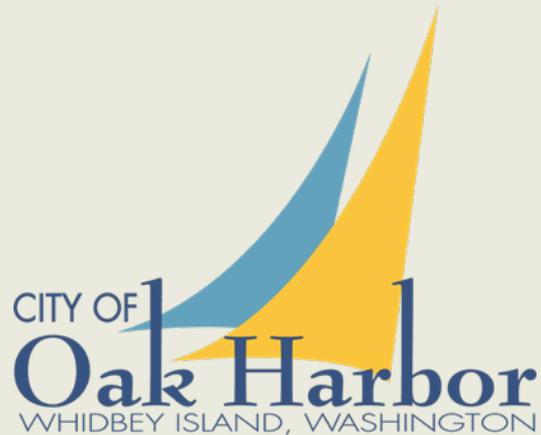


# City of Oak Harbor Water System Improvements



**OAK HARBOR ROTARY**  
**FEBRUARY 24, 2012**



# Public Works



- **54 full and part time employees**
  - City wide, 180 employees
- **Full Service City**
  - Water, Wastewater, Storm Drain, Solid Waste
  - Parks, Streets
  - Fleet, Equipment, Technology, Purchasing
  - Engineering- Capital Projects and Planning
- **2012 PW Budget \$52 million**
  - City wide, \$72 million

# Oak Harbor Water Facts



- **Purchase 95% of water from City of Anacortes**
- **Anacortes treatment plant is on Skagit river, currently undergoing \$60 million expansion**
- **2<sup>nd</sup> largest wholesale customer, refineries are first**
- **Contract is for 1,000,000,000 gallons annually**
- **Delivered to Oak Harbor via 24-inch transmission main following SR-20 and crossing Deception Pass Bridge**
- **100 miles of Oak Harbor Water pipe**

# Oak Harbor Water Facts



- **City supplies NASWI, Deception Pass and North Whidbey Water District as wholesale customers**
- **Used 772,887,701 gallons in 2011**
- **Oak Harbor Average around 1.5 million gpd**
- **Average Consumption – 68 gpcd**
- **Water loss in 2011 only 2.6% – Extremely low**
- **Cheaper than bottled water**
  - 1,200 times cheaper than Kirkland
  - 13, 0000 times cheaper than Dasani

# Water System Improvements



- **Why**
- **Where**
- **What**
- **When**
- **Funding**
- **Benefit to customers**
- **Questions (please interrupt during talk!)**

# Why is this necessary



- **Meet minimum requirements for storage over the next 20 year planning horizon**
- **Replace aging infrastructure by eliminating east side tank**
- **Increase water pressure**
- **Increase fire flow**
- **Promotes economic development**

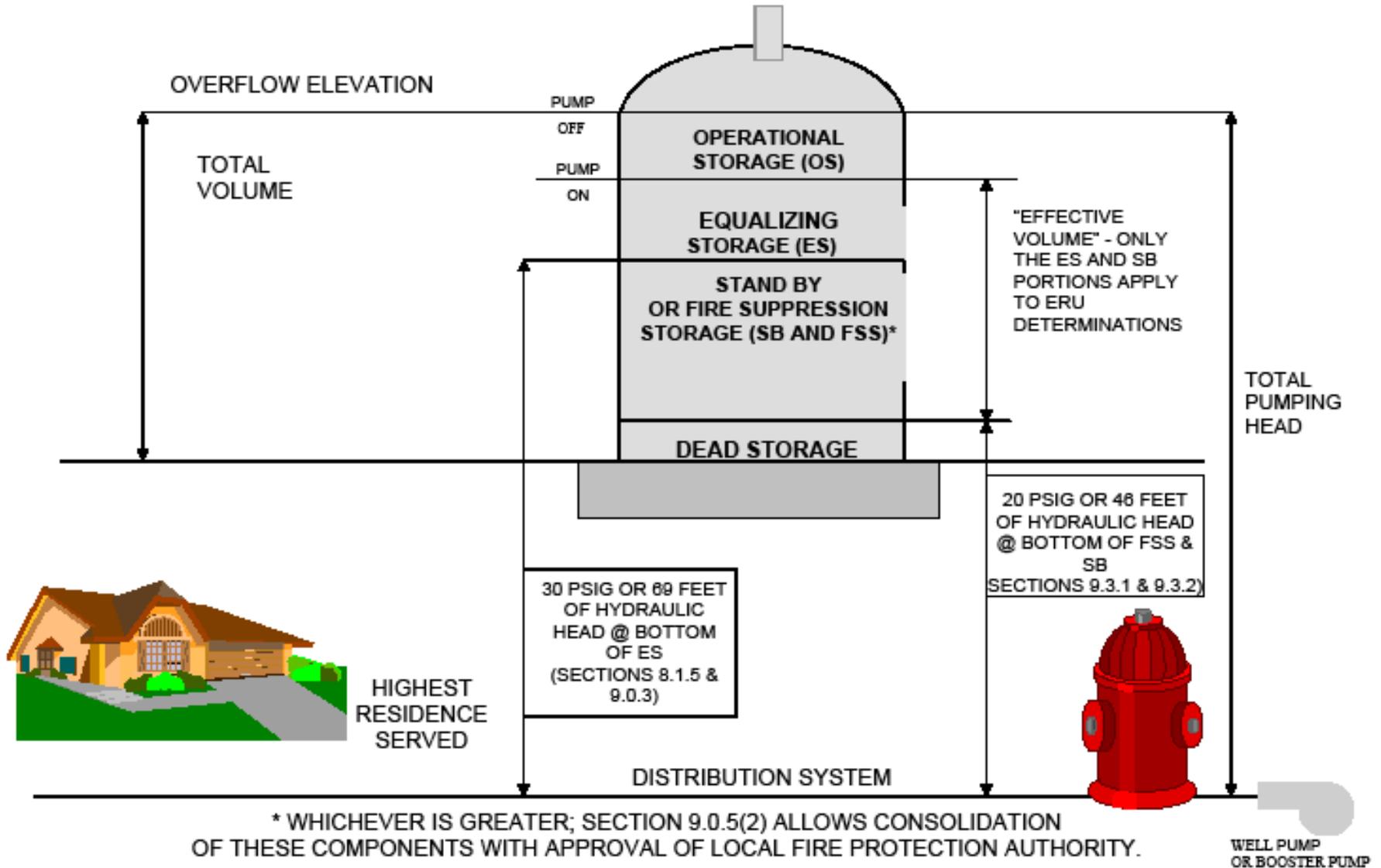


# What is being built



- **4.0 MG Welded Steel Tank**
  - 150-ft diameter
  - 39-ft tall
  - Earthquake resistant
  - 2.5 days of standby storage
- **Gun Club Road Transmission main**
  - 5,700 feet of 18-inch and 24-inch DI pipe
  - Pressure Reducing station at Oak Harbor street
  - New road surface using WMA
  - Power service into reservoir site

**Figure 9-1: Reservoir Storage Components**







# Schedule



- **April 2012 – Advertise Gun Club transmission mains**
- **May-October 2012 – Construct Gun Club Transmission mains**
- **August 2012 – Advertise Reservoir**
- **October 2012 – July 2013 – Construct Reservoir**
- **2014-2019 – Extension of large diameter mains and PRV construction in distribution network**

# Funding



- **Estimated Cost**

- Reservoir \$4.6 million
- Transmission main \$2.6 million
- Future projects \$17 million?

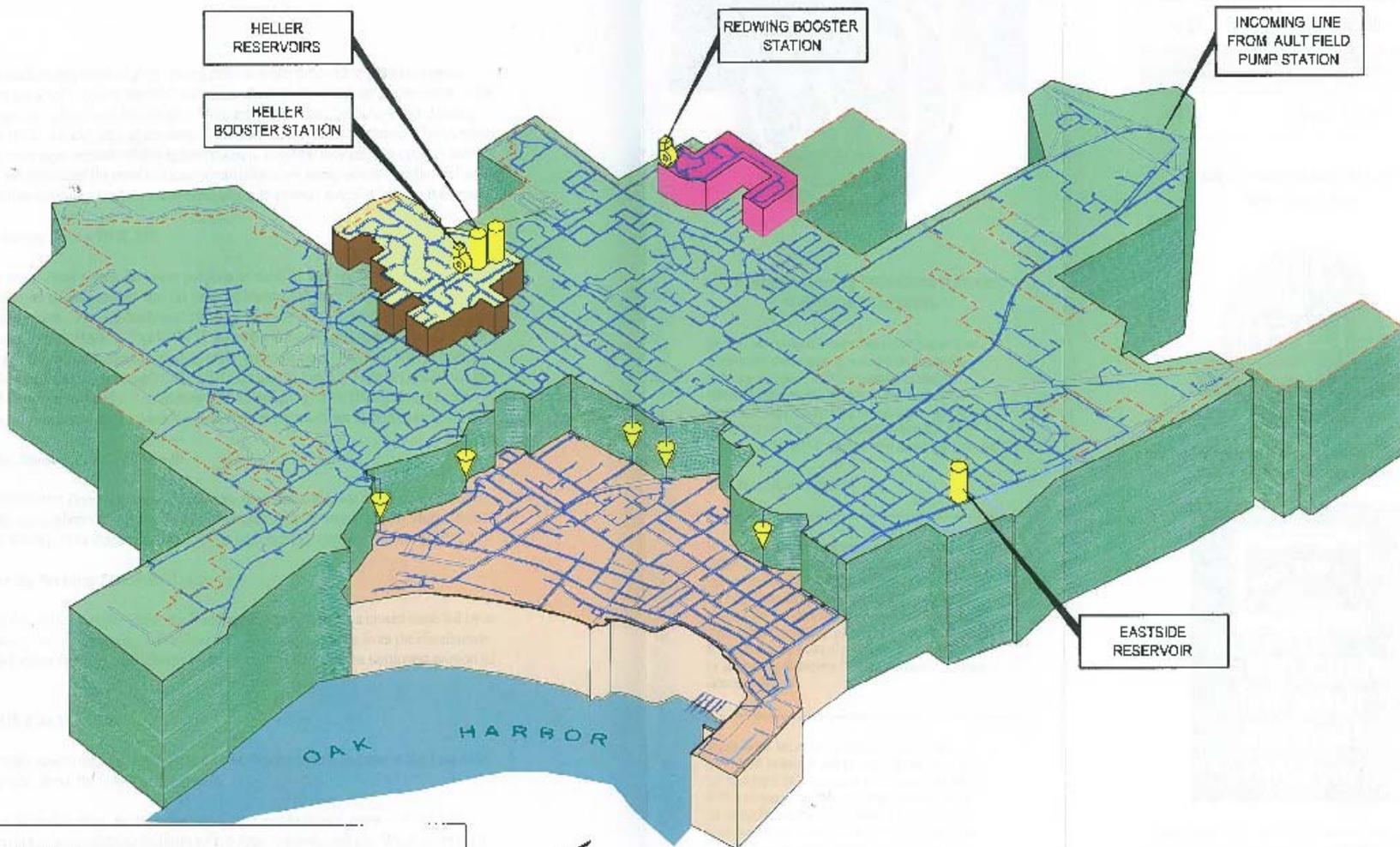
- **Funding**

- Cash reserves and utility revenue bonds
- Revenue from rates and connection fees
- Rate schedule in place to cover projected cost

# Benefits to Customers



- **Increased reliability**
  - Greater storage volume
  - Elimination of aging infrastructure
- **Increased water pressure**
  - Eliminate areas with minimal pressure
- **Increases fire flow availability**
  - Reduces need for developer provided improvements
- **Allows for City to supply NASWI SPB through distribution system and eliminates need for Navy transmission main**
  - Allows for increased cost sharing partnership with NASWI



HELLER  
RESERVOIRS

REDWING BOOSTER  
STATION

INCOMING LINE  
FROM AULT FIELD  
PUMP STATION

HELLER  
BOOSTER STATION

EASTSIDE  
RESERVOIR

OAK HARBOR

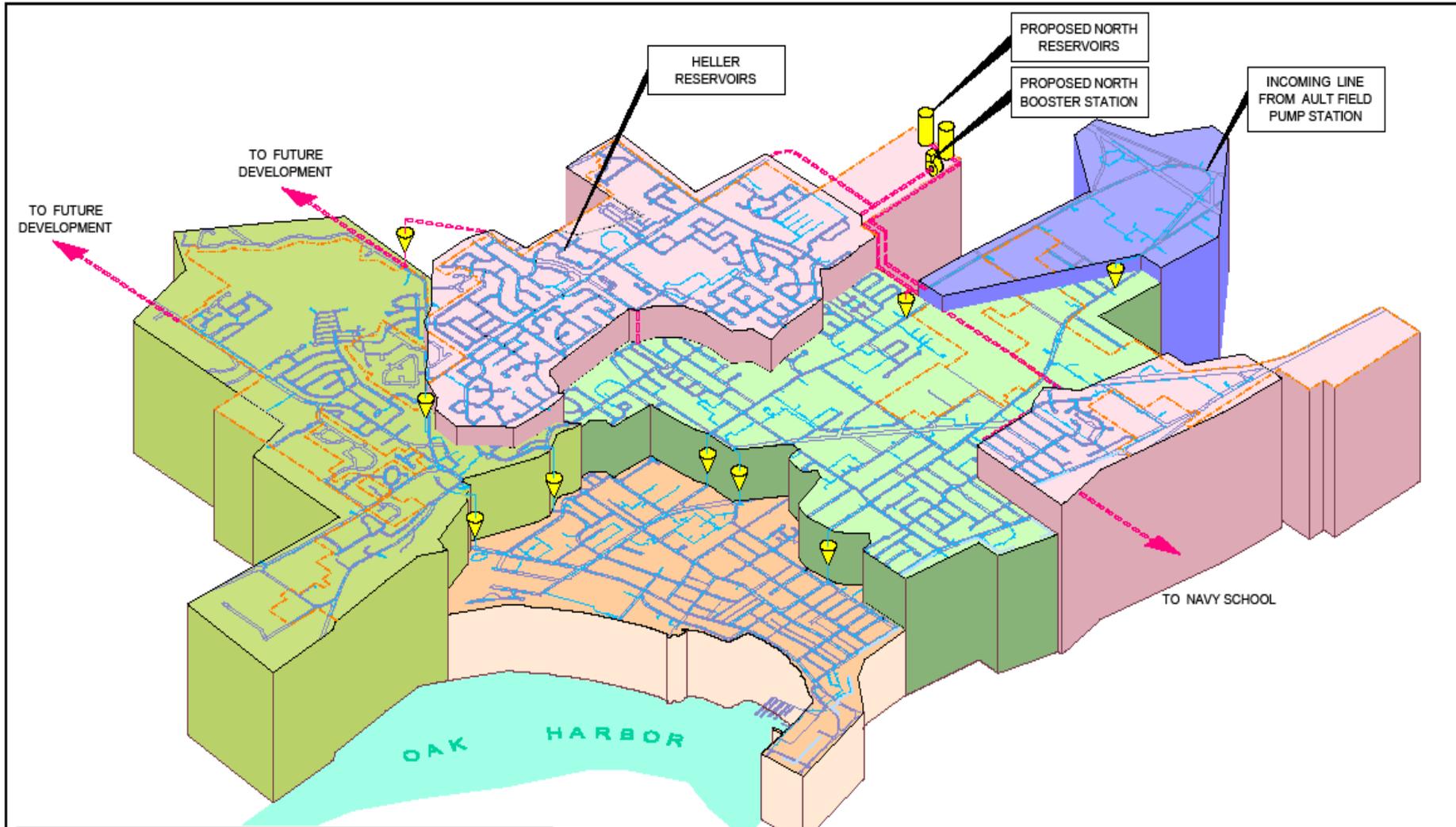
**LEGEND**

- |  |  |   |                         |
|--|--|---|-------------------------|
|  | EXISTING 405' HGL PRESSURE ZONE          |  | RESERVOIR               |
|  | EXISTING 335' HGL DOWNTOWN PRESSURE ZONE |  | BOOSTER STATION         |
|  | EXISTING 440' HGL HILLIER PRESSURE ZONE  |  | PRESSURE REDUCING VALVE |
|  | EXISTING 433' HGL REDWING PRESSURE ZONE  |  | EXISTING WATER MAIN     |
|  | CITY LIMITS                              |   |                         |

**CITY OF OAK HARBOR**  
 FIGURE 9  
 EXISTING WATER SYSTEM  
 PRESSURE ZONE SCHEMATIC



**Gray & Osborne, Inc.**  
 CONSULTING ENGINEERS



LEGEND			
	EXISTING 400' HGL. PRESSURE ZONE		RESERVOIR
	EXISTING 330' HGL. DOWNTOWN PRESSURE ZONE		BOOSTER STATION
	PROPOSED 480' HGL. PRESSURE ZONE		PRESSURE REDUCING VALVE
	PROPOSED 425' HGL. PRESSURE ZONE		EXISTING WATER MAIN
	PROPOSED 420' HGL. PRESSURE ZONE		PROPOSED WATER MAIN
	CITY LIMITS		

**CITY OF OAK HARBOR**  
 FIGURE 5  
 PROPOSED WATER SYSTEM  
 PRESSURE ZONE SCHEMATIC  
  
**Gray & Osborne, Inc.**  
 CONSULTING ENGINEERS



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**Questions?**