



# Cape Charles Gazette Special Edition

Publication Date: July 3, 2013

We hope that you will enjoy reading the Cape Charles Gazette which is the electronic newsletter published from time to time by the Town Manager on behalf of the municipal government of the Town of Cape Charles. The Gazette provides a variety of information that we believe will be useful to the citizens and businesses of Cape Charles as well as those who plan to travel to Cape Charles or have any interest in our Town or the Town's government. The Gazette provides information on actions being undertaken or being considered by the Town government, upcoming activities in the Town, important public safety and security issues and emergency announcements.

We welcome your responses which may be sent to [gazette@capecharles.org](mailto:gazette@capecharles.org), by regular mail to 2 Plum Street, Cape Charles, VA 23310 or by calling (757) 331-3259.

We also encourage you to visit the Town's website at [www.capecharles.org](http://www.capecharles.org) where you will find up-to-date information about the operation of the Town government.



## MESSAGE FROM THE MAYOR

We have recently received some citizen inquiries and have read online comments concerning supposed preferential treatment of Bayshore Concrete Products and Bay Creek Resort & Club related to water and wastewater. These allegations are off the mark.

The Town does not provide water and wastewater service to Bayshore Concrete Products because it does not make good business sense. We are attempting to position our water production capacity to allow for future growth. Using our public water system for large scale manufacture of concrete components is as nonsensical as using it for agricultural irrigation. It does make sense to reuse the treated water from our wastewater plant and we have been taking steps to do so. Because of technical and cost considerations, reuse for golf course irrigation at Bay Creek Resort & Club is a better choice than Bayshore. Regarding wastewater service for Bayshore, only a very small portion of the water they use results in wastewater requiring treatment. It would take over 50 years for the Town to recoup the cost of building a sewer line to their plant.

The Town did not reduce the connection charges for the new Beach Club at Bay Creek Resort & Club. The charge was calculated after obtaining a good understanding of the projected water and wastewater use at this new facility.

Details concerning these topics can be found below.

The Town is attempting to balance economic development, environmental stewardship and prudent financial decisions to improve quality of life. This is difficult because of the significant infrastructure investments needed, sometimes beyond our control, and our small full-time and seasonal population. Nowhere is this more evident than the cost of the new wastewater plant. Of the \$19.2 million price tag, \$10.6 million is for the technology necessary to meet the new state nutrient reduction requirements. While a state grant reimbursed 75% of this cost, almost \$2.7 million remained as a local burden.

It is unfortunate that these assertions related to two of our major economic development partners have been made based on a superficial understanding of the facts. Those with perceived grievances have seized on most anything in an attempt to advance a divisive agenda. I'm sure this will continue but I wanted you to have the correct information on these topics.

Sincerely,

### EMAIL CONTACTS:

[Mayor](#)  
[Town Council](#)  
[Town Manager](#)  
[Treasurer](#)  
[Town Clerk](#)  
[Code Enforcement](#)  
[Town Planner](#)  
[Public Works/Utilities](#)  
[Harbor](#)  
[Library](#)  
[Police](#)  
[Recreation](#)  
[Newsletter Feedback](#)





# Cape Charles Gazette

## Special Edition

### **BAYSHORE CONCRETE PRODUCTS WATER SUPPLY AND WATER REUSE**

#### **Background.**

The Cape Charles water treatment plant (WTP) has a production capacity of about 360,000 gallons per day (GPD) with two existing wells. Production peaks at between 250,000 and 300,000 GPD, depending on when the Independence Day holiday falls during the week. The Town is planning to connect two additional production wells to the WTP. These wells will bring the plant to its maximum design capacity of 500,000 gallons per day. This will accommodate continued growth and will allow more balanced pumping from different locations in the drinking water aquifer. Continued pumping of high volumes from one location tends to degrade water quality.

The vast majority of water used by Bayshore Concrete Products (BCP) is for industrial processes (concrete manufacture and dust control) and is currently supplied by private wells. It makes no sense to utilize treated water from the WTP for this purpose and put additional demand on the public water supply when we have efforts underway to increase capacity and improve quality.

It also makes no sense to view BCP as a cash cow to lower the water bills of existing customers. In evaluating applications for grants and loans for water system capital projects, USDA Rural Development requires that the minimum monthly user fee be 1.5% of median household income (MHI). The MHI for Cape Charles is currently about \$38,000, yielding a \$47 per month water service fee. The typical customer in Cape Charles uses 3,000 gallons per month for a fee of \$37, below these guidelines. Additionally, as part of Northampton County's economic development efforts, the Town is supporting BCP initiatives to grow their workload and employment levels. Adding to their production costs would be counterproductive.

#### **Water Reuse.**

We currently discharge an average of about 150,000 GPD of treated effluent from the wastewater treatment plant (WWTP). The Town has a discharge limit of 250,000 GPD at the maximum allowable concentration of nitrogen and phosphorous. Growth beyond that limit will require an alternate means of effluent disposal, such as water reuse.

The Town's consulting engineering firm, Stearns & Wheler/GHD, studied water reuse options in 2009/2010. There are three possibilities for significant water reuse in the Cape Charles area: agricultural irrigation, industrial use at BCP, and landscape irrigation at Bay Creek. Agricultural use is problematic due to the limits of the growing season and high cost of implementing a distribution system. BCP and Bay Creek were studied in depth due to their close proximity to the WWTP, both having end-use delivery points about a half mile away.

BCP would be able to use a maximum of only about 50,000 GPD of reuse water. Their ability to use reuse water in many products is restricted by contract specifications. While the cost of a reuse pipeline to either location would be similar, BCP has significant pressure requirements that would require the Town to install dedicated water reuse pumps. Additionally, it was not economically feasible for BCP to build the necessary internal distribution system.

In contrast, Bay Creek indicated interest in accepting most, if not all, of the WWTP discharge to meet irrigation needs at the two golf courses. Their most significant needs are between April and October, with smaller amounts needed at other times. Additionally, there is an existing internal distribution system consisting of several interconnected storm water management/landscape impoundments (lakes) that are now used for irrigation. This lake system is likely large enough to accept full WWTP discharge year round. Finally, there are no pressure requirements; reuse water can be delivered from the plant via a gravity pipeline.

#### **Implementation Status.**

A Preliminary Engineering Report to modify the new WWTP for water reuse during construction was submitted to the Department of Environmental Quality (DEQ) in May 2010. DEQ approved this approach and provided the Town additional ARRA Federal stimulus funding for the modification. The capability was incorporated via a contract change order, including a pipeline currently terminating at the property line on Old Cape Charles Road. Work is continuing to prepare the documentation necessary for DEQ to permit Bay Creek as the end-user. Once permitted, the pipeline to the Bay Creek lake system can be built when growth necessitates. Partnering with Bay Creek will allow the Town to implement an alternate means of effluent disposal at least cost.



# Cape Charles Gazette Special Edition

## BAYSHORE CONCRETE PRODUCTS WASTEWATER

### **Background.**

The vast majority of water used by Bayshore Concrete Products (BCP) is for industrial processes (concrete manufacture and dust control) and does not result in wastewater. The small amount of wastewater requiring treatment is generated mainly from employee use of restrooms.

### **Wastewater Volume Estimate.**

Current Employment is 60.

Triple that to 180 assuming improvement in workload.

Assume 3 visits to the restroom per person, per day, at 1.6 gallons per flush.

$180 \times 3 \times 1.6 = 864$  gallons per day (GPD).

Increase that by 25% to account for other uses resulting in wastewater to be treated;  $864 \times 1.25 = 1,080$ .

$1,080 \text{ GPD} \times 22 \text{ work days per month} = 23,760$  gallons per month.

### **Monthly Wastewater Fee.** Commercial rates effective July 1, 2013:

0-2,000:			\$60.85
2,001-10,000:	\$3.90/1,000	$8 \times 3.90 =$	31.20
10,001-15,000:	\$5.85/1,000	$5 \times 5.85 =$	29.25
15,001 +:	\$7.80/1,000	$8.8 \times 7.80 =$	<u>68.64</u>
	Total		\$189.94 per month

### **Investing in a New Sewer Line.**

BCP is about one half mile from the WWTP. The cost to the Town of installing a sewer line would be about \$132,000. With a monthly revenue of \$190, it would take almost 58 years to pay back this capital investment ( $132,000 / 190 = 695 / 12 = 57.9$ ), before any of the revenue would be available to offset existing fixed costs of the wastewater system.

Looking at it another way, financing the project at 3.25% for 20 years would result in new debt service of \$749 per month, versus \$190 of revenue. On a yearly basis, this would require nearly \$9,000 in debt service but generate only about \$2,280 in revenue, for a loss of \$6,720 per year for 20 years.

This poor return on investment is a best case scenario. It would be even worse if BCP did not return to historic full employment levels.

## BAY CREEK RESORT & CLUB BEACH CLUB

The connection charges were not reduced. They were calculated based on projected maximum occupancy of the facility and consumption rates for the most similar type of facility found in the state waterworks regulation. The maximum occupancy will be reevaluated after every two years of operations. An additional connection charge increment will be required by increases above the current maximum.

It is also important to understand that connection charges do not affect current utility rates since the water and wastewater plants have sufficient capacity at this time. Revenue from connection charges is placed in reserve for future capacity expansion.

Any reference to an external website is for public information only and does not constitute an endorsement of that website.

Municipal Corporation of Cape Charles  
2 Plum Street  
Cape Charles, VA 23310  
[www.capecharles.org](http://www.capecharles.org)  
757-331-3259