

# EVANSTON ILLINOIS

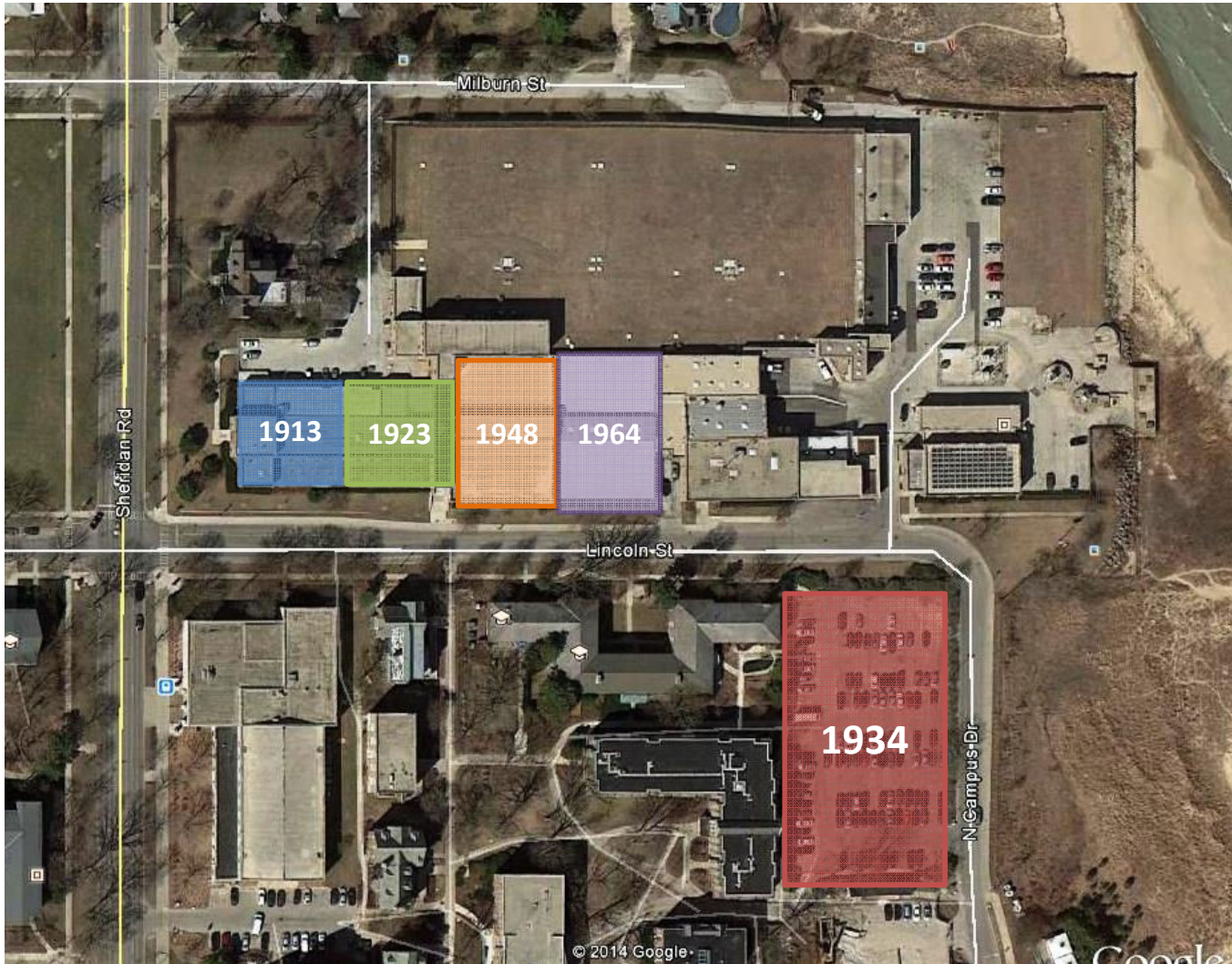
## Treated Water Storage Study

A Comprehensive Assessment of Evanston's  
Water Storage Needs

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# WATER STORAGE STRUCTURAL CONCERNS



Clearwells 1-2

Clearwells 3-4

Clearwells 5-6

Clearwells 7-8

# KEY FINDINGS: STORAGE CAPACITY

- **Water storage capacity is appropriate at the water plant and in the distribution system.**
- **Modifications are recommended to increase usable storage within existing clearwells.**
- **Addition of wholesale customers won't require more storage as long as water plant capacity remains at 108 mgd.**

# KEY FINDINGS: CLEARWELLS 1 – 8

## Clearwells 1-4 (90-100 years old)

- Needed to maintain storage capacity and filter operations.
- Near-term repairs estimated at \$470,000.
- Full replacement needed within 30 years.

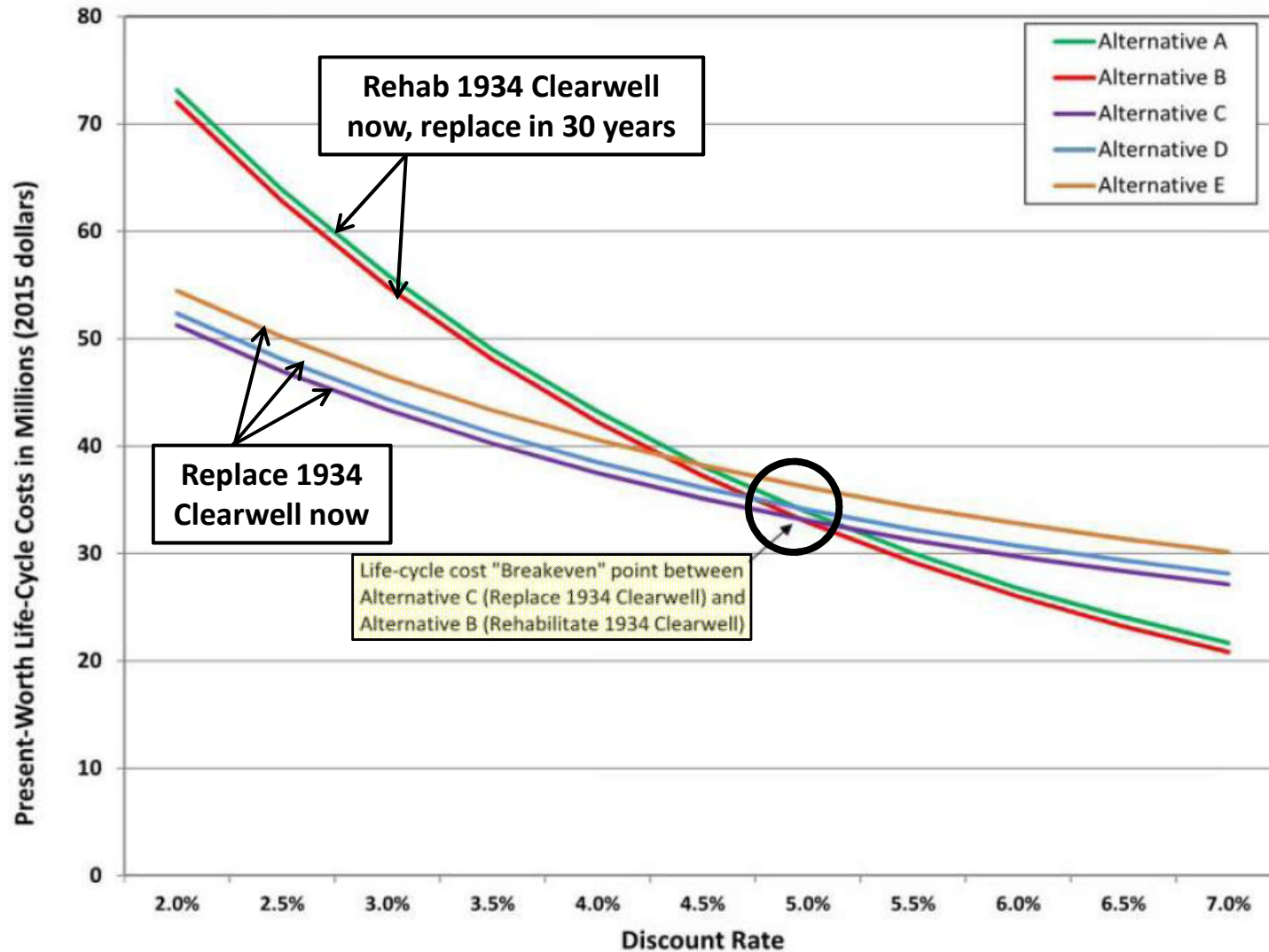
## Clearwells 5-8 (50-65 years old)

- Good condition, but start inspecting periodically.
- Repair minor cracks as needed.
- Full replacement needed in 60 years

# KEY FINDINGS: 1934 CLEARWELL

- **Roof will not last more than another 5 years.**
- **Near-term options (costs in 2014 dollars)**
  - **Replace the roof slab: \$5,300,000**
  - **Rehabilitate the roof slab in place: \$4,400,000**
  - **Replace the entire structure: \$19-\$22 million**
- **Compare life cycle costs of replacing the structure now vs. making repairs and replacing in 30 years.**

# DISCOUNT RATE IMPACTS



# RECOMMENDATIONS

**Staff recommends replacement of 1934 Clearwell near its existing location**

- **Discount rate of 5% or better is not feasible at this time; therefore, replacement of the structure is the most cost effective option.**
- **High probability of receiving a low interest (2.5%) loan from the IEPA**
- **No impact to Evanston rate payers**
- **Staggers cost of major water storage improvement projects**

# FINANCIAL IMPACTS

- **IEPA loan payment (20 years, 2.5% interest) = \$1,267,000 per year**
- **Year 1: Evanston pays 100% of debt cost, but this is offset by reduction in CIP**
- **Years 2-20: NWC pays 91% of debt service cost**



# IMPACTS ON EVANSTON RATE PAYERS

<b>20-Year Debt Cost</b>	<b>\$25,340,000</b>
<b>NWC Revenues</b>	<b>\$23,070,000</b>
<b>NWC % of Total Funding</b>	<b>91%</b>
<b>Remaining Cost to Evanston and Skokie</b>	<b>\$2,270,000</b>
<b>Year 1 Debt Payment</b>	<b>\$1,267,000</b>
<b>Years 2-20 Average Annual Cost to Evanston</b>	<b>\$26,300</b>

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**→ No water rate increase needed.**

# QUESTIONS?