

Introduction

The following presentation was provided during a public meeting listening session on June 8, 2017 regarding the establishment of a protective elevation for White Bear Lake.

This information summarizes the plethora of data utilized to determine the protective elevation for White Bear Lake.

If you have any questions, please contact Jason Moeckel at jason.moeckel@state.mn.us or 651-259-5240.

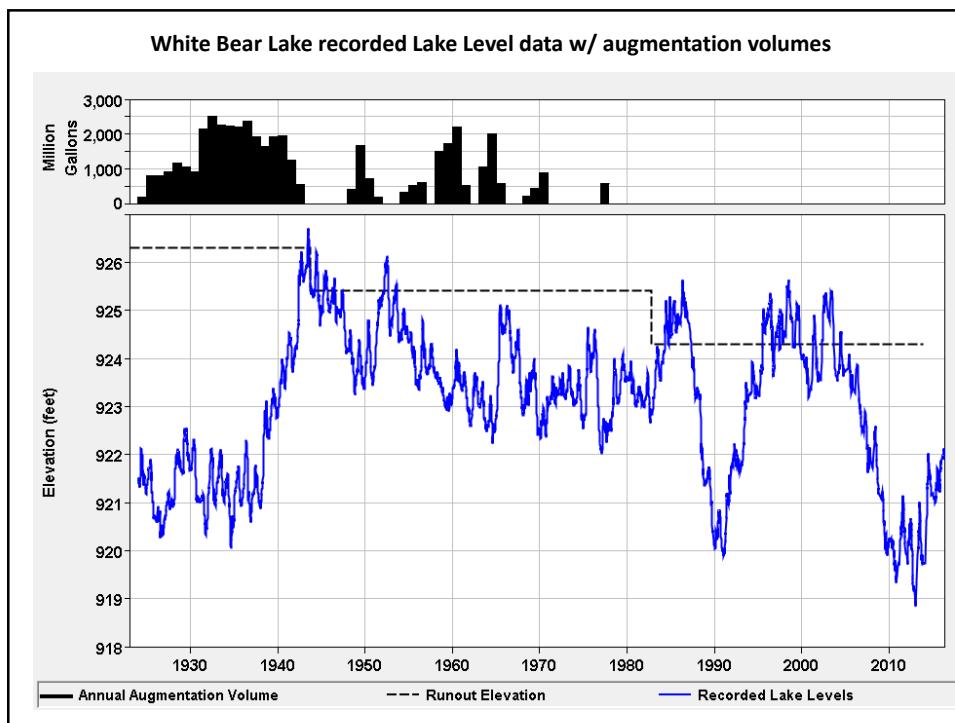
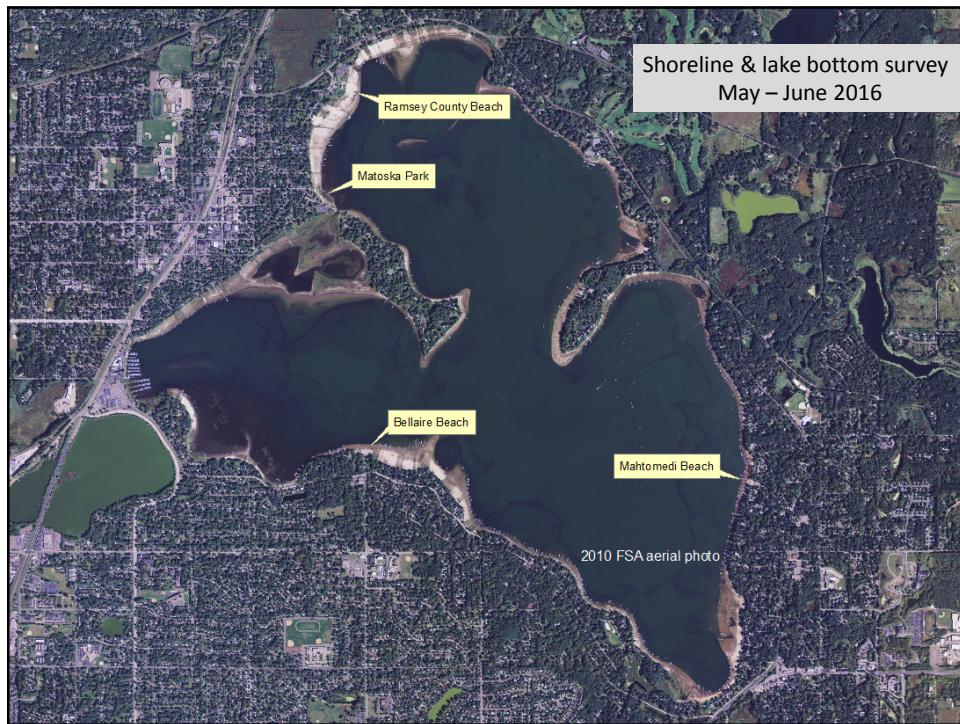
Establishing the White Bear Lake Protective Elevation

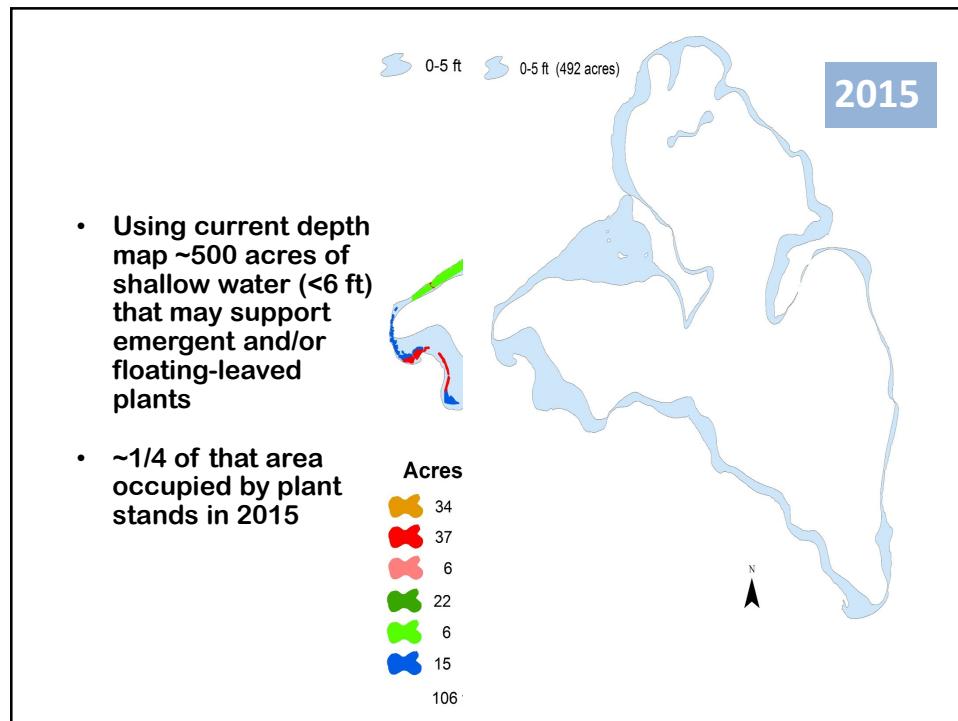
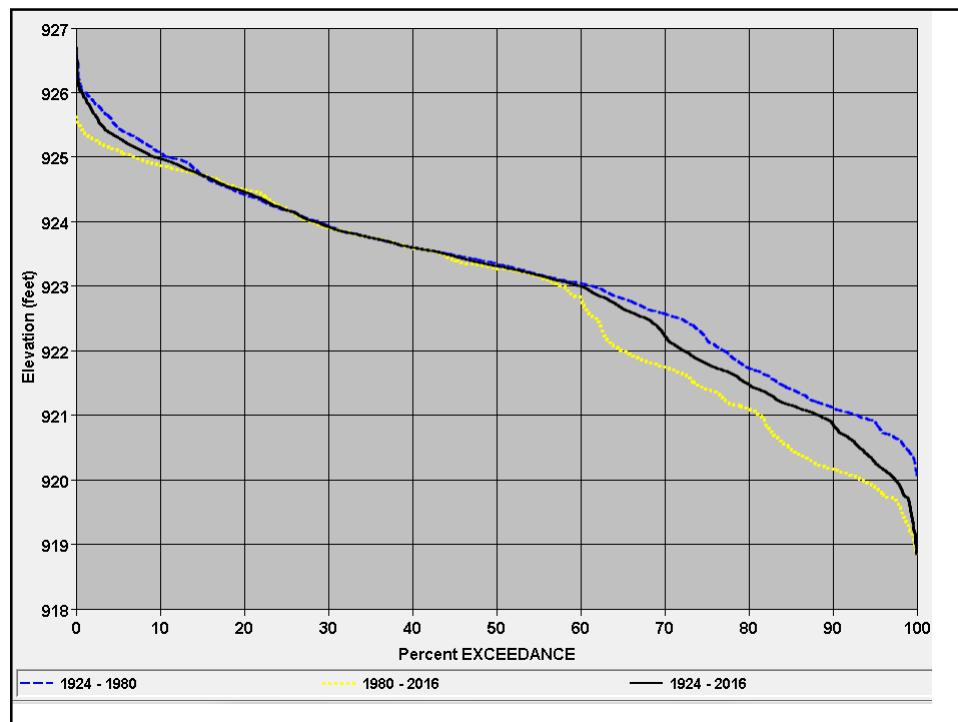
During the determination of the protective elevation, the commissioner shall consider:

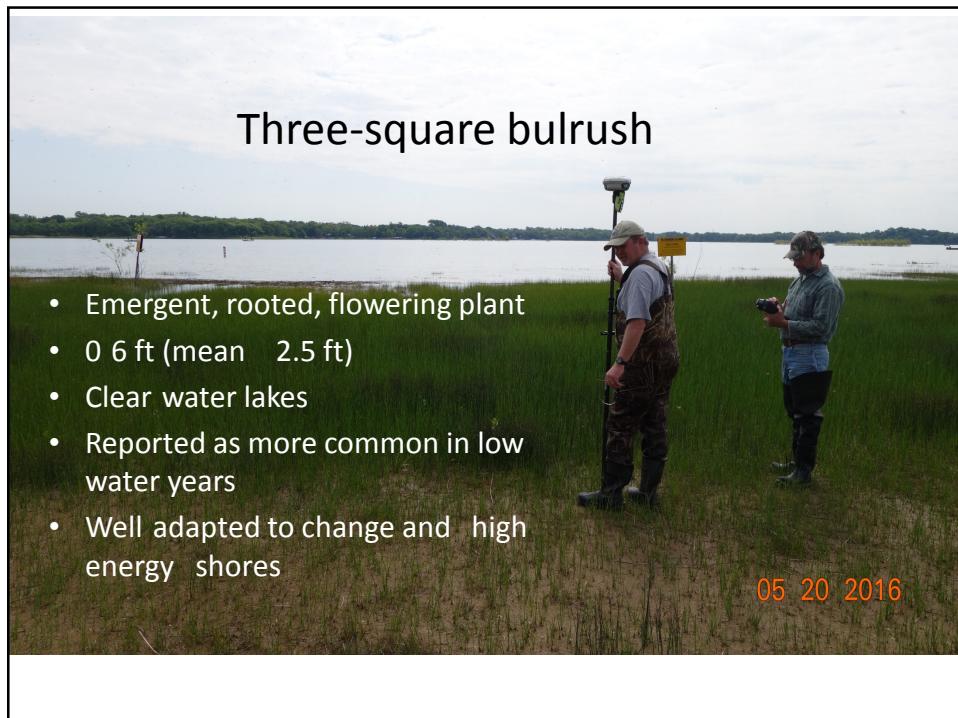
1. the elevation of important aquatic vegetation characteristics related to fish and wildlife habitat;
2. existing uses of the water basin by the public and riparian landowners; and
3. the total volume within the water basin and the slope of the littoral zone.

Summary of Technical Analysis

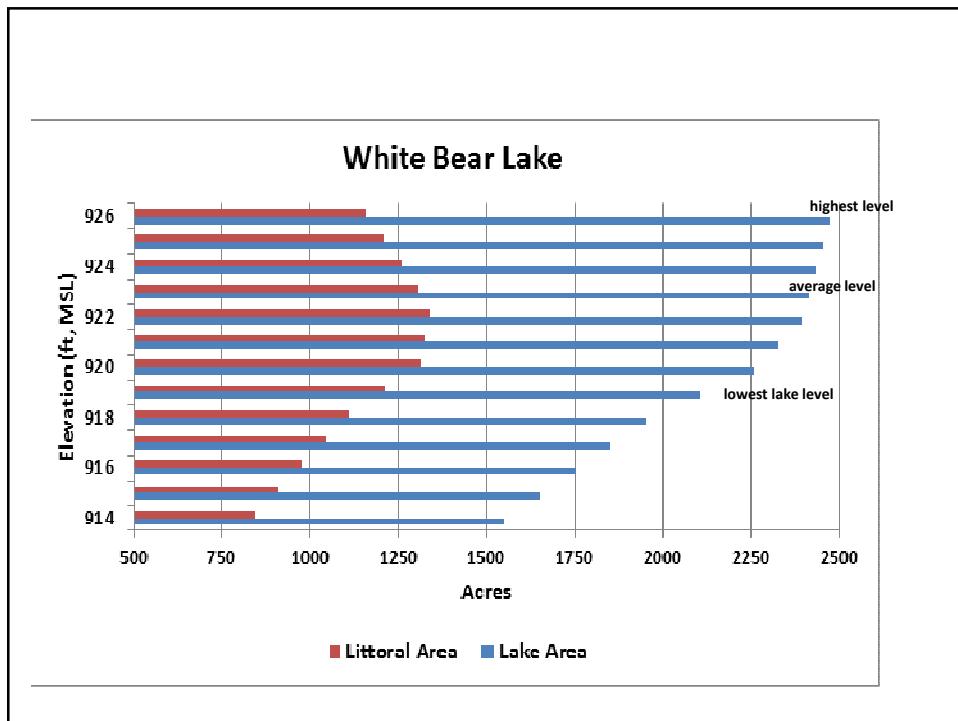
- Water levels - frequency analysis of historical record
 - Above 923' about 58%
 - Above 922' about 73%
 - Above 921' about 90%
 - Lowest recorded 918.84' in January 2013
 - Ordinary High Water (OHW) Level 924.89'
 - Lake outlet – 924.3'
- Emergent aquatic vegetation needs periodic lower levels to regenerate (between elevation 923'-922')
- Fish habitat has benefited from diverse aquatic vegetation, especially nearshore emergent and floating leaf types
- Water quality and clarity not substantially related to water elevation
- Recreation
 - Dock extensions when below 923'
 - Navigation impacts (esp. sailing) below ~921.5'
 - Ramsey Cty Swimming beach closed ~921'
 - Bellaire and Mahtomedi beaches remained open
 - Boat access compromised below 920'

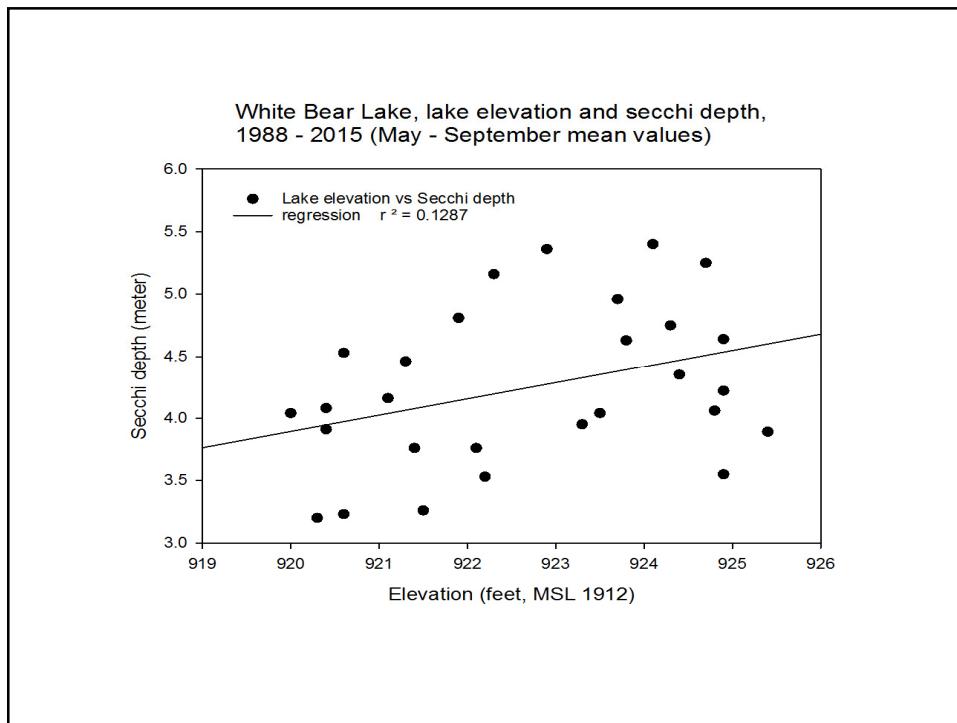
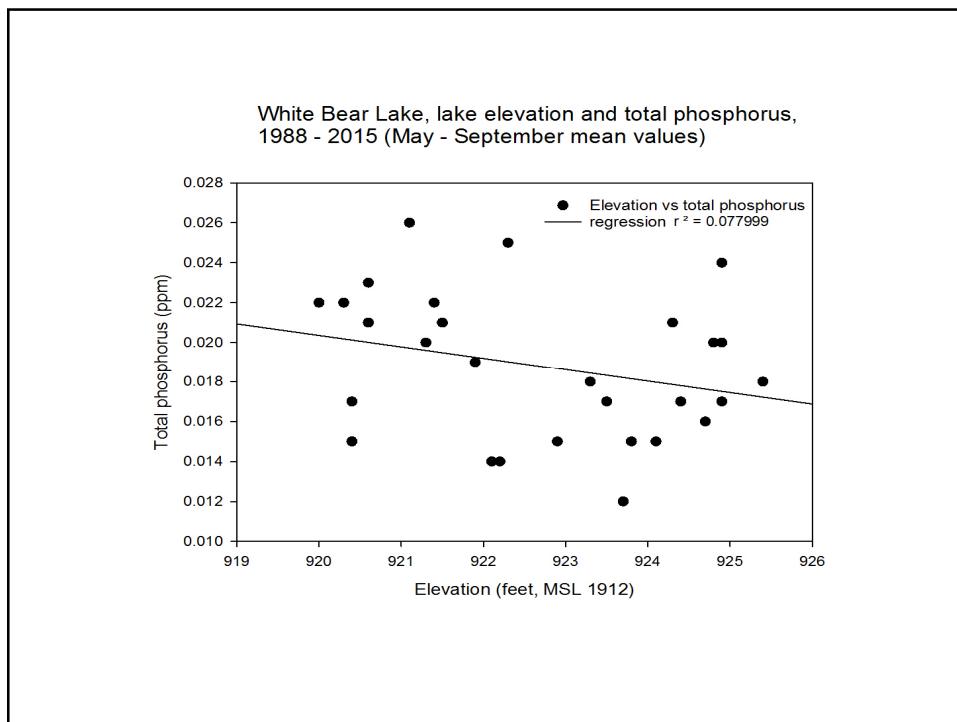


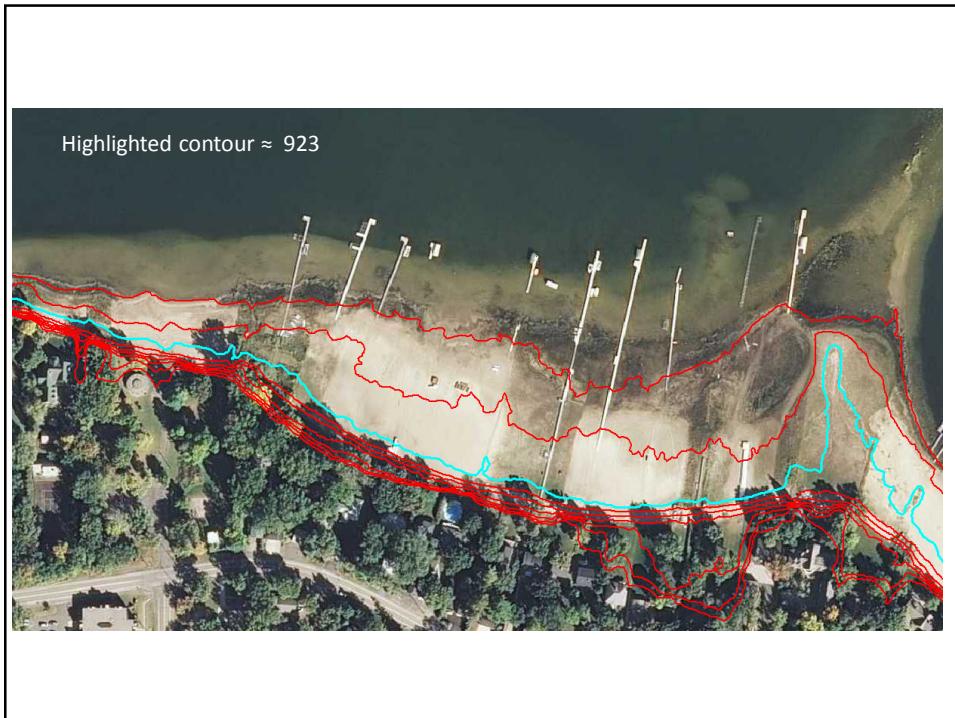


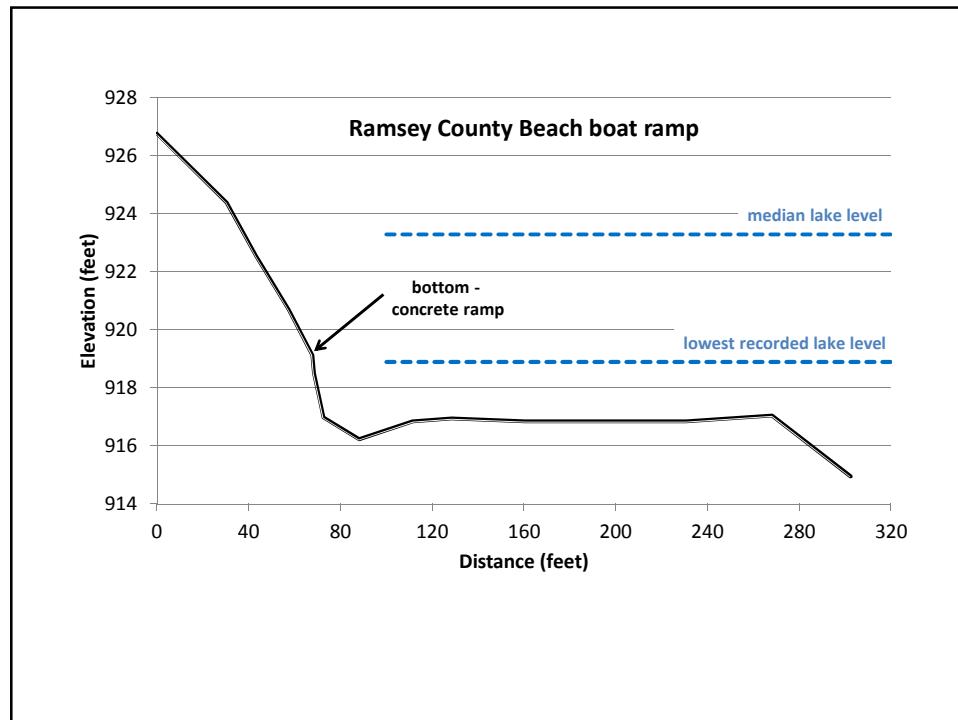


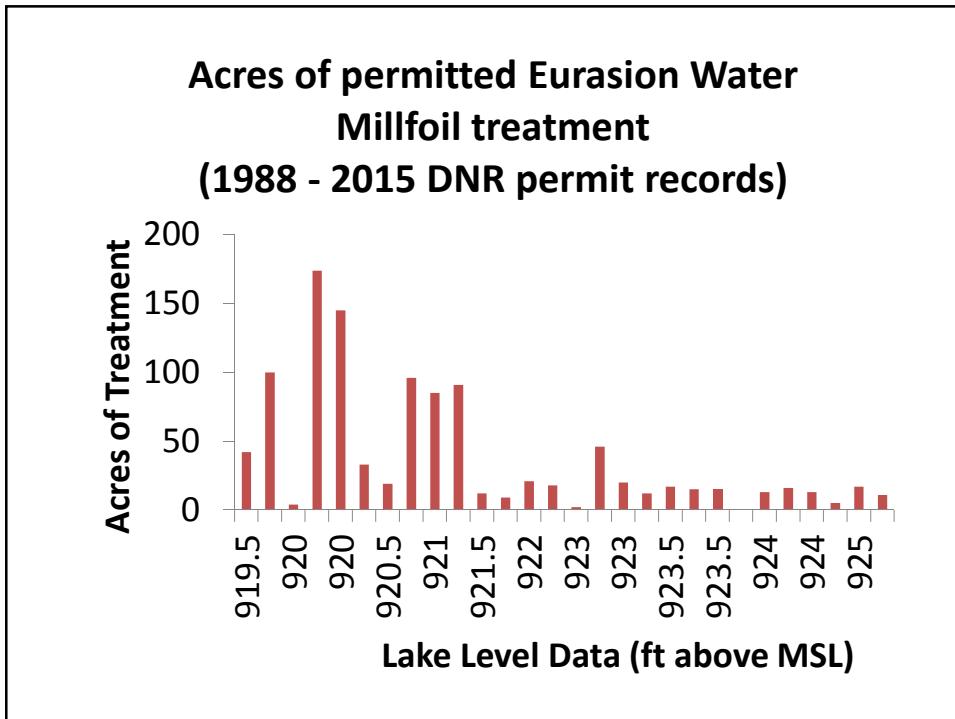
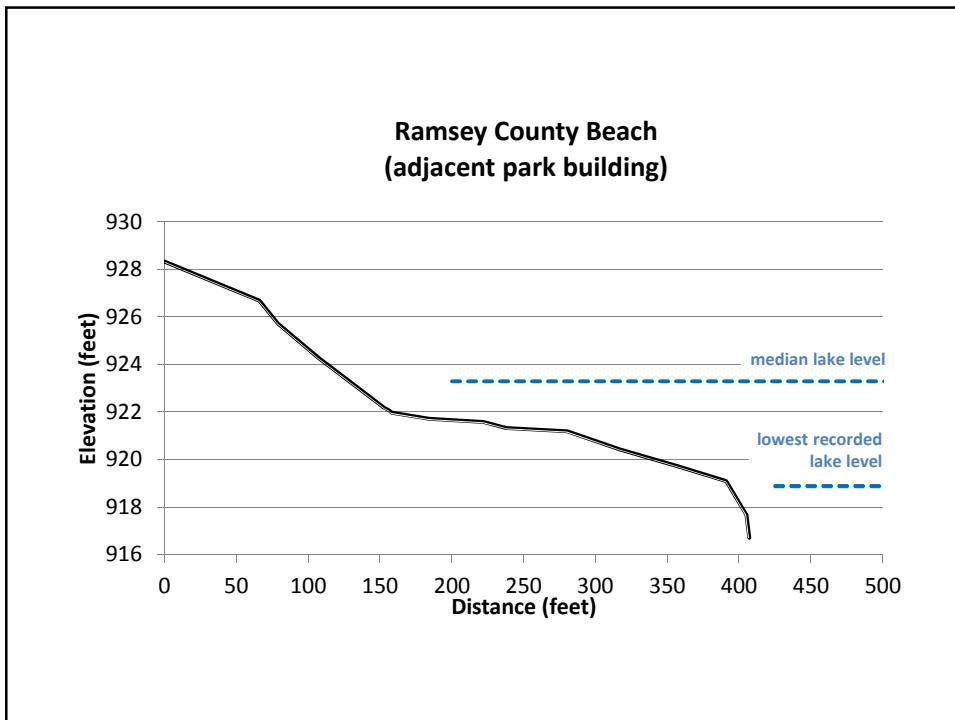
- Emergent, rooted, flowering plant
- 0.6 ft (mean 2.5 ft)
- Clear water lakes
- Reported as more common in low water years
- Well adapted to change and high energy shores







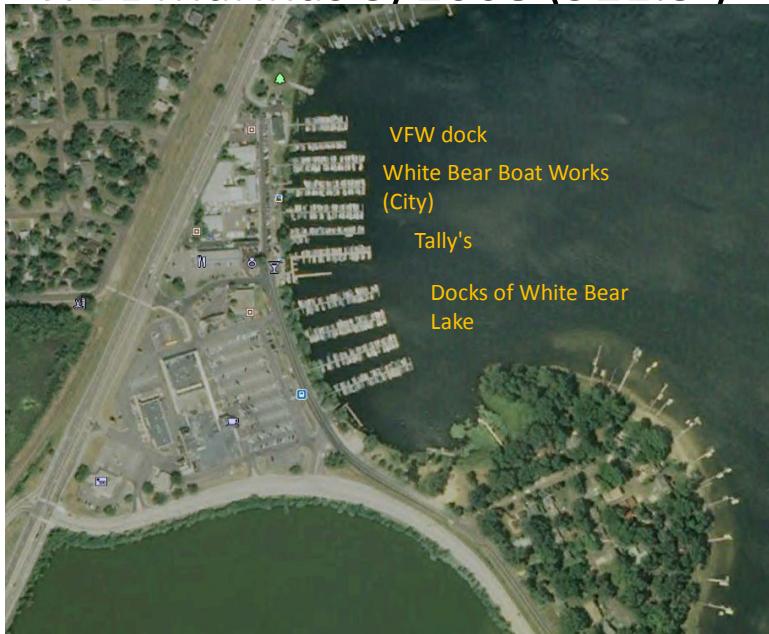




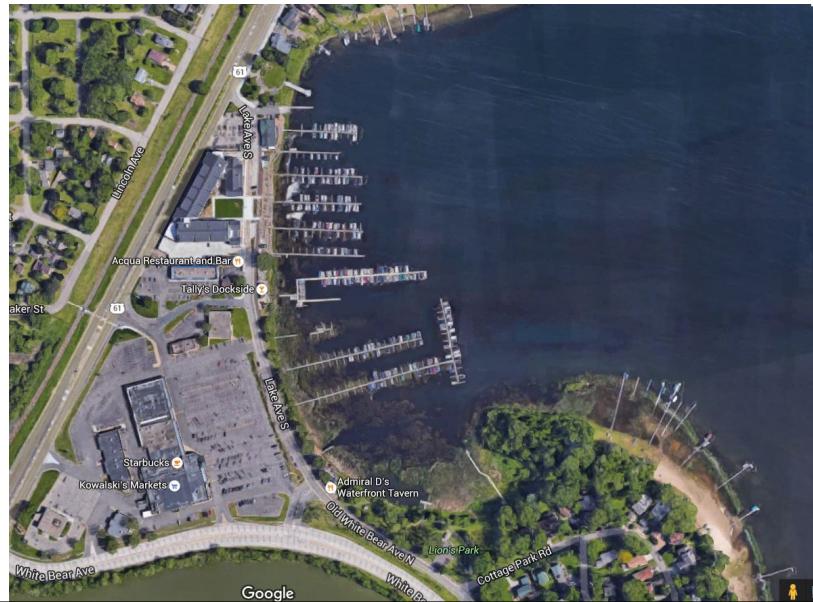
WBL Marinas 4/2004 (923.5')



WBL Marinas 9/2008 (921.5')



WBL Marinas 4/2016? (922.0')



**WBL outlet
near Ramsey County Beach**



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Questions?

Contact:

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