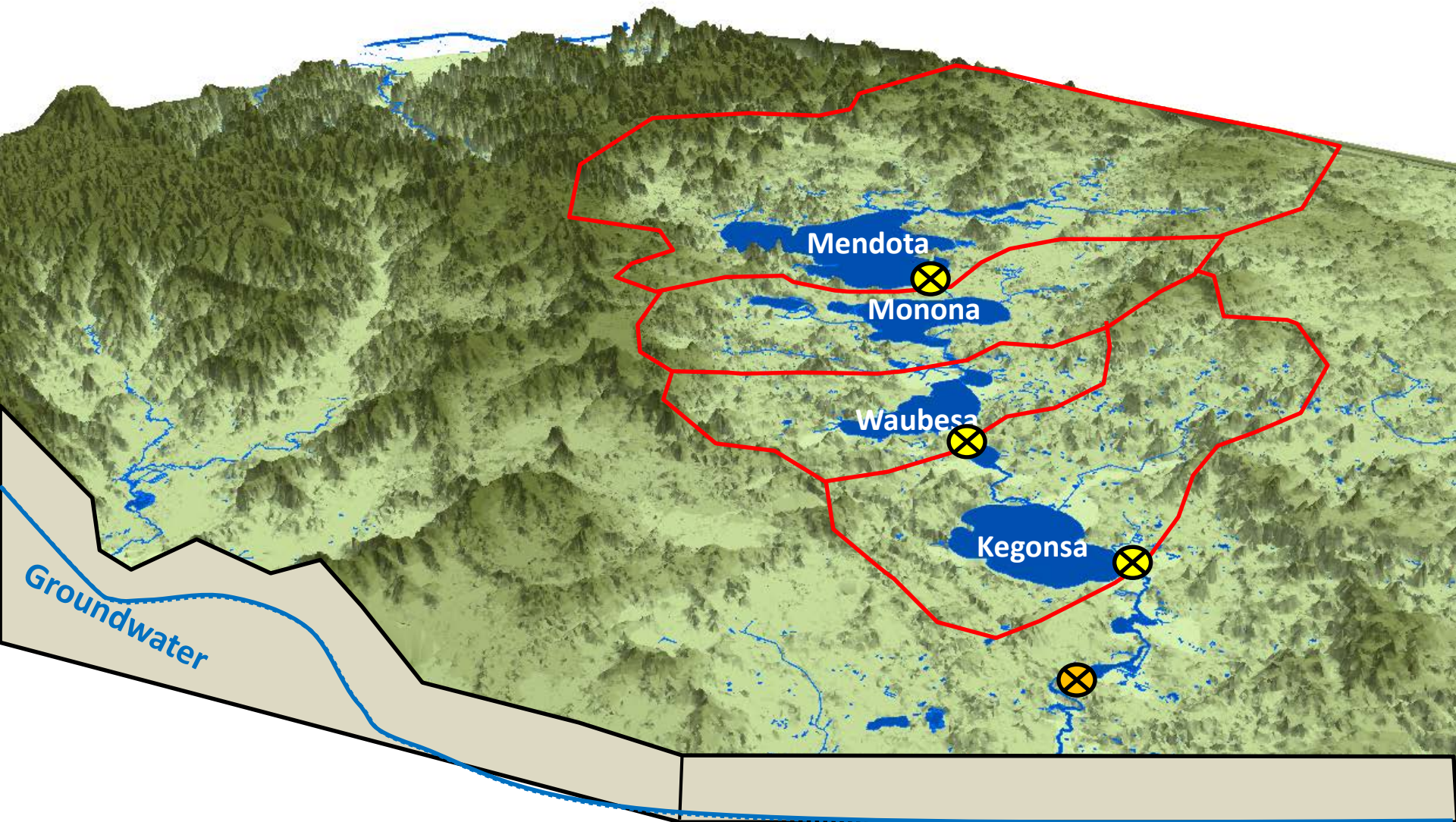


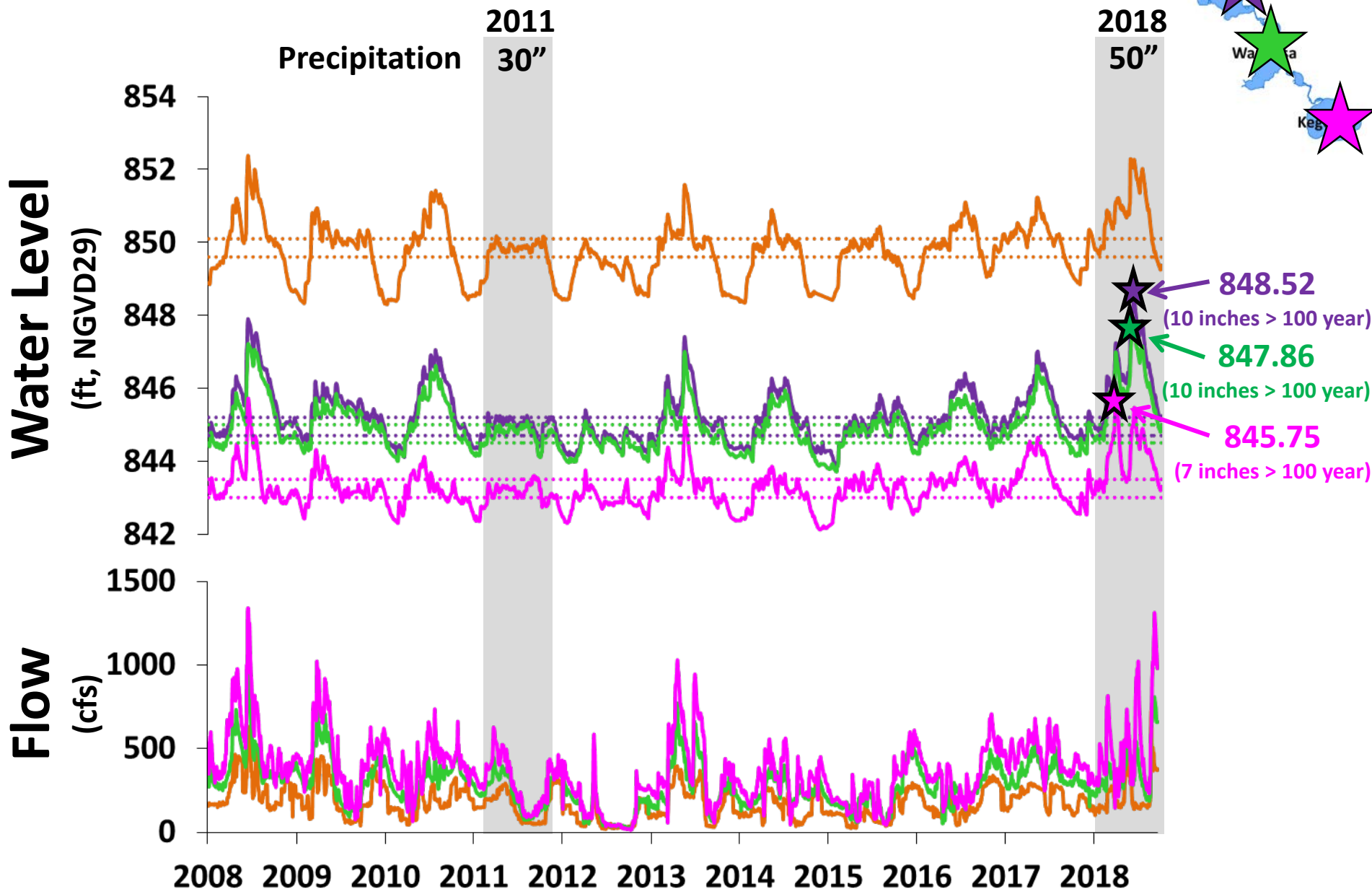
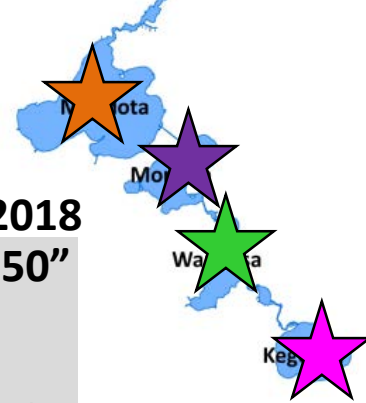
Yahara Chain of Lakes Lake Management Quarterly Update

May 28, 2020

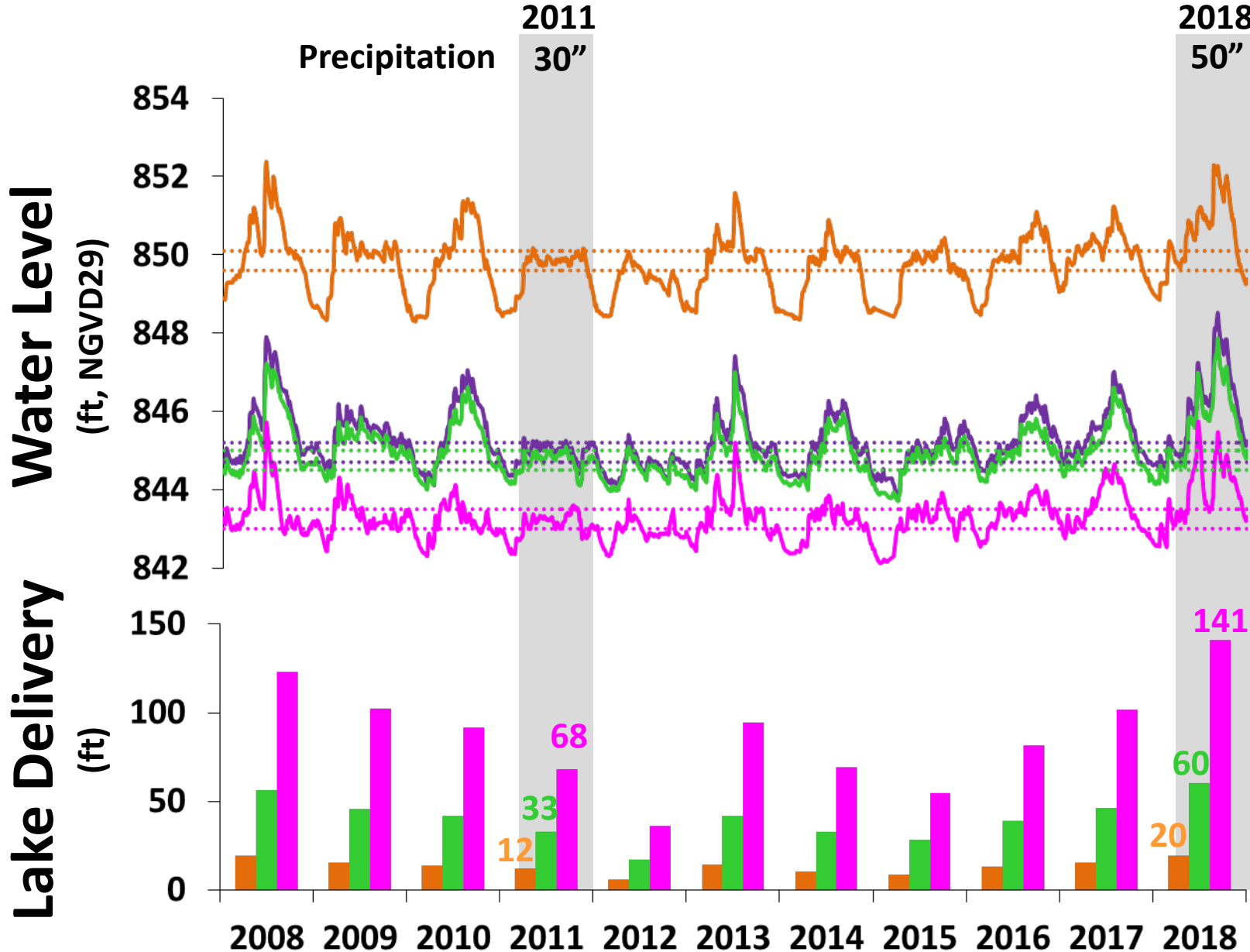
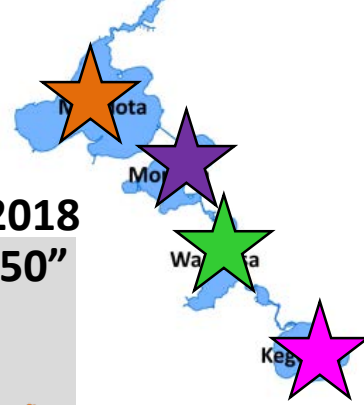
Yahara Lakes and Watershed



Recent Lake Levels and Flows



Recent Lake Levels and Flows



Current Water Levels

Lake	Date	Lake Level	Summer Min	Summer Max	1% Flood
Mendota	5/28/2020	850.36	849.60	850.10	852.8
Monona	5/28/2020	845.36	844.70	845.20	847.7
Waubesa	5/28/2020	845.03	844.50	845.00	847.0
Kegonsa	5/28/2020	843.75	843.00	843.50	845.2

<https://lwr.d.countyofdane.com/Lake-Levels>



Number of Days within Summer Minimum and Maximum Levels Annual

March 1 – October 31 (245 days)

Lake	Average (2008-2019)	2018	2019
Mendota	130	49	22
Monona	101	58	11
Waubesa	111	68	13
Kegonsa	148	76	23
Stoughton Dam	-	243*	243**

* 2 days not within range occurred on August 21 and 22 which was the large rainfall

** 2 days not within range occurred during spring melt

Number of Days within Summer Minimum and Maximum Levels Year to Date

March 1 – May 28 (89 days)

Lake	Average (2008-2019)	2019	2020
Mendota	56	22	79
Monona	56	11	78
Waubesa	61	13	78
Kegonsa	59	13	79
Stoughton Dam	-	87	89

Aquatic Plant Harvesting

- Started deploying harvesters last week
- Training new staff



2019 Aquatic Plant Management Harvest Report

Annual Mechanical Harvest Summary (2/28/2019 to 9/26/2019)

	Hours	(%)	Loads*	(%)	Wet Weight (t)**	Dry Weight (t)**	Phosphorus(lbs)**
InterLake							
6 Daily Logs	36.0	0.9%	10.0	0.5%	46	5	26
Kegonsa							
36 Daily Logs	198.5	4.7%	145.0	6.9%	667	67	381
Mendota							
98 Daily Logs	588.0	14.0%	380.5	18.2%	1,750	175	999
Monona							
166 Daily Logs	992.0	23.6%	465.0	22.2%	2,139	214	1,221
Waubesa							
27 Daily Logs	156.5	3.7%	81.0	3.9%	373	37	213
Wingra							
5 Daily Logs	30.0	0.7%	20.0	1.0%	92	9	53
Yahara River							
242 Daily Logs	1,414.0	33.6%	666.0	31.8%	3,064	306	1,749
Yahara River Lower							
133 Daily Logs	796.0	18.9%	324.0	15.5%	1,490	149	851
Total	4,211		2,092		9,621	962	5,494

Private Deposit Site Loads

All

Public Deposit Site Loads

Other	2,070	Park Site	0
Westport	0	Highway 12	0

* Loads are harvester loads, estimated by staff to the nearest half load. All other reported quantities are derived from loads.

** Weight is expressed in US tons or pounds as noted; Each harvester load is assumed to yield 9200lbs of bulk vegetation at 90% water content (10% plant solids). Phosphorus content of the plant solids is assumed to be ~2900 ppm, (i.e. ~1lb of P for every 350 lb of plant solids).

Slow No Wake Status

Currently None in Place



2019 Slow No Wake

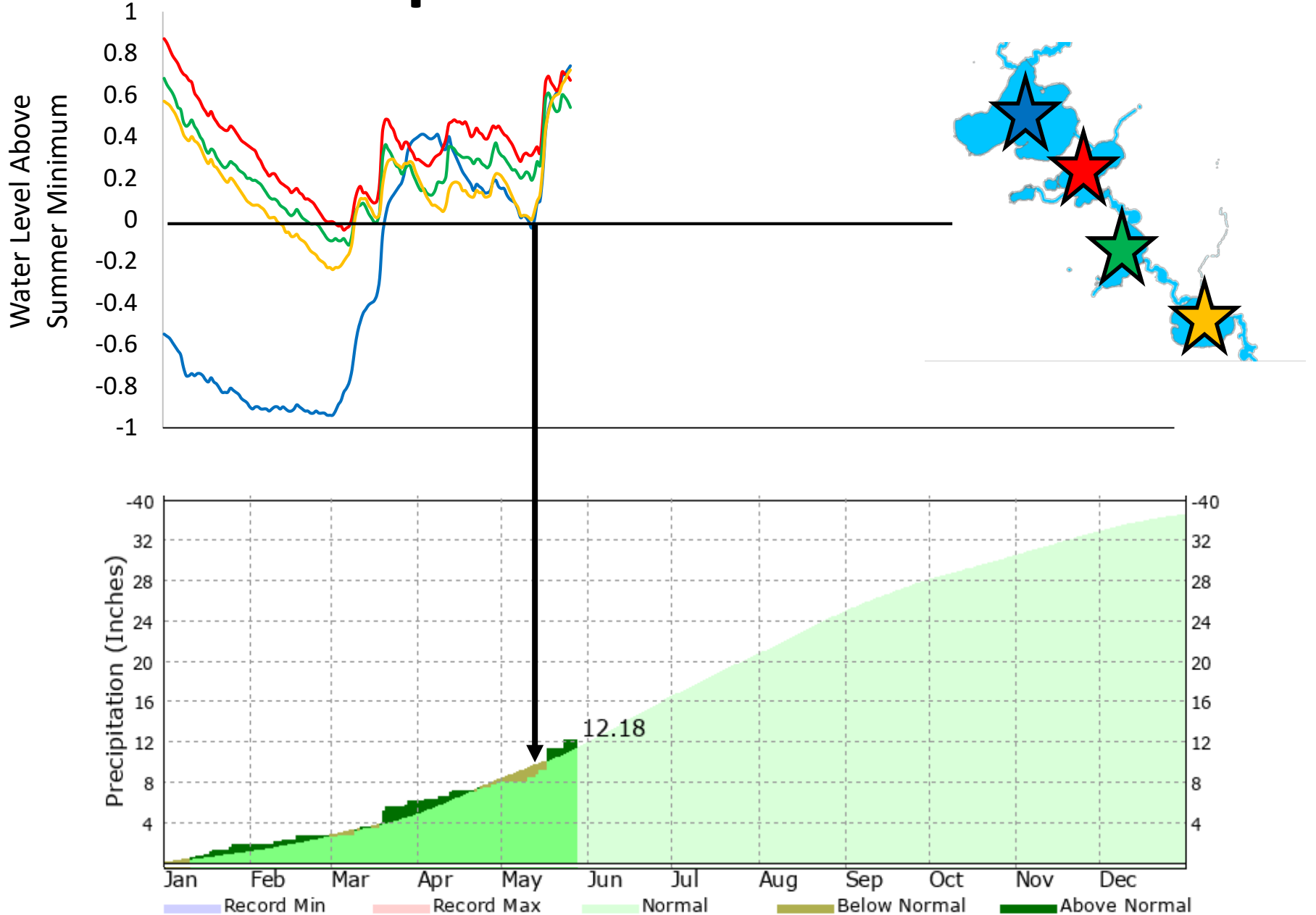
Lake	Issued	Rescinded
Mendota	10/3/19	10/30/19
Monona	9/23/19	11/12/19
Waubesa	9/23/19	11/12/19
Kegonsa	10/3/19	11/15/19

Slow-no-wake Restriction Map

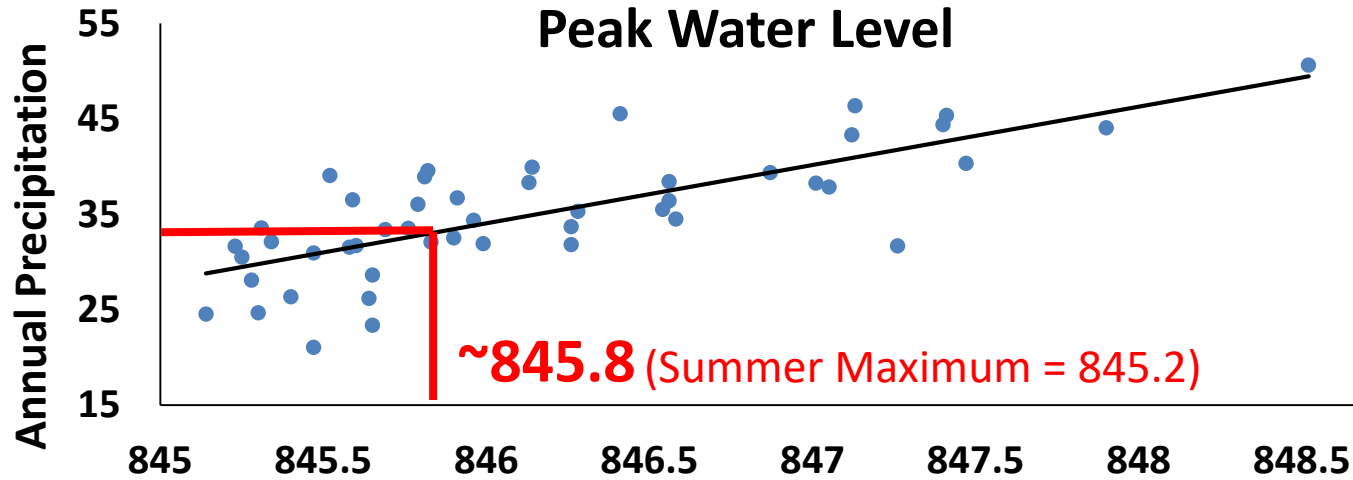
- Green Lake = Normal Slow-no-wake Restrictions
- Yellow Lake = Emergency Order: slow-no-wake within 500 feet of shore
- Red Lake = Emergency Order: slow-no-wake entire surface area

<https://lwr.d.countyofdane.com/slownowake#>

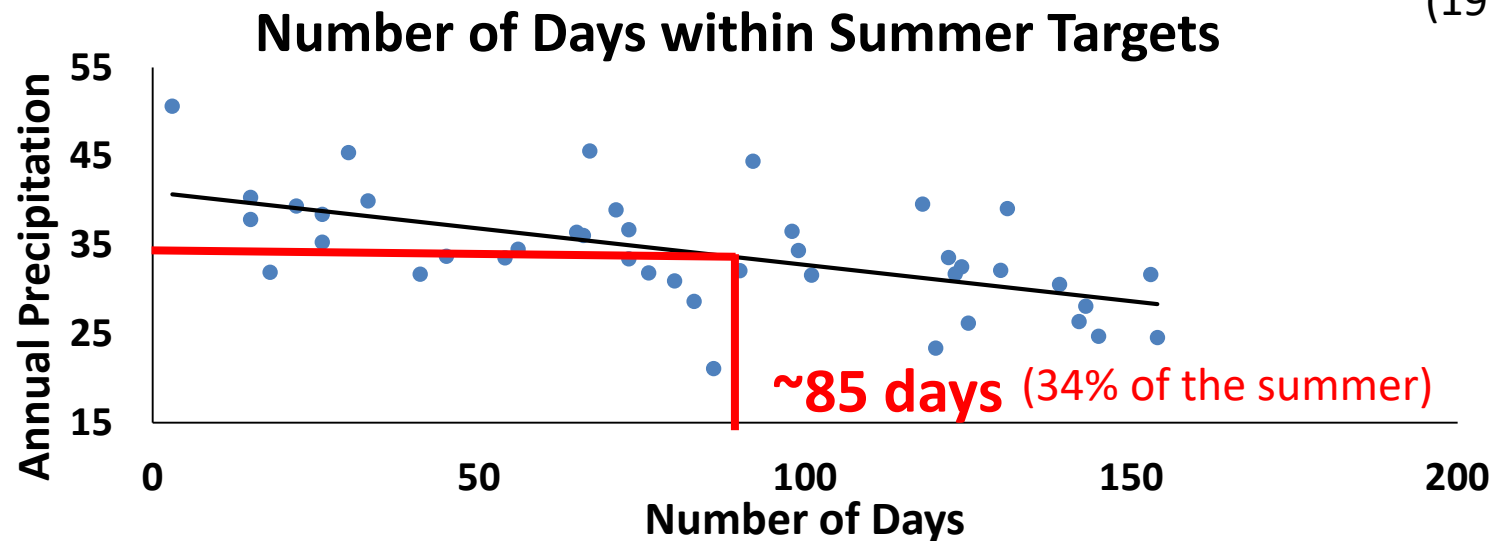
2019 Precipitation and Water Levels



Precipitation and Water Levels

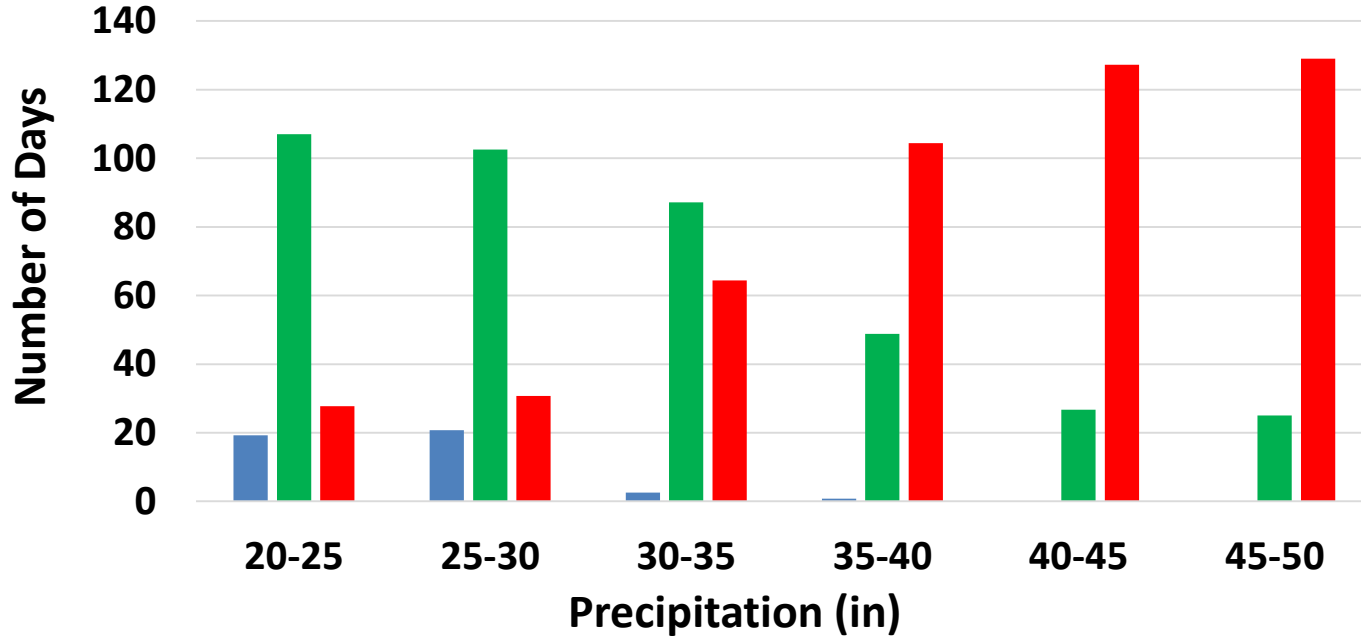


Past 41 years of data
(1979-2019)

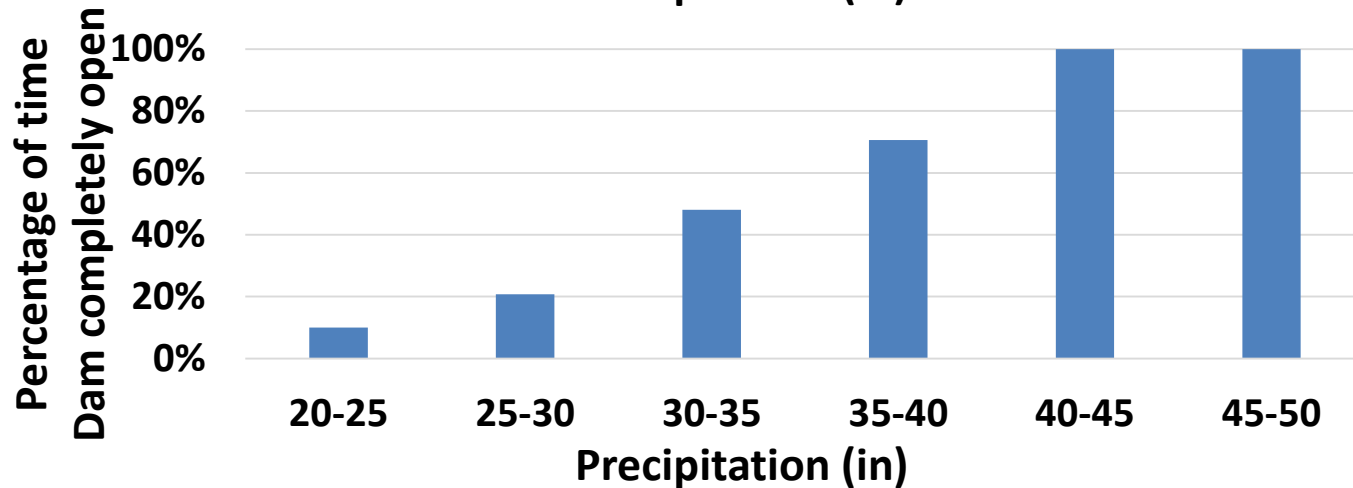


Precipitation and Operations

■ Below Summer Min ■ Within Targets ■ Above Summer Max



Past 41 years of data
(1979-2019)



Recent Flood Years

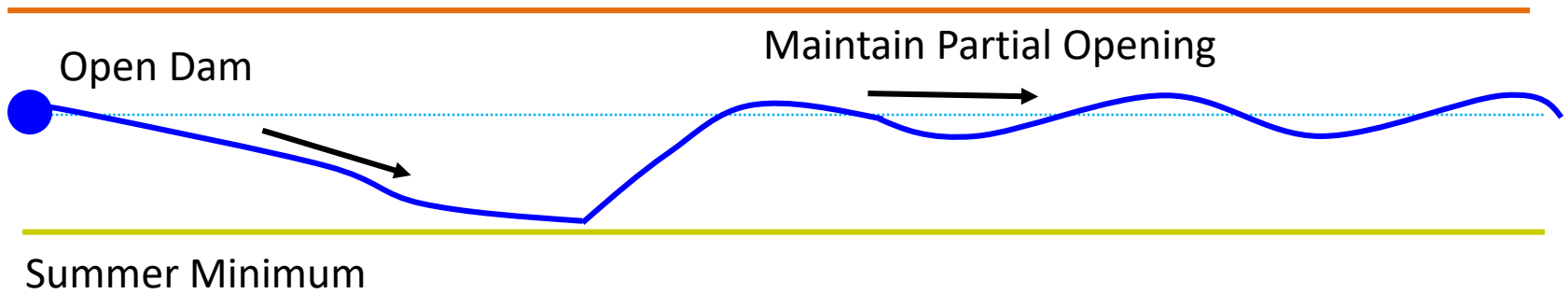
2008: 44"

2018: 50"

Summer Operations – Scenario 1

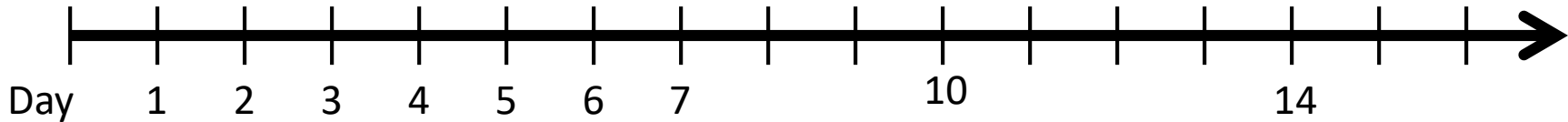
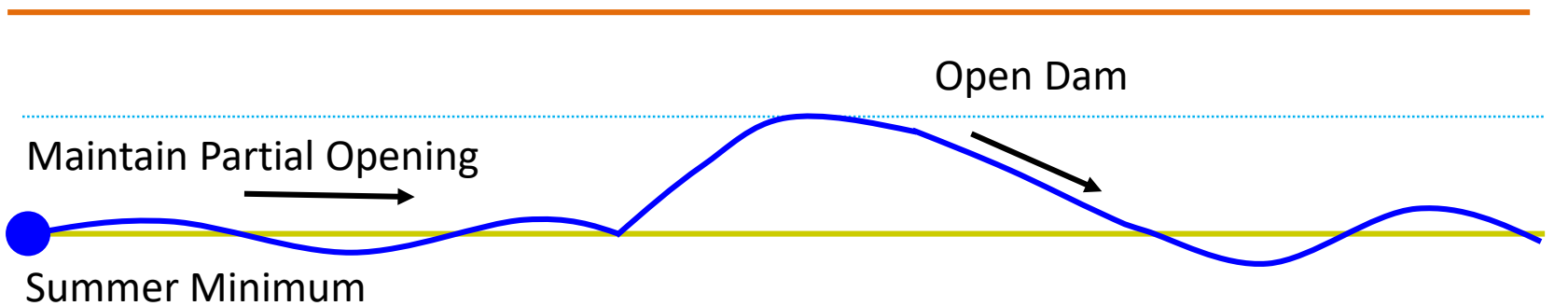
Midrange Operation

Summer Maximum

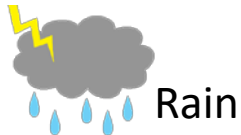


Minimum Operation

Summer Maximum



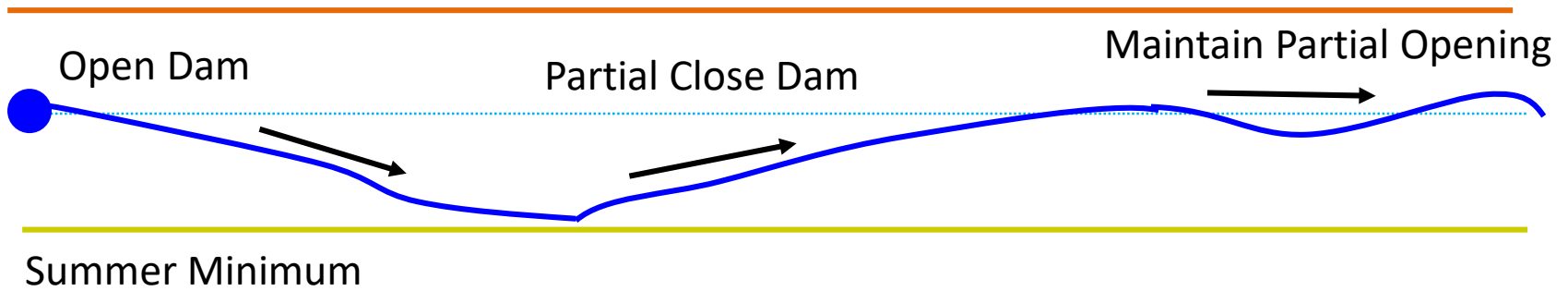
Forecast



Summer Operations – Scenario 2

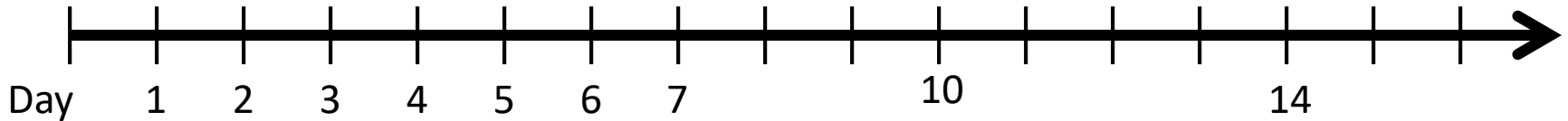
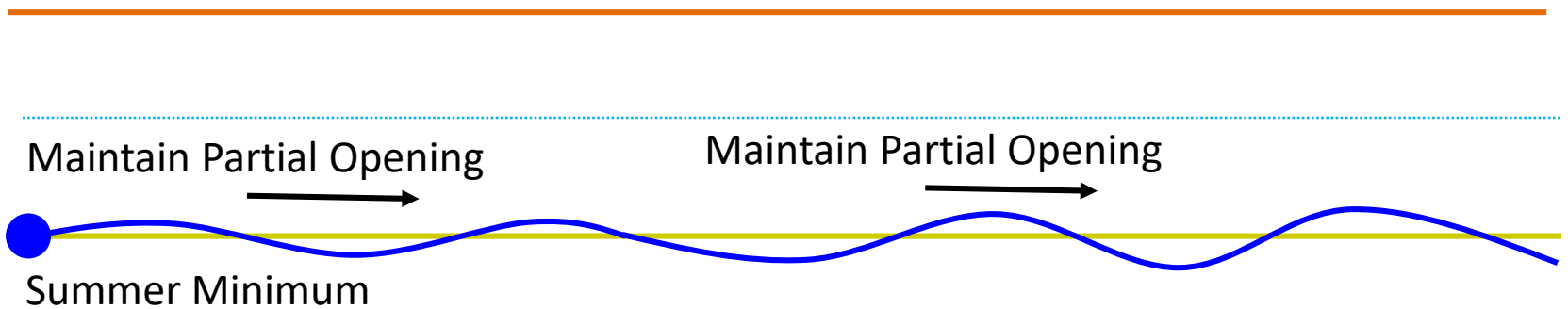
Midrange Operation

Summer Maximum



Minimum Operation

Summer Maximum

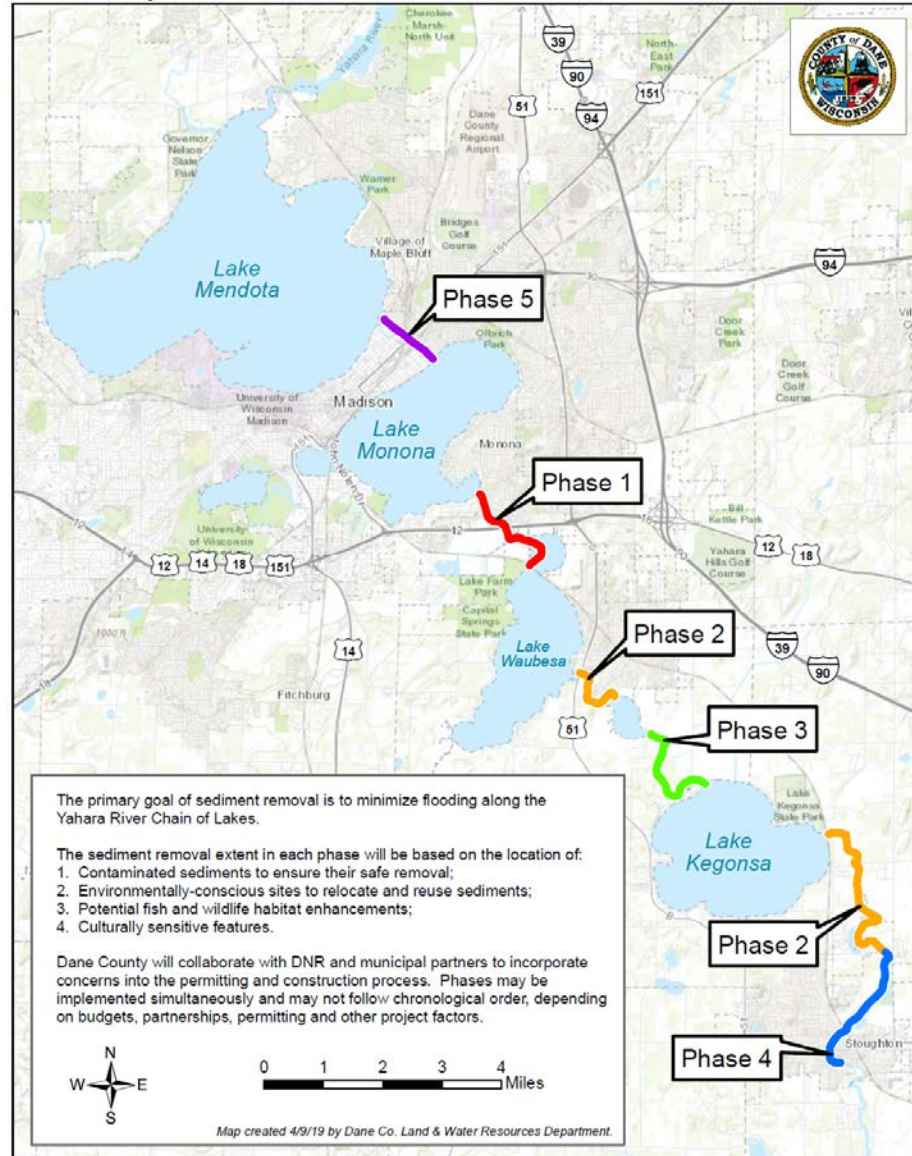


Forecast

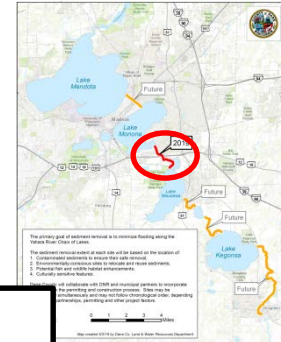


Prediction Wrong
No Rain

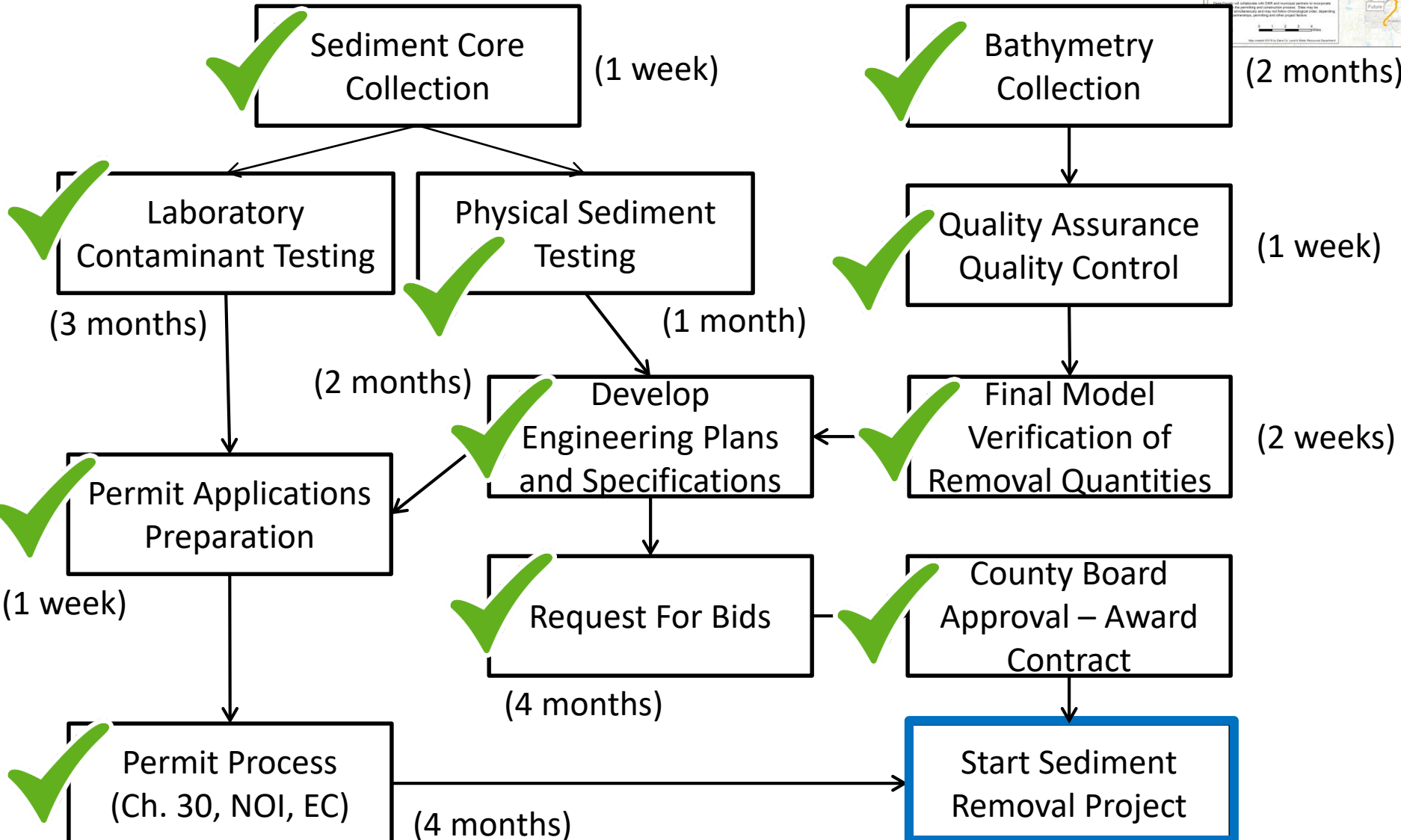
Task Force Recommendation: Sediment Removal



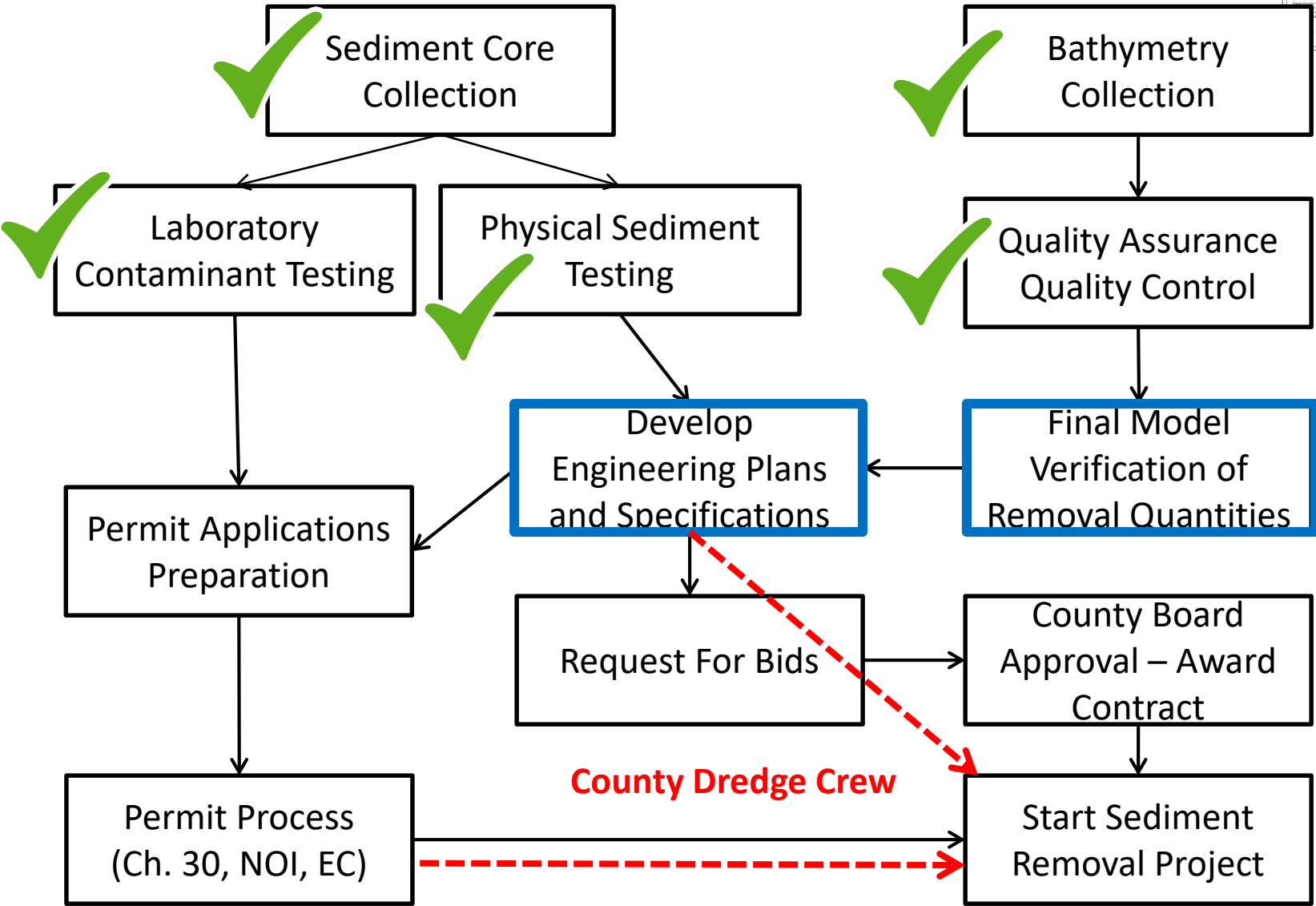
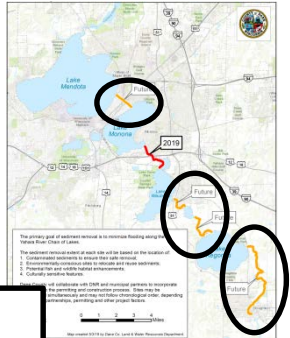
Phase 1 Sediment Removal



(times approximate – Monona to Waubesa)



Future Sediment Removal



Questions?