

**EAST LYME WATER & SEWER COMMISSION
SPECIAL MEETING
Thursday, OCTOBER 27th, 2016
MINUTES**

The East Lyme Water & Sewer Commission held a Special Meeting on the Saunders Point Wastewater Facilities Plan on Thursday, October 27, 2016 at Town Hall, 108 Pennsylvania Avenue, Niantic, CT. Chairman Nickerson called this Special Meeting to order at 6:30 PM.

PRESENT: Mark Nickerson, Chairman, Steve DiGiovanna, David Jacques, Joe Mingo, Dave Murphy, Carol Russell, Roger Spencer, Dave Zoller

ALSO PRESENT: Joe Bragaw, Public Works Director
Brad Kargl, Municipal Utility Engineer
Attorney Edward O'Connell - Town counsel
Anna Johnson, Finance Director
Kevin Seery, Deputy First Selectman
Ingrid Jacobs, PE Project Mgr. & Sarah Bucci, PE - Weston & Sampson
Christopher Webster, PE - Weston & Sampson VP Regional Manager

FILED

Nov 1 2016 AT 10:00 AM
Kamryn Gulley, AR
EAST LYME TOWN CLERK

ABSENT: Dave Bond

Chairman Nickerson called the Special Meeting to order at 6:30 PM and led the assembly in the Pledge of Allegiance.

Mr. Nickerson explained that this is a lengthy process and that this evening Weston & Sampson will present the Draft Saunders Point Wastewater Facilities Plan. He asked that they listen to the entire presentation and hold off on any questions until after the presentation is completed.

Mr. Kargl explained that this is another step in the defined process that they have to follow that is outlined by the DEEP.

Ingrid Jacobs, PE, Project Manager & Sarah Bucci, PE from Weston & Sampson reviewed the PowerPoint presentation (Copy attached). Christopher Webster, PE, Weston & Sampson VP Regional manager was also present this evening.

Ms. Jacobs said that she is the Project Manager, Ms. Bucci who will be giving the presentation this evening is the Project Engineer and Christopher Webster, PE, Weston & Sampson VP Regional Manager is also present this evening.

Ms. Bucci explained that they chose to follow the process that Mr. Kargl had mentioned and that in order to qualify for funding they need to go through this regimented process. (PowerPoint presentation attached)

Saunders Point has approximately 250 parcels that they have broken into six (6) study areas which they have identified as A, B, C, D, E & F. They were grouped based on similar parcel size and a number of other criteria per parcel so that the comparisons would be the same. The average score rating that they came up with for all the parcels was 57.5. From there the areas of need were determined to be: the Ledge Road area, the Saunders Point area and the North Edgewood Road area.

From there they sought to determine the most appropriate wastewater management alternative and they selected the Sanitary Sewer System Extension. Some conceptual layouts included the use of pumping stations and grinder pumps. They also came up with some very raw opinions on the probable cost of between \$5.5M - \$6.5M to complete this part of the project.

The combination of using some grinder pumps and some pumping stations was considered the most favorable method when analyzing for operation and maintenance costs for replacement parts, service labor, energy load and a 20-year design life. The \$5,652,000 option was considered the most favorable due to the availability of generators to keep them running in the event of power issues. The Pine Grove hook-up option was chosen due to the cost as it was the lowest.

Ms. Bucci explained that it would be a combination of gravity and low pressure feed, involve two pumping stations and 19 grinder pumps; a 1000 lf channel crossing to Pine Grove and pavement restoration. This total cost was estimated costing in the \$6.5M - \$10M range. Using \$6,560,000 as the total project value and subtracting the Town's contribution of \$1M to do the new paving, the remaining project cost would be \$5,560,000 divided by the 184 lots. This would equate to approximately \$30,000 per lot if paid up front and approximately \$37,000 (includes interest) if paid out over the 20 years. It does not include the sewer usage fee that would be currently billed at two times per year. (Fee is based on water usage).

The Weston & Sampson team passed out the PowerPoint presentations and said that they would answer any questions.

Mr. Nickerson opened the floor to questions.

Regina Hitchery, 32 Bishops Bay asked with regard to the \$30,000 cost – what the highest cost was within the last 30 years.

Mr. Kargl said that the benchmark was \$12,066.

Mr. Nickerson noted that was for the Orchards (who paid to run the line), Pine Grove and Park Place.

Alda Debboli, 8 Saunders asked if the Town is contributing \$1M here – what they contributed to the other projects in Town.

Mr. Kargl said that Pine Grove cost each person \$12,066.

Mr. Nickerson said that it would have to go to a Town Referendum for the Town to determine if they wanted to fund more or not. It would be the people of the town who would have to vote on it.

Ed Riozzi, 22 North Pine St. said that he thinks that the presentation falls short and that if they included more properties that the cost would go down as it would be split out over more properties hence a bigger base. He added that sooner or later they will sewer the area.

Mr. Nickerson asked Ms. Bucci if they had looked at an expanded scope.

Ms. Bucci said that they did not go outside of the Saunders Point area.

Mr. Kargl noted that one – the plan has essentially been that they could sewer the Penn Ave area but they could do that by running a line from Main Street and two – they did not talk about potential grant funding as it is an unknown. If the area is expanded they may get some however that requires further investigation. This study is isolated to the Saunders Point area only.

Mr. Riozzi said that with the economic condition of the State that they could not count on dollars from that source.

Mr. Nickerson noted that the State received federal dollars that they do pass down for these projects.

Mr. Bragaw noted that they have been waiting on sewers for a number of years now prior to doing the roads in that area – so there is a timing issue here.

Mr. Riozzi said that they have waited a long time for the roads to be done.

Mr. Bragaw said that they will be paving Quarry Dock in the next few years as it would not be feasible for sewers to go up there.

Mr. Riozzi said that the roads should be fixed and that this project appears to be some four to five years from being done.

Mr. Nickerson explained the process and that it was approved for this study to go forward and it was started a few months later. Tonight they have the actual areas and an idea on the actual dollars for the project. If they pave the road and then dig it up it will add another \$1M more to the cost to have to do the road again after it is torn up. This is right one.

Skip Saunders, 12 Center Road said that he had arrived late and missed the presentation – he asked if North Edgewood Road was included in the project.

Ms. Bucci said that it was.

Ms. Bucci noted that the pumping stations represent \$750,000 cost in the project and that it may change as the project is fine tuned.

Ed Riozzi, 22 North Pine asked how they would get people to connect.

Attorney O'Connell said that the Commission has the power to make them connect.

Alda Debboli, 8 Saunders said that she is hung up on the \$12,066 for Pine Grove which was done just a few years ago.

Ms. Bucci said that it was done in 2005.

Mr. Mingo said that the cost was different due to the density of the area and the fact that not as much pipe was needed. The lots are very small and very tight in Pine Grove and that minimized the cost.

Regina Hitchery, 32 Bishops Bay asked if they just looked at Ledge Road what the options would be.

Ms. Jacobs said that a community system station may take up a large part of someone's property or if they have a parcel large enough to accommodate it. It would also have to be permitted by the DPH.

Mr. Saunders noted that there was an old proposal long ago that was to be done.

Mr. Spencer said that he lives in Pine Grove and that it was a much smaller project than the one being proposed here. That is why it cost less – it was much less extensive of a project.

Mr. Murphy added that the National Guard also wanted work done at that time so they helped with a major hook-up.

Ed Riozzi, 22 North Pine said that he thought that they would need another pumping station to go through Pine Grove.

Mr. Kargl said no, that was not correct.

Ms. Jacobs said that the force main in Broadway is dedicated.

Phyllis Ferguson, 8 Oak said that she has waited 50 years for sewers and would like to know when she might see them.

Mr. Nickerson thanked her for coming and said that they could not make any promises on it. Further, the DEEP has not mandated that they need sewers. This is a very first step in a voluntary situation. Potentially with the hope of some funding they may be able to get the cost down to around \$25,000 per household – however that is an unknown at this time.

Mr. Kargl said that this all needs to be 'digested' and they have to look into grant opportunities and any potential funding and see if it would be prudent to ask the Townspeople to consider it as an investment. All of this is new information that is just being presented.

Mr. Riozzi asked about the \$30,000 to hook up and if they charged all the homeowners in the area and if they also would have to add the cost of the line from the house to the street.

Doug Lowe, 3 North Road said that each household would also have to pay for the hook-up to be done from the house to the street.

Regina Hitchery, 32 Bishops Bay asked about the time frame and review period and if they were still on the schedule that they had started with some time ago.

Mr. Kargl said that they would send this to the DEEP for review shortly.

Mr. Spencer noted that this is a mandatory system now however if they were to go down Penn Ave that would change it.

Mr. Kargl cautioned that they have to be careful as the DEEP seeks to have an isolated area. Also larger systems come with larger costs.

Dave Bergeron, 54 Saunders Drive asked about the tie-in cost for each individual house and the likelihood of funding as he does not think that there are any grant dollars and suggested that they should consider a larger system.

Regina Hitchery, 32 Bishops Bay said that she spoke with Pine Grove regarding the tie-in costs and they had one company do all of them for a savings. They had shorter runs so it was less but she would estimate that it would be between \$2,000 and \$2,500 per household in Saunders Point.

Mr. Bragaw cautioned that if they were to come down Penn Ave. that it would not necessarily be cheaper as that is a State road and the State DOT will make them pave to 9" and mill so they would not save any money at all.

Alda Debboli, 8 Saunders asked if there are a lot of areas in the Town that are not sewered. Attorney O'Connell said that there are plenty of areas in the sewer shed that are not sewered adding that it is a 50 year plan.

Ms. Debboli asked about her existing septic tank.

Mr. Spencer said that they would fill and crush it during the project.

Ms. Hitchery added that it is included in the cost of running the line to the house.

Ed Gaynor, 7 East Street suggested that they wait to see if there is any money to help with this.

Dave Bergeron, 54 Saunders said that it is not mandated at this point and wondered what the potential is that it would be mandated in the near future.

Mr. Nickerson said that it is not like Old Lyme where the State is mandating them to do something.

Mae Hill, 16 Ledge Road said that she has been there for 46 years now and that she has redone her septic system many times.

Skip Ouellette, 8 Round Rock asked how much property he would lose when they paved the area as he has a postage stamp size property. If they go with the original plan he said that he would lose 5' of his front yard.

Mr. Bragaw said that he should keep the same area that he has.

Alda Debboli, 8 Saunders asked if there is a benefit to having sewers and if the rules on what you can do with your property change.

Attorney O'Connell said that there are rules about the separation of water and septic and that sewers may allow for more flexibility and for some ability to expand. And, yes – there is an economic value to having sewers.

Mr. Nickerson suggested that they contact a realtor on the economic advantage as obviously some people so not want to buy a property without a sewer system.

Hearing no further questions –

Mr. Nickerson thanked everyone for coming, thanked Weston & Sampson for the presentation and called for a motion to adjourn this Special Meeting.

****MOTION (1)**

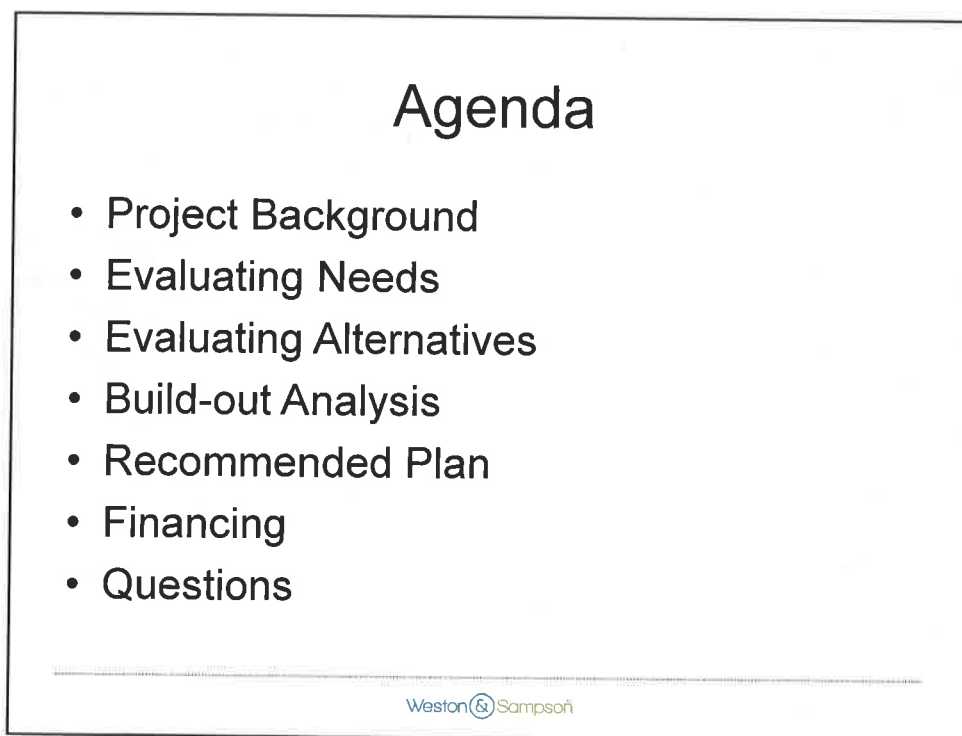
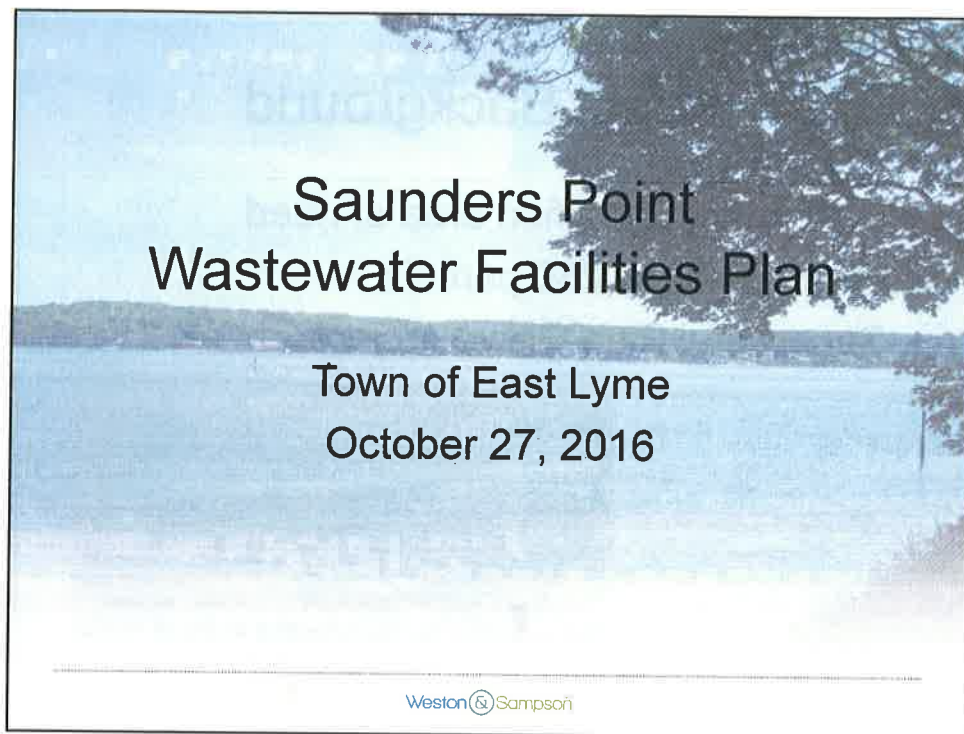
Mr. DiGiovanna moved to adjourn the Special Meeting on the Draft Saunders Point Wastewater Facilities Plan at 8:00 PM.

Mr. Zoller seconded the motion.

Vote: 8 – 0 – 0. Motion passed.

Respectfully submitted,

Karen Zmitruk,
Recording Secretary



*David Jacobs
Sarah Pucci
Christopher Webster } Weston + Sampson*

Attachment Wes Special mtg. 10/27/16

Project Background

- Historically identified area of need
- Approximately 250 parcels
- Successful Pine Grove project



Quarry Dock/ Ledge Road identified as area of need in 1985 Facilities Plan

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Evaluating Needs

- Area divided into 6 study areas
- Assessed on 17 criteria
 - 10 Environmental Criteria
 - 3 Socio-economic Criteria
 - 4 Criteria without significant difference

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Environmental Criteria

- Parcel Size
- Building Density
- Parcels 0.5 acres or less
- Replaced Septic Systems
- Septic Failures or Permits to Discharge
- Septic System Repairs
- Recent Activity
- Natural Diversity Database
- 100-Year Flood Zone
- Environmental Soil Ranking

Weston & Sampson



Environmental Need



Environmental Criteria	A	B	C	D	E	F
1 Parcel Size	1.60	4.40	3.33	1.34	0.48	2.79
2 Building Density	9.90	25.12	22.74	5.14	3.57	16.75
3 1/2 Acre Parcel	2.00	6.00	5.46	2.40	0.75	5.05
4 System Replaced	0.73	0.29	0.29	0.00	0.00	0.00
5 Failures or Permits	2.04	12.56	2.91	0.32	0.00	1.76
6 Repairs	0.87	5.02	0.69	0.00	0.00	0.00
7 Recent Activity	0.55	1.43	1.42	0.24	0.00	0.63
8 Natural Diversity	5.82	6.00	6.00	5.04	3.00	5.68
9 Flood Zone	3.09	2.00	2.17	0.24	3.00	3.47
10 Soil - Environmental	12.00	12.86	16.63	12.00	0.00	12.63
Total	38.60	75.66	61.63	26.72	10.80	48.78

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Socio-Economic Criteria

- Health Department Ranking
- Social Soil Ranking
- Historic Sites



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Socio-Economic Need

Socio-economic Criteria	A	B	C	D	E	F
11 Septic Records	7.45	9.71	7.29	3.12	4.50	5.05
12 Soil - Social Impact	6.00	5.14	1.38	6.00	18.00	5.37
13 Historic Sites	1.00	0.00	1.00	1.00	0.00	1.00
Total	14.45	14.86	9.67	10.12	22.50	11.42



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Overall Need

Criteria	A	B	C	D	E	F
Environmental Need	38.60	75.66	61.63	26.72	10.80	48.78
Socio-Economic Need	14.45	14.86	9.67	10.12	22.50	11.42
Total	53.05	90.52	71.30	36.84	33.30	60.20

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Areas Ranked by Need

Rank	Score	Area	Location
1	90.5	B*	Ledge Road Area
2	71.3	C*	Saunders Point Area
3	60.2	F*	North Edgewood Road Area
4	53.1	A	Northern Area, up Quarry Dock Road
5	36.8	D	Central Area, along Oswegatchie Hills Road
6	33.3	E	Southern Area, down Oswegatchie Hills Rd
Avg.	57.5		



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Evaluating Alternatives

- Four (4) types of wastewater managing alternatives evaluated
 - Sanitary Sewer System Extension Selected as Most Desirable Option
- Multiple Conceptual Layouts Evaluated for Feasibility and Opinions of Probable Costs
- Present Worth Analysis

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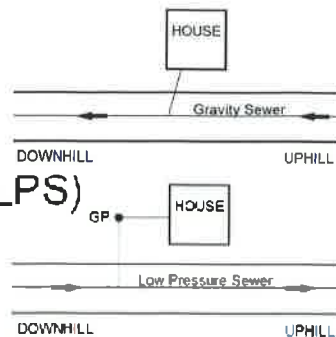
Wastewater Management Alternatives

- Private Septic Systems
- Community Septic System
- Satellite Wastewater Treatment Facility
- Sanitary Sewer System Extension

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Conceptual Sanitary Sewer Layouts

- All Gravity Sewers
 - Requires Pumping Stations
- All Low Pressure Sewers (LPS)
 - Requires Grinder Pumps
- Combination of Gravity & LPS
 - Requires some Grinder Pumps
 - Requires some Pumping Stations



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Conceptual Layouts

	Gravity Only	Gravity and LPS (A2)	Gravity and LPS (A1)	LPS Only
Pumping Stations	3	2	1	0
Grinder Pumps	0	19	84	184
Raw OPC	\$6.1 M	\$5.3 M	\$4.8 M	\$4.7 M

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Present Worth Analysis

- Operation & Maintenance Cost
 - Replacement Parts
 - Service Labor
 - Energy Load
 - 20-year Design Life



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Present Worth Analysis

	Gravity Only	Gravity and LPS (A2)	Gravity and LPS (A1)	LPS Only
PSs	3	2	1	0
GPs	0	19	84	184
Raw OPC	\$6,140,000	\$5,280,000	\$4,820,000	\$4,650,000
PW of O&M	\$378,000	\$372,000	\$656,000	\$1,160,000
Total Life-Cycle Cost	\$6,518,000	\$5,652,000	\$5,476,000	\$5,810,000

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Conceptual Connection Layouts

Option	OPC
1 – Pine Grove	\$261,000
2 – East Pattagansett Road	\$1,111,300
3 – Main Street	\$1,366,800

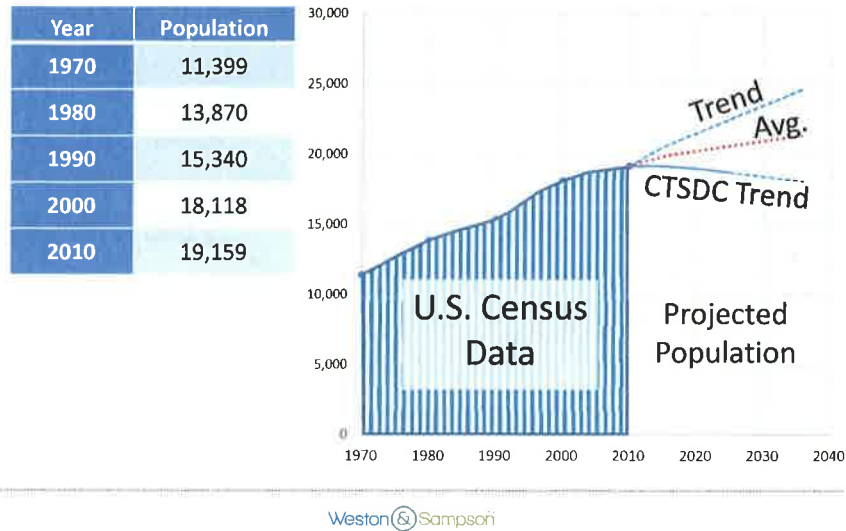


Build-out Analysis

- Identifying Future Sewer Flows
 - Anticipated Population in Needs Area
 - Potential Development Using Current Zoning
 - Anticipated Sewer Usage



Town of East Lyme Population



Housing Build-Out

	Area B (Ledge Road)	Area C (Saunders Point)	Area F (N. Edgewood Rd)
Total Parcels	21	144	19
Number of Current Houses (2016)	19	133	19
Parcels Without Homes (2016)	2	11	1
Potential Development Parcels	+1	+9	+1
Number of Potential Future Houses (2036)	20	142	20

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Calculated Wastewater Flow

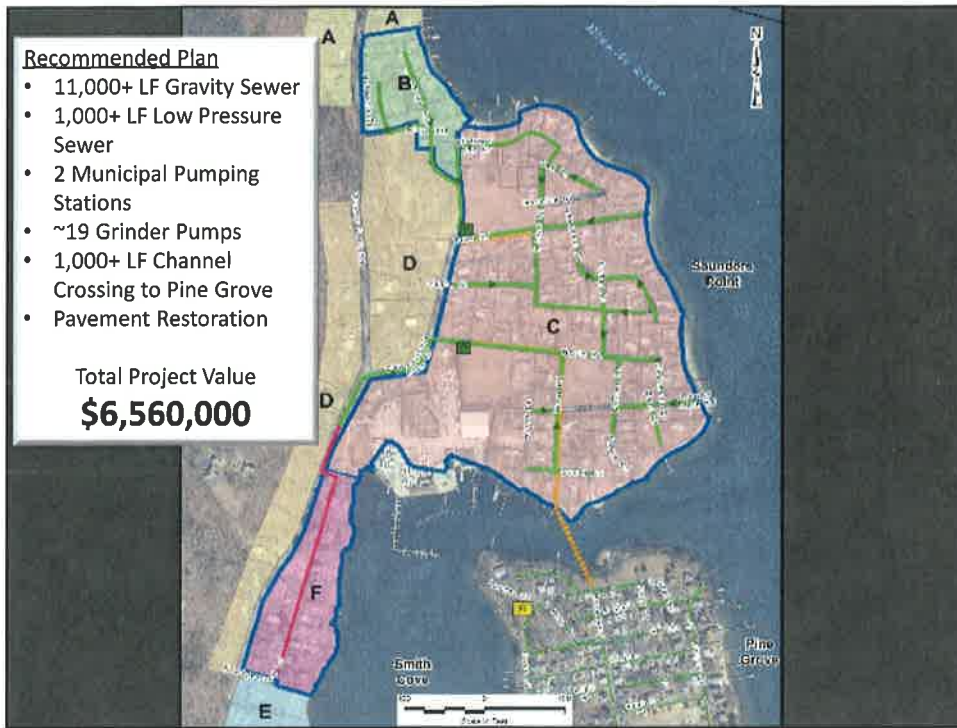
		Area B (Ledge Road)	Area C (Saunders Point)	Area F (N. Edgewood Rd)	TOTAL
Current Flow	Average (gpd)	3,200	23,100	3,200	29,500
	Peak (gpd)	22,000	161,000	22,000	205,000
Future Flow	Average (gpd)	4,200	30,700	4,200	39,100
	Peak (gpd)	29,000	215,000	29,000	273,000

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Recommended Conceptual Plan

- Gravity Sewers in Areas B and C
- Low Pressure Sewer System in Area F
- Two Pumping Stations
- Connection to Existing Pine Grove System
- Connecticut DEEP Clean Water State Revolving Fund based Amortization Schedule

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Town's Financial Contribution

Total Project Value \$6,560,000

Town Contribution (\$1,000,000)

Remaining Project Cost \$5,560,000

Conceptual Level Financing

Category	Project Data
Clean Water Fund Loan (Principal)	\$5.6 M
Loan Term	20 Years
Interest Rate	2%
Total Interest	\$1.2 M
240 Monthly (P&I) Payment Total	\$6.8 M
Number of Lots Served	184
Total Payment per Service (Principal)	\$30,000
Total Payment per Service (P&I)	\$37,000
Annual Payment per Service (P&I)	\$1,850
Monthly Payment per Service (P&I)	~\$155

Note: Semi-Annual Sewer Usage Fee (estimated between ~\$100 - \$200) not included.

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thank you
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