

Yahara Chain of Lakes Lake Management Quarterly Update

March 3, 2021

Current Water Levels

Lake	Date	Lake Level	Summer Min	Summer Max	Winter Min
Mendota	3/3/2021	848.80	849.60	850.10	848.20
Monona	3/3/2021	844.43	844.70	845.20	842.20
Waubesa	3/3/2021	844.21	844.50	845.00	842.00
Kegonsa	3/3/2021	842.61	843.00	843.50	841.85

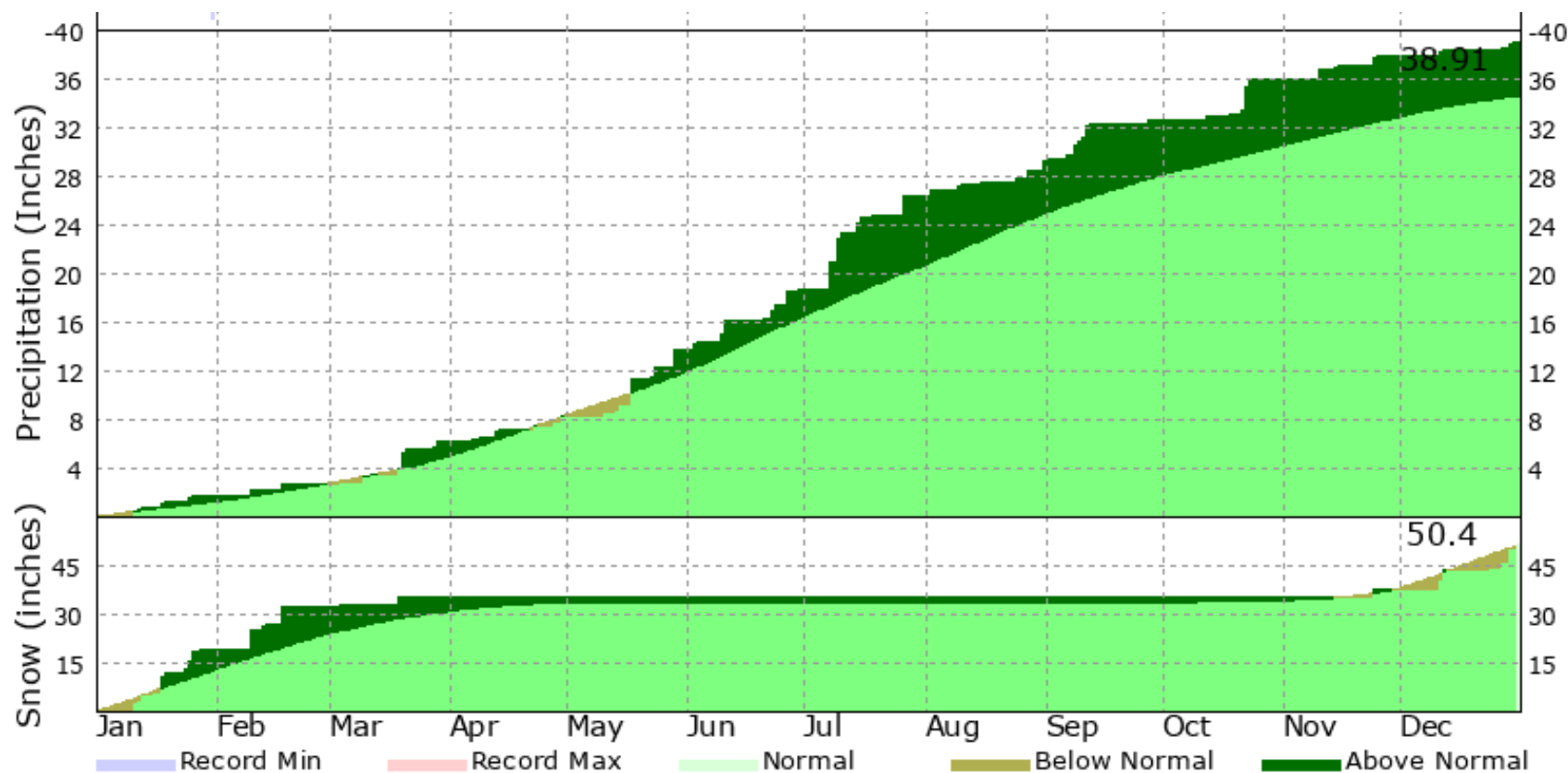
<https://lwr.d.countyofdane.com/Lake-Levels>



Annual Precipitation

2020

38.91



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

March 1 – October 31 (245 days)

Lake	2020
Mendota	87
Monona	78
Waubesa	78
Kegonsa	79
Stoughton Dam	245

Slow No Wake Status

Wicawak Bay

July 16, 2020 to August 24, 2020

Previous 10 Emergency Orders

7/16/2020 - Emergency Slow-no-wake orders have been issued for the following lake(s):

Wicawak Bay (formerly known as Squaw Bay) (Entire Surface),

Please note: Slow-no-wake will be effective noon July 16, 2020. Slow-no-wake will be rescinded when Lake Monona water level is at or below elevation 846.40' for 5 consecutive days.

Executive Order



Slow-no-wake Restriction Map

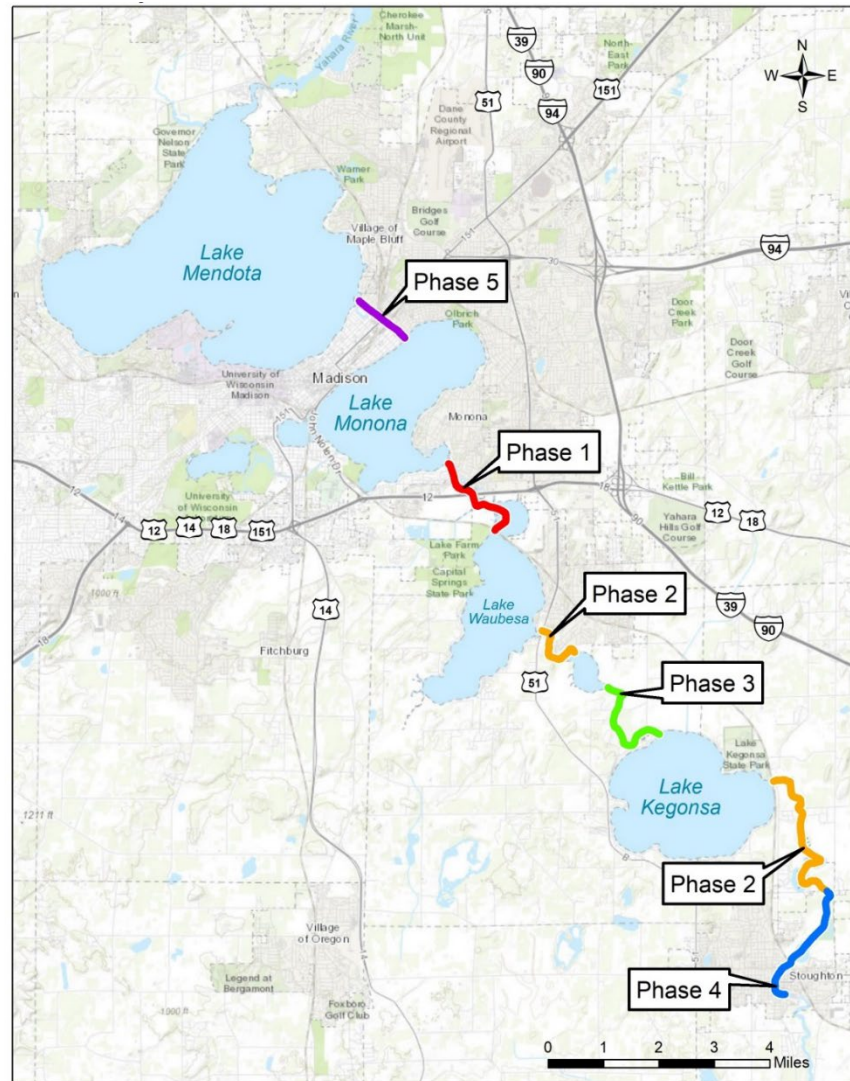
Green Lake = Normal Slow-no-wake Restrictions

Yellow Lake = Emergency Order: slow-no-wake within 500 feet of shore

Red Lake = Emergency Order: slow-no-wake entire surface area

<https://lwrd.countyofdane.com/slownowake#>

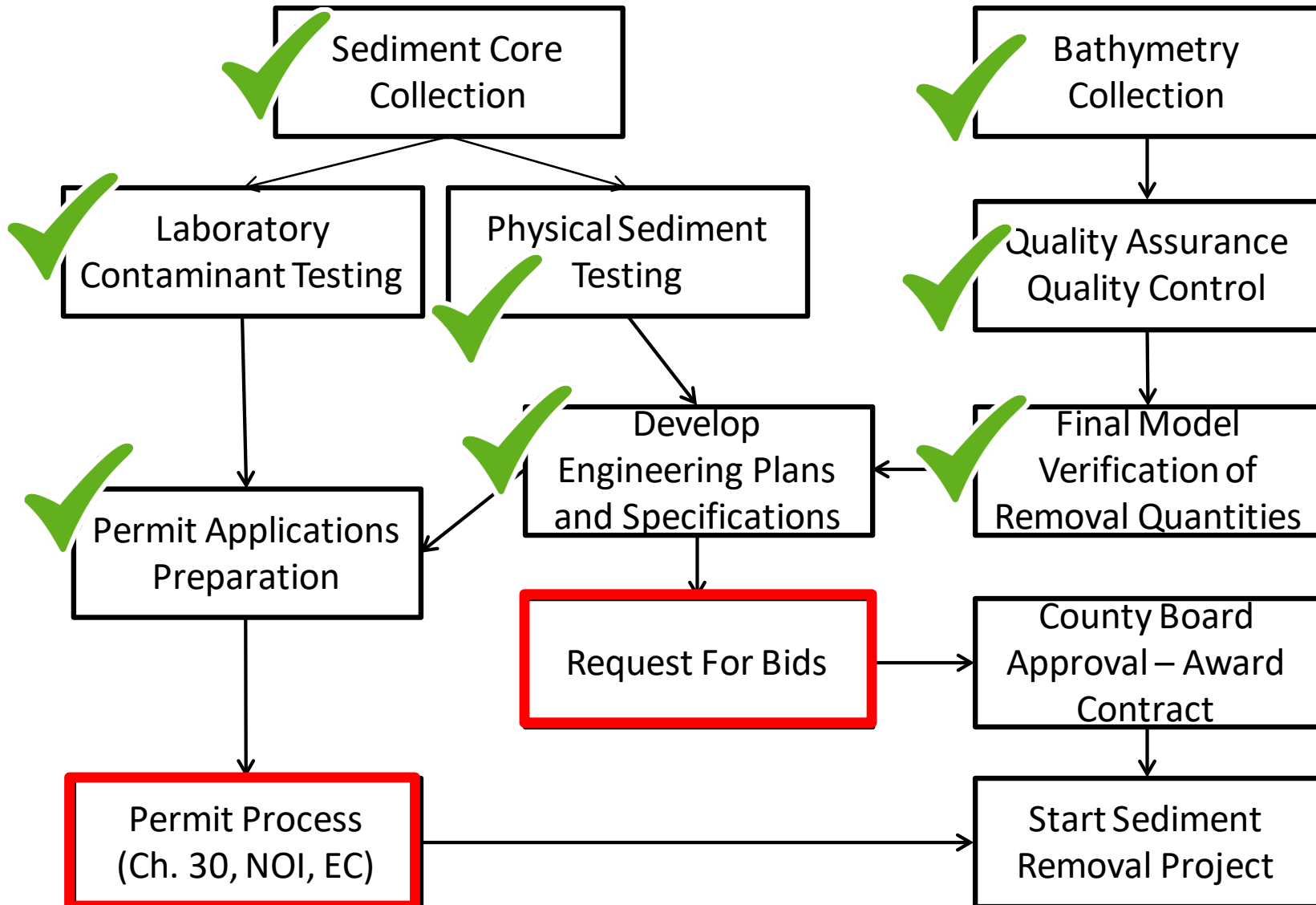
Sediment Removal Update



Dane County Dredge



Phase 2 Status



Questions?

Technical Work Group Review of Summer Minimum and Midrange Operation

Water Level Orders and 100 Year

Lake	Summer Minimum	Summer Midrange	Summer Maximum	100 Year Flood	
Mendota	849.60	849.85	850.10	852.80	38"
Monona	844.70	844.95	845.20	847.70	36"
Waubesa	844.50	844.75	845.00	847.00	30"
Kegonsa	843.00	843.25	843.50	845.20	26"

38"

36"

30"

26"

3"

6"

Lake Level Task Force Recommendations

Final Recommendations – March 18, 2019

The Yahara Chain of Lakes - Lake Level Task Force was established through County Board Resolution 227, 2018. The task force process emphasized public engagement including:

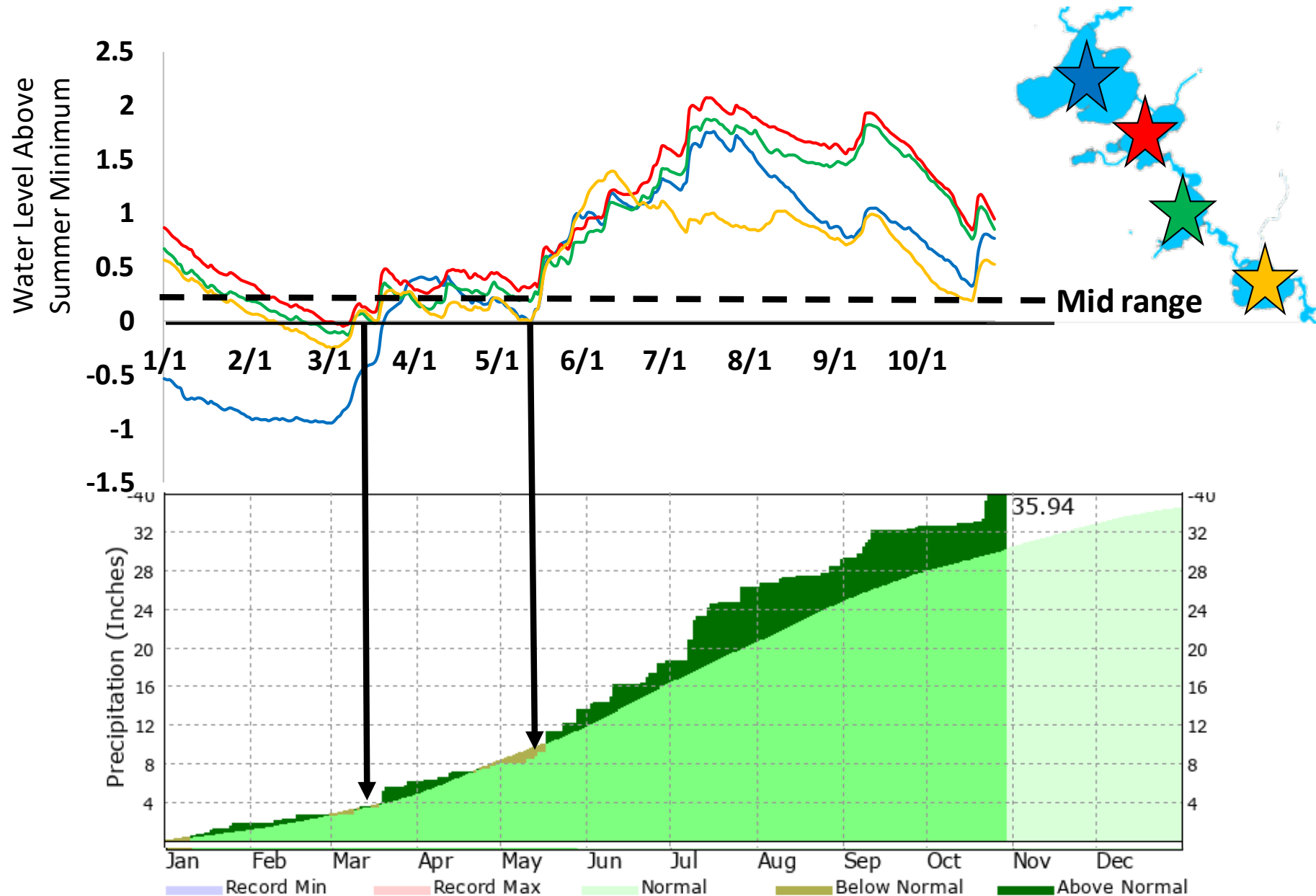
- Working with the County Board of Supervisors to align the task force process with the “Engage Dane” initiative.
- Creating voice or audio recordings of all meetings
- Establishing a common website for task force and related materials
- Encouraging public comment at all meetings
- Posting all written comments on the website
- Holding public information opportunities throughout Dane County
- Holding a public hearing

LAKE LEVELS

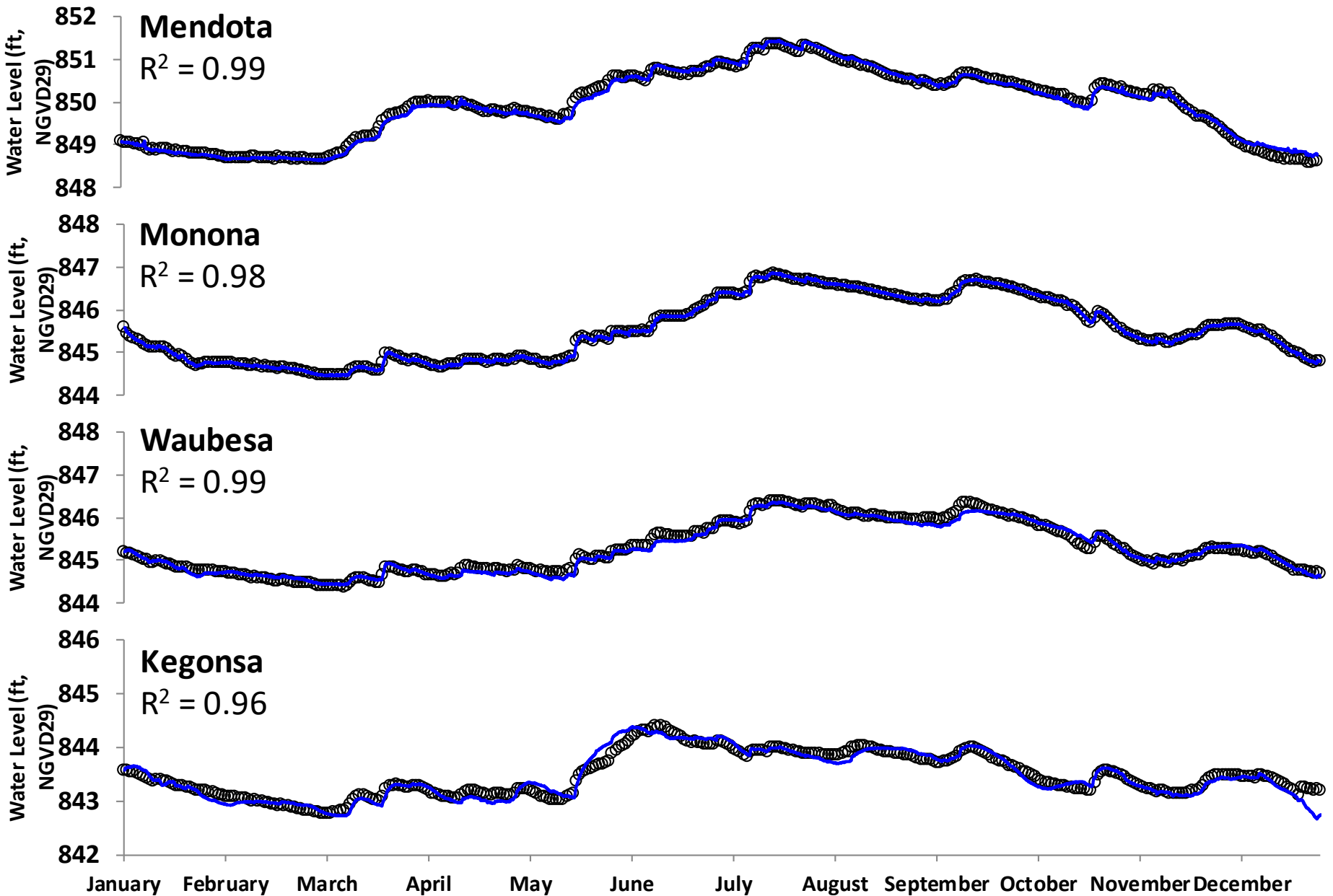
Short-term

- Dane County will continue to implement any tools that may be available to lower lake levels to DNR designated seasonal minimum levels as soon as possible and work to maintain lakes at that level. This directive will be implemented where possible and to the extent that managing any given lake will not create flooding on other lakes or other unintended consequences.

2020 Precipitation and Water Levels

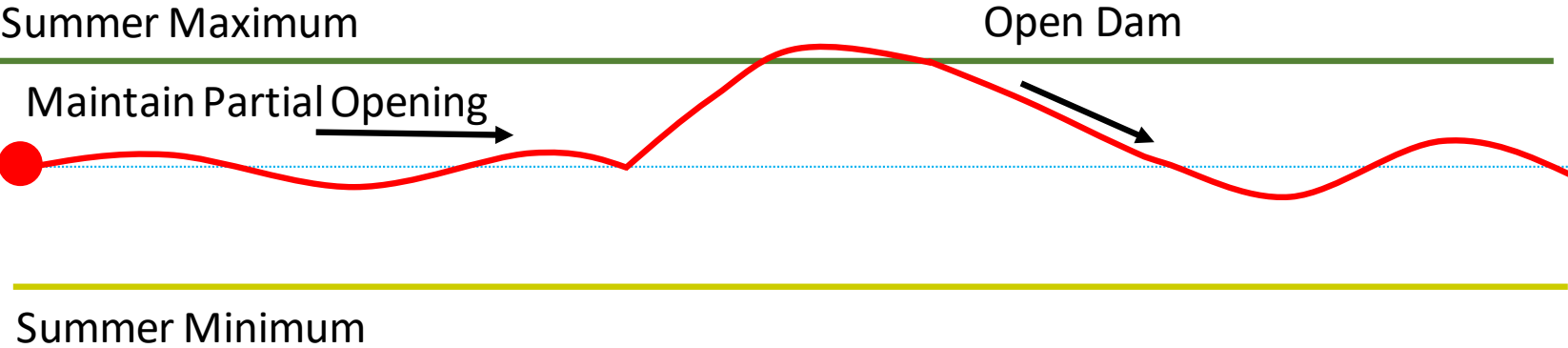


2020 Model Validation

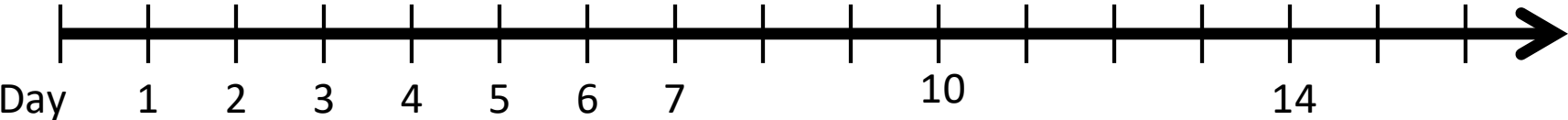
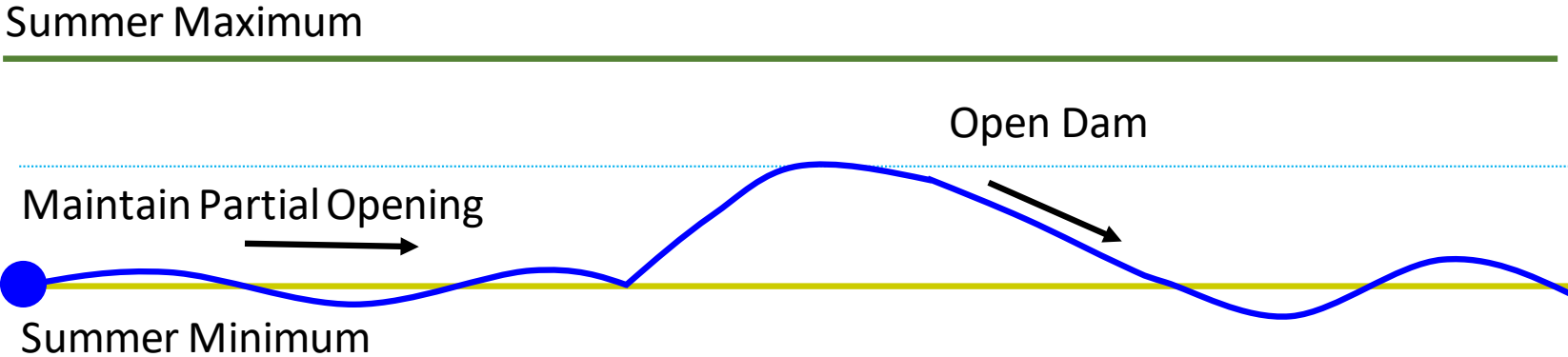


Scenarios

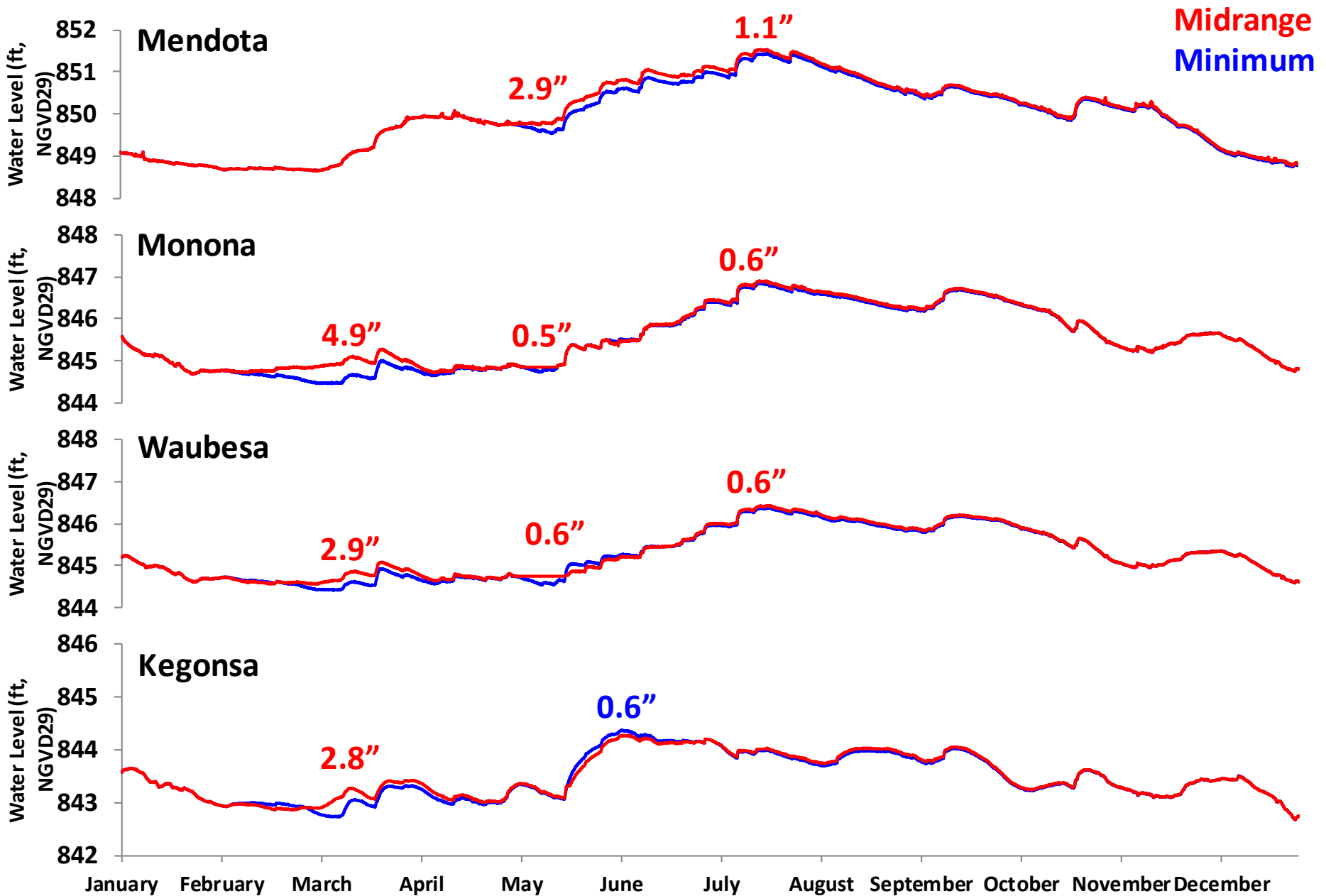
Summer Midrange



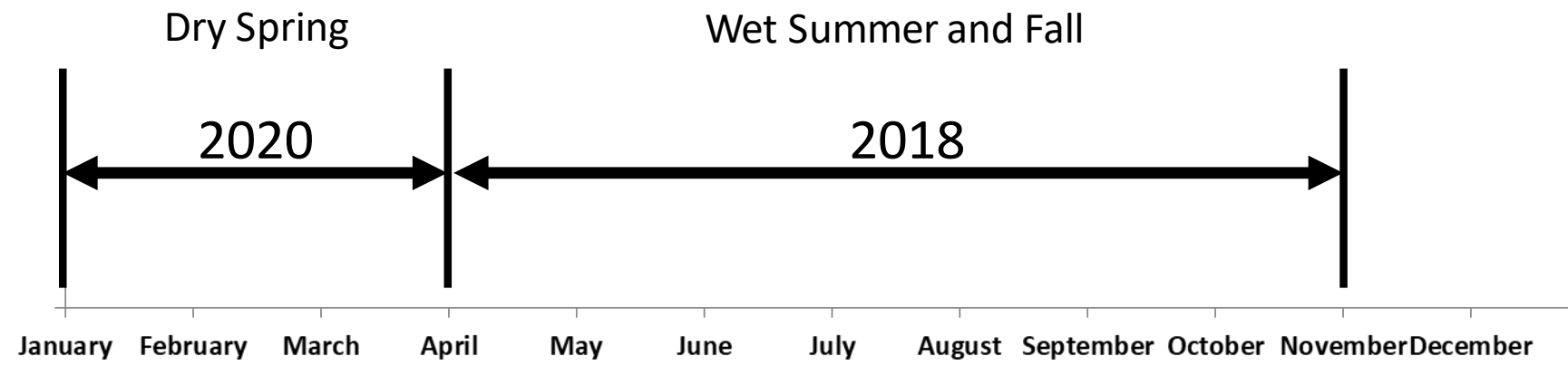
Summer Minimum



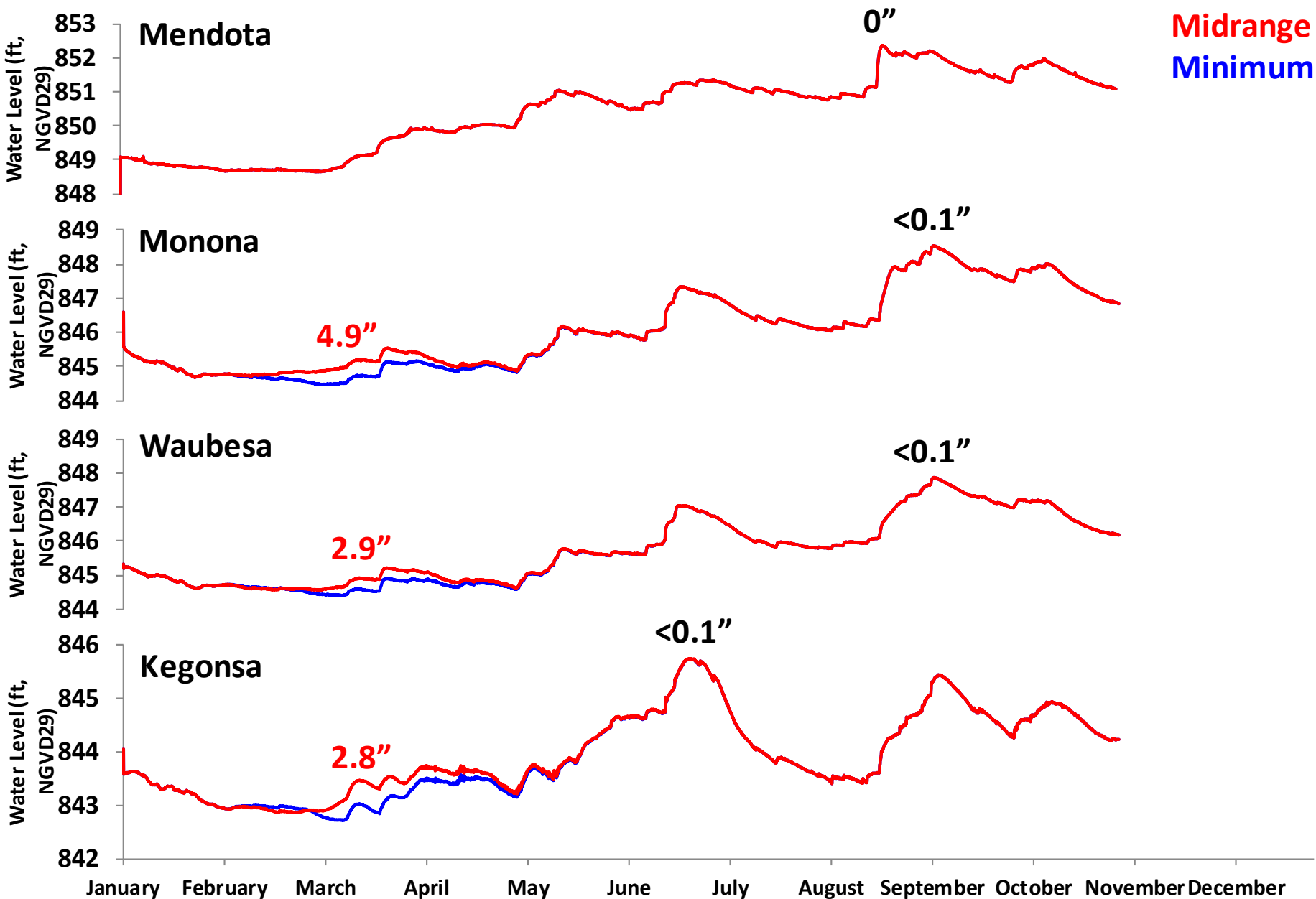
2020 Modeling



2020 + 2018 Scenario **Minimum** vs **Midrange**



2020 + 2018 Modeling



Technical Work Group Recommendation

Operation of water levels should be variable at midrange or summer minimum to allow proactive management guided by weather forecasts. For example, when water levels are at midrange and weather forecasts predict rainfall in the future, the dams should be opened to increase flow and reduce water levels to summer minimum. Alternatively, when water levels are at summer minimum and weather forecasts predict dry conditions, the dams should be closed to reduce flow and increase water levels near summer midrange.