



THE VILLAGE OF  
LONG GROVE

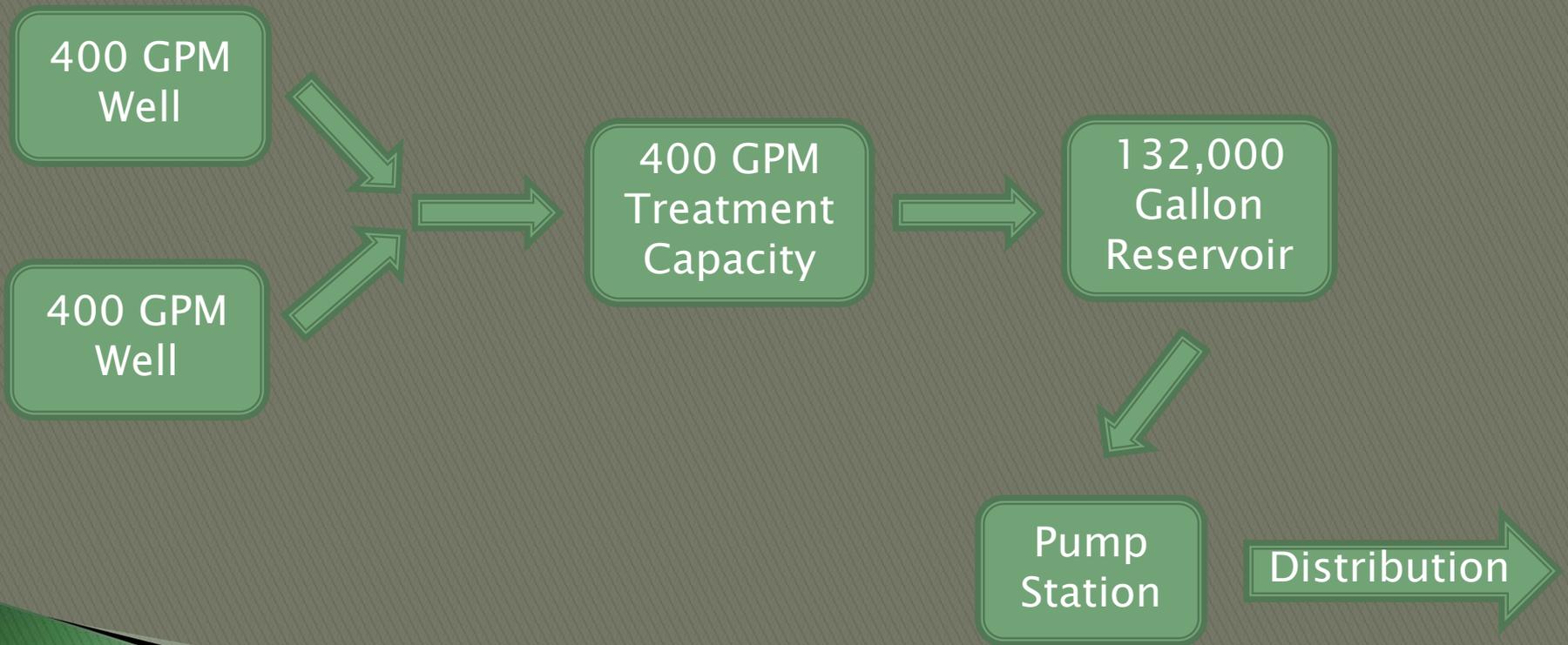
Downtown Water  
System Extension

# Overview

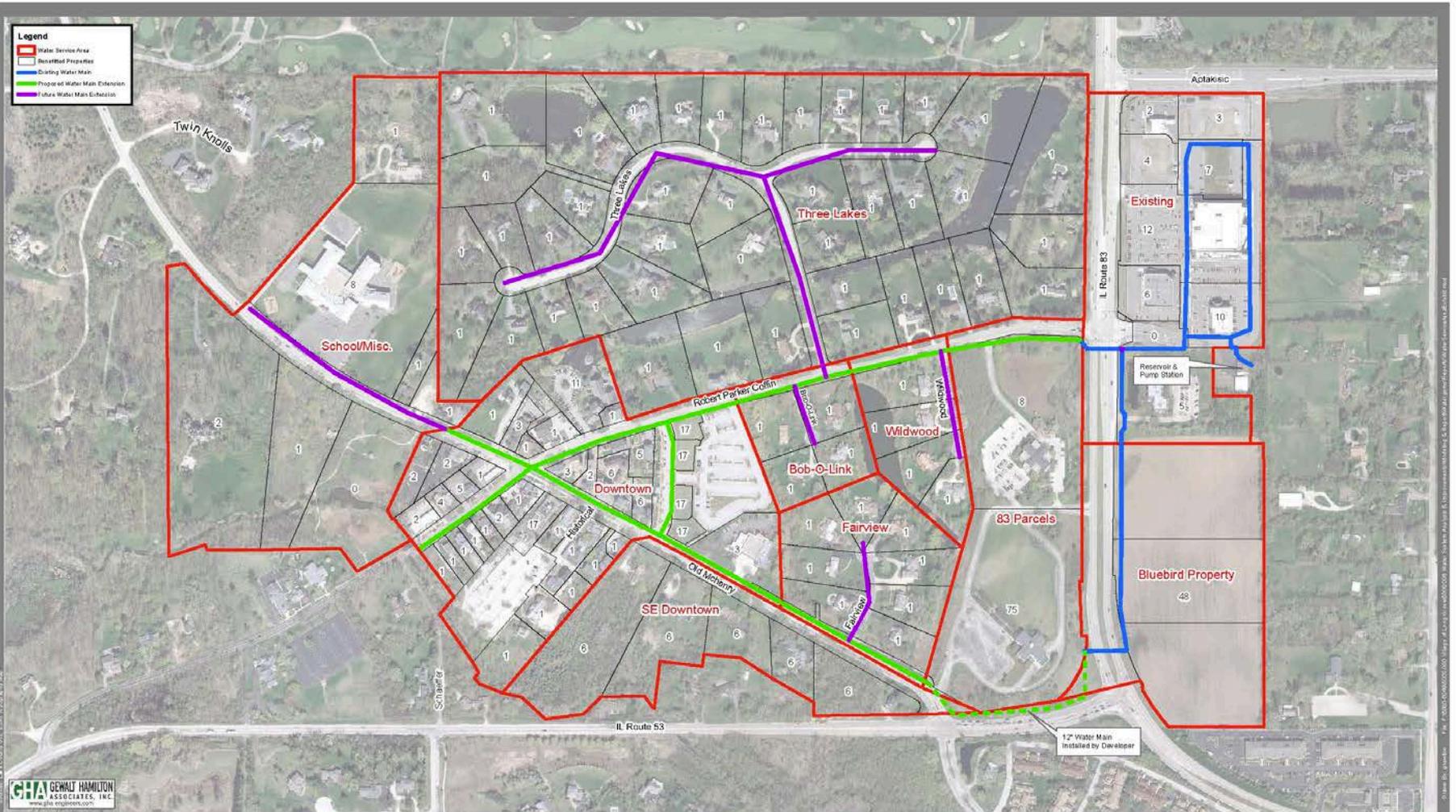
- ▶ Existing System
- ▶ Proposed Extension and Future Extension Areas
- ▶ Proposed Demand and Fire Flows
- ▶ Potential System Improvements
- ▶ Option Benefits and Cost Comparison
- ▶ Fire Flow Operations

# Existing System

- ▶ Existing Distribution System
- ▶ Existing Pump Station & Reservoir



# Proposed Extension and Future Extension Areas



**Legend**

- Water Service Area
- Revised Proposed
- Existing Water Main
- Proposed Water Main Extension
- Future Water Main Extension

**GHA** GEWALT HAMILTON  
ASSOCIATES, INC.  
www.gha-engineers.com



Map Center: 87.98520 -42.17024

**Exhibit A**  
Water Service Areas  
Long Grove, IL

Date: 06/20/19 File#: 190101

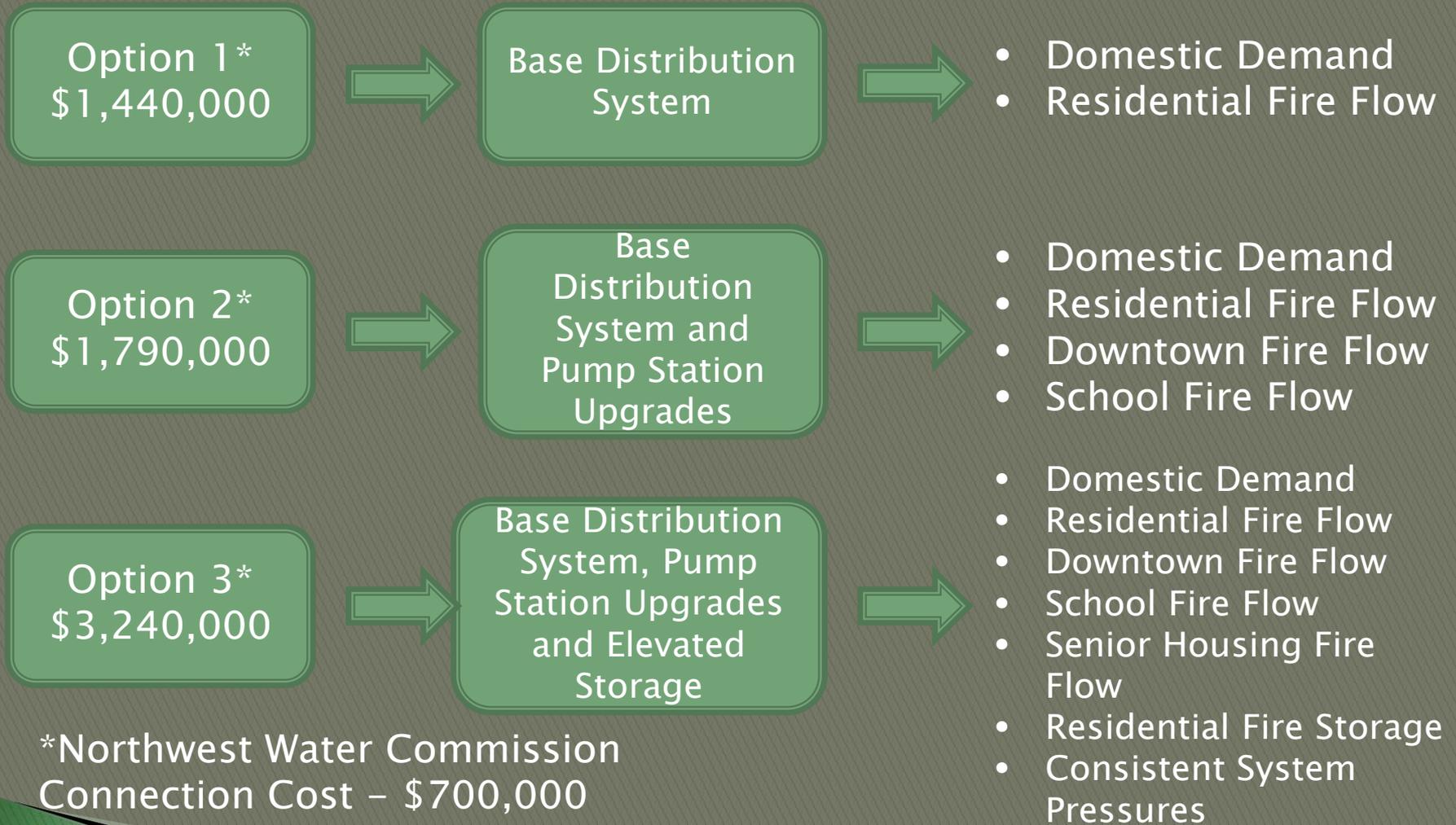
# Proposed Demand and Fire Flows

- ▶ System Build out Demand - 110,000 Gallons Per Day
- ▶ ISO Recommended Fire Flows
  - Senior Housing Center - 3,500gpm
  - Countryside Elementary - 3,000gpm
  - Historic Downtown - 2,500gpm
  - Single Family Home - 1,500gpm
- ▶ System Capabilities
  - Distribution System
  - Pump Station
    - Domestic Demand
    - Fire Flows

# Potential System Improvements

- ▶ Option 1
  - Base Distribution System
- ▶ Northwest Water Commission Connection
- ▶ Option 2
  - Base Distribution System
  - Pump Station Upgrades
- ▶ Option 3
  - Base Distribution System
  - Pump Station Upgrades
  - Elevated Storage

# Option Benefits and Cost Comparison



# Fire Flow Operations

- ▶ Ten State Standard Recommendations
- ▶ Average Day Demand
  - Existing Well Operation
  - Northwest Water Commission Connection

	Existing Reservoir	Addition of Elevated Tank	Recommended Length
Senior Housing Development	7.5 Minutes	72 Minutes	180 Minutes
Kildeer Countryside Middle School	9 Minutes	86 Minutes	180 Minutes
Downtown Business District	11 Minutes	106 Minutes	120 Minutes
Single Family Home	20 Minutes	200 Minutes	60 Minutes

# Questions