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## Fires Set the Stage for Water

- 1871 Pestigo
- 1871 Greater Area



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# The 1881 Thumb fire

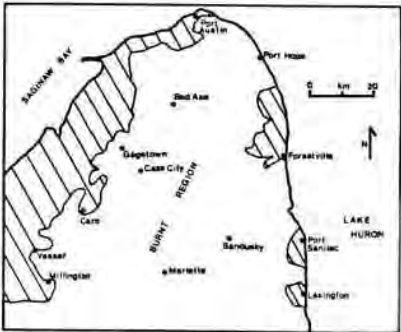


FIG. 1. Extent of the 1881 fire in Michigan's Thumb area with selected village locations (unburned areas shown by hatched lines, adapted from Bailey's "Chart of the Burnt District of Michigan")

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# West and East Side Pump Stations



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# East Side WW Holly Pump System



The station was build for \$70,000 by issuing 8% Bonds in 1872. The original capacity 2 MGD, 4MGD pump added. Eventually steam driven pumps were replaced with 2 electric pumps each 3 MGD capacity in 1919. The pumps pumped river water primarily for fire protection.

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# Wood Water Main Examples

Solid Bored and Shaped



Staves with metal wrap



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# History of Saginaw Water Source and Treatment



Until the existing water works was built and in service in 1929, corner pumps, 151 in total, served the City's of East and West Saginaw for drinking water supply.

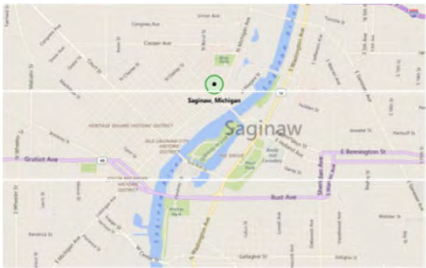
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# Map Comparison

1908



2016



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## Potable Water

- Water that does not contain objectionable pollution, contamination, minerals, or infective agents and is considered safe for human consumption

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## To Make Surface Waters Potable

- Suspended particles must be removed
- Harmful particles must be destroyed

Accomplished by **Complete Treatment**, which provides an effective **multiple barrier approach** against disease causing organisms

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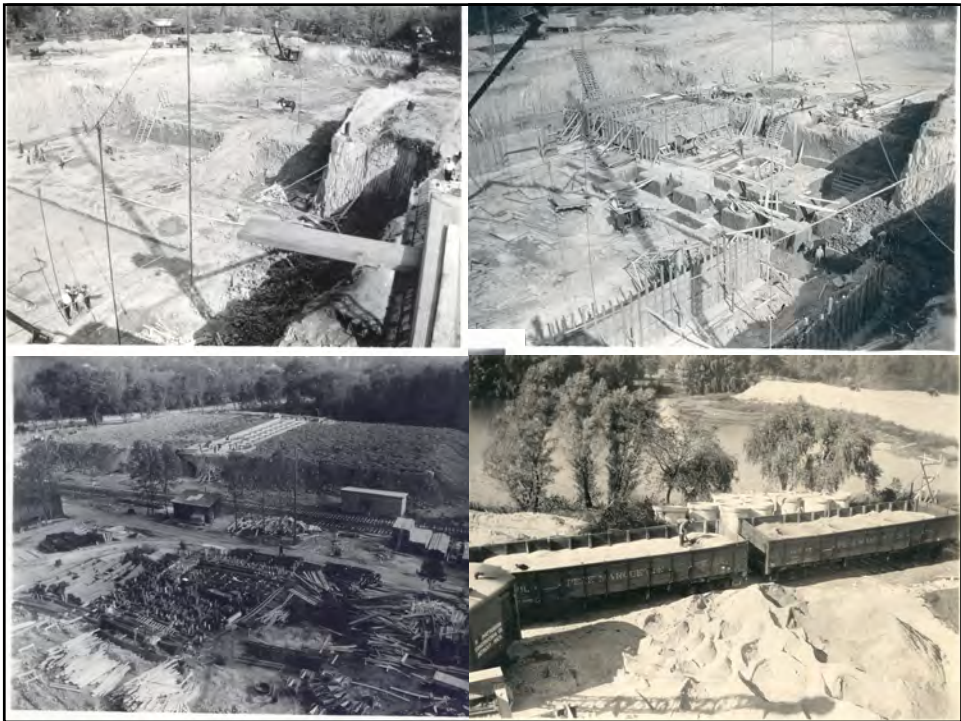
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# Complete Water Treatment

Designed for the purpose of  
turning surface water into potable  
water

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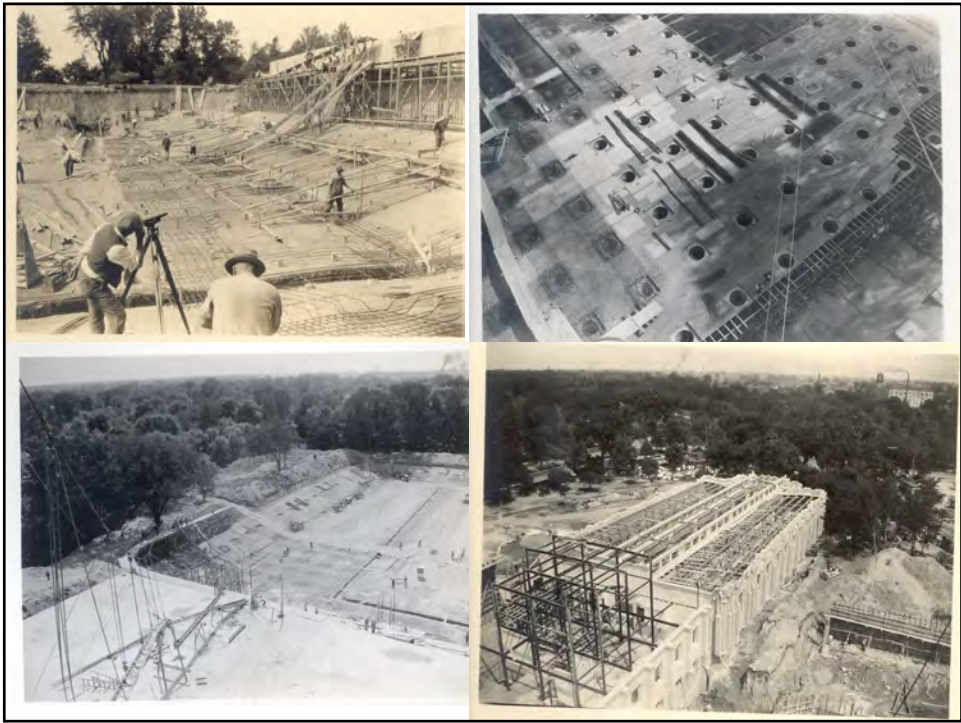




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## Rivers

- Generally rivers provide the poorest quality surface water
  - Rapid and dramatic changes in quality
  - Susceptible to runoff, sewers, industries
  - Plankton and Algae

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## The Great Lakes



- Provide the best quality of surface water with a more consistent quality due to:
- Sheer volume of the Great Lakes
- Intake distance from shore and submergence

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## Problems with Great Lakes

- Thermal Upsets (temperature related)
- River Discharges
- Algae and Plankton
- Changing Wind Direction

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Providing the  
“WORLD’S BEST WATER”  
Since 1946

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## History

- The Cities of Saginaw and Midland were using local river sources that had poor water quality
- The cities joined together to form the Saginaw-Midland Water Supply in 1946 that would provide the cities with a new source of water
- Partnership - “For the Common Good”
- Ownership:
  - City of Saginaw – 53.49%
  - City of Midland – 46.51%

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## History

- Whitestone Point was chosen as the source of water for the cities because the water at this location is from the depths of Lake Huron and is free of effluence from the Saginaw Bay
- Whitestone Point is located 8 miles north of AuGres and roughly 65 miles from the cities
- Provides cities with high quality water that requires minimal treatment

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## ORIGINAL SYSTEM DESIGN



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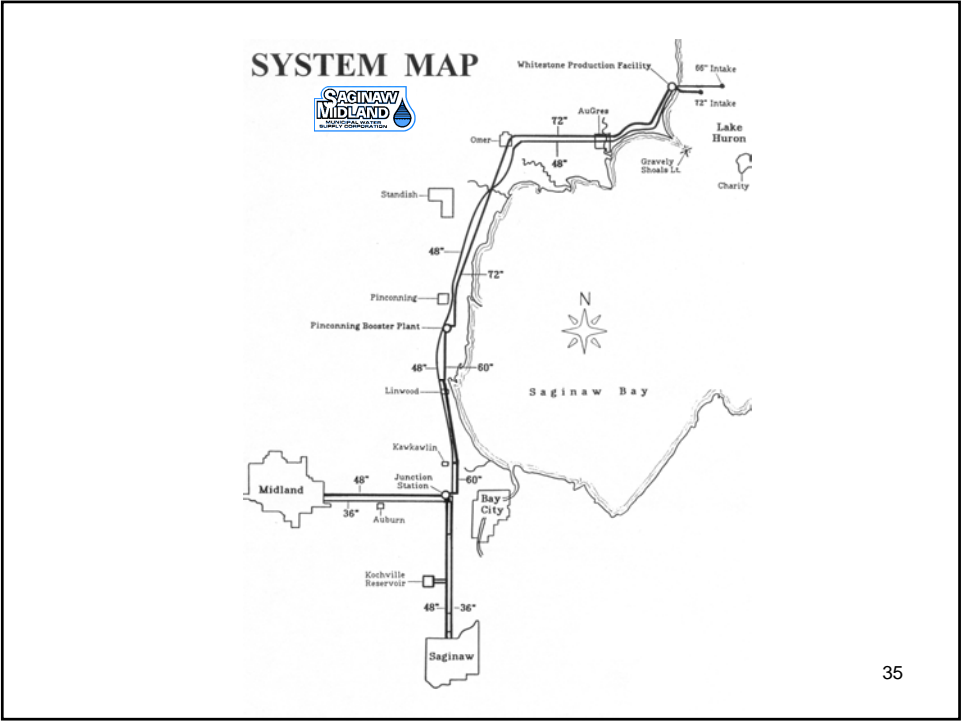


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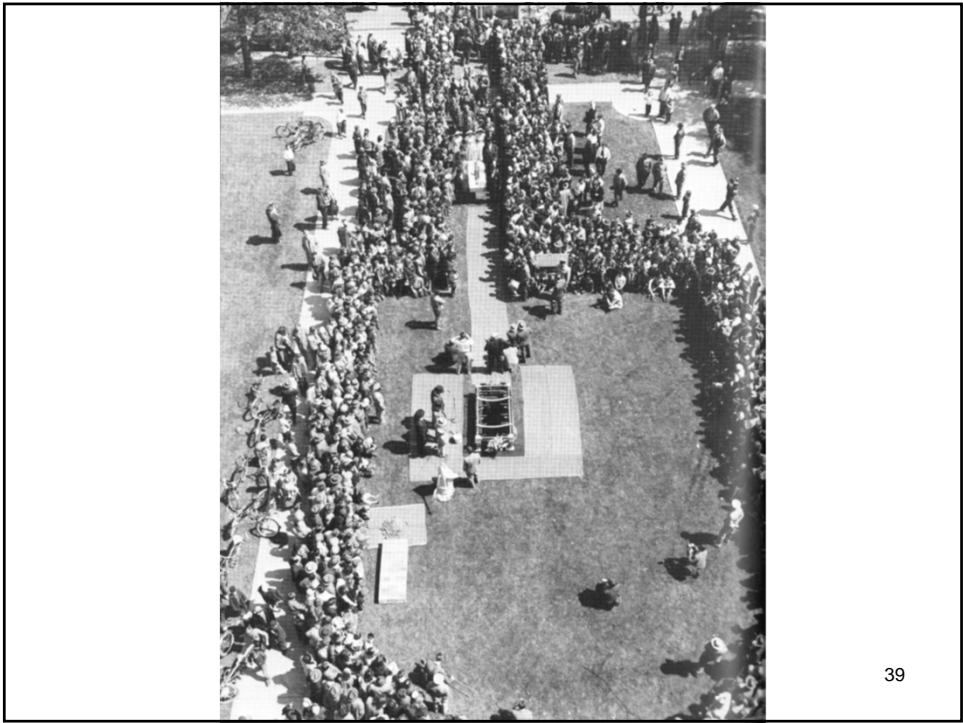
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NEWSPAPER

HOME EDITION

26 Pages Price Five Cents

v NEWS

Entered as second class matter at the Saginaw Post Office under the act of March 3, 1879.

ON WAY HERE!



### Whitestone Pumps Going

**Water Won't Flow From Kitchen Taps For Two Days; Reservoir Being Filled.**

Lake Huron water rushed toward Saginaw and Midland today but the new water ways flow from kitchen taps for "at least a couple days."

Saginaw-Midland Pipeline Manager Alfred Eckert figures it will take that long for the lake water to replace Saginaw River water in this city's 723 miles of watermain.

Great Lakes Division & Buck Co. crews working in continuous shifts, finished burning out the lake-end intake line installed about 11 last night. The steel plate had sealed off the intake line.

Eckert said each of the four pumping units at the Whitestone Point station was to have a test run on it under scrutiny of Detroit, Illinois, Toronto, Ont., engineers this morning.

"They will then, through some blower connections to get at the filter used in testing for any leak detection; then we'll pump out the City supply line, from the Saginaw and later to get this year, City Manager Peter Peterson estimates.

**For Council.**

Adoption of the proposed City Charter Amendment, calling for election of commissioners by districts, was the first item on the agenda of the City Council meeting today.

Peter Peterson, City Manager, said the City Council would vote on the amendment today.

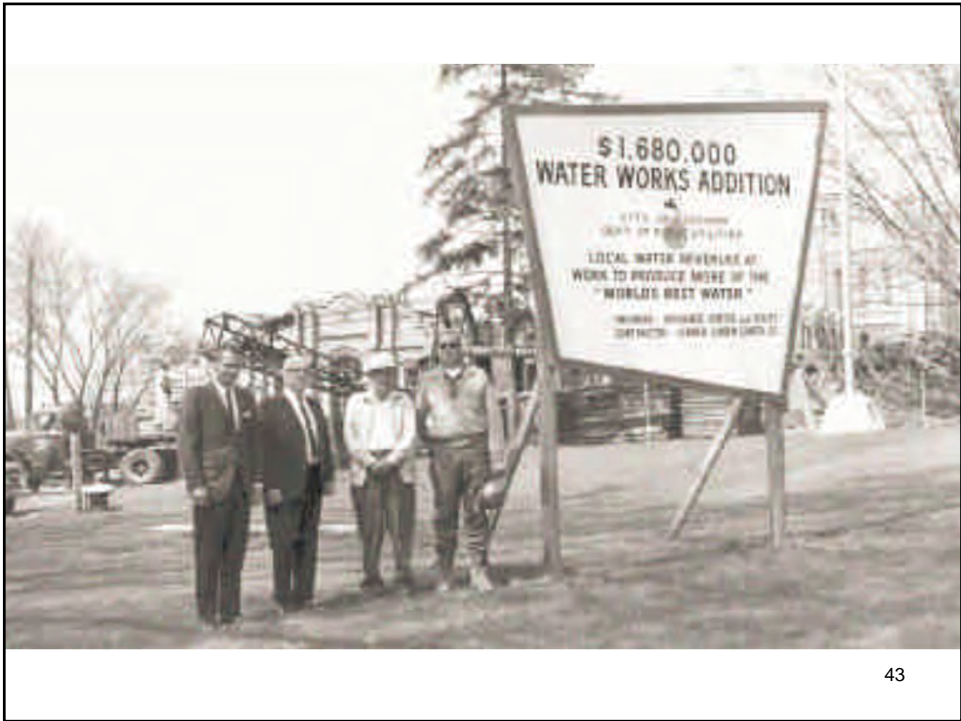
He said the amendment would provide for the election of commissioners by districts, and would also provide for the election of a mayor and a city manager.

The amendment would also provide for the election of a city council, and would also provide for the election of a city manager.

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There are 10,000 20-million-gallon and one 20-million-gallon pumping unit at the Whitestone Point station. Later today pumps at Junction station, just west of the City, were to be tested.

Construction of the 15-mile-long pipeline south of 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