



Town of

Orleans
Massachusetts

Orleans Business Forum

FY19 Town Meeting Warrant Article Workshop

April 24, 2018

Agenda

- 1. Introductions**
- 2. Update on Current Sewer Installation - Main Street at Route 6A and Route 28 - Thomas Daley and Kevin Higgins**
- 3. ARTICLE 14. Fund Comprehensive Water Resources Management Plan Implementation - Planning, Engineering and Adaptive Management - Alan McClennen**
- 4. Schedule of Construction and Funding Strategies for Next Five Years - Thomas Parece**
- 5. ARTICLE 11. Capital Improvement Plan (FY20 - FY24) - Alan McClennen**
- 6. Questions and Other Discussion**





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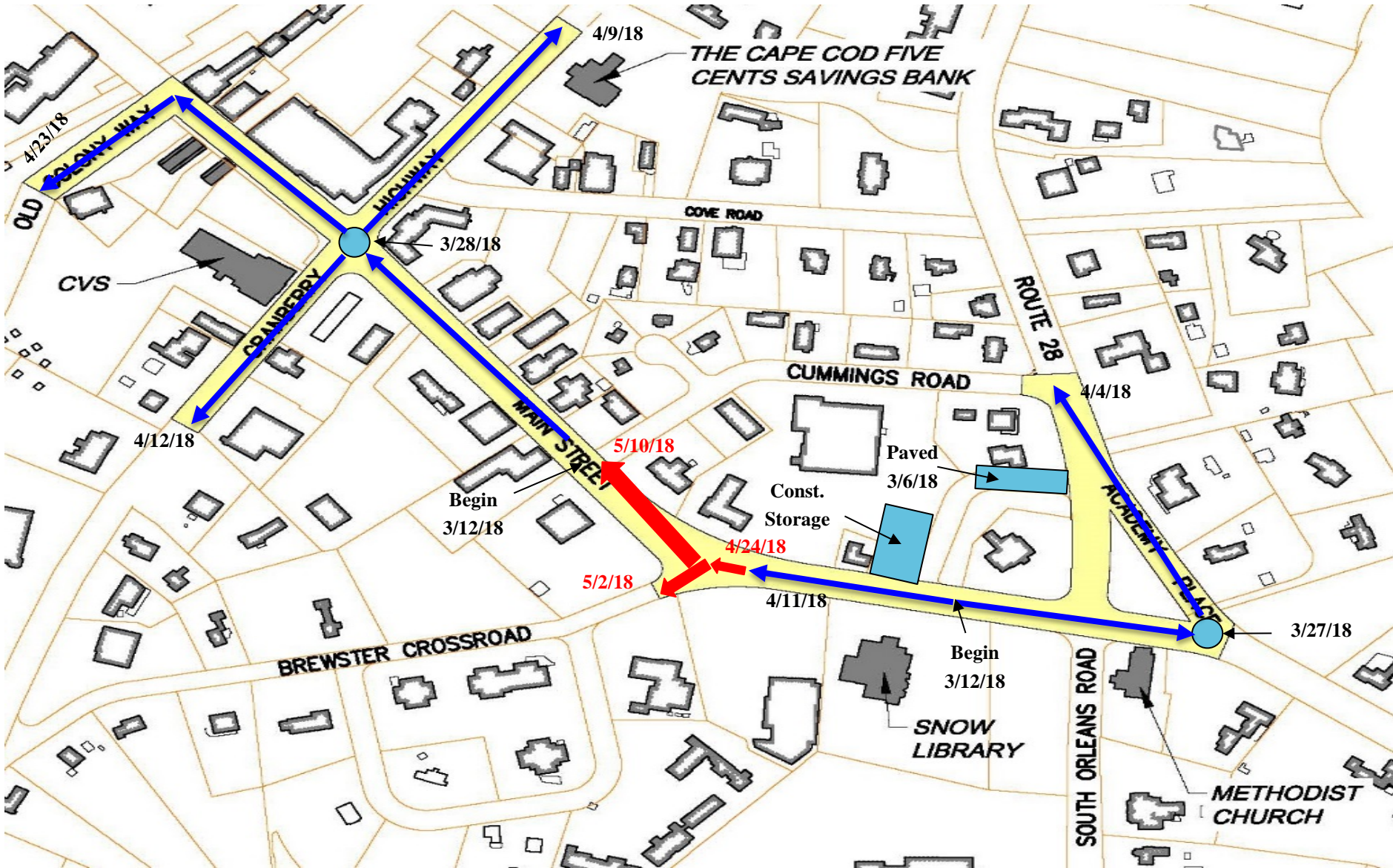
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Update on Current Sewer Installation Main Street at Route 6A and Route 28

Thomas Daley and Kevin Higgins

Update on Current Sewer Installation

Sewer Installation Status as of April 24, 2018



Update on Current Sewer Installation Look Ahead Schedule

Week Ending Date	4/28/18					5/5/2018					5/12/18				
	23	24	25	26	27	30	1	2	3	4	7	8	9	10	11
Activity	M	T	W	Th	F	M	T	W	Th	F	M	T	W	Th	F
Crew 1															
Main Line Sewer SMH 50 SMH 21		■	■												
Main Line Sewer SMH 21 to SMH 141			■	■			■	■	■						
Main Line Sewer SMH 21 to SMH 24									■		■	■	■	■	■
Crew 2															
Main Line Sewer Old Colony Way		■					Crew Off-Site								
Main Street Sewer Services			■	■											
Route 6A Sewer Services					■										
Paving Crew															
Mainline Trench Temp. Paving					■	■					■				■
Service Crew															
Main Street Sewer Services		■							■	■		■	■		
Route 6A Sewer Services			■	■	■										
Route 28 Sewer Services							■	■							
Misellaneous Work															
Route 6A Traffic Loops		■	■												

*schedule may change due to inclement weather in the forecast

*pipe testing may begin the week of May 5th





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ARTICLE 14. Fund Comprehensive Water Resources Management Plan Implementation - Planning, Engineering and Adaptive Management

Alan McClennen

ARTICLE 14. Fund Comprehensive Water Resources Management Plan Implementation - Planning, Engineering and Adaptive Management Summary

Task	Description	Amount
1	Continued Planning and Engineering	\$3,333,900
2	Adaptive Management Implementation	\$424,200
3	Program Management (OPM), Public Engagement and Financial Planning	\$453,100
4	Miscellaneous	<u>\$196,400</u>
	Total	\$4,223,600



ARTICLE 14. Details (continued)

Task	Description	Amount
1a	Effluent Disposal <ul style="list-style-type: none"> ● Route 6 Exit 12 Wick Test (via FY18 Funding) ● 32 Lots Hollow Road Groundwater Discharge Permit (via FY18 Funding) 	\$0
1b	NT Technologies - Demonstration Project Planning and Pre-Design, Final Design and Implementation <ul style="list-style-type: none"> ● Aquaculture – (a) O&M and Monitoring at Lonnie's Pond (July 2018 thru September 2018) and Report; (b) Town Implementation Startup; and (c) SMAST RFQ Development (via FY18 Funding) ● PRB – Expansion (via FY18 Funding) and Monitoring at Eldredge Park ● NRB - Monitoring 4 Private Sites (via FY18 Funding) 	\$217,800 \$100,000 \$0



ARTICLE 14. Details (continued)

Task	Description	Amount
1c	Design and Construction - Collection and WWTF	
	<ul style="list-style-type: none"> ● PDR - Meetinghouse Pond Area (Collection - PDR Design 25%) (Future Funding Article) 	\$0
	<ul style="list-style-type: none"> ● Contract Documents (100% Design) – Downtown Area (Collection, WWTF and Effluent Disposal) 	\$3,016,100
1d	Design and Construction - NT Technologies	\$0
1e	Tri-Town Transition Requirements - Separate Funding Article(s)	\$0



ARTICLE 14. Details (continued)

Task	Description	Amount
1f	Regulatory Coordination <ul style="list-style-type: none">• Coordination at Project Level (via FY18 Funding)	\$0
1g	Meetinghouse Pond Utility Survey <ul style="list-style-type: none">• Field Survey – Aerial Data Capture, Utilities and Wetlands (Future Funding Article)	\$0
1h	Update of Amended CWMP (via FY18 Funding)	\$0



ARTICLE 14. Details (continued)

Task	Description	Amount
2a	Water Quality Monitoring: MEP compliance <ul style="list-style-type: none"> ● Allowance for NT Project Performance 	\$33,800
2b	Water Quality Monitoring: Project Baselines <ul style="list-style-type: none"> ● Allowance for NT Project Performance 	\$65,800
2c	MEP Study & Report Updates	\$24,800
2d	Namskaket and Little Namskaket Adaptive Plans <ul style="list-style-type: none"> ● Allowance for Watershed Protection Actions 	\$0
2e	Stormwater and Fertilizer Management <ul style="list-style-type: none"> ● Separate Funding Article(s) 	\$0
2f	Cedar Pond and Rock Harbor Creek <ul style="list-style-type: none"> ● Allowance for Planning 	\$99,800
2g	Fresh Water Ponds <ul style="list-style-type: none"> ● Allowance for Planning, Design and Implementation 	\$200,000



ARTICLE 14. Details (continued)

Task	Description	Amount
3a	Technical Oversight & Projects Management	\$269,600
3b	Public Engagement Coordination <ul style="list-style-type: none">• BOS Workshops• Other Public Meetings	\$138,200
3c	Financial Analyses	\$45,300



ARTICLE 14. Details (continued)

Task	Description	Amount
4a	Other Miscellaneous Town Costs <ul style="list-style-type: none">• Aquaculture Town Implementation Start-up Costs• Cedar Pond and Rock Harbor Creek• Annual Water Quality Sampling/Analysis	\$196,400
4b	Town Contingency	\$0





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Schedule of Construction and Funding Strategies for Next Five Years

Thomas Parece

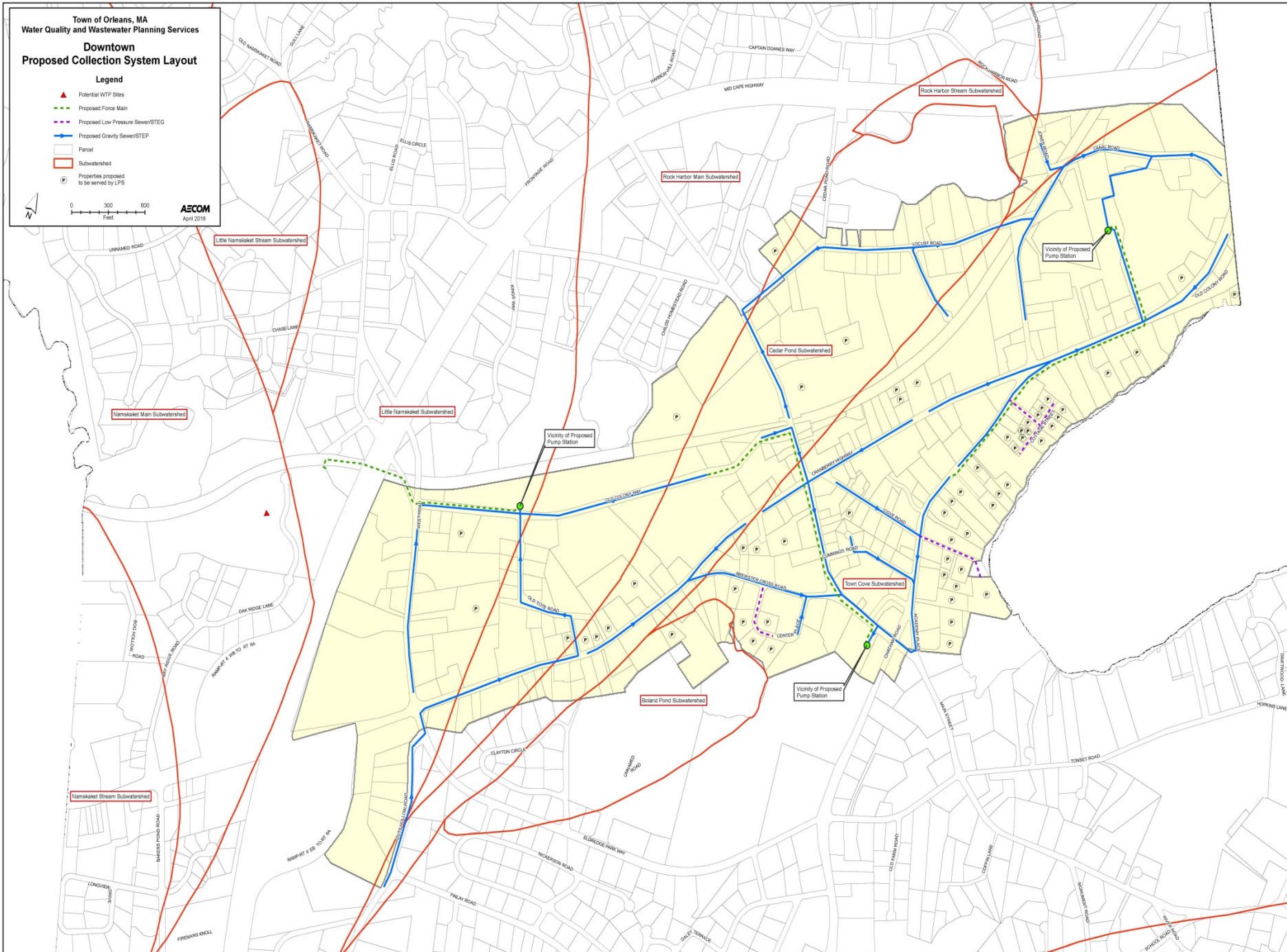
**Downtown
Proposed Collection System Layout**

Legend

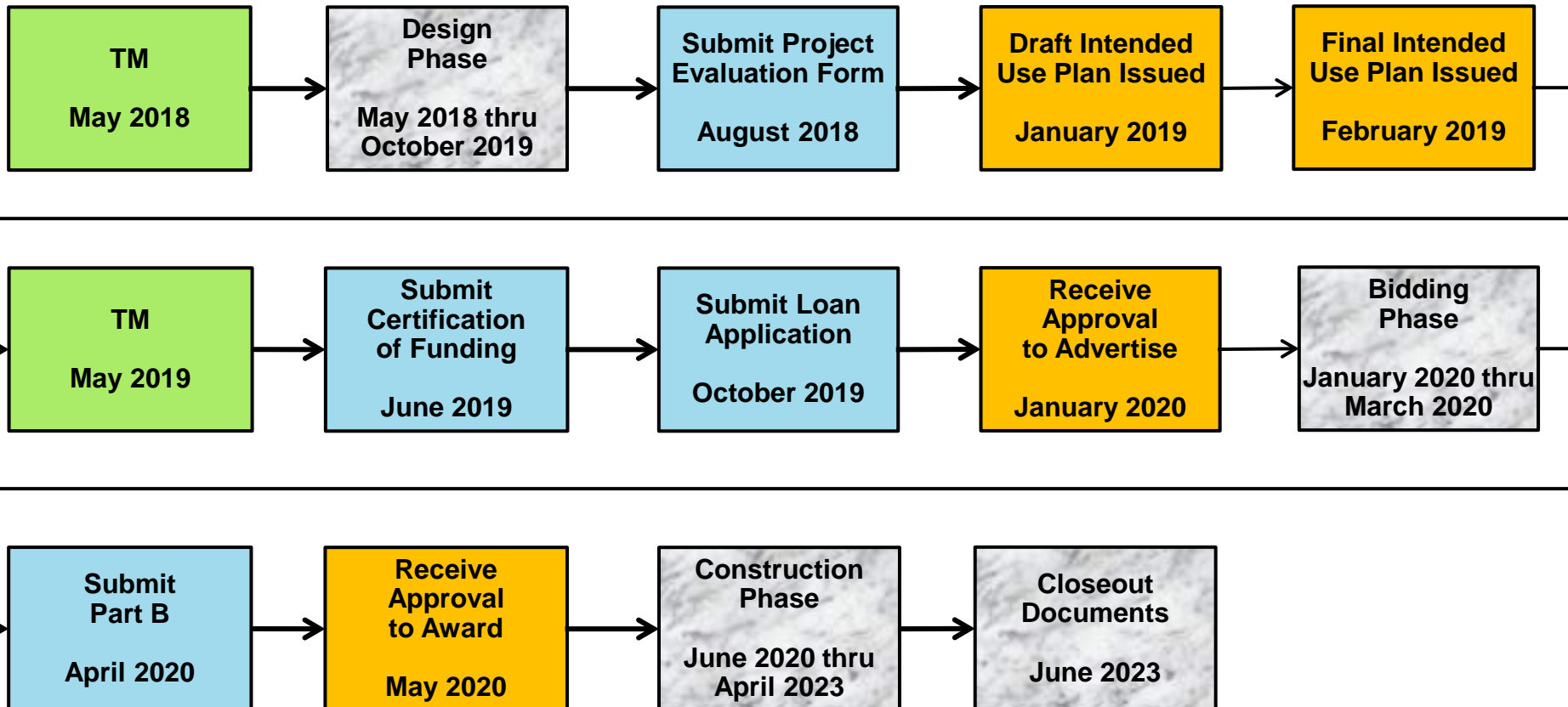
- ▲ Potential WTP Sites
- - - Proposed Force Main
- - - Proposed Low Pressure Sewer/STEG
- - - Proposed Gravity Sewer/STEP
- Parcel
- Subwatershed
- Properties proposed to be served by LPS



AECOM
April 2016



FY19 – State Revolving Fund (SRF) Loan Program Schedule





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ARTICLE 11. Capital Improvement Plan (FY20 - FY24)

Alan McClennen

ARTICLE 11. Capital Improvement Plan (FY 20 - FY24)

FY	Description	Amount
20	<ul style="list-style-type: none"> ● Downtown Area Construction (Collection, WWTF and Effluent Disposal) ● Meetinghouse Pond Area (Collection - Utility Survey and PDR Design 25%) 	\$40,904,680
21	● Meetinghouse Pond Area Contract Documents (100% Design – Collection)	\$1,149,450
22	● Meetinghouse Pond Area Construction (Collection)	\$9,893,700
23	● Permeable Reactive Barriers (Design)	\$919,000
24	● Permeable Reactive Barriers (Implementation)	\$5,119,200



CAPITAL COST ALLOCATION - METHOD 2

❖ TRADITIONAL COSTS

- COLLECTION SYSTEM 100% BETTERMENT
- WWTF & EFFLUENT DISPOSAL COSTS 100% PROPERTY TAXES

❖ NON-TRADITIONAL COSTS

- 100% PROPERTY TAXES



Estimated Capital Cost Allocation As of February 7, 2018

Method 2 TRADITIONAL COSTS ONLY Collection System 100% Betterments WWTF/Effluent Disposal 100% Property Taxes						
Area of Orleans	Number of Users in Category	Average Property's Additional Tax Burden (100% WWTF/Effluent Disposal costs only)	Average Total Betterment Amount (100% for Collection System Costs only)	10-Year Term @ 2% Interest	20-Year Term @ 2% Interest	30-Year Term @ 0% Interest
Non-Residential - Sewered	477	\$85	\$19,373	\$2,150	\$1,172	\$645
Residential - Sewered	1,084	\$60	\$13,108	\$1,455	\$793	\$436
Unsewered Areas	4,999	\$125	\$0	\$0	\$0	\$0



Estimated Capital Cost Allocation As of February 7, 2018

Method 2

TRADITIONAL AND NON-TRADITIONAL TECHNOLOGIES COSTS

Area of Orleans	Number of Users in Category	Average Property's Additional Tax Burden			Annual Betterment Payment Using 30-Year Term @ 0% Interest (100% For Collection System costs only)	Total Additional Annual Burden
		Average Property's Additional Tax Burden (100% for WWTF/Effluent Disposal costs only)	For Non-Traditional Technologies (100% Non-Traditional costs only)	Total Annual Tax Burden		
Non-Residential - Sewered	477	\$85	\$86	\$172	\$645	\$817
Residential - Sewered	1,084	\$60	\$61	\$121	\$436	\$557
Unsewered Areas	4,999	\$125	\$127	\$252	\$0	\$252

NOTE:

The additional tax burden is less than the average for years 1-7 and years 35 and on. The burden is more than the average for years 8-34.

The average assessed value in Town is approximately \$599,400. For each additional \$100,000 in assessed value, the additional property tax burden increases by \$38.





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Questions and Other Discussion