



Town of Atlantic Beach

Wastewater Questions

Presentation to:

ABACOWS

Atlantic Beach Advisory Committee on Wastewater and Stormwater

April 12, 2007





Cost / Phasing

	<u>Option 1</u>	<u>Option 2</u>	<u>Option 3</u>
Capital Cost	\$23M	\$54M	\$60M
Number of Units	1,269	4,419	5,935

Costs Per Unit:

Initial Assessment per Unit	\$3,500	\$3,500	\$3,500
Monthly Sewer Bill per Unit*	\$97	\$60	\$46

*Monthly sewer bills shown are estimated break-even rates. Actual monthly sewer bills will be based on the minimum base charge established and the actual water usage for each customer.





Unit Costs

Initial assessment and estimated monthly costs are per UNIT, not customers or connections.

Unit values are as currently implemented for the water system.

Typical UNIT values:

Single Family Residence	1 unit
Condominium Unit	1 unit
Mobile Homes	1 unit per home
Hotel / Motel	1 unit for every 3 rooms
Restaurant	1 unit for every 20 chairs
Condotel	1 unit for every 3 rooms
Commercial / Business	1 unit





Unit Costs

Typical water bill for a $\frac{3}{4}$ " meter consists of minimum base charge of \$9.00 **per unit**, which includes 4,000 gallons per month, plus the usage above the 4000 gallons at \$2.50 per 1,000 gallons.

Likewise, sewer bill is expected to include a minimum base charge plus usage over the base amount. Base charges for sewer have not been established to date.

Examples for Water Bills:

Residence / Condo with $\frac{3}{4}$ " meter: (1 unit)

Initial Assessment: 1 unit x \$3,500 = \$3,500

Monthly Bill: 1 unit x \$9.00 + usage above 4,000 gallons @\$2.50 per 1000 gallons





Unit Costs

Examples:

100 seat restaurant with 2" meter: (100 chairs / 20 chairs per unit = 5)

Initial Assessment: 5 units x \$3500 = \$17,500

Monthly Bill: 5 units x \$28.13 (\$140.65) + usage above 12,500 gals

100 room hotel with 3" meter: (100 rooms / 3 rooms per unit= 33)

Initial Assessment: 33 units x \$3500 = \$115,500

Monthly Bill: 33 units x \$140.63 (\$4,640) + usage above 62,500 gals





Land Costs

- Disposal Site
 - Food Lion Site \$4,000,000
 - Sugarloaf Site to be determined

- Collection System
 - Option 1 - PS Sites (27) \$3,148,915
 - Option 2 - Vacuum Stations (2) \$600,000
 - Option 3 – LPP (2) \$600,000





Food Lion Site





Food Lion Site

The old Food Lion building will be demolished

The dunes on the site will be preserved to the extent practical





Insurance

Town currently has an all inclusive insurance policy through the NC League of Municipalities.

The current premium is \$32,000 per year.

The wastewater system add-on premium is expected to be \$_____.

The O&M costs include \$7,500 in the collection system annual costs and \$25,000 in the WWTP annual costs for insurance.





Personnel Costs

Collection system labor costs:

Option 1 @ \$15.00 per hour x 1.5 = \$22.50 per hour w/benefits

Options 2 & 3 @ \$10.00 per hour x 1.5 = \$15.00 per hour w/benefits

Wastewater Treatment Plant Operators:

O & M costs includes \$200,000 for plant operators

All-inclusive labor costs = \$115,952 + \$200,000 = \$315,952 yearly





Costs to Residences

1. Initial assessment
2. Monthly sewer bill
3. 4" service line from house to vacuum pit at street ROW
4. Re-route plumbing under house, if needed.
5. Abandon septic tanks and drainfield
6. Connection fee to reuse system (?)





General Questions

1. Value review of the study or project specifications?
 - Not currently planned
2. Odor – Headworks and sludge storage facilities will be covered and vented through an odor control system
3. Sludge – Sludge will be aerobically digested and stored on site, disposal options include landfill, land application, or compost.
4. Insects – not generally a problem for properly operated and maintained plants





Inclement Weather

Onsite generators provided at WWTP and pump / vacuum stations

Construction will comply with FEMA requirements (structures above 100 year flood elevation)

Hurricanes

Category 1 – 3: plants will remain manned and in service

Category 4 & 5: plants are shut down and staff evacuated. Town has mandatory evacuation policy for Category 4 and 5 hurricanes.





Vacuum System

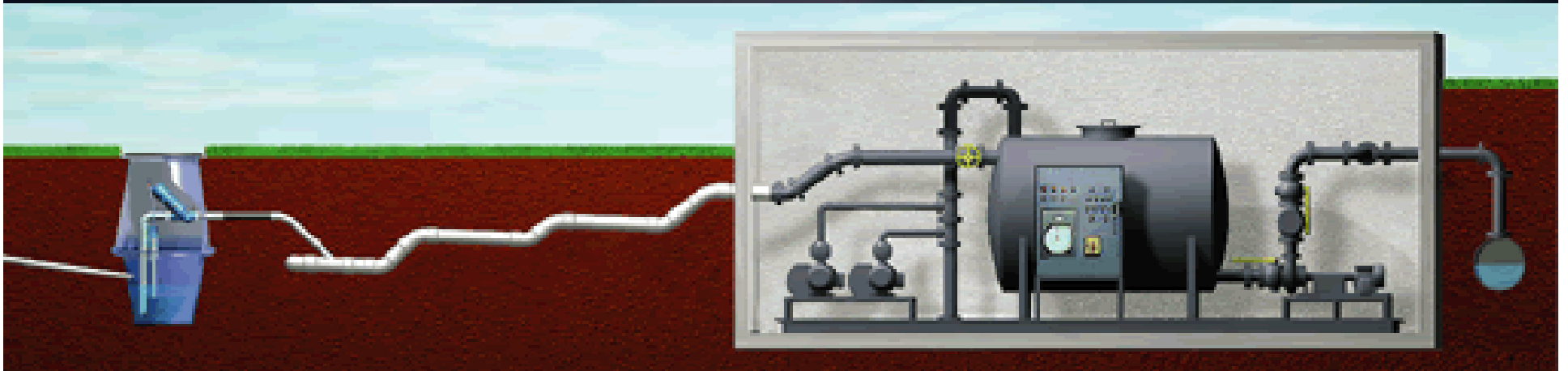
Two central vacuum stations will be required to serve the Town. No individual vacuum pumps are required at each residence.

Power source for vacuum pumps will not be from homes

If residence loses power, toilets and sinks will still work

Vacuum valve pits should not be driven on, similar to water meter boxes

Vacuum valve pits are normally located at property line / ROW





Other Questions

1. Will everyone be required to connect to the system? **Town decision**
2. Will everyone be required to pay the initial assessment? **No**
3. If a significant number of residences do not connect on, what is the effect on the estimated monthly bill? **It will be higher**
4. Is the assessment a tax deduction? **No (?)**
5. How can the assessment become a deduction? **No response**
6. Will the Council make a decision on building the system before or after the state and federal agencies have completed their reports? **The system must be designed before the state can complete their review, but the decision to construct will be made after bids are received.**
7. What is the nationwide permit required for the WWTP? **The North Carolina Department of Environment and Natural Resources (DENR) will issue the Authorization to Construct.**





Other Questions

8. Is there a plan to build a new fire station and municipal complex? **The Town is considering a space needs study in 2007.**
9. How will a breakage in the wastewater street line effect the residence? **Service will be temporarily unavailable**
10. Return Lines: separate meters, additional costs to residences? **The water reuse system will be a separate system with reuse meters. Residences may have to pay a meter service charge.**
11. Separate lines for wastewater and stormwater? **YES**
12. How will water level in infiltration ponds be controlled? **Water level is a function of inflow and infiltration rates.**
13. Private package plants: **permitted and monitored by NC DWQ or County Health Department, depending on disposal methods**





Thank you for your attention.

Questions?

