

Amended CWMP Financial Model

JANUARY 10, 2018

OBJECTIVE

TO PROVIDE AN **ESTIMATE** OF HOW MUCH IT WILL COST **THE AVERAGE TAXPAYER** FOR THE **CAPITAL COSTS** OF THE APPROVED CWMP, AS AMENDED

(Includes Traditional and Non-Traditional Technologies)

Note: Does not include annual Operating Costs which will be covered by sewer user rates once system is up and running.

OVERALL ASSUMPTIONS

1. BASED ON APPROVED CWMP, AS AMENDED
 - BEST CASE AT 24% SEWERED (INCLUDES DOWNTOWN, MEETINGHOUSE POND AND NON-TRADITIONAL TECHNOLOGIES)
 - WORST CASE AT 52% SEWERED (ASSUMES NON-TRADITIONAL TECH DON'T WORK)
 - 20 YEAR CONSTRUCTION PERIOD
2. BASED ON COST ESTIMATES AS OF 12/31/17 (PROVIDED & VERIFIED BY AECOM; MODEL CREATED AND COSTS INPUT BY ABRAHAMS GROUP)
3. ASSUMES WE RECEIVE A 30 YEAR SRF LOAN AT 0% INTEREST FOR CONSTRUCTION COSTS
4. USES A 20 YEAR LOAN AT 4% INTEREST FOR INELIGIBLE SRF COSTS
5. 2% INTEREST RATE CHARGED ON UNPAID BETTERMENTS
6. CONSTRUCTION AND NON-TRADITIONAL COSTS ONLY – DOES NOT INCLUDE ANNUAL OPERATING COSTS

CAPITAL COST ALLOCATION METHODS

METHOD 1: 100% ON TAX RATE

METHOD 2: 20% ON TAX RATE; 80% BETTERMENT

METHOD 3: 50% ON TAX RATE; 50% BETTERMENT

METHOD 1: 100% TAX RATE

24% Traditional Sewering

Estimated Capital Cost Allocation

As of December 31, 2017

Area of Orleans	Number of Users in Category	Average Property's Additional Tax Burden	Total Betterment Amount
Downtown Phase 1 Non-Residential	137	\$261	\$0
Downtown Phase 1 Residential	58	\$220	\$0
Downtown Phase 2 Non-Residential	137	\$247	\$0
Downtown Phase 2 Residential	69	\$115	\$0
Downtown Phase 3 Non-Residential	79	\$377	\$0
Downtown Phase 3 Residential	397	\$117	\$0
Downtown Phase 4 Non-Residential	34	\$358	\$0
Downtown Phase 4 Residential	176	\$108	\$0
Meetinghouse Pond Phase 5	237	\$317	\$0
Meetinghouse Pond Phase 6	237	\$270	\$0
Unsewered Areas	4,999	\$399	\$0

ADDITIONAL ASSUMPTIONS:

- 1. BEST CASE COSTS – 24% SEWERED**
- 2. NON-TRADITIONAL TECH INCLUDED**
- 3. FOUR (4) DOWNTOWN PHASES**
- 4. TWO (2) MEETINGHOUSE POND PHASES**
- 5. \$100K VALUE = \$59 IN TAX ANNUALLY**

CAPITAL COST ALLOCATION METHODS

METHOD 1: 100% ON TAX RATE

METHOD 2: 20% ON TAX RATE; 80% BETTERMENT

METHOD 3: 50% ON TAX RATE; 50% BETTERMENT

CAPITAL COST ALLOCATION METHODS

METHOD 2: 20% ON TAX RATE; 80% BETTERMENT

METHOD 3: 50% ON TAX RATE; 50% BETTERMENT

BETTERMENTS

❖ GOVERNED BY MGL c.80, BETTERMENTS, AND c. 83 SEWERS,
DRAINS AND SIDEWALKS

In summary: The town may adopt a system of sewerage for part or the whole of its territory, and may provide that assessments (aka betterments) be made upon owners of land that receives a benefit of the system within such territory by using a fixed uniform rate or a rate based upon the uniform unit method.

BETTERMENTS (cont'd)

1. Fixed uniform rate – rate based on construction costs of sewers therein, according to the frontage of such land on which a sewer is constructed. (most commonly used for sidewalk assessments)
2. Uniform unit method – rate based on construction costs divided among the total number of existing and potential sewer units to be served. (voted by BOS on 12/13/17 and used for financial model)

METHODS 2 & 3:
BETTERMENTS

24% Traditional Sewering

Estimated Capital Cost Allocation

As of December 31, 2017

		METHOD 2					METHOD 3				
		20% Tax Rate, 80% Betterment					50% Tax Rate, 50% Betterment				
				Average Annual Betterment Payment					Average Annual Betterment Payment		
Area of Orleans	Number of Users in Category	Average Property's Additional Tax Burden	Average Property's Betterment Amount	5 Year Term @ 2% Interest	10 Year Term @ 2% Interest	20Year Term @ 2% Interest	Average Property's Additional Tax Burden	Average Property's Betterment Amount	5 Year Term @ 2% Interest	10 Year Term @ 2% Interest	20Year Term @ 2% Interest
Downtown Phase 1 Non-Residential	274	\$123	\$77,024	\$16,329	\$8,550	\$4,660	\$172	\$48,140	\$10,206	\$5,344	\$2,912
Downtown Phase 1 Residential	127	\$79	\$53,976	\$11,443	\$5,991	\$3,266	\$110	\$33,735	\$7,152	\$3,745	\$2,041
Downtown Phase 2 Non-Residential	113	\$180	\$22,667	\$4,805	\$2,516	\$1,371	\$251	\$14,167	\$3,003	\$1,573	\$857
Downtown Phase 2 Residential	573	\$55	\$12,807	\$2,715	\$1,422	\$775	\$77	\$8,004	\$1,697	\$888	\$484
Meetinghouse Pond Phase 3 Non-Residential	90	\$96	\$36,117	\$7,657	\$4,009	\$2,185	\$135	\$22,573	\$4,785	\$2,506	\$1,366
Meetinghouse Pond Phase 3 Residential	384	\$153	\$28,513	\$6,045	\$3,165	\$1,725	\$214	\$17,821	\$3,778	\$1,978	\$1,078
Unsewered Areas	4,999	\$193	\$0	\$0	\$0	\$0	\$270	\$0	\$0	\$0	\$0

ADDITIONAL ASSUMPTIONS:

1. BEST CASE COSTS – 24% SEWERED
2. NON-TRADITIONAL TECH INCLUDED
3. TWO (2) DOWNTOWN PHASES
4. ONE (1) MEETINGHOUSE PHASE
5. \$100K VALUE = \$29 IN TAX ANNUALLY FOR METHOD 2; \$40 FOR METHOD 3
6. BETTERMENT IS BASED ON TOTAL COSTS TO COMPLETE THAT PHASE.

RANGE COMPARISON

BEST CASE - 24% SEWERED*
(*assumes NT works)

VS.

WORST CASE – 52% SEWERED **
****assumes NT do not work)**

BEST CASE VS. WORST CASE

24% VS. 52% Traditional Sewering

Estimated Capital Cost Allocation

As of December 31, 2017

	METHOD 1					METHOD 2					METHOD 3				
	100% Tax Rate					20% Tax Rate, 80% Betterment					50% Tax Rate, 50% Betterment				
			Average Annual Betterment Payment					Average Annual Betterment Payment					Average Annual Betterment Payment		
Costs Analyzed	Average Property's Additional Tax Burden (Avg. for All Phases)	Average Property's Betterment Amount (Avg. for All Phases)	5 Year Term @ 2% Interest	10 Year Term @ 2% Interest	20Year Term @ 2% Interest	Average Property's Additional Tax Burden (Avg. for All Phases)	Average Property's Betterment Amount (Avg. for All Phases)	5 Year Term @ 2% Interest	10 Year Term @ 2% Interest	20Year Term @ 2% Interest	Average Property's Additional Tax Burden (Avg. for All Phases)	Average Property's Betterment Amount (Avg. for All Phases)	5 Year Term @ 2% Interest	10 Year Term @ 2% Interest	20Year Term @ 2% Interest
Sewered:															
Best Case (24% Sewer)	\$216	\$0	\$0	\$0	\$0	\$104	\$33,350	\$7,070	\$3,702	\$2,018	\$146	\$20,844	\$4,419	\$2,314	\$1,261
Worst Case (52% Sewer)	\$638	\$0	\$0	\$0	\$0	\$140	\$40,097	\$8,500	\$4,451	\$2,426	\$323	\$25,060	\$5,313	\$2,782	\$1,516
Unsewered:															
Best Case (76% Unsewered)	\$399	\$0	\$0	\$0	\$0	\$193	\$0	\$0	\$0	\$0	\$270	\$0	\$0	\$0	\$0
Worst Case (48% Unsewered)	\$825	\$0	\$0	\$0	\$0	\$181	\$0	\$0	\$0	\$0	\$417	\$0	\$0	\$0	\$0

DECISIONS TO BE MADE:

- 1. VOTE TO ACCEPT MODEL AS PRESENTED**
- 2. VOTE TO MODIFY MODEL TO:**
 - SEPARATE TREATMENT PLANT & EFFLUENT DISPOSAL COSTS FROM COLLECTION SYSTEM COSTS
 - RUN MODEL WITH TREATMENT PLANT & EFFLUENT DISPOSAL COSTS AS 100% TAX RATE; COLLECTION SYSTEM COSTS AS 100% BETTERMENT.
 - GOAL TO IMPROVE EQUITABILITY FOR ALL TAXPAYERS
- 3. VOTE ON FINAL ALLOCATION METHOD**
- 4. VOTE ON REVISED BY-LAW** (revised based on votes taken on 1-3 above)
- 5. SCHEDULE PUBLIC HEARING ON REVISED BY-LAW**