

Sewer Advisory Committee

State Road Sewer District Information Session

September 27 and 28, 2018

State Road Sewer District Information Session Topics

- Current status of our wastewater system
- The State Road Sewer District

Why was this area targeted for sewerage?

What is the area comprising the District?

How will the area be sewerage?

What's involved in connecting my property?

Policies being considered



State Road Sewer District

Purpose of this Session

- Solicit questions that you as property owners have about the project

The Advisory Committee will develop responses to Frequently Asked Questions.

- Receive initial feedback on policies being considered

Your feedback provides valuable input on these issues.

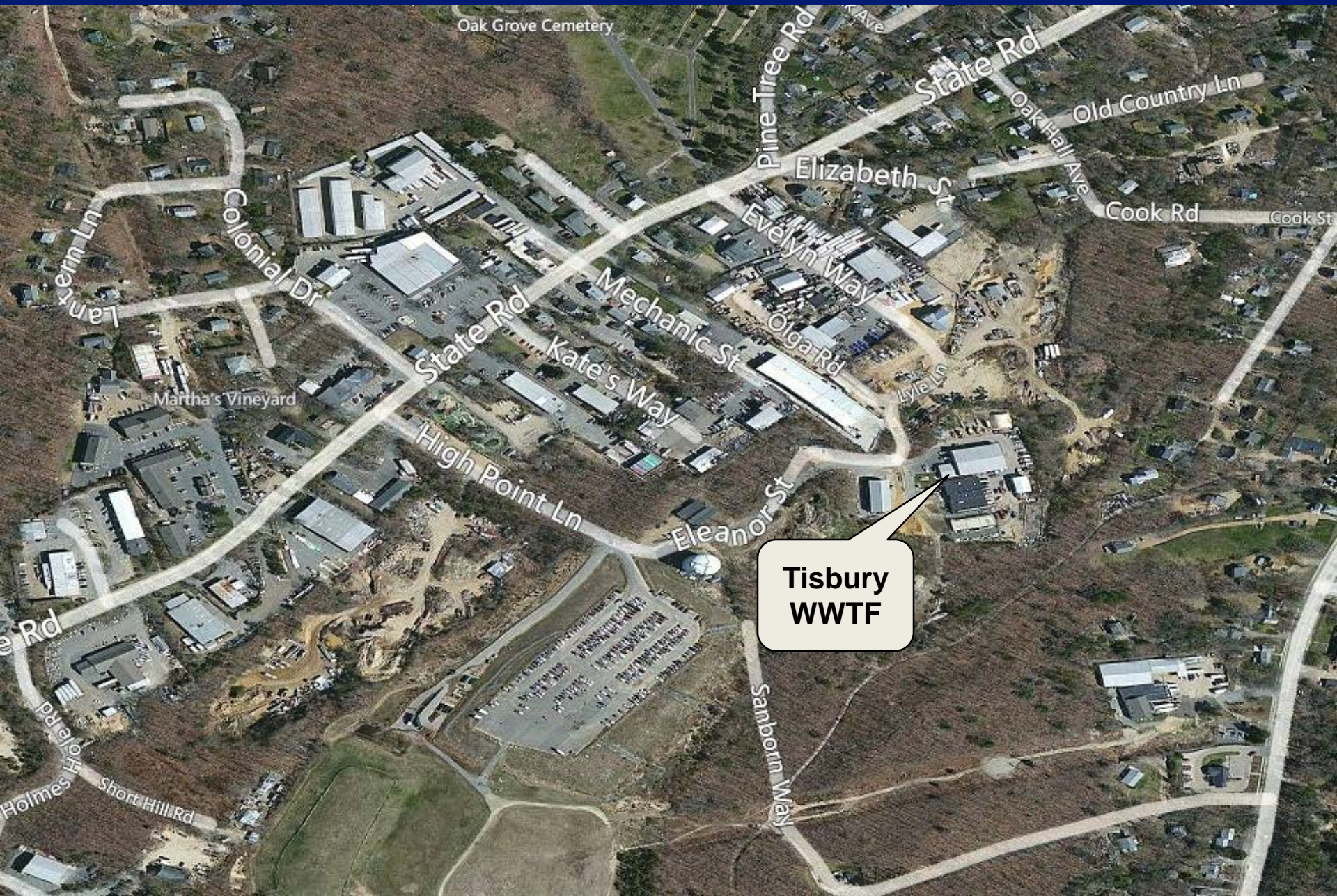


State Road Sewer District Public Information Sessions

More information sessions will be
provided over the next few
months to answer your questions.



Wastewater Treatment Plant





Filtration, Disinfection

**Screening, Grit
Removal and Ancillary
Process Building**

**Sludge
(Aerobic Digester)**

**SBR
Basins**

Treatment Plant Facts

- Constructed in 2004
- Permitted flow: 104,000 gpd

Treatment Plant Capacity is
Effectively Fully Subscribed



Until recently, the treatment plant couldn't perform at its capacity.

- Sludge processing

 - No efficient sludge management method

- Hydraulic restrictions

 - Effluent filter system

 - Rated at 100,000 gpd

 - Performing at 50,000 – 70,000 gpd



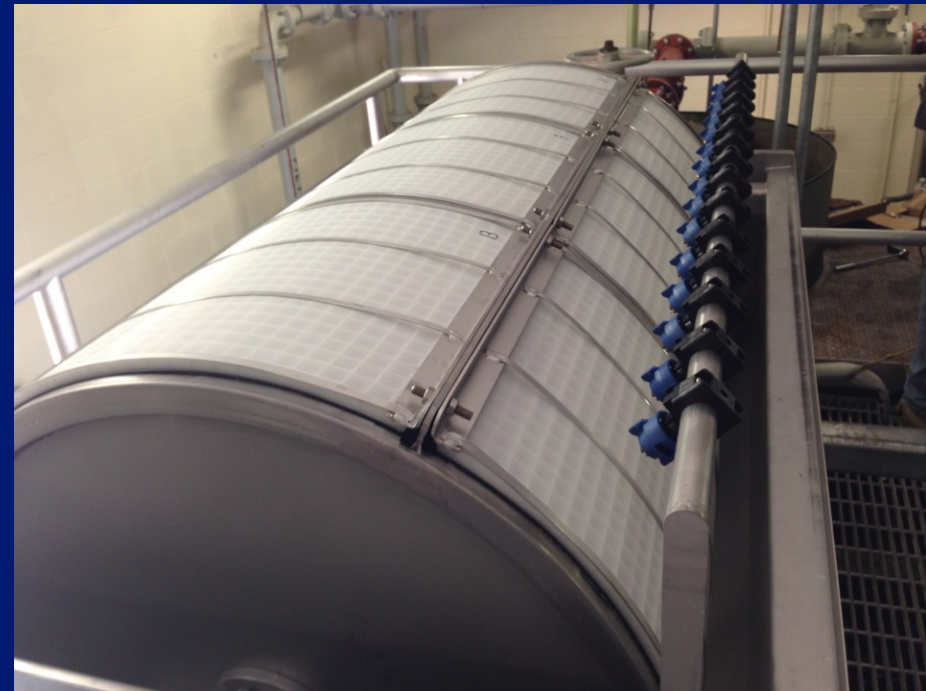
Sludge Processing: centrifuge Installed in 2013



Effluent Filtering: Drum Filters Installed in 2014



Before:
Sand filters



Now:
Centrifuge

What is the plant's maximum capacity?

Treatment Plant Evaluation – 2015

- Hydraulic & biological limit: 140,000 gpd
- Uses existing SBRs, some modifications needed
- Flows $> 140,000$ gpd will require significant building expansion of treatment plant and costs



Conclusion

Treatment Plant Evaluation – 2015

- Town can provide service for an additional 36,000 gpd of wastewater flow
- Will require only minor modifications to the wastewater treatment plant

What area should be served?



Sewer Service Area Expansion: Goals

1. Community Planning Goal:

Serve commercial corridor on State Road, now growth limited due to wastewater disposal limitations.

2. Environmental Goal

Reduce nitrogen discharges to Lake Tashmoo.



Planning: Wastewater Advisory and Sewer Advisory Committees

Board of Selectmen

Finance Committee

Planning Board

Board of Health

Conservation Commission

Town's MVC Representative



Concept Plan: State Road Sewer District



State Road Sewer District

- Serves State Road corridor
- Parcels served
 - Occupied 67 parcels
 - Vacant 5 parcels
- Flow rates of occupied parcels
 - Water usage 18,000 gpd
 - Title 5 flow 36,000 gpd



Treatment Plant Modifications for 140,000 gpd

- SBRs

 - Aeration system

 - Decant system

 - Mixers

- Pre- and Post SBR Equalization

- Other miscellaneous items



Effluent Disposal

- Wick development is ongoing
- For increase to 140,000 gpd, request nominal increase in leachfield capacity
 - Needs DEP approval
 - DEP supports the concept
 - Piloting of increased flow is being done now



How is the State Road District to be sewerred?

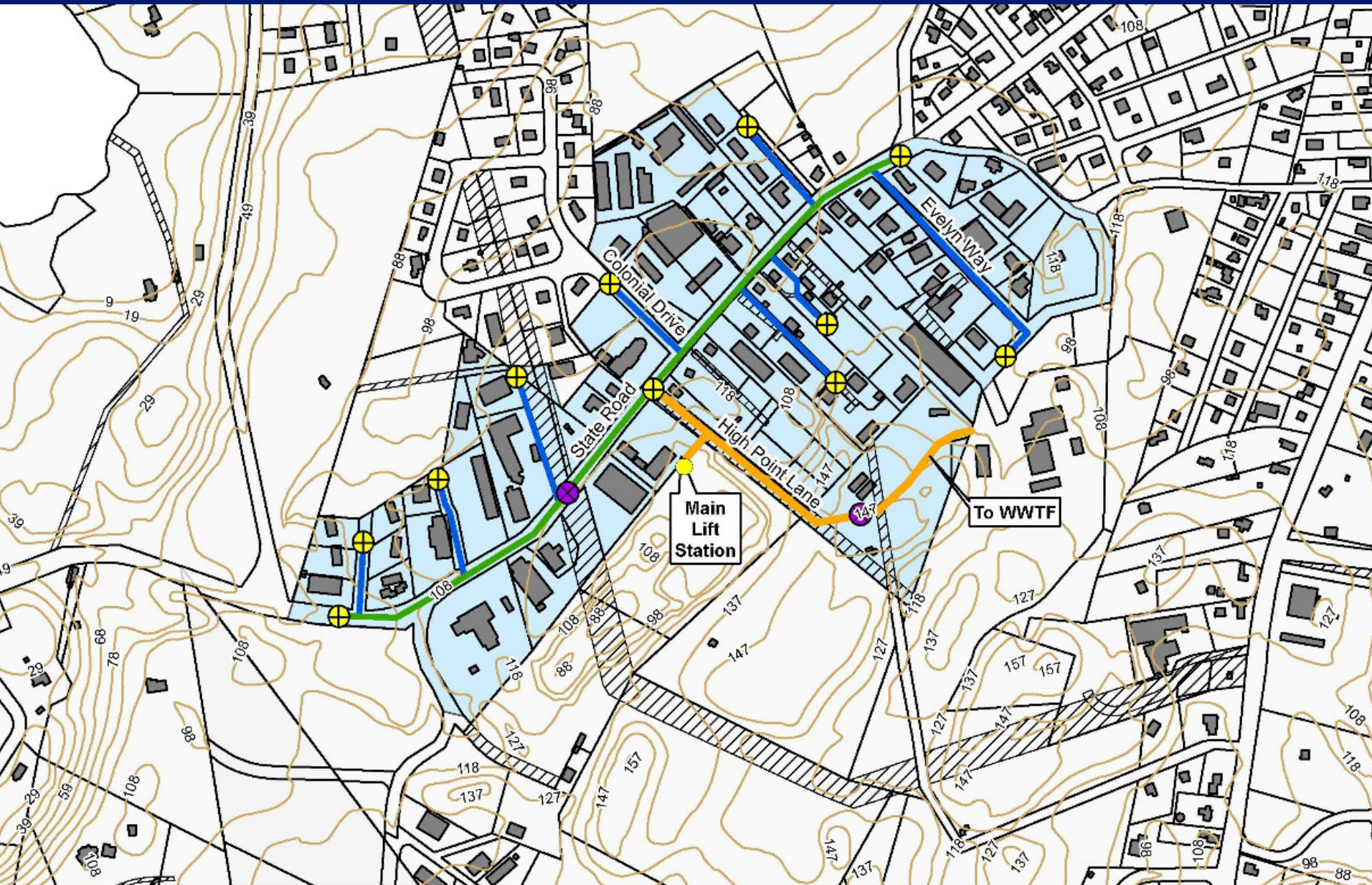
- Grinder pump at each property
- Service connection to each house
- Small-diameter force main on State Road and side streets
- Lift station on High Point Lane



Concept Plan: State Road Sewer District



Concept Plan: State Road Sewer District

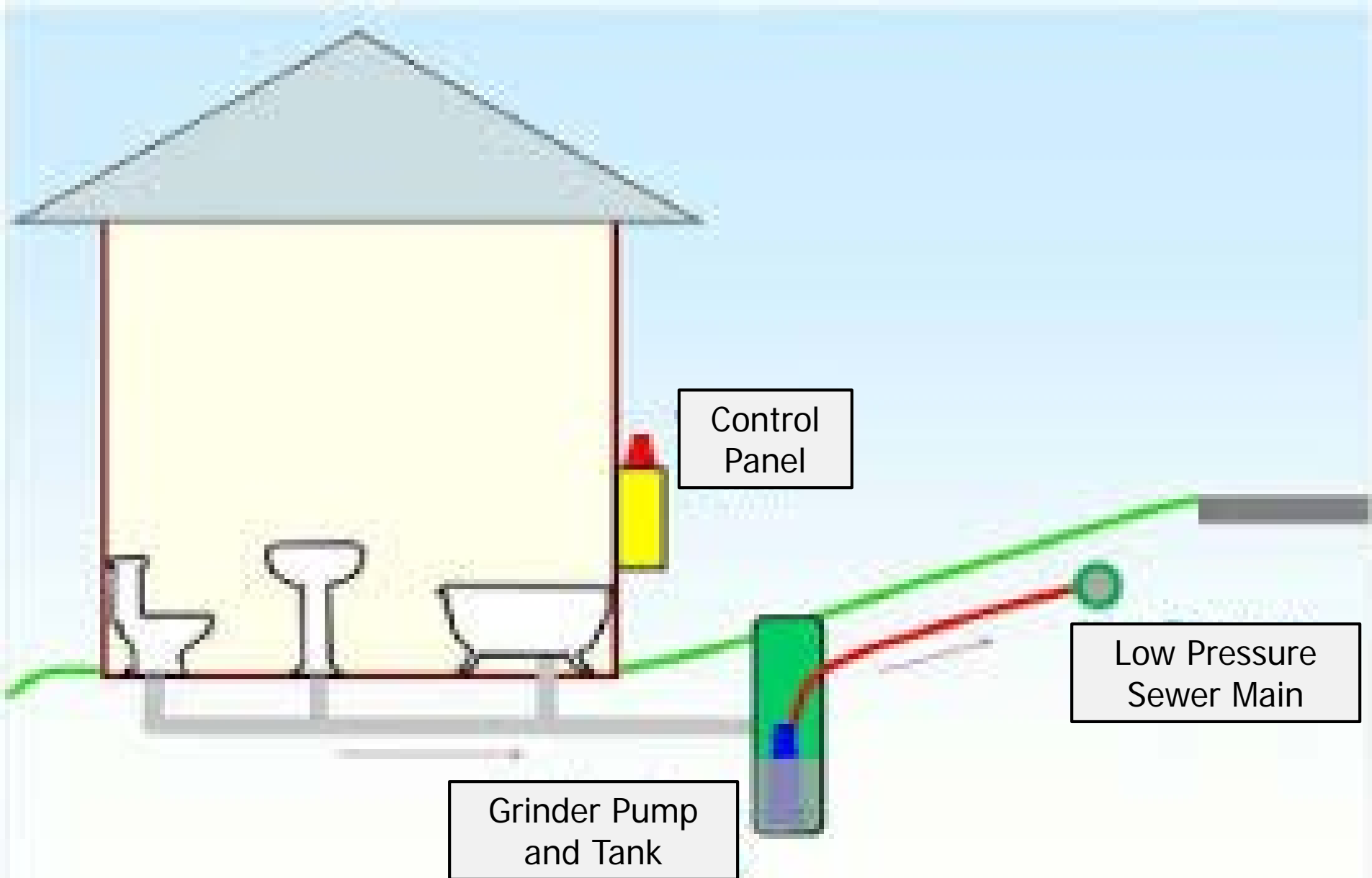


What is involved in sewerage my property?

- Service line from force main onto property
- Grinder pump and control panel installation (with electric service)
- Connection to home plumbing
- Easement to grinder pump



Grinder Pump Installation



Grinder Pump Installation



State Road Sewer District

Estimated Costs and Schedule

Estimated Costs:

Collection system expansion	\$5.0 – 6.0 Million
Treatment plant modifications	<u>\$1.5 – 3.0 Million</u>
	\$6.5 – 9.0 Million



State Road Sewer District Implementation Timeline

Schedule: 2018 – early 2022

Design, permitting, bidding, construction

Project Task	2018				2019				2020				2021				2022			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
<i>State Road Sewer District</i>																				
<i>2018 ATM Warrant Article Design, Permitting and Bidding</i>		♦																		
<i>2020 ATM Warrant Article for Construction Construction Activities</i>										♦										



State Road Sewer District Policy Decisions

- Connection requirements
 - Mandatory or not?
 - Timeframe for connections
- Cost allocation
 - Betterments vs. Taxes
 - Split of both (as with current system)



State Road Sewer District Policy Decisions

- Grinder pump installations & maintenance
By Town or Property Owner?
- How service is to be provided to properties
on private roads.



Questions and Discussion

