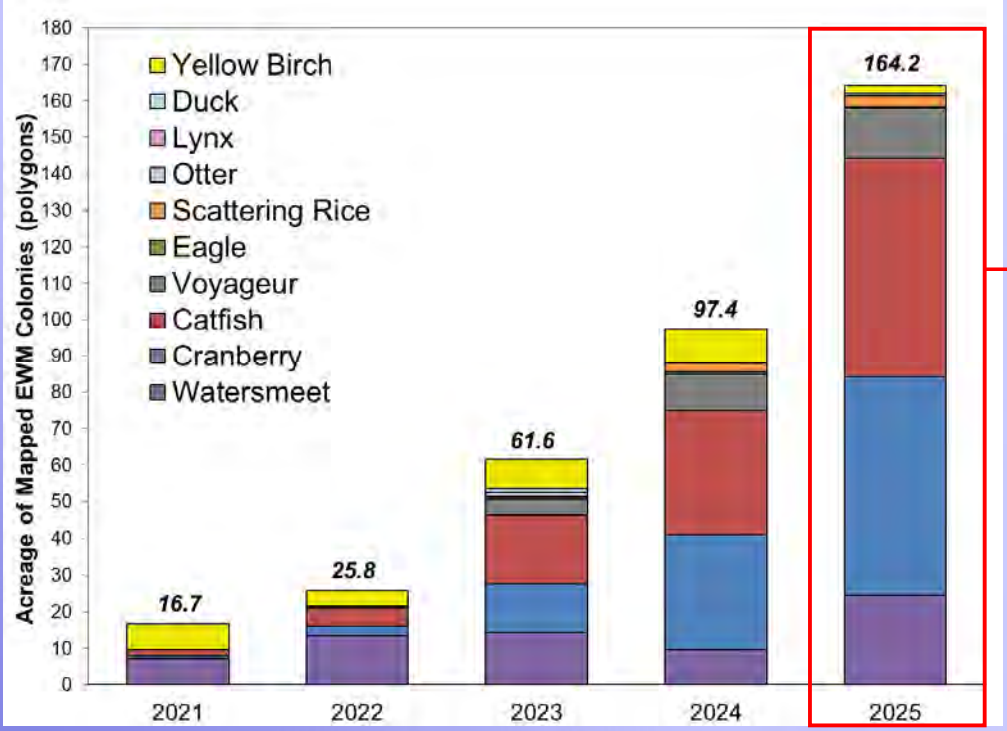
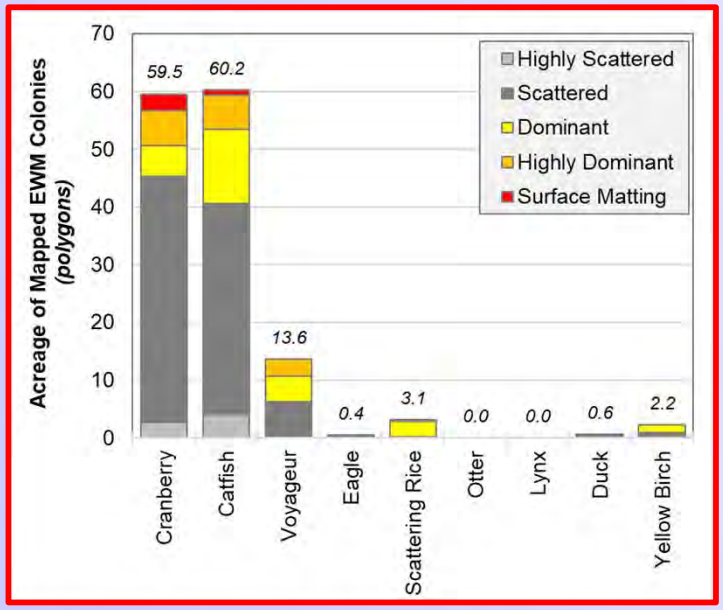
Chain-Wide Results





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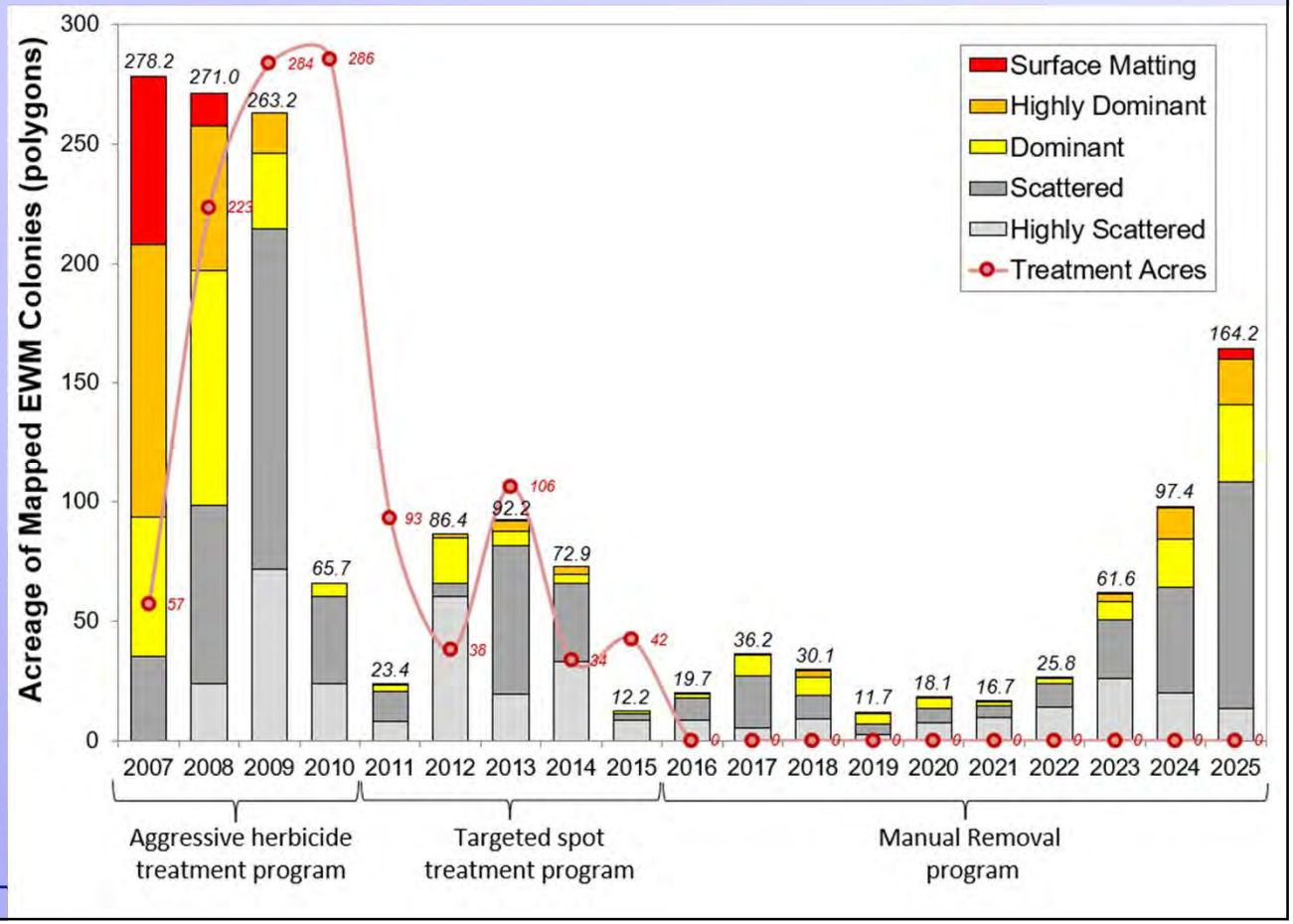
Chain-Wide Results

EWM populations influenced by:

1. Management

DASH program
- 2016: Voyageur
- 2017: Voy, ScatRice, Wat
- 2018: YBL, ScatRice, Wat
- 2019: ScatRice, YBL, Wat
- 2020: Cran, Cat, Voy
- 2021: Cran, Cat, YBL
- 2022: Cran, Cat, YBL, Wat
- 2023: Cat, YBL, Wat
- 2024: Cat, YBL
- 2025: Cat, Voy



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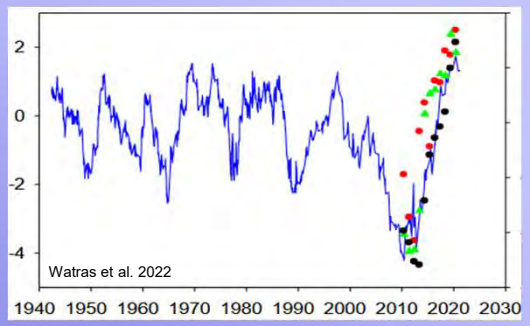
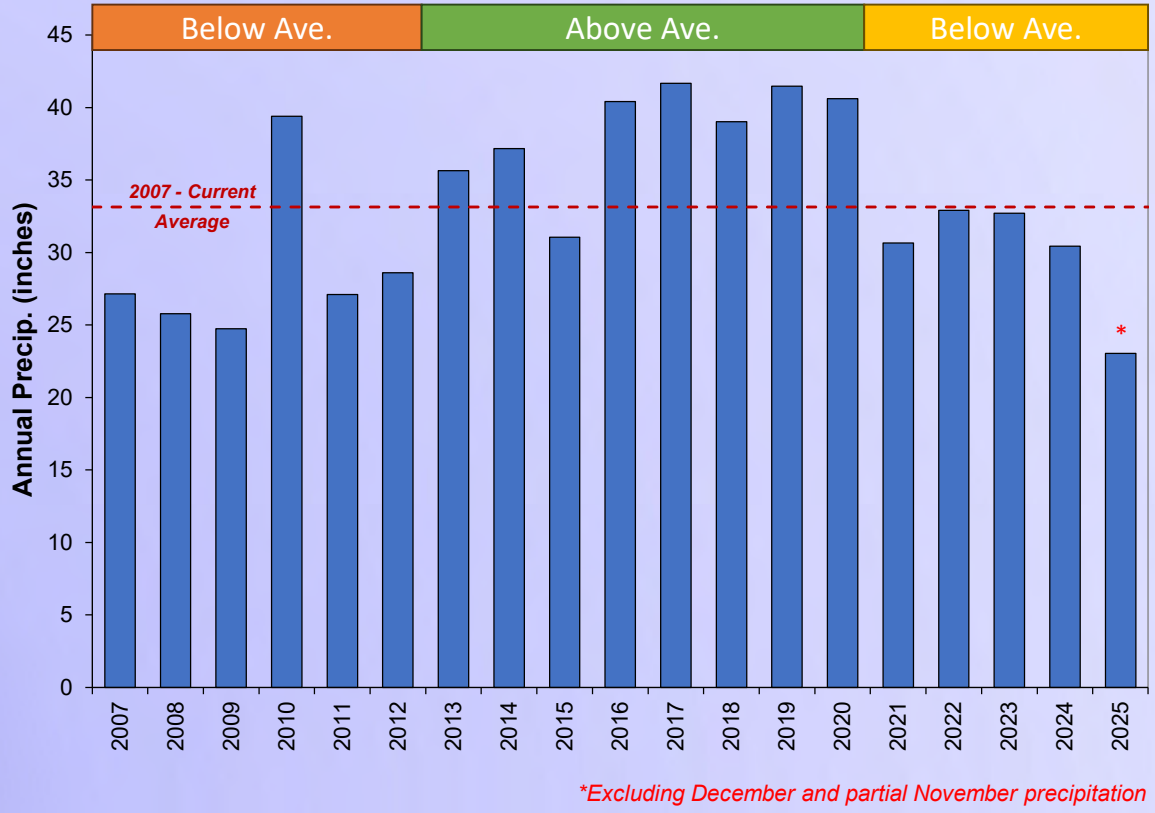
Chain-Wide Results

EWM populations influenced by:

1. Management
2. Water clarity & flow



- Near-decadal climactic driven water level oscillations
- Peaks/valleys likely to be more extreme & variable in future



*Excluding December and partial November precipitation

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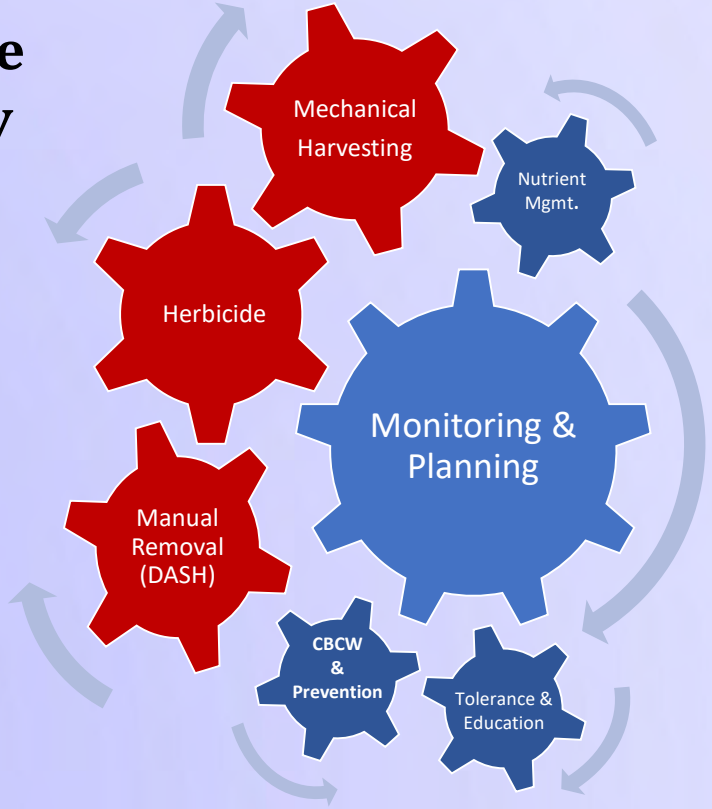
Integrated Pest Management (IPM)

Using a combination of methods that are more effective when applied collectively as part of defined strategy than when conducted separately



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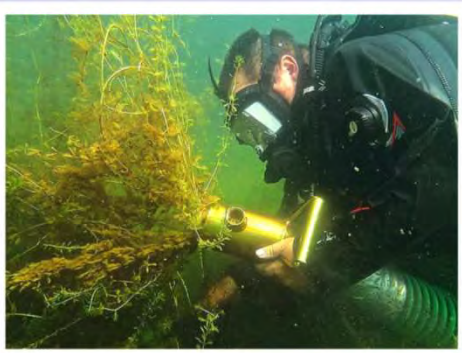
2026 Management Strategy Development

- Continue to educate and encourage riparians on legal nuisance aquatic plant removal
  - Riparians can remove all plants in a 30-ft width of shoreline out as deep as desired w/o a permit so long as non-mechanized methods are used *(conditions apply)*



- 3-year grant for ~15 days of DASH removal annually (2025-2027)
- More discussions are forthcoming to create a prioritized strategy
  - Scale-appropriate to reach goals
  - Finalized based upon 2026 ESAIS Survey

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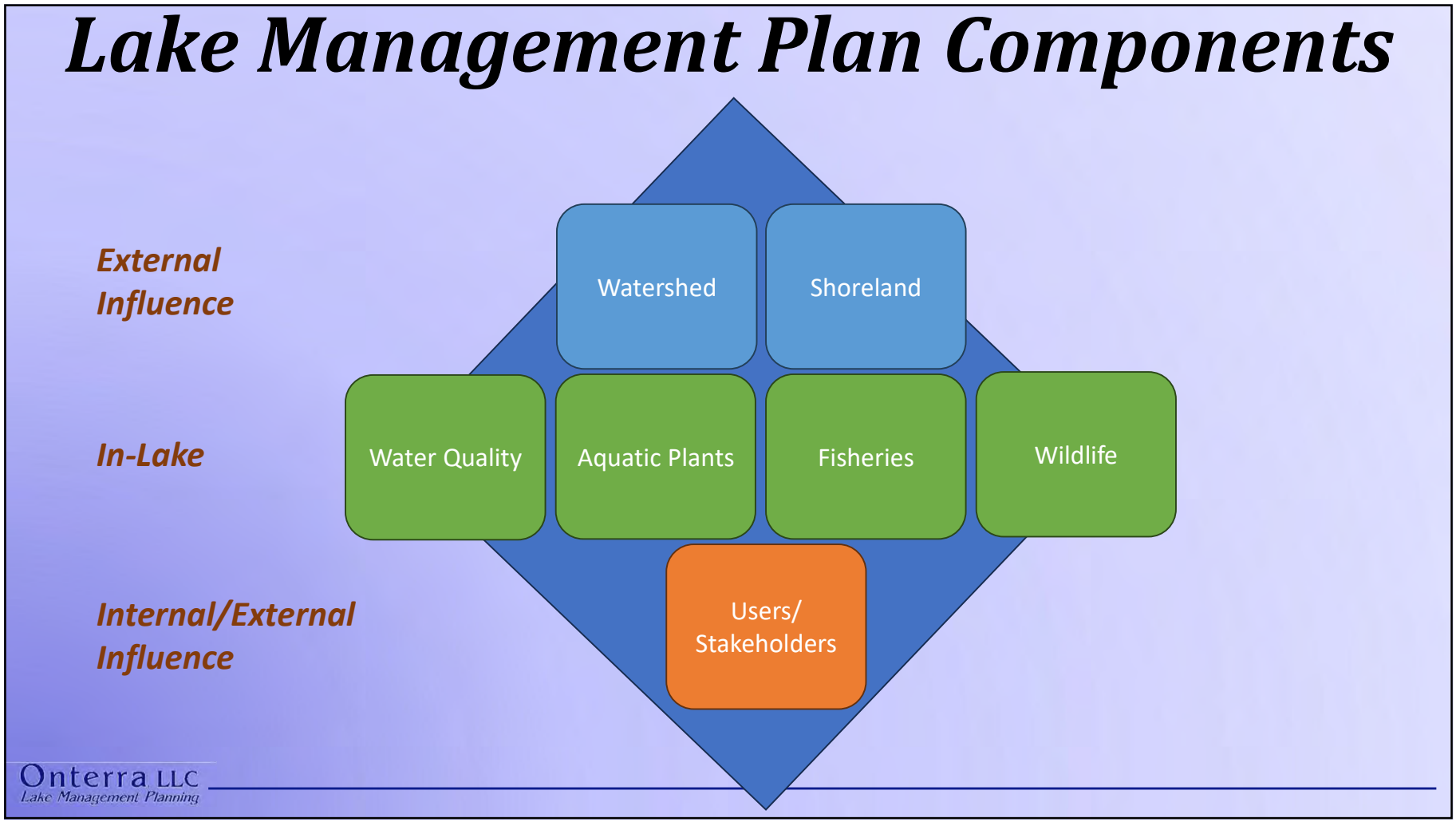
Lake Management Plan Components



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Management Plan Requirements

- WDNR recommends ***Comprehensive Management Plans*** have a 10-year lifespan
  - Aquatic Plant Management (APM) Plan is one component of a Comprehensive Plan, along with water quality, watershed, shoreland, fisheries, etc.
  - Particularly for grants/permits related to water quality/watershed improvements, plan must have completion date within the last 10 years
  - Management action in grant or permit needs to be supported by Plan
- WDNR recommends lakes conducting active plant management update aspects of the plan every 5 years (***APM Plan***)
  - Particularly for grants/permits related to aquatic plant management (AIS control grants, NR107, NR109)
  - Whole-lake point-intercept survey needs to have been completed within last 5 years
  - Management action in grant or permit needs to be supported by Plan

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ERC Management Planning

NR193 enacted August 2020:

ERC Comprehensive Plan (Dec 2019)

Eligible for AIS Control Grants through 2024 cycle

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APM Plan Update – Data Collection

- General User Stakeholder Survey
  - Online survey open to anyone, advertised by ERCLA
- Aquatic plant survey data (AIS Control Grant)
  - 2026 point-intercept survey
  - 2026 early/late-season EWM mapping surveys
- Water quality data review
  - Clarity (Secchi) on all lakes
  - TP & Chl-a on Cranberry, Scattering Rice, & Watersmeet

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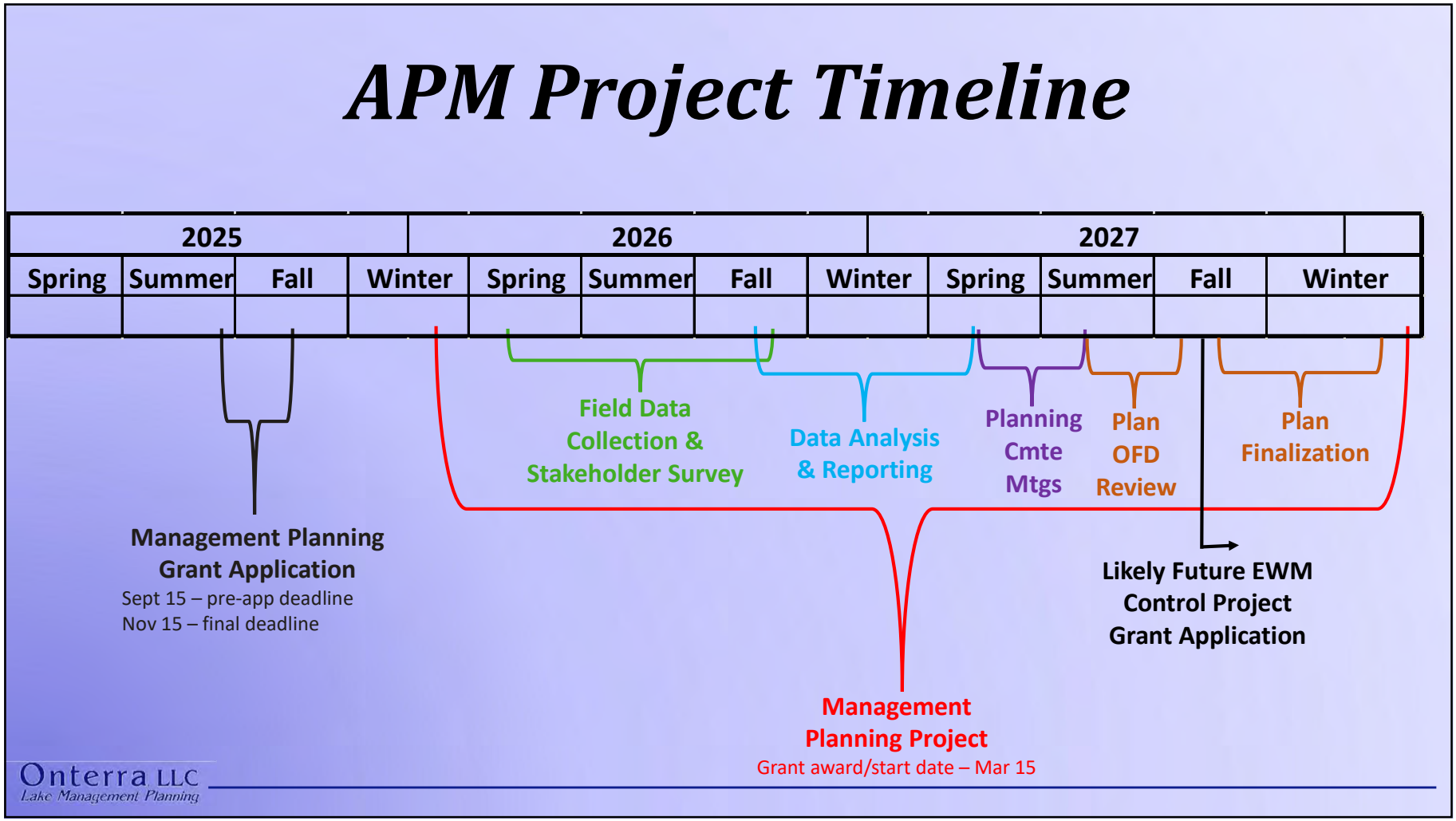
APM Project Timeline



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ERC Project Conclusions

- **Increasing EWM Population, User Impediments Likely Increasing**
  - Moderate & consistent EWM increase observed from 2021-2025
- **2026 Plan Likely Omits Herbicide Treatment**
  - Herbicide use profiles and risk/benefit analysis have evolved greatly since last management plan, underscoring the importance of the updated APM Planning Project
    - Develop an updated IPM Plan, considering active management (herbicide, mechanical, manual), planning, monitoring, education, nutrient management, ect.
  - Will be 11 consecutive years without herbicide management
- **Conduct Professional-Based Manual Removal (DASH) in 2026**
  - APM project to revise approach, as EWM population is larger/denser than when plan developed
  - Based on the ESAIS Survey (early July), the strategy will be adjusted and reprioritized
  - Early implementation of hand-harvesting program has been helpful
- **Important to Continue to Enhance & Protect the Chain**
  - Work on implementing protection & enhancement goals, especially shoreland protection/restoration

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Thank You

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