



Sharon Department of Public Works and Water Department



Perception



Pave the Planet

One World

One People

One Slab of Asphalt

Five Guys Around One Shovel

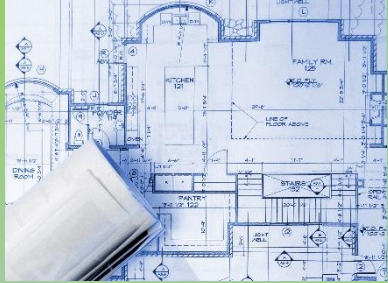
Reality

- Administration/Executive: 15 Staff
- Four Bachelor of Science in Civil Engineering
- One Bachelor of Arts in Business Administration
- One Bachelor of Science in Environmental Science
- One Bachelor of Arts in Liberal Arts
- One Bachelor of Arts in Hotel Management
- One Master of Science in Civil Engineering
- One Bachelor of Science in Facilities Management
- Five Massachusetts Certified Public Purchasing Officials
- Two Registered Professional Engineers (PE)
- Two Registered Engineers in Training (FE)
- Three Level 4 Certified Water Treatment Operators
- One Licensed Arborist
- One Licensed Pesticide Applicator
- One Registered Building Inspector
- One Licensed Drone Pilot
- Three CDL Class A Licensed Operators
- Three Licensed Hydraulic System Operators
- Two Licensed Soil Evaluators
- Three Native Languages



Sharon DPW Reality

Where Your Tax Dollar Goes: The Expertise to make long term decisions in:



and Capital Asset Management

Capital Asset Responsibility

- ❑ **130 miles of Water Main at an average of \$1.25 million/mile: \$162.5 million (High School)**
- ❑ **Four Water Storage Tanks at \$25 million each: \$100 million (Middle School)**
- ❑ **Six Well Pumping Stations at \$20 million each: \$120 million (East and Heights Elementary)**
- ❑ **Emergency Pump Station at \$40 million (Cottage Elementary)**
- ❑ **150 miles of roadway at \$500,000/mile**
- ❑ **75 miles of sidewalks at \$1 million/mile**
- ❑ **Town Hall and Public Safety Complex**
- ❑ **Community Center**
- ❑ **DPW and Water Department Offices**
- ❑ **DPW and Water Department Storage Buildings**
- ❑ **DPW Vehicle and Equipment Fleet**
- ❑ **Gavins Pond, Deb Sampson and Ames Street Playing Fields**

FY24 Budgets

Operating

- DPW FY24 \$4.5M
- Water FY24 \$6.0M

Capital DPW

- Heavy Equipment \$500,000
- Roads and Sidewalks \$3.6M
- Town Facilities \$105,000

Capital Water

- Heavy Equipment \$200,000
- Water Main Replacement \$750,000
- Tanks, Wells, Pumping Stations and Treatment \$40M

FY24 Operating Budget

DPW

- **Salary and Wages**
\$2,652,391
- **Operating Expenses**
\$1,592,242

Water (Enterprise)

- **Salary and Wages**
\$2,247,615
- **Operating Expenses**
\$864,816
- **System Maintenance**
\$1,048,613
- **Principle + Interest**
\$1,390,264
- **Reserve + Norwood**
\$500,000

Street Lights and Railroad Parking

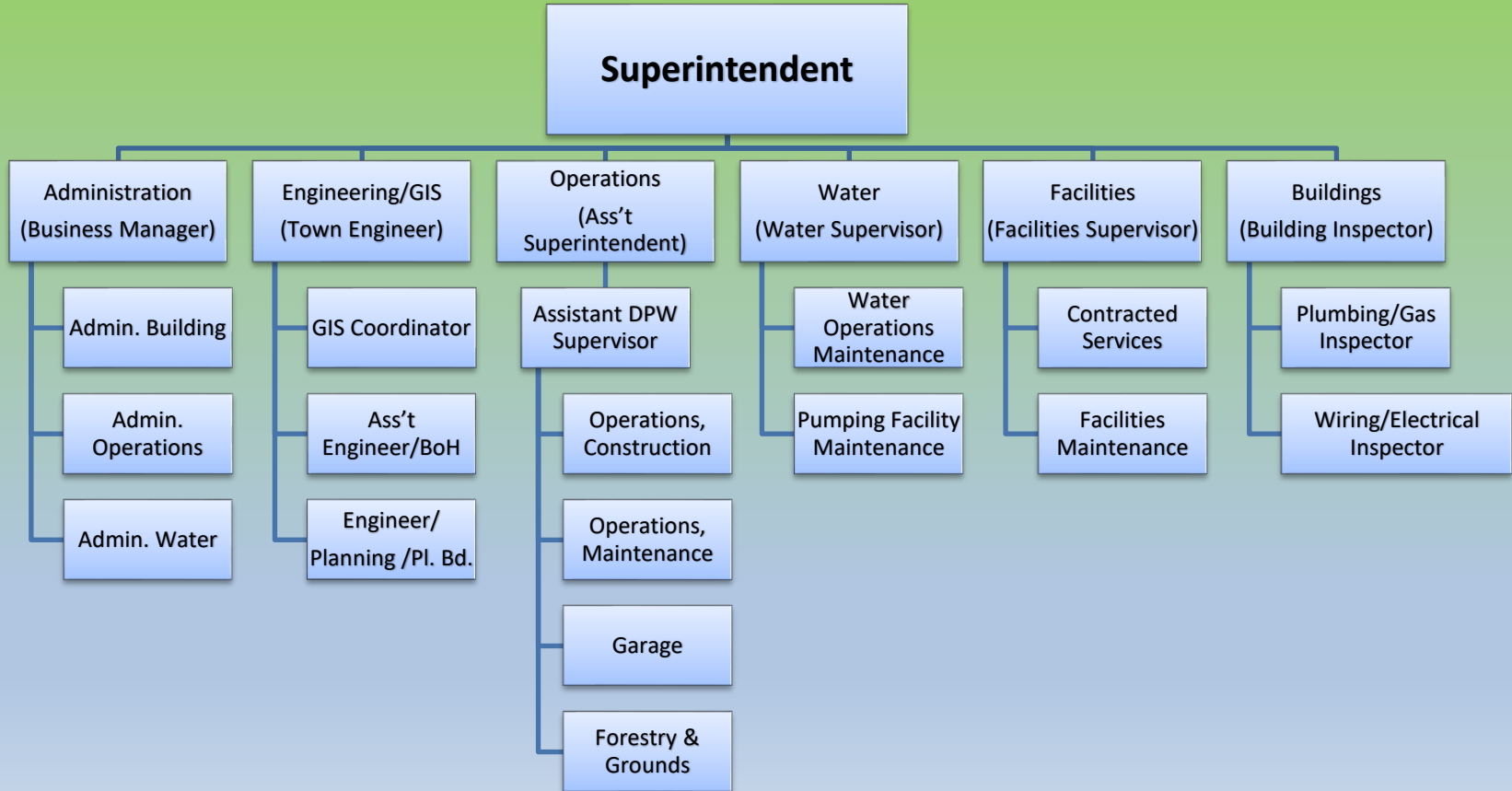
- **Street Lights**
\$224,158
- **Rail Station Parking**
\$169,314

Our Mission

Provide and maintain Public Services necessary for the economy, growth and quality of life for the citizens and visitors to the Town of Sharon.



Department Structure



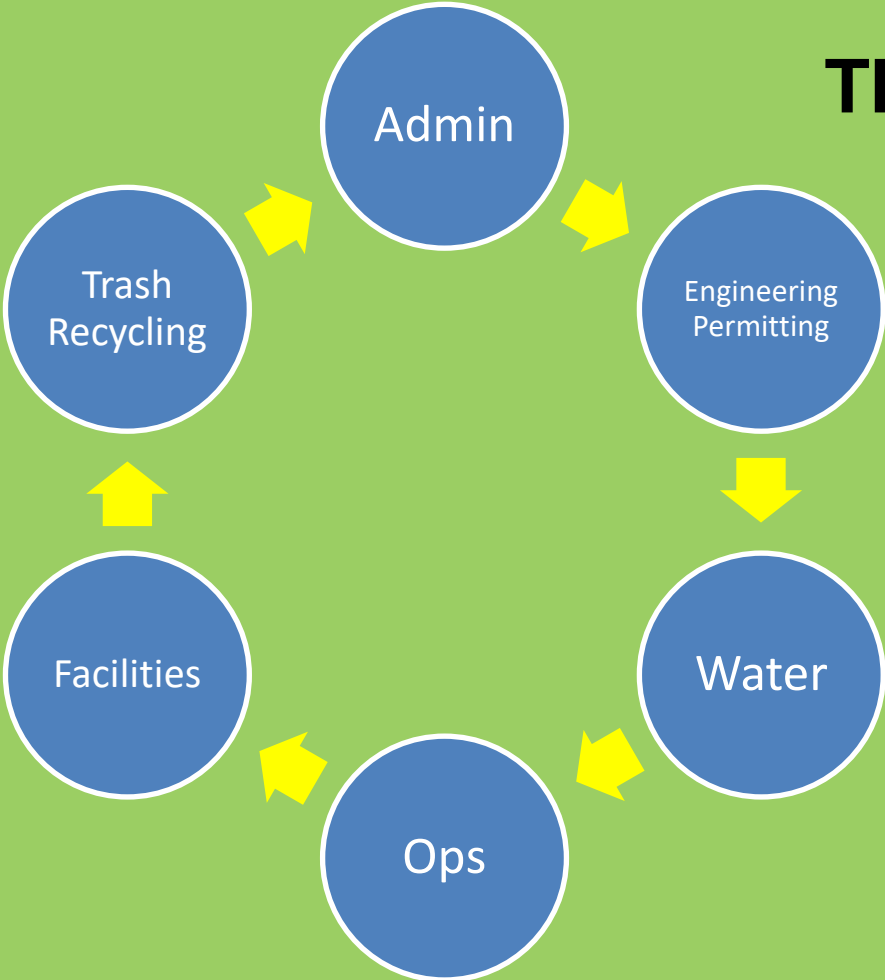
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What does DPW do?

Our Responsibilities

Engineering/GIS /Permitting	Operations	Public Facilities	Forestry and Grounds	Water
<p>Planning</p> <p>Design</p> <p>Construction Oversight</p> <p>Mapping and Data Management</p>	<p>Vehicles</p> <p>Equipment</p> <p>Roads/Sidewalks</p> <p>Lines/Signs</p> <p>Snow Removal</p>	<p>Repairs Support Services</p> <p>Construction</p> <p>Streetlights</p> <p>Snow Removal</p>	<p>Parks/Cemeteries/Grounds</p> <p>Public Shade Trees</p> <p>Right-of-Way</p> <p>Stormwater</p> <p>Special Events</p> <p>Snow Removal</p>	<p>Pumping Stations/Wells</p> <p>Regulatory Compliance</p> <p>Water Treatment</p> <p>Water Mains</p> <p>Metering</p> <p>Snow Removal</p>

The DPW Cycle of Life



Administration

Complaint Resolution

- Recycling and Trash Collection
- Building, Electric and Gas Permits
- White Goods and Metal Drop off
- Street Lights
- Water Billing
- Infrastructure
- Snow Removal Operations

Payroll

Accounts Receivable



Engineering and Permitting

- Internal Project Design

Roads, Sidewalks, Drainage, Parking Lots, Water Treatment, Railroad Station, Solar, Intersections, Handicap Accessibility, Bicycle Accommodation, Dam Maintenance

- External Project Review

Subdivision, Commercial Development, Bridges, Mass DOT



Recent Sidewalks, Roads and Subdivisions



Beach Street Sidewalk



Community Center



Recent Development

Water



- **Quality Drinking Water**

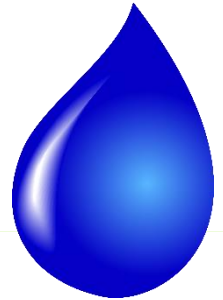
- Water Main Replacement

- System Maintenance:

 - Tanks, Pumping Stations (Wells),
Water Mains

- Fire Protection

- Snow/Ice Operations



Recent Water Infrastructure



Water Main for Chestnut/Walnut Area



Massapoag Avenue Tank

Town Operations and Grounds



- Snow/Ice Operations
- Stormwater Infrastructure
- Road and Sidewalk Infrastructure
- Playing Fields
- Street Lights
- Multi-use paths
- Vehicle and Equipment Fleet
- Bridges
- Parking Lots
- Railroad Station



Playing Fields and Parks



Deborah Sampson Field, Septic System
and Snack Shack



Middle School Field



Facilities

- Town Hall, Public Safety Complex, Community Center, DPW Administrative Offices, Water Administrative Offices
- Accessibility Services
- Library Assistance
- Recreation Facility Assistance

Recent DPW/Water Facilities



Emergency MWRA Pump Station



DPW Equipment Storage Building

Waste and Recyclables

- Recycling and Trash Collection
- Household Hazardous Waste
- White Goods and Metal Drop off





Collaborating with DPW



- **Boards, Commissions & Committees**

- **Select Board**
- **Planning Board**
- **Board of Health**
- **Board of Appeals (ZBA)**
- **Conservation Commission**
- **Finance**
- **Capital Outlay**
- **Water Management**
- **Community Preservation**
- **Historical Commission**
- **Transportation Advisory**
- **Lake Management Advisory**
- **Recreation Advisory**

- **External Organizations/Companies**

- Republic Services
- SEMASS

- **Other Town Departments**

- **All of Them!**



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Challenges of the DPW



- **Boards, Commissions & Committees**

- **Select Board**
- **Planning Board**
- **Board of Health**
- **Board of Appeals (ZBA)**
- **Conservation Commission**
- **Finance**
- **Capital Outlay**
- **Water Management**
- **Community Preservation**
- **Historical Commission**
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- **External Organizations/Companies**

- Republic Services
- SEMASS

- **Other Town Departments**

- **All of Them!**

- **RESIDENTS**

Connect With Us!

- ❖ **Town Website**
townofsharon.net
- ❖ **DPW Page**
townofsharon.net/departments-of-public-works
- ❖ **Water Page**
townofsharon.net/water-division
- ❖ **DPW Service Request Form**
townofsharon.net/public-works/pages/report-a-concern-through-commonwealth-connect
- ❖ **Ask A Question**
townofsharon.net/departments-of-public-works/faq/dpw-who-to-call-faq

Phone: 781-784-1525

Address: 217 Rear South Main St.

(Behind the new Public Safety Administrative Offices and Equipment Storage Building, after the double-wide trailer, before the single-wide trailer, next to the gas pumps in the cinder block building.)

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Case Study: The Decision Process

PFAS Water Treatment Facility

Purpose and Need: Regulatory Compliance

Exceeds Massachusetts DEP Maximum Contaminant Level (MCL)

- **Well #2 (Moose Hill Parkway)**
- **Well #4 (Tree Lane)**

Exceeds Federal EPA Proposed MCL

- **Well #3 (Farnham Road)**
- **Well #6 (Wolomolopoag – likely fail)**
- **Well #7 (Gavins Pond Road – possible fail)**

Funding:

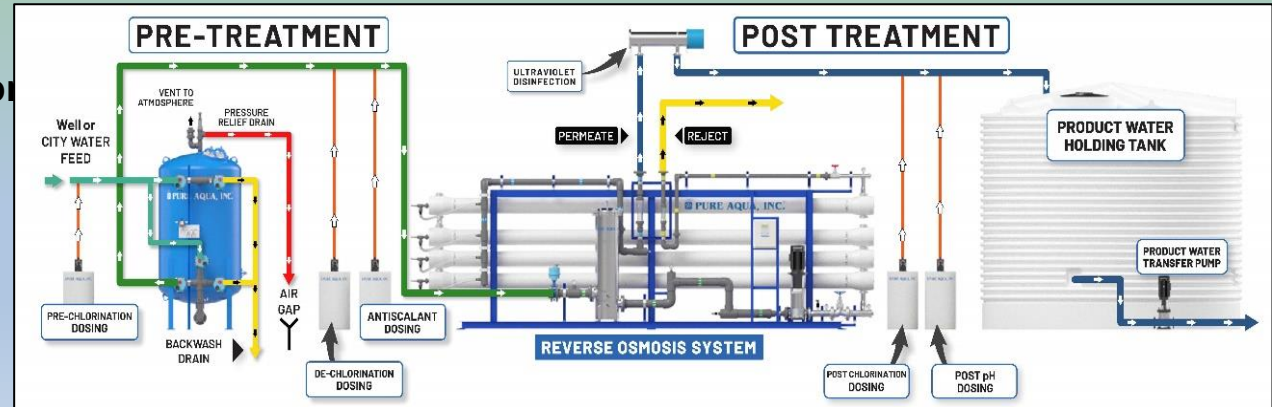
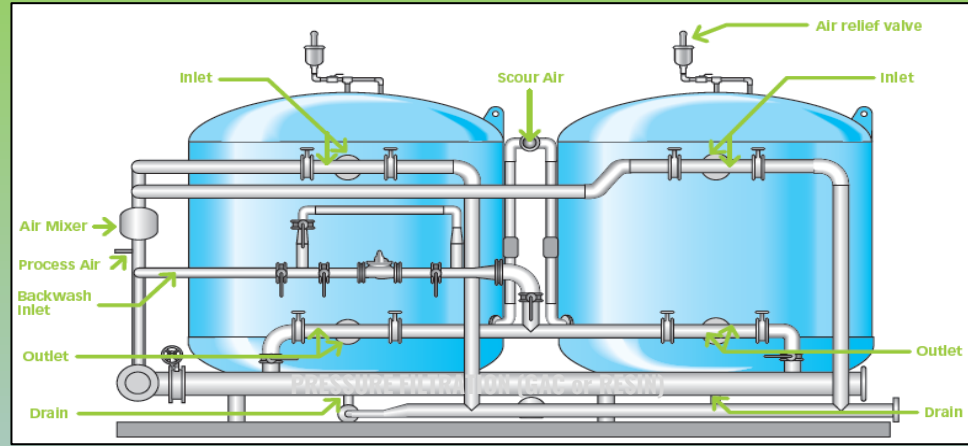
- Massachusetts State Revolving Fund (\$25 million, 0% Interest Loan)**
- ARPA (\$5.8 million Grant)**
- Federal Infrastructure Earmark (\$3.8 million Grant)**
- State Environmental Earmark (\$150,000 Grant)**

Design Constraints:

- **200' Riverways Resource Area**
- **100' Sharon Conservation Commission Buffer**
- **FEMA Flood Plain**
- **Zoning District Setback and Dimensional Requirements**
- **Slope**
- **Proximity to Residences**
- **Access to Treatment Plant Location**
- **Available Water Main Infrastructure**
- **Maximum Daily Demand (2.3 million gallons per day)**
- **Average Daily Demand (1.2 million gallons per day)**

TREATMENT OPTIONS

- **Iron and manganese**
 - Oxide coated media
 - Biological filtration
 - Reverse osmosis
- **PFAS**
 - Granular activated carbon
 - Ion exchange
 - Reverse osmosis
- **Nitrate**
 - Ion exchange
 - Biological filtration



Siting Options: Well #2 Hillside

Well #2 Moose Hill Parkway



Pros and Cons

- Out of 200' Riverways and 100' Wetlands setback requirements except for small portion of access.
- Farthest from residents
- Cost of construction in steep hillside adds \$6 million to project cost.
- 30' retention wall.
- 9% access driveway.



Siting Options: Well #3 Farnham Road



Pros and Cons

- Out of 200' Riverways and 100' Wetlands Setback Requirements



- Cost and Complications of 3 separate 1600', directionally bored stream crossings adds \$6 million to the project cost.
- Existing public use - Farnham compost area, cell tower and DPW yard across the RR tracks.

Siting Options: Well #4 Tree Lane

Well #4 Tree Lane



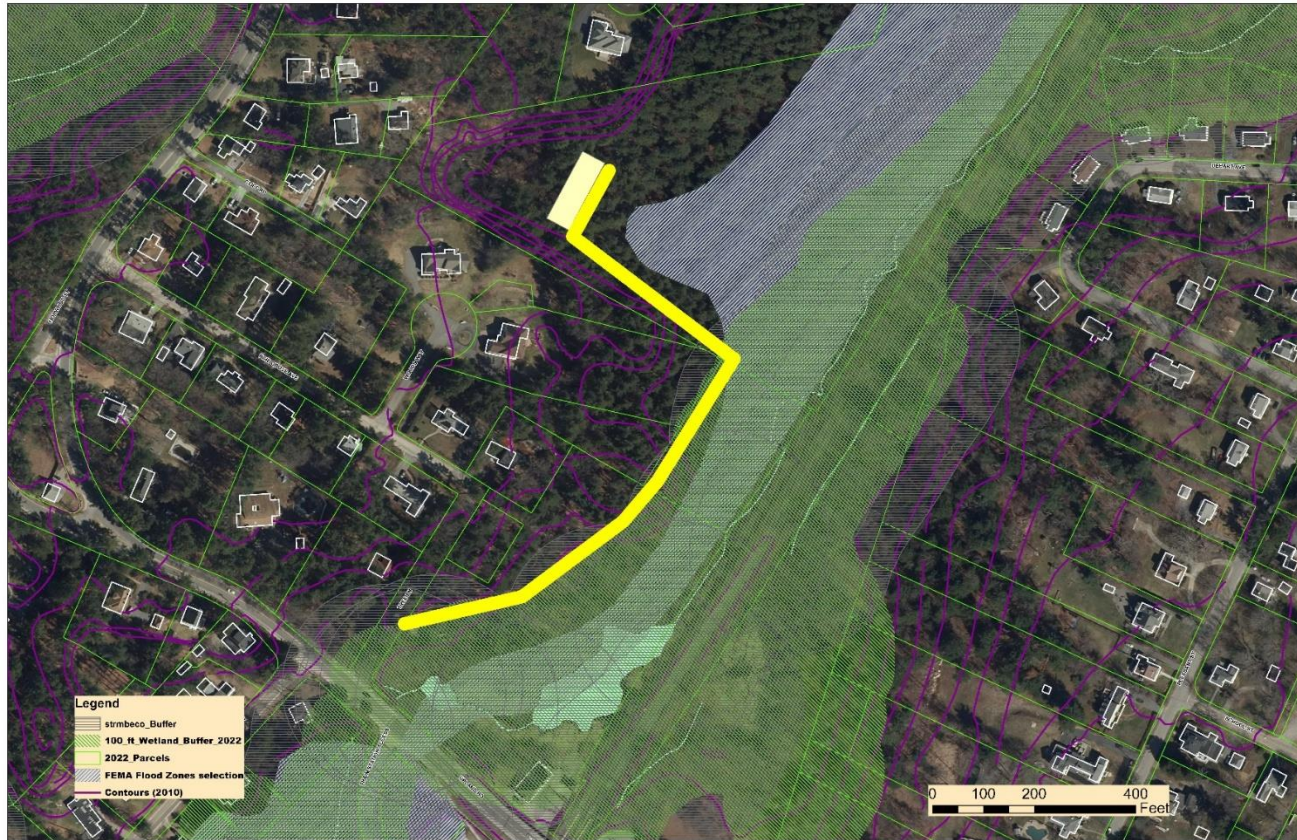
Pros and Cons

- Least expensive alternative
- Out of 100' Riverways and 100' Wetlands Buffer Requirements
- In 200' Riverways Buffer
- Proximity to residents.



Siting Options: Well #4 Lot 41

Well #4 Lot 41



Pros and Cons

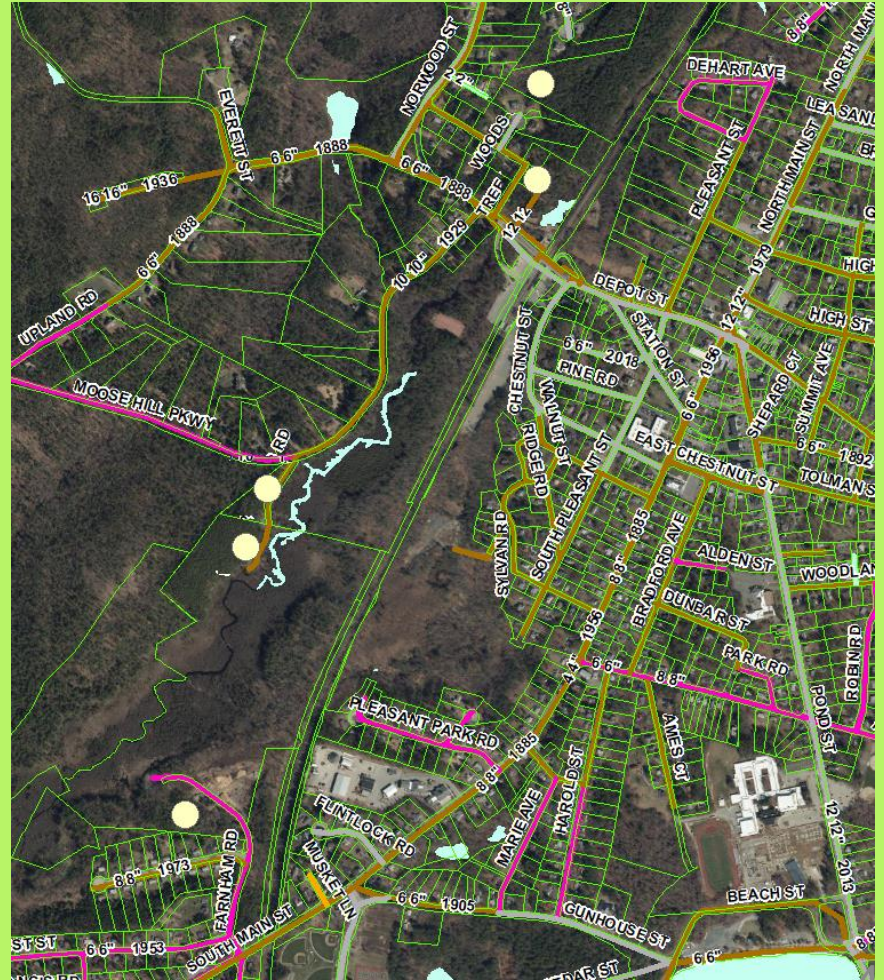
➤ Relatively far from residents

➤ Proximity to residents.

➤ Access within 100'
Riverways, 50' Wetlands
Setback Requirements
and Flood Plain



Where would you put the Drinking Water Treatment Facility?



And what would it look like?



- #1 100' x 50'
- #2 150' x 75'
- #3 125' x 40'

How about this?



200' x 50'

Case Study: Operations

Snow Removal

Snow Removal



- ❑ Pre-storm Salt main roads
- ❑ 0-3" Sand main roads and side streets.
- ❑ 2+" Call Contracted plow operators.
- ❑ 3+" Change over to plowing main roads and sidestreets.
- ❑ After Roads have been plowed and resalted, plow sidewalks and parking lots.



Answers?

Questions?