

Sagamore Avenue Sewer Extension City Council Work Session

City of Portsmouth, NH

July 28, 2020



Suzanne Woodland, Deputy City Attorney
Terry Desmarais, PE, City Engineer



Agenda

- Important Project Points
- Current Project Limits and Costs
- Key Decision Items
- Alternative Project Limits
- Questionnaire Results
- Decision Points Summary
- Recommendations on Other Items
- Next Steps



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Important Project Points

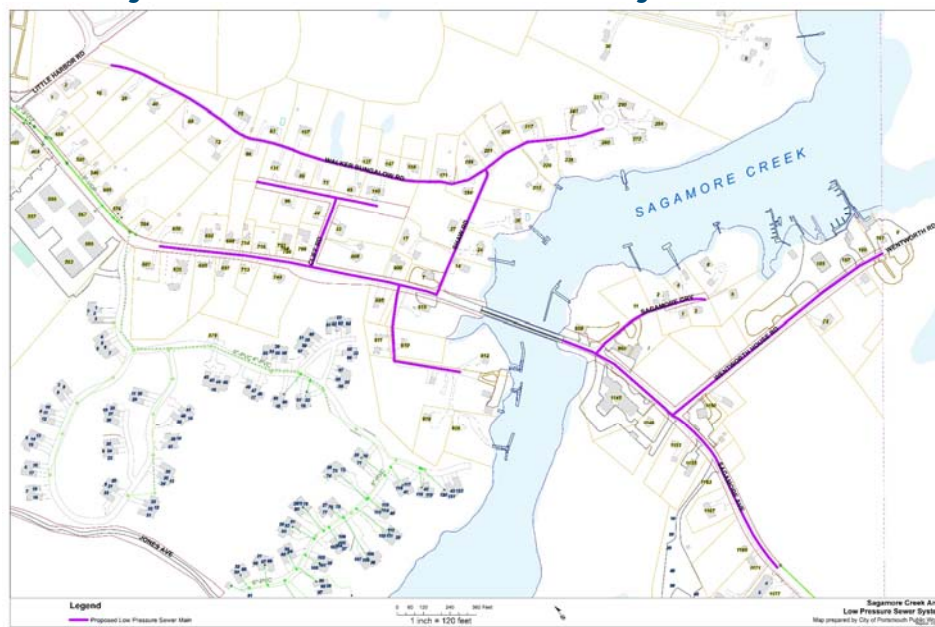
- Low Pressure Type Sewer System
- Property Owners Will NOT Be Required To Tie-In If They Have A Functioning Septic System
- Property Owners Will Have To Tie-In If Their Septic System Fails
- City Council Authorized \$4.4 Million In July 2019



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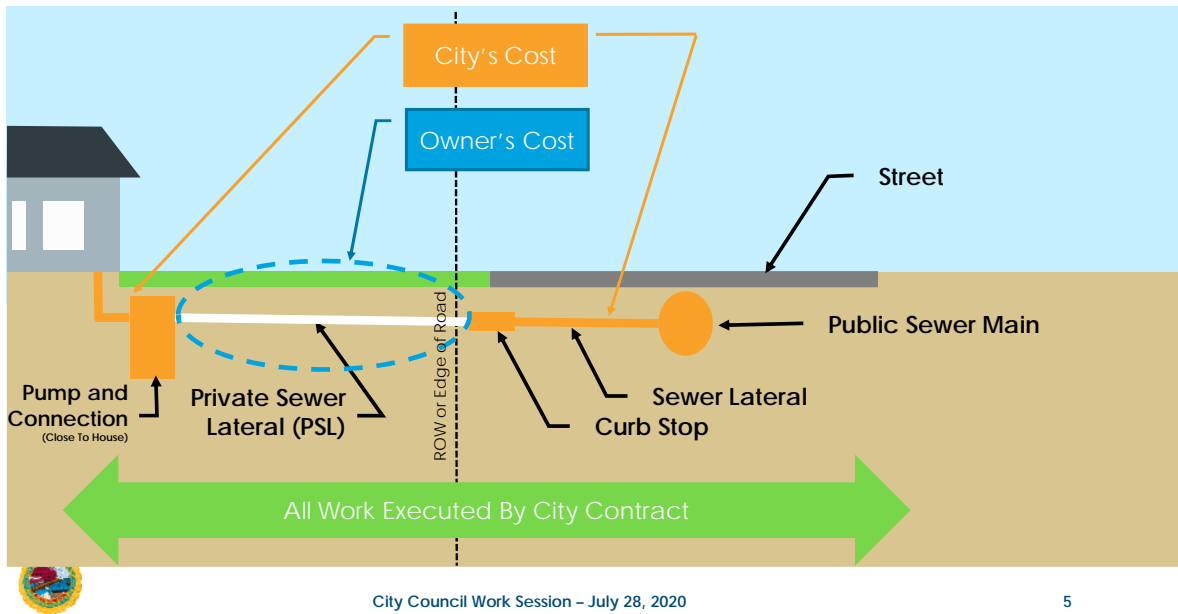
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Current Project Limits and Costs: Project Limits



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Current Project Limits and Costs: Cost Apportionment Proposal



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Current Project Limits and Costs: Current Cost Estimate

Cost Estimate (91 Connections)

Item	Cost (\$)
Sagamore North	\$3,650,000
Sagamore South	\$1,850,000
Total City (Sewer Users)	\$5,500,000
Service Laterals North	\$420,000
Service Laterals South	\$180,000
Total Owner	\$600,000 (~\$6,600 per connection)
Total Project Cost	\$6,100,000



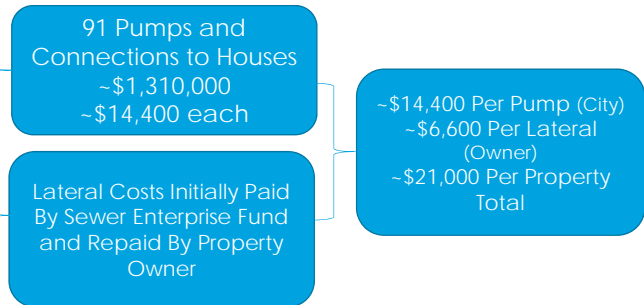
Current Estimated Project Costs Exceed \$4.4M Funding Authorization

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Current Project Limits and Costs: Current Cost Estimate

Cost Estimate (91 Connections)

Item	Cost (\$)
Sagamore North	\$3,650,000
Sagamore South	\$1,850,000
Total City (Sewer Users)	\$5,500,000
Service Laterals North	\$420,000
Service Laterals South	\$180,000
Total Owner	\$600,000 (-\$6,600 per connection)
Total Project Cost	\$6,100,000
[If 75% Participation]	[\$5,620,000]
[If 50% Participation]	[\$5,150,000]
[If 0% Participation]	[\$4,190,000]



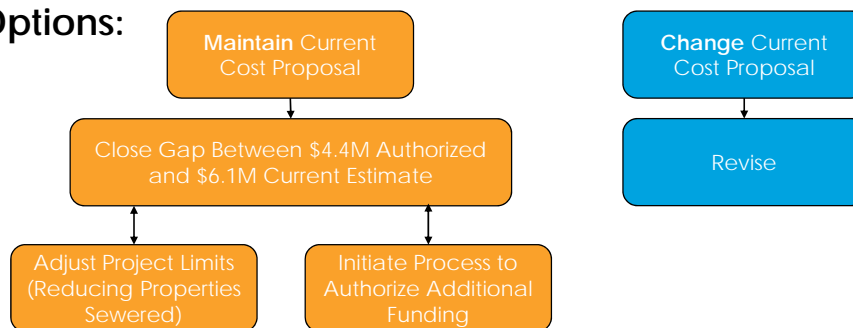
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Key Decision Items

- Issue: Current Estimate Exceeds \$4.4M Project Funding
 - Added costs based on Nov 2019 cost proposal
 - Work on private property side of project
 - Limits extended to capture interested properties

Potential Options:

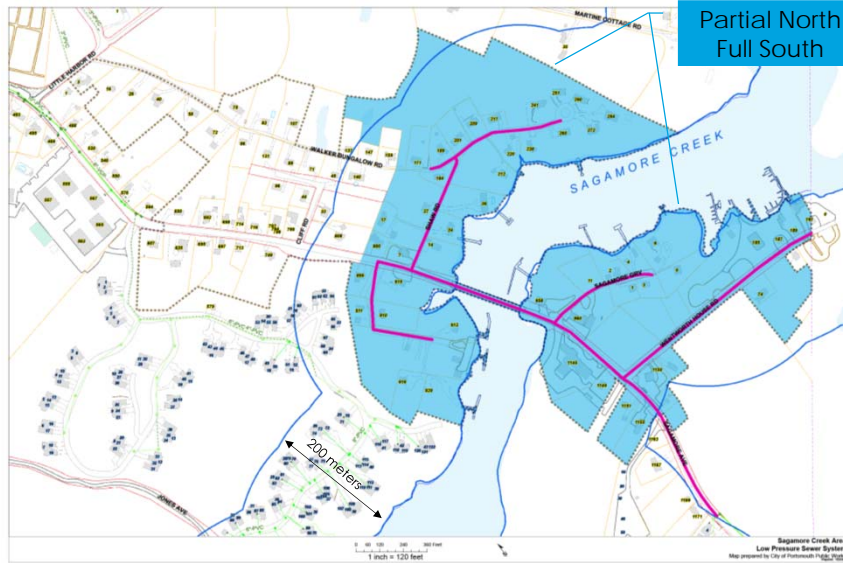


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Alternative Project Limits: 57 Connections

Note: Any Changes to Project Limits in Consent Decree Are Subject to Regulator Approval



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Alternative Project Limits: Estimated Cost 57 Connections

Item	Cost (\$)
Sagamore North (Over bridge)	\$2,090,000
Sagamore South	\$1,850,000
Total City (Sewer Users)	\$3,940,000
Service Laterals North	\$200,000
Service Laterals South	\$180,000
Total Owner	\$380,000 (~\$6,600 per connection)
Total Project Cost	\$4,320,000



Alternative Project Limits: Estimated Cost 57 Connections

Item	Cost (\$)
Sagamore North (Over bridge)	\$2,090,000
Sagamore South	\$1,850,000
Total City (Sewer Users)	\$3,940,000
Service Laterals North	\$200,000
Service Laterals South	\$180,000
Total Owner	\$380,000 (~\$6,600 per connection)
Total Project Cost	\$4,320,000
[If 75% Participation]	[\$4,020,000]
[If 50% Participation]	[\$3,720,000]
[If 0% Participation]	[\$3,120,000]

57 Pumps and Connection to House
~\$821,000
~\$14,400 each

Lateral Costs Initially Paid By Sewer Enterprise Fund and Repaid By Property Owner

~\$14,400 Per Pump (City)
~\$6,600 Per Lateral (Owner)
~\$21,000 Per Property Total



Questionnaire Results

Details

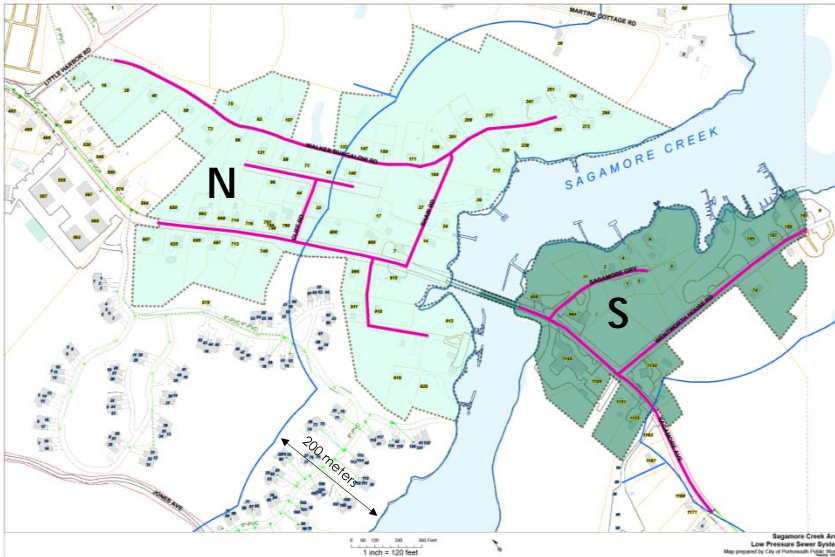
- Distributed April 2020
- 88 mailed, 56 returned
- 64% Response Rate
- Questions Answered Based On November 2019 Cost Proposal

Questions

1. Will You Tie-in at Time of Construction
2. How Old is Existing Septic System
3. Condition of Existing Septic System
4. How Frequently is Septic Tank Pumped
5. When is Replacement Anticipated
6. Does Septic System Have a Pump
7. Does Septic System Have Aeration
8. Does Property Have Radon Mitigation
9. Does Property Have Finished Basement
10. Does Property Have Basement Plumbing



Questionnaire Results: Tie-in At Time of Construction



Response	N	S
Yes (10-7)*	24 (59%)	8 (62%)
Maybe (6-4)*	4	3
No (3-0)*	13	2
Total Responses	41	13

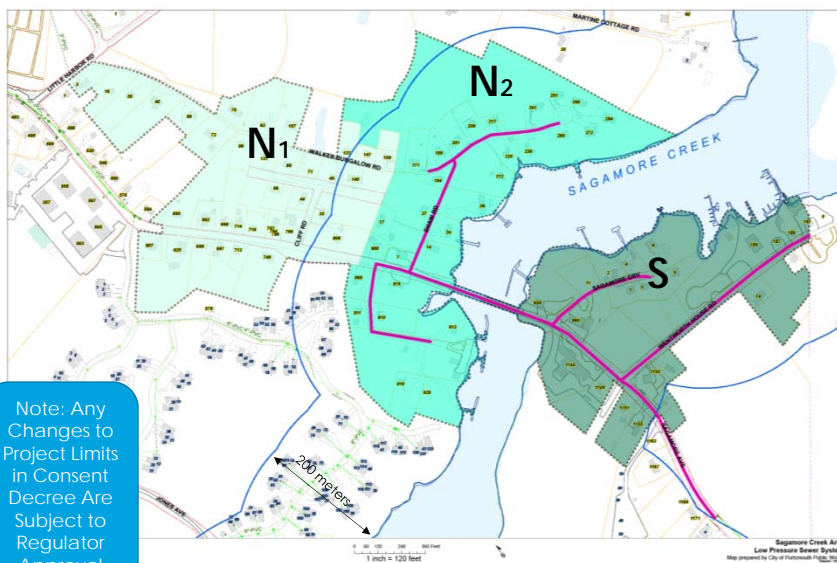
*Answer scale for question was from 0 to 10



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Questionnaire Results: Tie-in At Time of Construction Broken Out For Alternative Project Limits Areas



Note: Any Changes to Project Limits in Consent Decree Are Subject to Regulator Approval

Response	N1	N2	S
Yes (10-7)*	11 (48 %)	13 (72%)	8 (62%)
Maybe (6-4)*	4	0	3
No (3-0)*	8	5	2
Total Responses	23	18	13

*Answer scale for question was from 0 to 10

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Questionnaire Results: Majority Answers

Question	Majority Answer	% of Total
1. Will You Tie-in at Time of Construction	Yes (7 to 10)	59
2. How Old is Existing Septic System	Greater Than 15 Years	46
3. Condition of Existing Septic System	Very Good	41
4. How Frequently is Septic Tank Pumped	Every 2 Years	56
5. When is Replacement Anticipated	Over 20 Years	25
6. Does Septic System Have a Pump	No	63
7. Does Septic System Have Aeration	No	68
8. Does Property Have Radon Mitigation	No	71
9. Does Property Have Finished Basement	No	43
10. Does Property Have Basement Plumbing	No	59



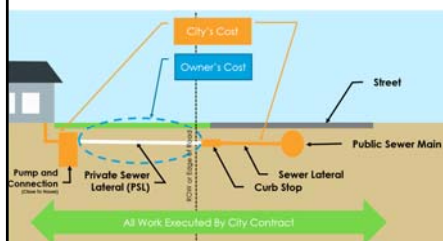
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Decision Points Summary: Cost Matrix

	100% Participation	75% Participation	50% Participation	0% Participation
Current Project Limits	\$6,100,000	\$5,620,000	\$5,150,000	\$4,190,000
Alternative Project Limits	\$4,320,000	\$4,020,000	\$3,720,000	\$3,120,000

Within \$4.4M Funding



Current Cost Proposal



Current Project Limits



Alternative Project Limits



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Recommendations On Other Items

- Operation And Maintenance Of E-One Pump System

Recommendation: Owner responsibility

- Replacement Of E-One Pump At End Of Life

Recommendation: Owner responsibility

- Connections At A Later Date

Recommendation: Owner responsibility

- Outstanding Loan Obligations

Recommendation: Repaid at sale of property

To take a different approach would require a significant change to ordinance, billing, rate structure, and budget



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Recommendations On Other Items: Radon Gas Testing

- Odorless, Colorless Gas that Originates from Rock

- Regulated action level is 4.0 picocurie per liter (pCi/L)
- No Testing Conducted at Properties with Existing Radon Mitigation Systems

- Testing for Properties without Radon Mitigation Systems

- Pre-blast radon testing
- Post-blast radon testing

- If Post-Blast Testing Shows Increase and is Above Action Level City to Install Mitigation System

- Radon Gas Testing Is Additional Project Cost



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Next Steps

- Public Meeting August 11, 2020 Via Zoom
- Vote On Decision Points
 - No later than August 31, 2020 City Council Meeting
- September 2020 – January 2021 Permitting And Final Design
 - Requires access on private property for wetland flagging and survey
- February-April 2021 Bidding And Project Award
- April 2021 – Begin Construction



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Questions

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