

# TOWN OF SOUTH BETHANY

## Minutes – Canal Water Quality Committee Meeting December 11, 2014 at the South Bethany Town Hall

### Agenda

1. Call meeting to order  Participating by remote access – Frank McNeice	George Junkin
2. Develop a list of budget items to be submitted to Town Council for inclusion into the FY 2016 Budget	All
3. Adjournment	

- Meeting Called to Order at 2:30 PM – Members present were George Junkin, Al Allenspach, Sue Callaway, Jack Whitney, Dave Wilson and Ron Wuslich. Member present by telephone was Frank McNeice.
- The only agenda item for this meeting was “Develop a list of budget items to be submitted to Town Council for inclusion into the FY 2016 Budget.”
  - It was decided that the diffusers should be turned off since they did not appear to cause a significant increase in the average dissolved oxygen in the canal. The committee felt that more return from the money could be obtain in other areas.
  - The Committee was advised that \$5,000 had been sent to CIB for the Oyster project. CIB has confirmed that it will happen in 2015.
  - The money for water testing meters is underspent by about \$3,000 because DNREC loaned us some meters. However additional equipment is needed, such as saline probes, etc. \$2,500 will be requested.
  - No funds will be requested for drainage standpipes in the FY16 budget.
  - The Committee was advise that check valves will be budgeted in the SLR committee for FY2016 to help prevent backflow of canal waters into roadways.
  - Education funding will be requested at \$1,000. A discussion was conducted relative to homeowner education. It focused on how we get homeowners who are grandfathered relative to stormwater or outside shower water being piped into the canals to stop the practice. A couple years ago we inspected about 1/3 of the canals for pipes coming from private property. There were very many pipes discovered but no follow up occurred to notify homeowners that it would be beneficial to canal water quality if they voluntarily disconnect the pipes. George agreed to send Jack the data that had been collected.
  - Dave Wilson presented that the U of D was way behind on processing nutrient samples. (See charts below.) They are way understaffed. They do it at no cost to South Bethany, but they are more than two years behind. It would be better if we did not have to wait years to find out what is happening in our water. Dave found a source at the U of MD that would do the samples

for about \$2,000 per year with only about a six week turn around and recommended that we reallocate \$4,000 that is available from underspending items in this year's budget to test the backlog of samples that are being currently stored at the U of D.

- On the next page is a chart of the budget decisions that were agreed upon. The red \$4,000 listed for Nutrient Analysis will come from \$2,993 for the Water Quality Testing Meters Line and the remainder will come from the diffusers lines.
- A discussion was conducted about the proposed canal modeling study and the possibility of improving water quality by opening some of the dead end canals to the outer bays. It was agreed to pursue a grant to perform the necessary study and to budget \$5,000 in the FY16 budget for the Town's contribution.
- Two charts on the next page document what was recorded in the meeting (the top chart) and what was submitted to Renee (the bottom chart). There was an adjustment made by Renee in the first line of the top chart which is shown in the bottom chart. Also the new items proposed for FY 2016 were extended through FY 2019 and the sums in the top chart do not reflect correctly the numbers that were added into the top chart.
- The meeting was adjourned at 4:20 PM.

Account Description	FY 2014 Budgeted	FY 2014 Actual	FY 2015 Budgeted	FY 2015 Expended YTD	FY 2015 Balance	FY 2015 % Used	FY 2016 Proposed	Difference Current vs Proposed	% INC/DEL (-) Over Current	FY 2017 Proposed	FY 2018 Proposed	FY 2019 Proposed
<b>Canal Water Quality Committee (CWQC)</b>												
CWQC - Diffuser Capital & Maintenance	3,918	0	4,702	3,918	784	83%	0	0				
CWQC - Large Oyster Cages	1,000	0	5,000	0	5,000	0%	0	0				
CWQC - Stand Pipes/Catch Basin	260	319	0	0	0		0	0				
CWQC - Check Valve Study	725	0	0	0	0		0	0				
CWQC - Diffuser Electricity	2,548	1,077	1,380	470	910	34%	0	0				
CWQC - Community Education	0	0	1,000	181	819	18%	1,000	1,000		1,000	1,000	1,000
CWQC - Sea Level Rise Grant	11,700	10,042	0	0	0		0	0		0	0	0
CWQC - Water Quality Testing Meters			5,000	2,007	2,993	40%	2,500	2,500		2,500	2,500	2,500
CWQC - Nutrient Analysis					4,000		2,800	2,800		2,200	2,400	2,400
CWQC - E Side Rain Garden	10,000		10,000	10,000	0	100%	10,000	10,000		10,000	10,000	10,000
CWQC - Rain Garden Grants							5,000	5,000				
CWQC - Grant for Circulation Study							1,000	1,000				
CWQC - CIB -Oyster Gardening												
<b>Control Total</b>	<b>30,151</b>	<b>11,438</b>	<b>27,082</b>	<b>16,576</b>	<b>14,505</b>	<b>61%</b>	<b>22,300</b>	<b>0</b>		<b>5,700</b>	<b>5,900</b>	<b>5,900</b>
Capital Expenditure Budget - <b>List Items</b>												
<b>Capital Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>		<b>0</b>	<b>0</b>		<b>0</b>	<b>0</b>	<b>0</b>
<b>Grand Total</b>	<b>30,151</b>	<b>11,438</b>	<b>27,082</b>	<b>16,576</b>	<b>14,505</b>	<b>61%</b>	<b>22,300</b>	<b>0</b>		<b>5,700</b>	<b>5,900</b>	<b>5,900</b>

Notes: Move \$1,007 from 01-500-5275 to 01-500-5287

Account Description	FY 2014 Budgeted	FY 2014 Actual	FY 2015 Budgeted	FY 2015 Expended YTD	FY 2015 Balance	FY 2015 % Used	FY 2016 Proposed	Difference Current vs Proposed	% INC/DEL (-) Over Current	FY 2017 Proposed	FY 2018 Proposed	FY 2019 Proposed
<b>Canal Water Quality Committee (CWQC)</b>												
CWQC - Diffuser Capital & Maintenance	3,918	0	2,910	249	2,661	9%	0	0				
CWQC - Large Oyster Cages	1,000	0	5,000	5,000	0	100%	0	0				
CWQC - Stand Pipes/Catch Basin	260	319	0	0	0		0	0				
CWQC - Check Valve Study	725	0	0	0	0		0	0				
CWQC - Diffuser Electricity	2,548	1,077	1,380	575	805	42%	0	0				
CWQC - Community Education	0	0	1,000	181	819	18%	1,000	1,000		1,000	1,000	1,000
CWQC - Sea Level Rise Grant	11,700	10,042	0	0	0		0	0		0	0	0
CWQC - Water Quality Testing/Services	10,000		6,007	2,007	4,000	33%	5,300	5,300		4,700	4,900	4,900
CWQC - Rain Garden Grants			10,000	10,000	0	100%	10,000	10,000		10,000	10,000	10,000
CWQC - Grant for Circulation Study							5,000	5,000		5,000	5,000	5,000
CWQC - CIB -Donation to support CWQC Efforts							1,000	1,000		1,000	1,000	1,000
<b>Control Total</b>	<b>30,151</b>	<b>11,438</b>	<b>26,297</b>	<b>18,012</b>	<b>8,285</b>	<b>68%</b>	<b>22,300</b>	<b>0</b>		<b>21,700</b>	<b>21,900</b>	<b>21,900</b>
Capital Expenditure Budget - <b>List Items</b>												
<b>Capital Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>		<b>0</b>	<b>0</b>		<b>0</b>	<b>0</b>	<b>0</b>
<b>Grand Total</b>	<b>30,151</b>	<b>11,438</b>	<b>26,297</b>	<b>18,012</b>	<b>8,285</b>	<b>68%</b>	<b>22,300</b>	<b>0</b>		<b>21,700</b>	<b>21,900</b>	<b>21,900</b>

## S Bethany Canal Nutrient Data Analysis

Dave Wilson  
December 11, 2014

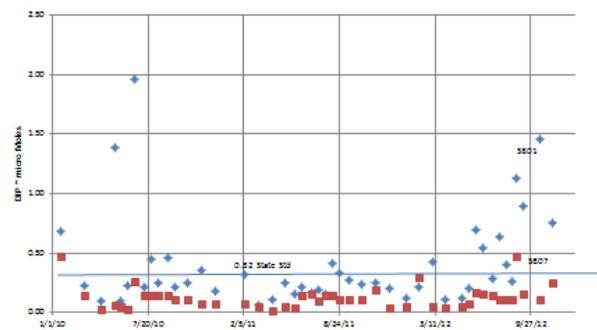
## Nutrient Data Indicate Water Quality

- State standards for maximum Nitrates and Phosphorus
  - Identifies conditions favorable for sea grass
- Ammonia is toxic to fish in high concentration
- Total Suspended Solids indicate light penetration for seagrass growth
- Chlorophyll indicates biomass of living plants in water
- Nutrient samples collected at mid Layton canal and east end of Anchorage 16 times a year (32 samples)

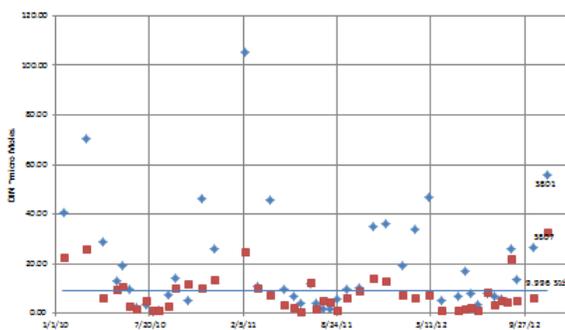
## U of Delaware Nutrient Analysis is 2 years Behind Schedule

- Equipment issues, priorities, etc.
- Currently have just completed nutrient analysis (P and N) through Nov 13, 2012
- Samples have a finite life

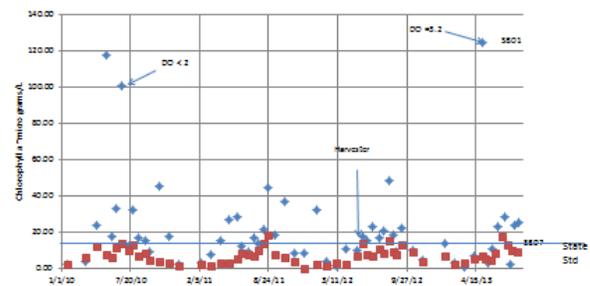
## Dissolved Inorganic Phosphorus Analysis 2010-2012



## Dissolved Inorganic Nitrogen 2010-2012



## Chlorophyll a 2010-2013



## Recommend Funding 2013, 2014, and 2015 Nutrient Data Analysis at the U of Maryland Lab at Solomons Point

- Approx \$46/sample for 5 components
  - Phosphorus
  - Nitrates
  - Ammonia
  - Total Suspended Solids
  - Chlorophyll
- Request \$4800 for FY2015
  - 32 samples in 2013 = \$1472 + Shipping = ~\$2000
  - 32 samples in 2014 = \$2000
  - 12 samples in 2015 = \$800 for FY2015
- Request \$2000 for FY2016
  - 32 samples in 2015/2016
- 6 week turnaround