MINNEHAHA CREEK
WATERSHED DISTRICT

Headwaters Dam and Nokomis Weir History and Operations

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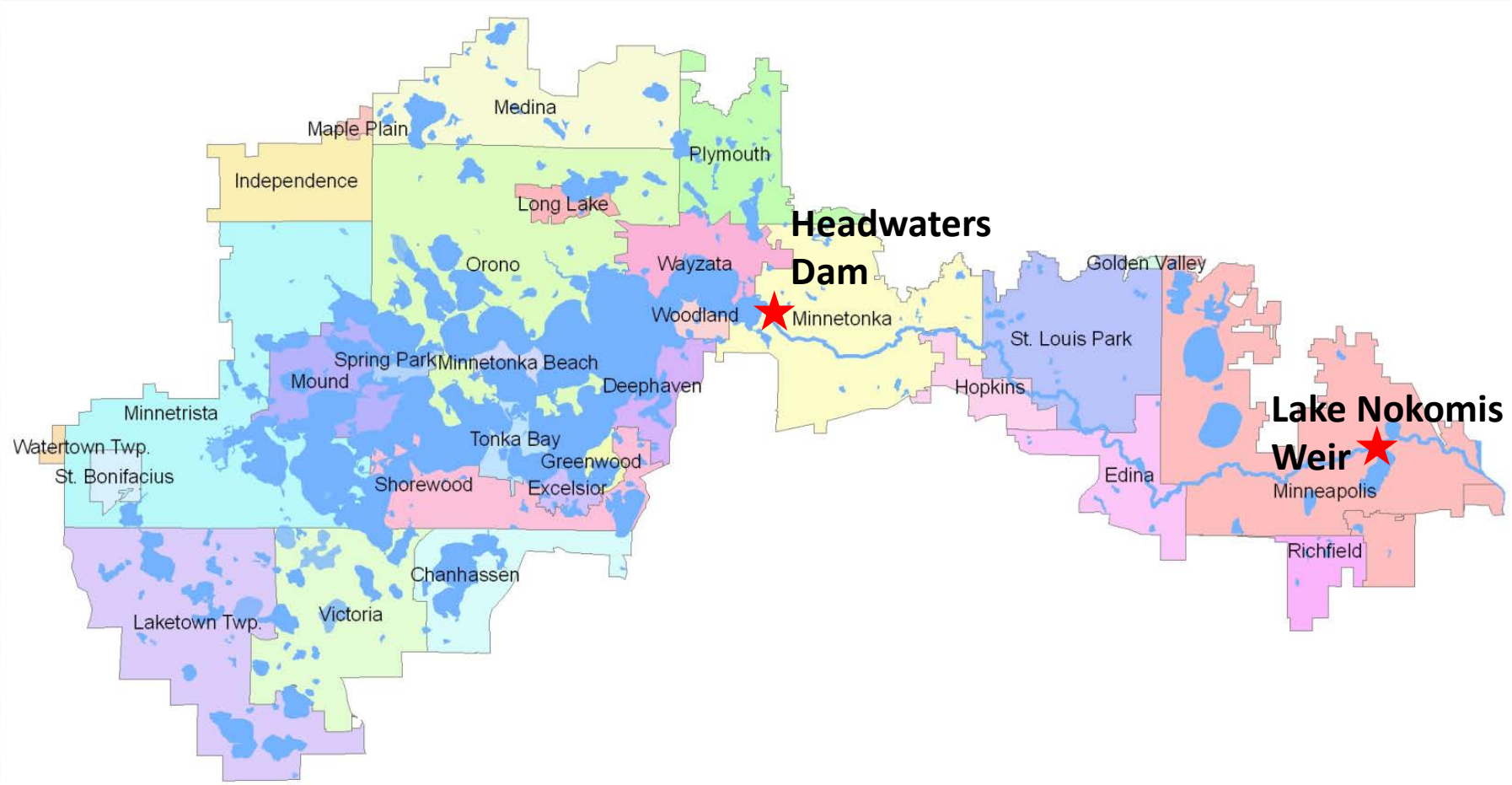
MCWD



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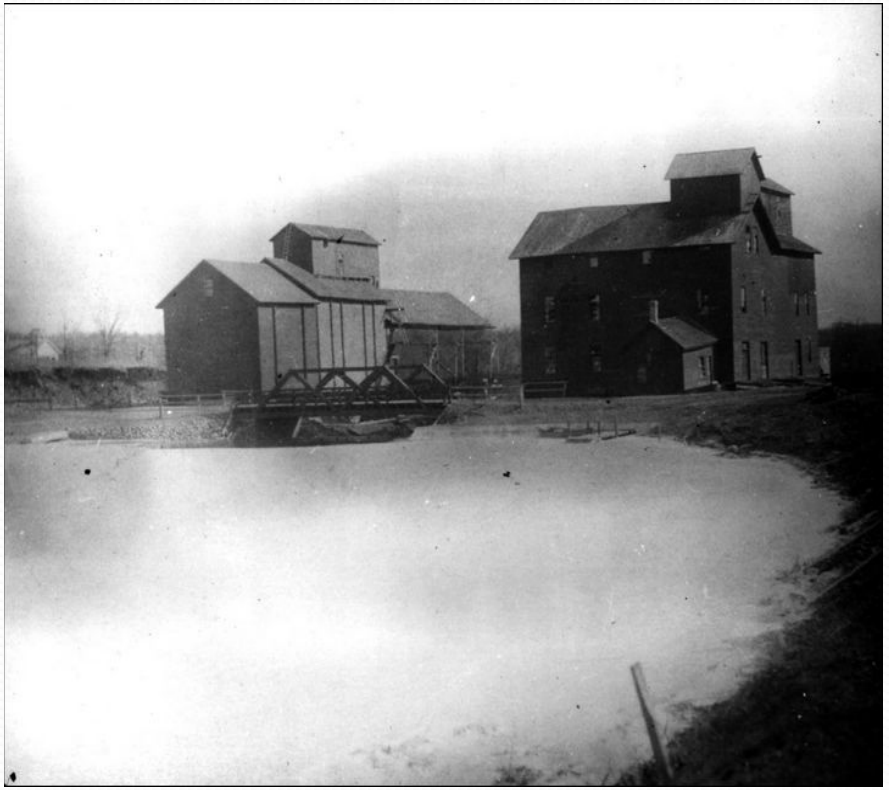
Dam Construction 19th Century

- **1853** first dam built at Minnetonka Mills (Burwell).
- **1874** Hennepin Co completed creek excavation and strengthened the 1853 dam.
- **1893** Hennepin Co built a new dam 100 feet upstream of the 1853 dam with license from Minnetonka Mills owners.
- **1896** the 1893 dam was removed by court order.
- **1897** new dam built by Hennepin Co at Gray's Bay outlet. Timber sheet piling 700 feet long with a spillway 130 feet wide.



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Dam Construction 20th Century

1932 Hennepin Co repaired the dam. Timber sheet piling with a 200 foot spillway.

1944 Hennepin Co reconstructed the dam. Timber sheet piling 213 feet long with a 194 foot timber spillway approximately 2 feet upstream of the 1932 structure.

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Dam Construction 20th Century (cont.)

1974 - MDNR determines the Natural Ordinary High Water to be 929.40 MSL and the natural runout elevation to be 928.6 MSL

1979 - MCWD replaces the wooden structures with steel sheet pile at 930 MSL and builds an adjustable tainter gate structure. MDNR requires extensive public input and engineering analysis to develop an operating plan

1997 - MCWD added riprap to weir, installs continuous steel weir cap and drives butt piles to keep weir level, large downed trees removed

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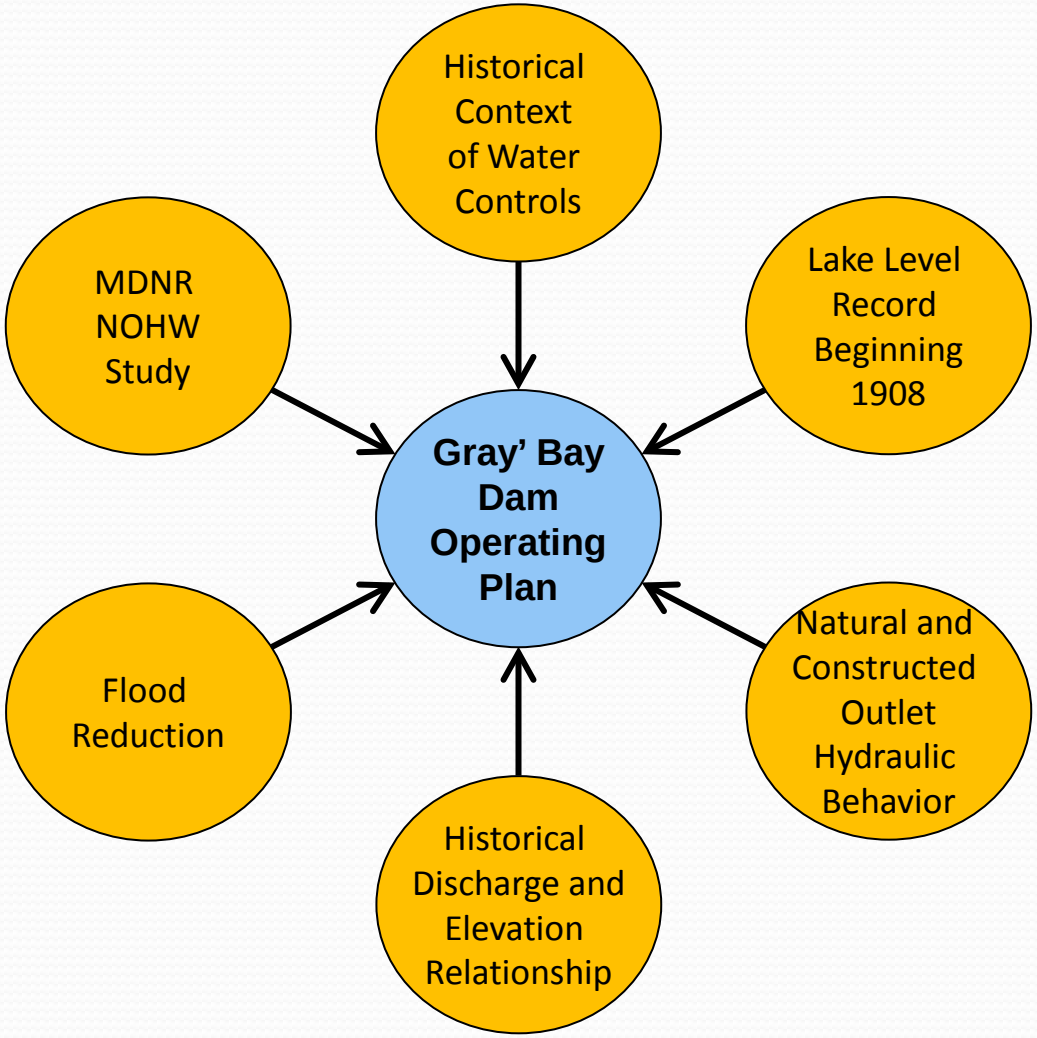
Dam Construction 21th Century

2005 - MCWD/Minnetonka joint project to remove boat launch, cover outlet control structure, revegetate shoreline

1980 Operations Plan



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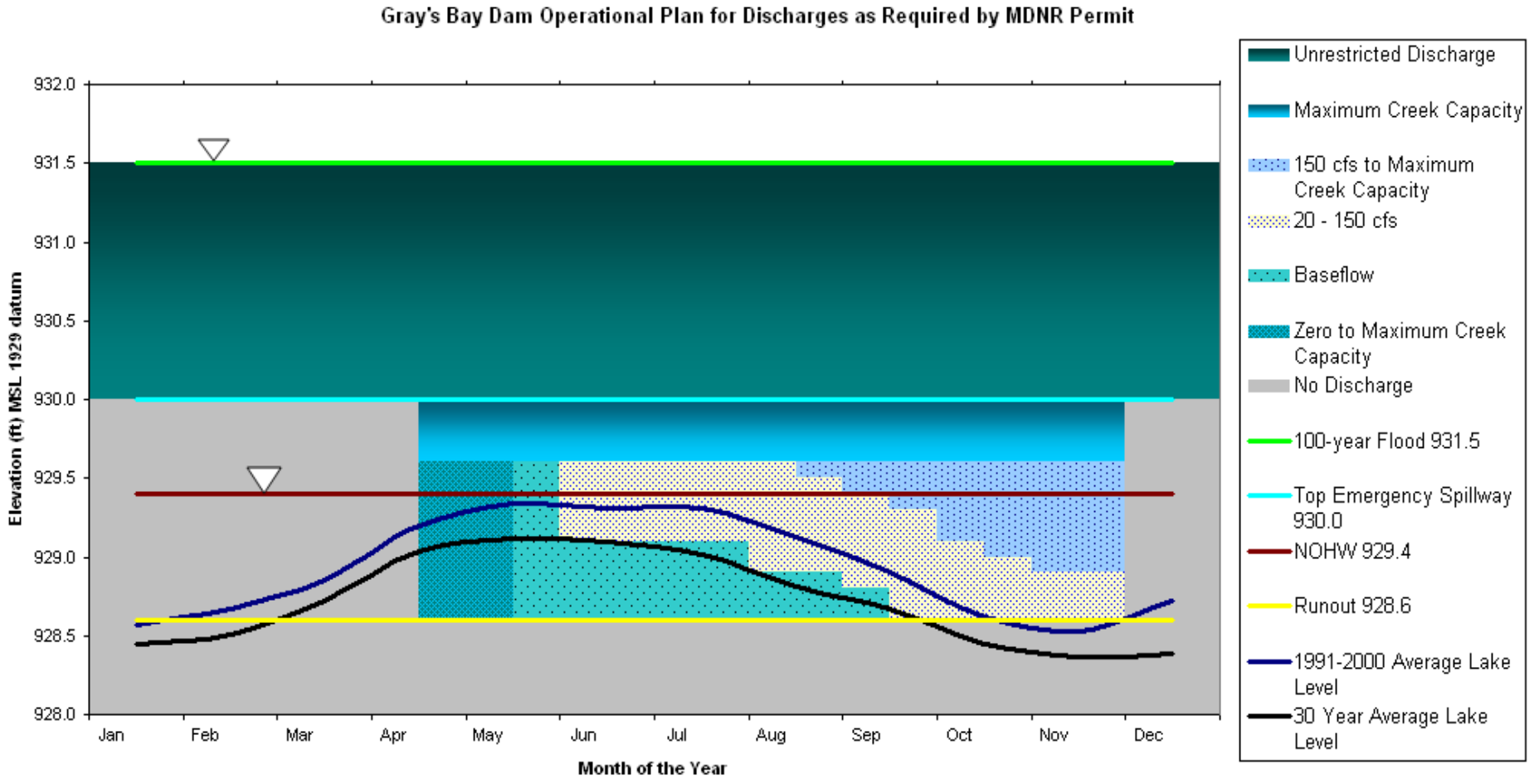
Operating Plan



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Lake Nokomis Weir

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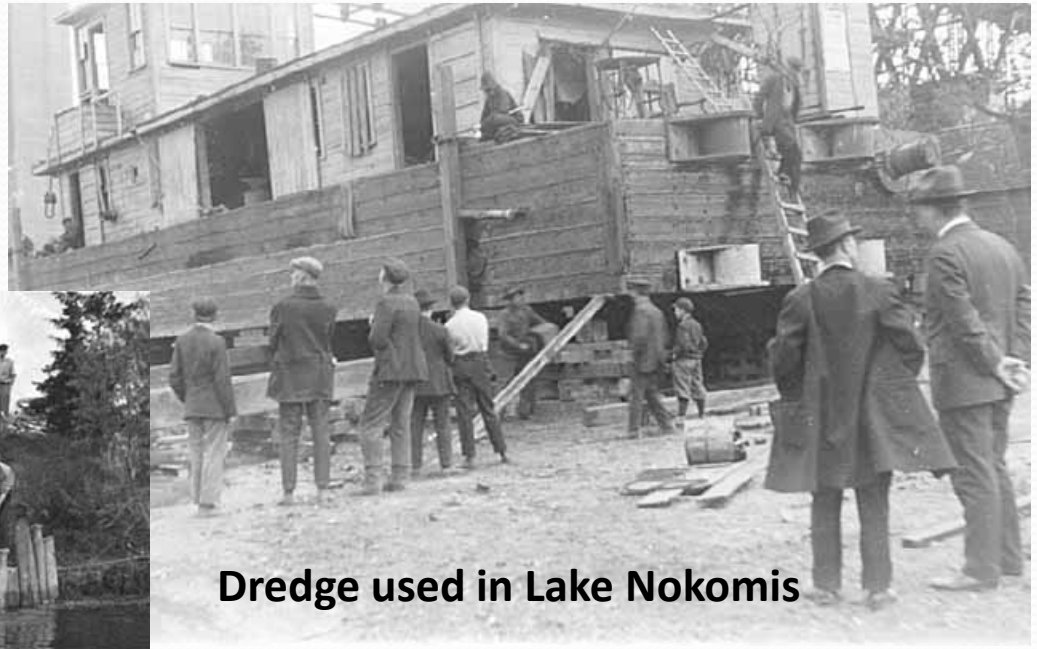
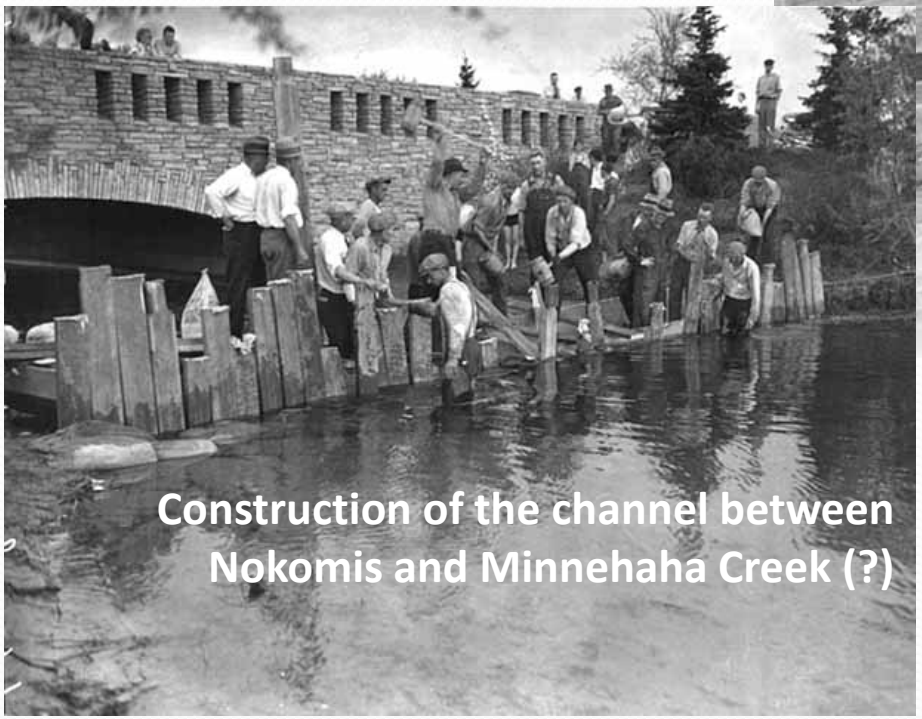
Lake Nokomis Weir (20th Century)

1914-1918 - Lake Amelia (now Nokomis) dredged



Dredge used in Lake Nokomis



Construction of the channel between Nokomis and Minnehaha Creek (?)

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Lake Nokomis – 21st Century

2001 – Obermeyer Inflatable Weir installed as part of Lake Nokomis Improvement Project to divert or reduce inflows from the Minnehaha Creek to prevent phosphorous from entering the lake.

The stainless steel weir was 30 feet in length, hinged, and would raise 2 feet. It was operated by an air bladder under the entire length of the weir.

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2012 Construction

2012 – Due to high on-going maintenance and operations costs, the Obermeyer weir was replaced with a fixed weir.

The weir helps to keep creek polluted creek water and zebra mussels from entering the lake.

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Questions?