EVANSTON ILLINOIS

Treated Water Storage Study

A Comprehensive Assessment of Evanston’s Water Storage Needs

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Utilities Director

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WATER STORAGE STRUCTURAL CONCERNS
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

Rehab 1934 Clearwell now, replace in 30 years

Replace 1934 Clearwell now

Life-cycle cost "Breakeven" point between Alternative C (Replace 1934 Clearwell) and Alternative B (Rehabilitate 1934 Clearwell)
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

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→ No water rate increase needed.
QUESTIONS?