# Orleans Water Quality and Wastewater Planning

# Business Forum Workshop #4

September 22, 2016

# Agenda

- **Introductions**
- **Summary of Objectives and Previous Discussions**
- **Review of Available "Cost Allocation" Tools and Data**
  - Cost Allocation Update – Cost Comparisons
  - Project Phasing
  - Financial Model Analyses: Defining "Fair" Total Annual Costs for All Other Project Components
- **Delivery Options: Alternatives for D/B and D/B/O**
  - Issues and Limitation in Application to Orleans
  - Next Steps in Consideration
- **Status of Re-zoning Proposal and Process**
- **Other Issues and Discussion**

# Summary of Objectives and Previous Discussions

- **Objectives: To discuss options for funding and financing Downtown Sewer System and develop fair and equitable distribution of costs**
- **Previous Discussions - Three Meetings Held to Date**
  - Overview of downtown collection, treatment and disposal system
  - Cost sharing introduced
  - Preliminary cost (future on-site, proposed centralized system) and cost allocation discussed
  - Update on zoning change proposals
  - Introduction of management tools: Wastewater Management District or Design-Build / Design-Build-Operate (with potential to save cost and take debt off Town books)

# Cost Allocation Tools and Data

## ❖ Financial Model

- Established to run scenarios and predict user costs for components of program (e.g. Downtown and MHP centralized collection and treatment, Non-traditional technologies in discrete areas)
- Predicts costs to user groups based on number of users (Downtown Commercial/Residential, MHP Residential, NT Area Residential )
- Accounts for both capital and O&M
- Does not yet allow predictions by parcel/owner based on water use or frontage, etc. (this effort is part of pending scope/budget)

## ❖ Spreadsheet Tool

- Established to evaluate costs by parcel/owner based on assessor and water department records
- Does not allow for predictions by build-out scenario (no accounting for possible change in use)
- Currently only accounts  for Capital Costs

# Cost Allocation Tools and Data (cont.)

- **Funding Components Considerations**
  - Long-term Borrowings:  30-year term, SRF financing, 0% interest rate
  - Funding of Capital and Financing Costs:  80% special assessments, 20% property taxes
  - Commercial properties in the Downtown area are assessed 60% of the special assessment amount for the area and residential properties are assessed 40%

- **Other Savings**
  - Grant/Loan Forgiveness:  25%
  - Design/Build Procurement Savings:  21%
  - Design/Build/Operate Procurement Savings: 7%
  - Septage Processing Revenue
  - Local Options Taxes

# Cost Allocation Tools and Data (cont.)

| EXAMPLE Annual Capital Cost Comparison by Wastewater Usage Category: Collection System, WWTF, and Effluent Disposal | | | | |
|---|---|---|---|---|
| Downtown User | Average Daily Wastewater Flow (gpd)[1] | Current Annual On-Site System Cost (Without Sewer)[2] | Annual Capital Cost[3,4] | |
| | | | Full Cost | Best Case |
| Low | 0-299 | $1,100 - $2,100 | $0 - $1,500 | $0 - $750 |
| Medium | 300-999 | $1,650 - $2,900 | $1,500 - $5,000 | $750 - $2,500 |
| High | 1,000-2,000 | $3,200 - $4,700 | $5,000 - $10,000 | $2,500 - $5,000 |

**Notes/Assumptions:**

1. The average daily wastewater flow ranges presented account for 99% of the existing (2014-2015) wastewater flow per owner in the Downtown Study Area. It should be noted that some owners may have an average daily wastewater flow that exceeds the high range.
2. Current annual on-site system costs based on conventional and I/A system estimates, including O&M and replacement costs.
3. "Full cost" and "Best case" capital costs are based on financial modeling and excludes O&M and replacement costs.
   "Full cost" Capital cost: $30,074,218
   "Best case" Capital cost: $14,972,458

"Best case" costs includes lower contingencies. These future costs represent the capital costs for a WWTF designed to discharge 250,000 gpd and the associated collection system and effluent disposal system. The allocation of total future costs is based on current (2014-2015) percentage of total existing flow (150,735 gpd). Future costs may vary by owner depending on percentage of total flow.

4. Annual cost determined over a 40-year implementation period, excluding interest, O&M, or replacement.

# Cost Allocation Tools and Data (cont.)

- **Project Phasing**
  - Downtown Area – Preliminary Design Report (25%)
  - Phasing
  - Results of Non-Traditional Technologies
  - Availability of Federal and/or State Funding
  - Adaptive Management – Ongoing Monitoring and Analysis
  - Other Town Projects

# Delivery Options: Alternatives for D/B and D/B/O

- **Issues and Limitation in Application to Orleans**
  - Design Build Statute = MGL c.149A, Section 1
    - Current Regulations Allow DB/DBO for Horizontal Construction
    - Special Legislation Required for Vertical Construction
  - SB1722 – Anticipate to be in Hearings starting in January 2017

- **Next Steps in Consideration**
  - Preliminary Design Report - Design Data / Criteria
  - Program Cost Estimate for Financial Planning / Federal and State Grant/Loan Applications
  - Determine Procurement Type
    - Design-Bid-Construct
    - Design-Build / Design-Build-Operate (Special Legislation)

# Status of Re-zoning Proposal and Process

- **Key Components**
  - Lot Area and Density
  - Additional Units to Meet Community Goals
  - Third Floor Dwelling Units
  - Design Requirements – Number of Units
  - Shared Parking
- **Funding Requested to Assist in Preparing Zoning Amendment**
- **Next Steps**

# Other Issues and Discussion

- **Public Comments and Questions**

Town of Orleans Massachusetts

# Thank You