

Memorandum

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Subject **Town of Orleans, MA**
Water Quality and Wastewater Planning
Task Number 5.1 – Financial Evaluation
50 percent Draft Technical Memorandum on Revenue Generating Options and Revenue Generating Plan

Project Number 60476644

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1. Background

a. Purpose

This document presents the Draft Technical Memorandum on Revenue Generating Options and Revenue Generating Plan. Policymakers should consider different revenue sources to pay for the wastewater plan which consists of a proposed set of engineering solutions. This document provides a brief description of a number of different potential funding mechanisms for consideration by the town. The list of revenue options in this document is not intended to be inclusive of all potential funding options. Revenue sources contained herein are in part from the Cape Cod Commission's and some Cape Cod communities' 208 Plans. Revenue options in this document are based on existing statutes and do not reflect potential changes due to the Municipal Finance Modernization Bill recently submitted by the Governor.

2. Introduction

a. Description of Revenue Generating Plan

The Revenue Generating Plan should reflect the burden of wastewater costs and nitrogen removal on the various users of Orleans' wastewater system. This document reviews a set of possible revenue sources that could be considered. Traditionally, wastewater programs are funded by taxes, betterments, connection fees, and user fees. Recently, wastewater solutions have become more innovative and comprehensive, with more focus on non-traditional technologies. Likewise, the financing of wastewater solutions has become more innovative and comprehensive, with more focus on less-traditional funding mechanisms and on spreading the financial burden to all residents, businesses, and visitors.

b. Definitions

- **Revenues** – See definitions below in the Description of Revenue Generating Options section.
- **Engineering Options/Technology Types** – Non-traditional engineering options: aquaculture/shellfish propagation, permeable reactive barriers, and floating constructed wetlands. Traditional option: sewerage.
- **Capital Costs** – Costs of planning, design and construction, some of which is financed and some of which is capital outlay and paid without financing.
- **Operating Costs** – Costs of operating, maintenance, monitoring and replacement.
- **Financing Costs** – Costs of financing projects, such as origination fees, administration fees, principal and interest payments for SRF financing and principal and interest payments and bond issuance and similar costs for conventional and USDA financing.
- **Existing Financial Model** – The financial model in place and used by the Town.
- **Updated Financial Model** – The financial model in development for the Town's use as part of the Water Quality and Wastewater Planning program.
- **Customers/User Groups:**
 1. Sewered commercial users – There are about 200 customers in the Tri-Town area proposed to be sewered.
 2. Sewered residential users – There are about 100 customers in the Tri-Town area and about 300 customers in the Meetinghouse Pond area proposed to be sewered.
 3. Nitrogen-sensitive wastewater users – There are about 3,000 customers that are in nitrogen-sensitive areas that require non-traditional technologies, such as PRBs, floating constructed wetlands and the like, for nitrogen remediation.
 4. Non-nitrogen-sensitive non-wastewater users – There are about 2,300 customers that are in non-nitrogen-sensitive areas that require on-site septic systems to address their wastewater needs.

c. Description of Revenue Functionality in the Town's Existing Financial Model

The existing financial model contains the following capital revenue sources or cost offsets, some of which may not be included as options in the updated financial model. The Water Quality and Wastewater Planning program does not include any participation by Brewster and Eastham.

- Brewster Buy In;
- Eastham Buy In;
- Grants;
- Loan Forgiveness;

- Septic Impact Fee;
- Reserve - Renewal & Replacement;
- Reserve - Working Capital;
- Reserve Debt Service;
- Subsidies;
- Tri-Town Salvage;
- Connection Fees – Downtown;
- Connection Fees – Meetinghouse;
- Betterments;
- Tax Incentive Financing (TIF);
- District Incentive Financing (DIF);
- Public / Private Partnership; and
- Other/Miscellaneous.

The existing financial model contains the following operating and maintenance (O&M) revenue sources or cost offsets, some of which may not be included as options in the updated financial model:

- Fees and Services;
- Reserves - Operating Reserves;
- Energy Sales;
- Septage Nitrogen Premium - Towns Other Than Orleans;
- Penalties and Interest;
- Interest Income; and
- Miscellaneous.

The existing financial model contains the following types of user charges, some of which may not be included as options in the updated financial model:

- User Charge – Wastewater;
- User Charge – Septage;
- User Charge – Food Waste;

- User Charge – Non-Potable Water (Water User Charge);
- User Charge – Non-Traditional Technology (Water User Charge); and
- Septic Management Fee.

Of the revenue sources listed, the existing financial model focuses primarily on including user charges, the septic management fee, connection fees, septage, and reserves as revenue sources.

d. Description of Revenue Generating Options in the Updated Financial Model

The Revenue Generating Options in the updated financial model focus on more revenue sources than the Town's existing financial model and apportions revenue sources to project costs and user groups.

3. Description of Revenue Generating Options

a. List of Revenue Generating Options

Local Revenue Generating Options include, but are not limited to, funds from the following local revenue sources:

- (1) **Real Estate Taxes** – Property taxes are generally used as a funding source for wastewater projects. Taxes are used to fund services that benefit all taxpayers, whether they are direct users or whether they benefit indirectly due to the improvement to the quality of life, the maintenance of property values by preserving the town's natural resources, and equity concerns. While there is no prohibition from using real estate taxes to finance, in part, operating costs, real estate taxes are commonly used to finance, in part, capital infrastructure.
- (2) **Betterments and/or Special Assessments** – The general power to levy betterment assessments is contained in Chapter 80 of the Massachusetts General Laws (MGL). MGL Chapter 83 provides additional specific guidance on sewer-related betterment assessments. A betterment or special assessment is a special property tax that is permitted where real property within a limited and determinable area receives a special benefit or advantage, other than the general advantage to the community, from the construction of a public improvement. The cost of all or a portion of a public improvement made upon formal order or vote of a town may be assessed as betterments. Towns may assess all or a portion of the costs of a sewer system plant and facilities. This includes the cost of general benefit facilities, such as pumping stations, trunk and force mains, and special benefit facilities, such as mains serving adjacent properties. Betterments can be one-time assessments or apportioned up to 20 years. Apportioned betterments accrue interest either at a rate of 5 percent or, by vote of the Town, at a rate two percent above the municipality's borrowing rate for the sewer construction. Interest charged at any other rate or apportionments for more than 20 years require special legislation. Barnstable sought and received approval by Special Legislation to apportion betterments over a 30-year period. Betterments are used exclusively to finance capital infrastructure.

- (3) **Connection Fees** – Another revenue source is a connection or hook-up fee. Connection fees have frequently been adopted to recover the inspection costs associated with oversight of individual private-property connections, where the construction costs are borne by the property owner to connect their home to the sewer service connection terminated at the property line by the town. Orleans currently has a connection fee for this purpose. Connection fees are used exclusively to finance related hook-up and inspection costs.
- (4) **User Charges** – User charges typically recover costs to operate and maintain infrastructure systems. They may be flat fees, charged periodically and on a regular basis, or consumption fees, charged according to water or sewer use.
- (5) **Septage Revenue** – Septage user charges derived from the collection and disposal of septic waste. Septage revenue may be used to finance the operating and replacement costs to dispose of septic waste. Septage revenues would be billed to customers from other towns that may dispose of their septage at Orleans' wastewater treatment facility.
- (6) **Septic Management Fee** – A fee that may be imposed to owners of septic systems in Orleans to finance the septic operating and replacement costs. This management fee would be calculated based on the average useful life of a septic system (capital portion) and the average cost to periodically pump septic systems (operating portion). This fee would be paid to the Town. The Town would be responsible for the pumping and replacement of septic systems.
- (7) **Water Infrastructure Fund** – MGL Chapter 40, Section 39M (Chapter 259 of the Acts of 2014) authorizes a Water Infrastructure Fund. This statute allows towns to impose a real estate tax surcharge of up to 3 percent to be set aside into a Municipal Water Infrastructure Investment Fund, outside of Proposition 2½ for “maintenance, improvements and investments to municipal drinking, wastewater and stormwater infrastructure assets.” Town meeting would need to accept this surcharge and would also require ballot approval. To estimate the potential revenue from this source, the Town can look to its Community Preservation Act receipts as a proxy. The Town would need to decide if this revenue source would be appropriate to include in the wastewater revenue plan.
- (8) **Local Option Taxes** – Massachusetts offers a local option tax on meals and a local option tax on room occupancy with no restrictions on their use. Every town on Cape Cod has adopted the local option rooms tax and all but two towns have adopted the local option meals tax. All Cape Cod towns with the exception of Eastham and Mashpee charge a local option 0.75 percent tax on meals. Yarmouth, Barnstable and Provincetown charge a 6 percent tax on room occupancy; the rest of the towns on Cape Cod charge 4 percent. Barnstable received Special Legislation to dedicate its 0.75 percent meals tax and 2 percent additional rooms tax to a Wastewater Infrastructure Fund to defray future costs. Charging local option taxes is a vehicle designed to have seasonal visitors pay for some of the wastewater solution costs since they contribute to nitrogen loads. The Town would need to decide if this source would be appropriate to include in the wastewater revenue plan.

- (9) **District Improvement Financing** – A District Improvement Financing (DIF) is a locally driven, public financing alternative which enables the Town to fund public works infrastructure and development projects by allocating future, incremental tax revenues collected from a predefined district to pay project costs. One major advantage of this type of financing is that no new taxes are levied and the DIF does not reduce or redirect any property tax revenues currently being collected. The Town would need to define a district and document a development program including how the DIF would encourage increased residential, commercial and industrial growth within the district. DIF approval requires an application, local public hearings, and approval by the Economic Assistance Coordinating Council (EACC). The Town would need to decide if this source would be appropriate to include in the wastewater revenue plan.
- (10) **Local Infrastructure Development Program** – A local infrastructure development program is promulgated through Chapter 23L which is a tax-exempt bonding program enabled through a public-private partnership to build public infrastructure improvements associated with a large development. Orleans would borrow money to construct infrastructure in conjunction with a development project within an established development zone then would collect a special property tax assessment to repay the debt service. Like others, the Town would need to decide if this program would be appropriate for Orleans.
- (11) **Water Mil Charges** – One potential source of funding for wastewater infrastructure projects is an excise tax on water consumption, as recommended by the Massachusetts Legislature's Special Blue Ribbon Commission on Water and Wastewater Infrastructure. An excise tax millage of 1 to 3 mils per gallon could be paid into a specific fund that could be used for necessary capital repairs and the replacement of aging infrastructure related to drinking water and wastewater. The amount of water billed must be known to estimate the amount of revenue that can be derived through a water mil charge. The Town would need to decide if this source should be part of the wastewater revenue plan.
- (12) **Stormwater Fees** – A stormwater utility is a means to operate, construct and maintain stormwater infrastructure, supported by a stormwater user fee to provide stable and adequate revenue. The basis of the fee can be determined by the amount of impervious surface a property has on it, including parking, rooftops, sidewalks, etc. Stormwater fees can be a source of revenue to finance wastewater costs. The Town would need to decide if this source should be part of the wastewater revenue plan.

Federal Revenue Generating Options include, but are not limited to, funds from the following federal revenue sources:

- (1) **USDA Grants** – USDA offers grants to develop water and waste disposal systems in rural areas and towns or districts with populations not in excess of 10,000. The funds may be available to Orleans if Orleans is unable to obtain the financing from other sources at rates and terms they can afford and/or their own resources. There are some systems that qualify for grant funding; however, grant funding availability is limited. Program details are available on the USDA website: <http://www.rurdev.usda.gov/UWP-dispdirectloansgrants.htm>.

- (2) **US Economic Development Administration (EDA) Grants** - EDA grants are meant to support the development and implementation of economic development strategies for economically distressed communities. Funding priorities are given to investment applications that support long-term, coordinated, and collaborative regional economic development approaches; innovation and competitiveness; entrepreneurship; and strategies and investments that connect regional economies with the worldwide marketplace. Additional consideration will be given to investment applications that respond to sudden and severe economic dislocations, including natural disasters; enable the transition of Base Realignment and Closure (BRAC) impacted communities; Support EO 13287, Preserve America; and promote the revitalization of brownfields. EDA grants may be used to pay for the design phase of capital construction projects. Awards are between \$500,000 and \$5 million, the larger size being very rare. Applications are accepted on a rolling basis.
- (3) **HUD Community Development Block Grants** - Community Development Block Grants (CDBG) may be used to finance wastewater infrastructure. The CDBG Program is administered by the United States Department of Housing and Urban Development (HUD) in partnership with municipalities above a certain size and for other communities through the states. No less than 70 percent of CDBG funds must be used for projects that directly benefit low- and moderate-income persons. To be eligible, projects must also meet one of three national objectives: benefit low- and moderate-income persons, prevention or elimination of slums or blight, or address community development needs having a particular urgency because existing conditions pose a serious and immediate threat to the health or welfare of the community for which other funding is not available. CDBG funds may be used to build or expand wastewater infrastructure. They may not be used to defray repair, maintenance, or operating costs. The towns of Barnstable and Yarmouth are entitlement communities meaning they get CDBG funds directly from HUD, and the rest may apply to the state to compete for CDBG funds. The CDBG Program, in addition to providing grants, does also include a loan program called "Section 108" which enables CDBG entitlement communities to borrow up to five times their annual entitlement grant. The entitlement community pledges current and future CDBG funds as security for the loan. Non-entitlement communities may also use this program but must do so through an agreement with the state. The maximum loan duration is 20 years.
- (4) **EPA Nonpoint Source Section 319 Grant Program** - Under section 319 of the Clean Water Act, EPA annually provides grants to states for controlling nonpoint sources of pollution, such as agricultural runoff, mining activities, and malfunctioning on-site septic systems. In states where on-site systems have been identified as a significant source of such pollution, the section 319 funds may be used to construct, upgrade or repair onsite systems.
- (5) **EPA STAR Grants** - The STAR grant program funds targeted research on environmental science and engineering issues through a competitive process. At present, STAR is focusing on the health effects of particulate matter, drinking water, water quality, global change, ecosystem assessment and restoration, human health risk assessment, endocrine disrupting chemicals, pollution prevention and new technologies, children's health, and socio-economic research.

State Revenue Generating Options include, but are not limited to, funds from the following state revenue sources:

- (1) **MassWorks Grants** - The MassWorks Infrastructure Program provides public infrastructure grants for publicly owned infrastructure including, but not limited to sewers, utility extensions, streets, roads, curb-cuts, parking facilities, site preparation and improvements on publicly owned land, demolition, pedestrian walkways, and water treatment systems to support three project types:
 - Housing development at a density of at least 4 units to the acre (both market and affordable units);
 - Transportation improvements to enhance safety in small, rural communities; and
 - Economic development and job creation and retention.

Applications are accepted once a year from municipalities and other eligible public entities.

- (2) **604(b) Water Quality Planning Grants** - The 604(b) Water Quality Planning Grants are offered by the Massachusetts Department of Environmental Protection (MassDEP) to regional planning agencies. The grants may be used for watershed or sub-watershed based nonpoint source assessment and planning projects leading to the: (a) determination of the nature, extent and causes of water quality problems; (b) assessment of impacts and determination of pollutant loads reductions necessary to meet water quality standards; (c) development of green infrastructure projects that manage wet weather to maintain or restore natural hydrology; and (d) development of assessments, preliminary designs and implementation plans that will address water quality impairments in impaired watersheds. The Town would need to work with the Cape Cod Commission to determine the availability of this funding source.
- (3) **Planning or Technical Assistance Grants** - Massachusetts General Laws Chapter 40, Section 39M (Chapter 259 of the Acts of 2014) outlines potential sources of financial assistance such as planning or technical assistance grants and matching grant programs to municipalities that are taking steps to better manage their wastewater. This is a relatively new program with little history. The Town would need to decide to pursue this source of funding.

b. Description of the Applicability of Revenue Generating Options to Certain Cost Types and to Portions of the Customer Base

Table R-1 illustrates how revenue sources are *typically* linked to certain cost types, to finance project costs, defined in two categories: (1) planning, design and construction costs, and (2) operating, maintenance, monitoring and replacement costs.

Table R-1		
Revenue Source	Costs	
	Planning	O&M
	Design	Monitoring
	Construction	Replacement
Taxes	X	
Betterments	X	
User Charges		X
Connection Fees	X	
Septage	X	X
Water Infrastructure Fund	X	
Local Option Taxes		X
District Improvement Financing	X	
Local Infrastructure Development	X	
Water Mil Charges		X
Stormwater	X	X

Table R-2 illustrates the relationship of revenue sources to portions of the customer base. Orleans has about 5,900 wastewater customers. The customer base includes:

- Sewered Commercial Users** – There are about 200 customers in the Tri-Town area proposed to be sewered. These users would be assessed a betterment for the wastewater, septic and disposal costs, a connection fee for the hook-up costs, and a user charge for the operating costs including operating, maintenance, monitoring and replacement costs.
- Sewered Residential Users** – There are about 100 customers in the Tri-Town area and about 300 customers in the Meetinghouse Pond area proposed to be sewered. These users would be assessed a betterment for the wastewater and disposal costs, a connection fee for the hook-up costs, and a user charge for the operating costs including operating, maintenance, monitoring and replacement costs.
- Nitrogen Sensitive Sewer Users** – There are about 3,000 customers that are in nitrogen-sensitive areas that would require non-traditional technologies, such as PRBs, floating constructed wetlands and the like, for nitrogen remediation. These users could be assessed a betterment for the wastewater costs, a user charge for the operating costs including operating, maintenance, monitoring and replacement costs, and a management fee associated with the costs to administer non-traditional technologies.
- Non-Nitrogen Sensitive Non-sewer Users** – There are about 2,300 customers that are in non-nitrogen-sensitive areas that require on-site septic systems to address their wastewater needs. These users would be assessed a management fee associated with the costs to operate, maintain and replace on-site systems.

Table R-2				
Treatment Types	Capital Costs	Operating Costs	Revenue Source	Users
TT WWTF	WW Capital Costs* Septic Capital Costs* Disposal Costs Connection Costs	O, M, M & R Costs**	Betterment Betterment Betterment Connection Fee User Charge	TT Sewered Commercial TT Sewered Residential
MH WWTF	WW Capital Costs* Disposal Costs Connection Costs	O, M, M & R Costs	Betterment Betterment Connection Fee User Charge	MH Sewered Residential
Non-Traditional	WW Capital Costs* Connection Costs	O, M, M & R Costs	Betterment Connection Fee User Charge Management Fee	Nitrogen-Sensitive Non-Sewer
On-Site Septic	Capital Costs	O, M, M & R Costs	Management Fee Management Fee	Non-Nitrogen Non-Sewer
*Planning, Design and Construction Capital Costs				
**Operating, Maintenance, Monitoring, Replacement Costs				

c. Description of Potential Offsets

Potential offsets include:

- **Federal Grants** – grants provided by the Federal government for the construction and/or operation of wastewater facilities that would reduce project costs
- **State Grants** – grants provided by the Commonwealth of Massachusetts for the construction and/or operation of wastewater facilities that would reduce project costs
- **Regional Grants** – grants provided by regional governments or agencies for the construction and/or operation of wastewater facilities that would reduce project costs
- **Principal Forgiveness on SRF and USDA Loans** – Principal forgiveness would reduce the overall financing costs of the project.
- **Public-Private Partnerships (PPP)** – funds provided by the private sector for the construction and/or operation of wastewater facilities that would reduce project costs by a factor
- **Other**

d. Town Reserves as Funding Sources

Potential Town reserves that could be used as funding sources include:

- **Renewal and Replacement Reserve Fund** – funds that are set aside for capital replacements
- **Debt Service Reserve Fund** – funds, potentially from prepaid betterments, that are set aside for the repayment of debt principal and/or interest and accumulate in a reserve for future debt service payments
- **Operating Reserve Fund** – funds that are set aside for operating costs
- **Working Capital Reserve Requirement** – funds that are set aside for working capital
- **Other**

e. Equitable User Charges

The basic plan to determine equitable user charges amongst Town-wide wastewater users, whether users are commercial or residential, will be based on sewer or water actual flow. These user charges would be appropriate for the Tri-Town and Meetinghouse Pond sewer residential and commercial customers and non-traditional wastewater users.

f. Key Factors for Revenue Generating Options

- (1) Different Considerations for Day-Trippers, Seasonal Visitors, and Full-Time Residents and Businesses.

Allocating more of the financial burden on day-trippers and seasonal visitors would lessen the impact on the year-round residents and businesses. Thus, the Town should consider the following revenue sources to mitigate the full-time residential and commercial burden:

- **Local option meals and hotel tax** – Day-trippers and seasonal visitors currently pay this tax along with Orleans residents. Increasing these local option taxes, and perhaps dedicating the increase to the Water Infrastructure Fund, would provide additional revenues when the burden would not be exclusively on full-time residents and businesses.
- **Taxes on seasonal rentals** – Taxes on seasonal rentals currently do not exist. This would be imposed on seasonal visitors and would lessen the financial burden on Orleans residents and businesses. The Town could consider dedicating these revenues to the Water Infrastructure Fund. This option would require special legislation.

- (2) Different Considerations for Residential and Commercial Users

Residential and commercial users typically have different flow and load levels. For example, commercial users typically will produce more flows than residential users and the strength of their flow will be far greater than typical residential users. The model is intended to calculate a flat user charge for all users. To the extent that certain users produce wastewater that needs to be treated for strength (such as BOD, SS and the like), the Town may impose a surcharge for these users.

(3) Taxes and Fees

Taxes are used to fund services that benefit all taxpayers, whether they are direct users of the wastewater system or benefit indirectly from the overall improvement to the Town's environment. Taxes could be considered where there is a general benefit to all 5,900 of Orleans' users. Taxes could be used to subsidize the operations of the wastewater enterprise fund. However, the idea is to fund operating costs fully from user charges.

(4) Implementing Revenue Options

- **Local Option Meals and Hotel Tax** – The Town would need a Town Meeting vote to increase local option taxes and/or to dedicate the increase to the Water Infrastructure Fund.
- **Taxes on Seasonal Rentals** – The Town would need a Town Meeting vote to petition the State Legislature for a Special Act to tax seasonal rentals.

4. Development of Revenue Generating Scenarios

a. Revenue Requirement

The revenue requirement is calculated based on the costs for:

Capital

- Planning, design, and construction costs; and
- Financing costs to finance the project via SRF, USDA, or conventional borrowings.

Operating

- Operating;
- Maintenance;
- Monitoring; and
- Replacement.

The aggregate of the capital, including financing costs, and operating costs is the total revenue requirement.

b. Scenarios for Revenue Generating Options

The financial model will output seven scenarios that contain different combinations of Revenue Generating Options and will show them in comparative manners, both in table format and graphically.

The financial model will have flexibility to handle a change in the revenue requirement and to generate the same outputs for the updated selection of Revenue Generating Options to cover the updated revenue requirement.

5. Conclusion

To be developed, once the Town's Revenue Generating Options objectives are clearer.