



TOWN COUNCIL
Work Session
Cape Charles Civic Center
September 11, 2014
6:00 PM

1. Call to Order: Roll Call

2. Order of Business
 - A. PSA – Discussion re: Agreement and Establishment of Rate

 - B. Harbor Improvement Projects

3. Motion to Adjourn

DRAFT 3

Town Council Work Session September 11, 2014

Regional Wastewater System

Southern Node, Commercial, Phase 1

Potential Agreement with Public Service Authority

What We Will Cover

- Background
- Treatment Cost
- Revenue and Affect on Rates
- Facility Fee and Plant Expansion
- Potential Agreement
- Way Ahead

Background

- Ordinance 20100621 – Cape Charles joins the Eastern Shore of Virginia Public Service Authority (PSA).
- July 2010 – Southern Node Preliminary Engineering Report (Cheriton & surrounding area); CC plant is least costly alternative for treatment.
- Sufficient grant funding not available to yield affordable usage fees.
- PSA develops smaller Phase 1 project to serve about 70 commercial properties around US 13/SR 184 intersection.
- PSA confirms that CC is interested in providing treatment service.
- PSA subcommittee formed (BOS, PSA, CC) to negotiate agreement.

Treatment Cost Estimates

- Dec. 2013 - CC provided treatment cost estimate of \$0.01215/gallon.
- Jul. 2014 – PSA subcommittee requested CC to update the estimate.
- Aug. 2014 – Treatment cost estimate of \$0.01187/gallon.
- Excludes pump stations and collection system operation & maint.
- Based on 150,000 gpd average flow.

Treatment Cost

Return on Investment

- Should treatment cost to PSA be adjusted to provide a return on the Cape Charles investment in the new WWTP?
- WWTP cost (eng. & const.) \$18.9 M
 - WQIF Grant - 7.9
 - ARRA Grant - 6.1
 - CWRLF Loan (0%/20 yrs) \$ 4.9 M
- $\$4.9\text{M}/20 = \$245,000/\text{yr}$

Treatment Cost

Return on Investment (ROI)

- Design capacity = 250,000 gpd
- Estimated PSA flow of 15,000 gpd = 6% (15,000/250,000)
- Annual debt service related to PSA = \$14,700 (\$245,000 x 0.06)
- 5% ROI = \$735; 10% ROI = \$1,470
- Cost base for rate update = \$650,128
 - @5% ROI $\$650,128 + \$735/\$650,128 = 1.0011$
 $\$0.01187/\text{gal} \times 1.0011 = \$0.01188/\text{gal}$
 - @10% ROI $\$650,128 + \$1,470/\$650,128 = 1.0023$
 $\$0.01187/\text{gal} \times 1.0023 = \$0.0119/\text{gal}$

Treatment Cost

CC Commercial Fees

- Minimum, 0-2,000 gallons - \$63.27/month
- 2,001 – 10,000 gallons - \$3.90 per 1,000
- Treatment cost is about 63% of total wastewater rate.

<u>Gallons</u>	<u>Fee</u>	<u>Per Gallon</u>	<u>WWTP</u>	<u>Per Gallon</u>
1	\$63.27	\$63.27	0.63	\$39.86
2,000	63.27	0.0316	0.63	0.0199
3,000	67.17	0.0224	0.63	0.0141
4,000	71.07	0.0178	0.63	0.0112
5,000	74.97	0.0150	0.63	0.0094

- CC rate structure front loads fixed costs into the minimum fee.

Revenue and Affect on Rates

Potential Revenue from PSA

- $10,000 \text{ gpd} \times \$0.012 \times 365 = \$43,800$ per year
- $15,000 \text{ gpd} \times \$0.012 \times 365 = \$65,700$ per year
- $20,000 \text{ gpd} \times \$0.012 \times 365 = \$87,600$ per year
- $25,000 \text{ gpd} \times \$0.012 \times 365 = \$109,500$ per year

Revenue and Affect on Rates

Offsetting Fixed Costs

- About 75% of WWTP operating costs are fixed.
- PSA revenue offsets fixed costs otherwise included in CC rates.
- Example at 15,000 gpd:
$$\$65,700 \times 0.75 = \$49,275$$
- Potential affect on CC rate:
$$\$49,275 / \$1,032,605 = 0.048$$

$$\$63.27 \times 0.952 = \$60.23 \text{ (about \$36 less per year)}$$
- Reduction of rate dependent on PSA flow.

Facility Fee and Plant Expansion

PSA Facility Fee

- Facility Fee calculation for existing buildings using proposed new CC Class 2 factors and formula total about \$223K.
- Existing buildings have on-site sewage disposal systems.
- The fee will increase the capital cost of the project. Will need to be recouped either through taxes or incorporated in service fee.
- Could make other alternatives more financially attractive.

Facility Fee and Plant Expansion Capacity & Expansion

- Existing permitted capacity is 250,000 GPD.
- About 100,000 GPD capacity remaining, 800 Equiv. Res. Conn. (ERCs).
- Doubling capacity to 500K GPD would cost about \$5M.
- Incremental expansion to 350-375 GPD costs much less, maybe \$2M.
- Also, need reuse pipeline to Bay Creek; \$0.5M.
- Required capacity at full build-out is about 750,000 GPD.

Facility Fee and Plant Expansion Funding Sources

- If 20,000 assigned to PSA, 80,000 GPD remain, or 640 ERCs.
- $640 \times \$6,600 = \4.2M reserved for plant expansion.
- Reaching existing capacity triggers Annexation Agreement cost sharing provision for expansion.
- At existing capacity customer base increases by about $\frac{2}{3}$, generating significant increase in usage fees. A portion could be utilized.
- 640 more buildings @ $\$400\text{K} = \256M increase in tax base; at current rate $\$700\text{K}$ additional annual tax revenue. A portion could be utilized.

Potential Agreement Elements

- Scope of Services – Treatment, etc.
- Sewer Use Regulations
- Maximum Volume and Adjustment
- Price of Services
- Procedure to Adjust Prices
- Billing and Payment for Services
- Facility Fees
- Term of Agreement
- Termination Procedures

Potential Agreement Goals

- Promote economic development mutually beneficial to both Town and County.
 - Maintain consistency with Town and County comprehensive plans.
 - Prevent development on US 13 from negatively impacting the Town, both from a business and environmental perspective.
 - Historic Town Overlay District recommended by Planning Commission.
- Reduce Town wastewater bill by \$X/month.
 - Treatment service generates some amount.
 - Additional services (billing, maintenance) to PSA could generate more.
- Prepare financially for future wastewater and water infrastructure expansion.

Way Ahead

Downside of Not Partnering

- No additional revenue.
- No rate reduction.
- No influence on US13/SR184 development (proposed overlay).
- Likely that County/PSA would build small treatment plant; CC taxpayers would participate through County real property tax.
- No economy of scale for infrastructure, operations, etc.
- Development will still occur with either on-site or mass drain fields atop the aquifer.

Way Ahead

Council Action

- Consider treatment rate & elements/goals of an agreement with PSA.
- Provide guidance and empower Town PSA subcommittee members to negotiate draft agreement (September 18 Council meeting).
- Draft agreement will be reviewed and approved by Council.
- Or, decide not to proceed and dissolve PSA subcommittee.

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Virginia Port Authority Grants
For Harbor Improvements

Unexecuted VPA Grants

- \$500,000 for breakwaters. No matching funds available.
- \$75,000 for additional floating dock segment. Dependent on reconfiguration of existing docks and new wave attenuators, with South Port as partner. Partnership not consummated. No matching funds available.
- \$255,250 for wave attenuator. Requested as part of proposed marine terminal project, but not authorized as such. No matching funds available.

Potential Consolidation

- Opportunity to request VPA to consolidate and re-purpose grants to fund an additional breakwater segment.
- Recent wave study concluded that fixed breakwaters are more effective against westerly swells.
- Due to significant fetch from breakwaters, wave attenuators still useful for controlling wind driven waves (chop).
- Would require VPA Board resolution.

Breakwater Cost

- Recent estimate –

Construction	\$800,000
Mob./Demob.	44,000
Contract Admin.	<u>25,000</u>
Total	\$869,000

- 50% match required for projects >\$500K = \$434,500.
- If 25% match, drops to \$217,250.

Funding the Match

- Private contributions – Unsuccessful to date.
- General Fund – Recognize that additional harbor protection has broader benefits than Town Harbor operations.
- Harbor Fund – Revenue has not been sufficient to carry debt service for the two existing breakwaters. But, large debt service payments end in 2017.
- Hybrid approach – General Fund carries the debt service (proceeds from recent bond issuance) until room available in Harbor Fund. Either leave GF payments in place or payback from HF. Treasurer is analyzing the numbers.

Proposed Request to VPA

- Consolidate the three existing grant allocations.
- Repurpose for construction of breakwaters.
- Reduce match requirement to 25%.