

Eastern Shore of Virginia Wastewater Summit

Town of Cape Charles

September 9, 2009

Scope

- Residents – 1,000, + 500 part time
- Area – 4.5 square miles
- Customers – 1,150 (93% residential)
- ERCs – 1,250, projected growth to 5,700
- WWTP – 250,000 GPD capacity
- Average Daily Flow – 150,000 GPD
- Demand – 125 GPD/ERC
- Pump Stations – 4 lift, 3 vacuum

Cost, Rates & Fees

- About \$530,000/year (5 FTE, 40% of cost)
- Graduated monthly rate structure:

0-2,000 gal.	\$34.30
2,001-5,000	4.11 per 1,000 gal.
5,001-10,000	5.85 per 1,000 gal.
- \$38.41 for 3,000; \$46.63 for 5,000
- Facility Fee - \$13,150 for new hook ups; state average is \$4.6K, highest is \$21.6K.

Size Matters

- Draper Aden 2008 Report – Virginia averages:

<u>RCs</u>	<u>Rate/5,000 gals.</u>
<5,000	\$31
5,000-50,000	26
>50,000	25
- Average rate increased 9.5% from last year and 65% since 1999.
- Cape Charles now 50% higher than average for systems with fewer than 5,000 residential connections.

Capital Costs

- New MBR WWTP - \$18 million:
250,000 GPD capacity, incrementally expandable to 500,000 GPD
- Modernize 3 pump stations and re-route half mile of force main - \$1.2 million
- Typical costs:
Pump Stations - \$250,000 - \$500,000
Force Mains - \$750,000 per mile

Paying for Capital Costs

- Grants, low interest loans, bonds
- Debt service example

Project Cost \$18 million

Less Grants - 12

Balance \$ 6 million

30 years @ 5% = \$386,500 per year

- Debt service must be funded via facility fees, service rates or taxes.
- Monthly rate impact = +\$28 for 1,150 customers

Observations

- Customer base is critical.
- Density is your friend.
- Distance is your enemy.
- Capital costs are significant.
- Debt service can be crushing.
- Plan for growth, but don't bank on it.

Observations

- Planning is critical – what are you solving?
- Need dedicated design & engineering firm.
- DEQ is your friend – work with them: regulations, permits, engineering, funding.
- Train & develop your O&M personnel.
- Asset management is critical – realistic maintenance and replacement budget.
- Plan on rate increases.