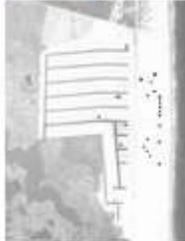


TOWN OF SOUTH BETHANY CWQC MEETING MINUTES
Wednesday, October 21, 2015 at 10:00 AM
Location: South Bethany Town Hall

1. Call meeting to order	George Junkin
2. Preparation of CWQC Presentation to Council on future circulation study	George Junkin
3. Future circulation study	Jack Whitney
4. CIB status on wet pond at Sea Colony	George Junkin
5. Issues at the Anchorage forebay	Jack Whitney
6. Status of Grant Activity at Sandpiper Pines and York Canal	George Junkin
7. Citizen monitoring	Dave Wilson
8. Oyster Gardening	Tony Caputo
9. Public outreach meeting	All
10. What else should we be doing?	All
11. Adjournment	

Agenda Item 1. George called the meeting to order at 10:00. Committee members present were George Junkin, Dave Wilson, Tony Caputo and Jack Whitney. Councilman Frank Weisgerber was also present.

Agenda Item 2. Preparation of CWQC Presentation to Council on future circulation study. Jack asked why we had to prepare the presentation. George responded that Council had requested it. The slides for the presentation were reviewed in detail. It was decided that George should try to keep the presentation to 15 minutes. The results from the review follow.

 Canal Water Quality Presentation to Town Council	 <p>Under Current Regulations Our Dead End Canals Would not Be Allowed. We are Stuck With What We Have.</p> <div style="display: flex; justify-content: space-around;">   </div> <p>In July 1954 South Bethany Canals Were Fishable and Swimmable</p> <p>Development Has Reduced The Water Quality In South Bethany Canals</p>	 <p style="text-align: center;">Goals of the CWQC</p> <ul style="list-style-type: none"> • The South Bethany Water Quality Committee (CWQC) was formed in June 2007 with the goal to make the South Bethany Canals "Fishable & Swimmable." • In order to accomplish this they are following the guidance from the Delaware Center for the Inland Bays (CIB) as outlined in their Comprehensive Conservation Management Plan (CCMP) • Objective 5 from the CIB CCMP addendum – Reduce nutrient input to residential canals and lagoons • CCMP action 5.D – Examine dead-end canals to determine if any could benefit from low-cost solutions to increase flushing.
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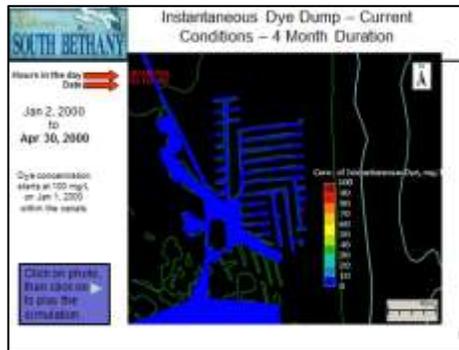
SOUTH BETHANY 2011 State of the Delaware Inland Bays

- The 2011 State of the Delaware Inland Bays report characterized water quality in the Inland Bays as fair to poor, with the best conditions occurring in waters near the Indian River Inlet and the worst conditions occurring in bay tributaries.

SOUTH BETHANY Objective 5 from the CIB CCMP

Reduce nutrient input to residential canals and lagoons.

- Action A. Treat or remove graywater discharges (such as outside showers) into tributaries, canals, and lagoons.
- Action B. Filter runoff from roofs, driveways, and other impervious surfaces.
- Action C. Provide and disseminate educational material for homeowners on reducing fertilizer inputs to tributaries, canals, and lagoons.
- Action D. Examine dead-end canals to determine if any could benefit from low-cost solutions to increase flushing.



SOUTH BETHANY Since 2007 the SB Citizens Have Been Monitoring the Water Quality in the South Bethany Canals at Approximately 10 Locations

Testing Locations

Quantities that are monitored:

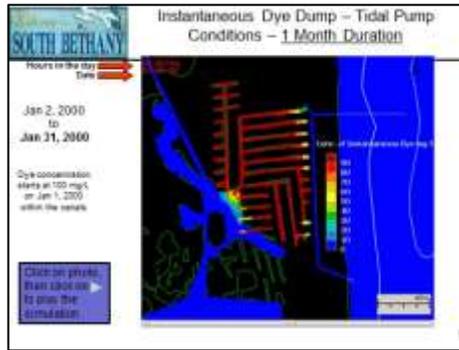
- For "Fishable" Waters
 - Dissolved Oxygen
 - Water Temperature
 - Salinity
 - Nitrogen and Phosphorus
 - Secchi Depth
- For "Swimmable" Waters
 - Bacteria

The farther removed from Snipe Gut, the poorer the quality of water.

SOUTH BETHANY Action 5. D – Examine Dead-end Canals To Determine If Any Could Benefit From Low-cost Solutions To Increase Flushing

Identified Options

- Tidal Pump (>\$7M) – NOT low cost, but comes closest to providing the benefits provided by an inlet.
- Connect canals to Little Assawoman Bay. This has not been assessed or implemented as of now.
- Pump water from one canal to an adjacent canal at the dead ends of the canals: This has not been assessed or implemented as of now.
- Dredging
- Other??? – We are open to suggestions:



SOUTH BETHANY Other Communities Are Addressing Their Dead End Canal Circulation Issues With Pumps and Culverts

SOUTH BETHANY Other Communities Are Addressing Their Dead End Canal Circulation Issues With Pumps and Culverts

SOUTH BETHANY In Order To Improve Circulation In South Bethany Canals The CWQC Proposes:

A Canal Water Circulation Study that will assist the Town of South Bethany to determine an appropriate level of action that could be taken to feasibly accomplish our water flow/circulation and the resulting water quality goals. The proposed study will accomplish the following:

- Develop a hydraulic model of our present canal water system.
- Using the new model, determine improved canal water flow/circulation improvements when:
 - Openings and pathways are provided to connect the end of Carlyle and York canals (under York Road) to the outer bay,
 - North-East dead-end canals are interconnected to the open ended Carlyle canal; and
 - Additional mechanical devices (such as pumps and/or other devices) are used to improve dead end canal circulation
- Rank and recommend alternate methods, including order of magnitude costs, to enhance circulation and accomplish the resulting Town canal water quality goals.

SOUTH BETHANY Summary

Goal is to make South Bethany canals "Fishable and Swimmable". In order to accomplish this:

- Continue to reduce the pollutants that are entering South Bethany Canals.
- Introduce retrofit strategies (i. e. bioretention, rain gardens, improvement of Anchorage forebay).
- Provide information to our community on ways that they can help improve the quality of water in our canals.
- Work with the CIB and local government agencies to ensure we are using best management practices for controlling pollutants. Examples are median bioretention areas, east and west side rain gardens, Sandpiper Pines Retrofits.
- Proposed study to assess potential concepts for improving circulation in the SB canals.

Agenda Item 3. Future circulation study

Jack reported that he had communicated with three potential consultants who all said that they could perform the statement of work that he had prepared within our budget of \$20,000. A summary of the statement of work is contained in slide 12 above. No more effort is planned until an RFP is announced for a grant that would apply to the study.

Agenda Item 4. CIB status on wet pond at Sea Colony

George presented the following status of the wet pond that he had obtained from the CIB, "Larry Trout is working with DelDOT to develop a task order for his firm, RK&K, to do the design and permitting. Once DelDOT approves that task order and issues a Notice to Proceed, then a kick-off meeting will be scheduled. The project will be managed by someone from DelDOT."

Jack Whitney suggested that we should talk the CIB and Sea Colony into not doing the wet pond at Sea Colony and concentrate all efforts to solve the problem at the Anchorage Forebay. George said that the CIB and Sea Colony had been working on this for over 5 years and would not be at all receptive to the suggestion. Dave Wilson stated that it would be better to attack the problem closer to the source, which is what the wet pond does.

Agenda Item 5. Issues at the Anchorage forebay

All at the meeting agreed that the best place to do something to improve the Anchorage Forebay would be to use some of the area known as "the Loop Canal". The problem is that Mr. Taylor owns the lots, but is not allowed to do anything to interrupt boats access to the inundated portion of his lots. This was the result of a court case decided in 1996. The court case is copied below.

George reported "As far as the Goodie Taylor Loop Canal at the forebay, there have been discussions with many of the past mayors where Goodie or his son was trying to get by the legal issue. He was willing to trade property along the Assawoman Canal in Cat Hill for the Town's help. I know there were also discussions relative to a wet land there but I was not in any of the discussions. I have not heard of any recent discussions relative to the legal issue. Nothing can happen as long as the legal issue is in place." Jack Whitney and Frank Weisgerber volunteered to talk to Former Mayor Jay Headman to get firsthand information on discussions that Jay may have had with Mr. Taylor.

Another place to expand the forebay is in the DelDOT Rt. 1 right of way. We have talked to DelDOT in the past, many years ago, and they were not receptive to doing anything.

The Committee was advised that the Inland Bays Foundation (IBF) [not the CIB] has petitioned the DNREC to have the Anchorage Forebay designated as an MS4. The web site was accessed and projected on the screen. On their website <http://inlandbaysfoundation.org/municipal-separate-sormwater-system-request/> they say, *"Inland Bays Foundation President Doug Parham announced he has sent Dave Small, DNREC Secretary a letter requesting the establishment of a Municipal Separate Sormwater System (MS4) and Total Daily Maximum Loads (TMDLs) be established for the 125 acre catchment area adjacent to the Anchorage Canal in South Bethany known as the DELDOT Anchorage discharge. Shown below is a photo of the Del Dot Forebay in South Bethany. This is in response to requests by residents of the South Bethany Township who suffer under the growing load of enterococcus bacteria and other forms of pollution impacting their properties and subsequently flowing into our Inland Bays estuary- (Little Assowan Bay and the canal connecting to Indian River Bay). The Foundation recognizes and applauds the previous efforts of local citizens, DNREC and the Center for the Inland Bays to remediate the area. The Foundation suggests it is time to ramp up the effort a*

notch and provide true relief for the residents of South Bethany and the attached waters of Little Assawoman Bay.

The Del Dot Anchorage catchment area discharge drains storm water from a 125 acre (mostly impervious surfaces) catchment area (in Bethany Beach) into the Anchorage canal in South Bethany. From this location it eventually flows into the Little Assawoman Bay and canal to Indian River Bay. This flow contains oxygen demanding organic compounds, nutrients, toxics, and pathogenic microorganisms. It also contains wet and dry pollutants including atmospheric deposition, street refuse, vegetation, motor vehicle emissions and eroded soil. Safe full body immersion standards indicate 104 colonies of enterococcus bacteria per milliliter. These waters regularly exceed that level multiples of ten- making full body immersion risky to humans and life threatening to pets.” Tony Caputo, who is on the IBF Board, volunteered to find out more about what an MS4 means.

Another issue is the lack of maintenance that DelDOT performs on the Forebay. The big issue is that they do not clean it out regularly. George Junkin volunteered to get in touch with Randy Cole who is in charge of NPDES at DelDOT. [Update: Randy Cole is no longer with DelDOT. The contact person is now Mark Harbeson.

Following is a copy of the decision made by the Delaware Supreme Court for the Goodie Taylor lots in 1996. This was not discussed at the meeting but is attached here for future reference.

Loop

IN THE SUPREME COURT OF THE STATE OF DELAWARE

GOODWIN H. TAYLOR, JR., and	§
PATRICIA ANN TAYLOR,	§
	§
Plaintiffs Below,	§
Appellants,	§
	§
v.	§
THE COUNCIL OF SOUTH	§
BETHANY and all known defendants	§
listed in Exhibit "A" (see below),	§
and all unknown defendants,	§
Leroy I. Alonso	§
Richard C. Pulling, Sr.	§
Jacqueline D. Pulling	§
Donald F. Widmayer	§
Joanne W. Widmayer	§
Robert E. Redding	§
A. Virginia Redding	§
George R. Mooney	§
Iris M. Mooney	§
Harold B. Barber	§
Dorothy M. Barber	§
	§
Defendants Below,	§
Appellees,	§
	§

Submitted: December 12, 1996
Decided: December 23, 1996

Before VEASEY, Chief Justice, WALSH, and HOLLAND, Justices.

ORDER

This 23rd day of December, 1996, the Court having considered this

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maner on the briefs filed by the parties, and having concluded that the same should be affirmed on the basis of and for the reasons assigned by the Court of Chancery in its decision dated February 28, 1996.

NOW, THEREFORE, IT IS HEREBY ORDERED that the judgment of the Court of Chancery be, and the same hereby is,

AFFIRMED.

BY THE COURT:
Randy Holland
Justice

COURT OF CHANCERY
OF THE
STATE OF DELAWARE



WYOMING COUNTY
REGISTER

DOVER, DE 19901

John A. Sergovic, Jr.
Sergovic & Ellis, P.A.
P.O. Box 566
Georgetown, DE 19947

Mr. George R. Mooney
Ms. Iris M. Mooney
109 Pertherton Drive
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Ms. Jacqueline D. Pulling
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Dover, DE 19901

Mr. Robert E. Redding
Ms. Virginia Redding
Suite 325-E
7315 Wisconsin Avenue
Bethesda, MD 20814

Re: *Taylor v. Council of South Bethany*
C.A. No. 1203-S

Submitted: November 1, 1995
Decided: February 28, 1996

Counsel and Pro Se Defendants.

This dispute concerns a parcel of land identified under the Sussex County Tax Mapping system as District 1-34, Map 17.20, Parcel 2 ("Map 17.20, Parcel 2"). Plaintiffs, Goodwin and Patricia Taylor ("the Taylors") seek a determination from this Court granting them quiet and peaceful possession of the parcel as record title holders in fee simple. Defendants, The Council of South Bethany ("the Council"), all known Defendants listed in Exhibit "A," and all unknown Defendants, claim they have the right to use the inundated portion of Map 17.20,

Taylor v. Council (C.A. No. 1203-S)
February 28, 1996
Page 1

Parcel 2 as a boat turnaround or for other uses. They refer to this area as "the Loop Canal."

Defendants claim they have the right to use the inundated portion of Map 17.20, Parcel 2 based on equitable estoppel, dedication by plot, easement by deed, and an easement by prescription.¹ "[W]hatever title Plaintiffs may have in the subaqueous lands of [Map 17.20, Parcel 2]," Defendants argue they and all present and future owners of South Bethany lots have the right to navigate the waters of Map 17.20, Parcel 2 as and for a boat turn-around and any other lawful purpose.

It appears the parties do not dispute Plaintiffs own record title to Map 17.20, Parcel 2. "[Defendants] seek no title or easement right for the use of the subaqueous land of the Loop Canal. [Defendants] seek instead a 'water right', the legal right to use the subjacent water." **Brief of Individual Pro Se Defendants**, at 28. Defendants made vague allegations Map 17.20, Parcel 2 is part of the South Bethany Canal System, but they seemed to abandon that theory in favor of a "right to use" multi-faceted argument. No doubt they did so because the credible evidence at trial and the written pleadings and briefs indicate Plaintiffs unequivocally hold record title to Map 17.20, Parcel 2.

Since I find the credible evidence supports Defendants' right to a prescriptive easement, I do not need to address the issues of equitable estoppel, dedication by plot, and easement by deed.

Upon proof of record title and legal ownership, the burden of proof lies with Defendants to show they hold a prescriptive easement. *Lickle v. Frank W. Diver, Inc.*, Del. Supr., 238 A.2d 326, 329 (1968).

To establish a prescriptive easement, Defendants must show a continuous, uninterrupted, and adverse use made under a claim of right for a period of more than twenty years. See, e.g., *Berger v. Colonial Parking, Inc.*, Del. Ch., C.A. No. 8415, Hartnett, V.C. (Jun. 9, 1993), Mem. op. at 6; *Lickle*, 238 A.2d at 329. A use may be continuous without being constant. *Berger*, C.A. No. 8415, Mem.

¹ Defendants abandoned their adverse possession claim for this portion of Map 17.20, Parcel 2 in their **Brief of Pro Se Individual Defendants**, at 28, n.4.

Taylor v. Council (C.A. No. 1203-S)
February 28, 1996
Page 3

op. at 6. The party claiming a prescriptive easement simply must exercise the claimed right more or less frequently according to the nature of the use. *Id.*

Defendants have intermittently used the inundated portion of Map 17.20, Parcel 2 believing they had the right to use that parcel. Specifically, George R. Mooney testified he has been continuously using the inundated portion of Map 17.20, Parcel 2 for over forty years. Similar use by other lot owners over varying periods of time, both before and after the present owners took title, establish a continuous pattern of conduct without substantial interruption. It is of no moment Defendants' use has not been incessant. That would be a ridiculous presumption. Furthermore, the record does not indicate there were any interruptions of Defendants' continuous use of the inundated portion of Map 17.20, Parcel 2 over the past twenty years. "Only a substantial interference with the use can defeat a prescriptive easement." *Berger*, C.A. No. 8415, Mem. op. at *. I am convinced Mooney's and others' consistent and periodic use of the water inundating the parcel in question qualifies as continuous and uninterrupted.

Defendants' use of the inundated portion of Map 17.20, Parcel 2 also has been adverse. Plaintiffs are the record title holder of Map 17.20, Parcel 2. Any use inconsistent with the rights of the owner is adverse. *Marvel v. Barley Mill Rd. Homes, Inc.*, Del. Ch., 104 A.2d 908, 911 (1954). Plaintiffs' failure to exclude Defendants and the public from using the inundated portion of Map 17.20, Parcel 2 is irrelevant. The use was inconsistent with record title sufficient to constitute adversity.

After listening to the trial testimony and reviewing the written submissions, I conclude Defendants have met their burden in establishing the right to a prescriptive easement on Map 17.20, Parcel 2.

Taylor v. Council (C.A. No. 1203-S)
February 28, 1996
Page 4

In conclusion, I hold Plaintiffs have record title to Map 17.20, Parcel 2, subject to a prescriptive easement establishing the right of Defendants and all present and future owners of South Bethany lots to navigate the waters of Map 17.20, Parcel 2 and for any other related lawful purpose.

IT IS SO ORDERED.


Vice-Chancellor

MTS/rm
cc: Register in Chancery
pc: File

Agenda Item 6. Status of Grant Activity at Sandpiper Pines and York Canal

The project is on schedule per the schedule below. We expect to get the detail plans by the end of October.

Task	2015												2016					
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
Grant Contract Award	█																	
Contractor Selection			█															
Kick Off Meeting					█													
Quarterly Reports					█			█			█			█			█	
Topographic Survey					█													
Geotechnical Investigation					█													
Conceptual Plans						█												
Homeowner Review/Inputs							█											
Preliminary Plans								█										
Review by South Bethany & SCD									█									
Detail Plans										█								
Homeowner Plan Approvals											█							
Submit Operation & Maintenance Plan												█						
Construction																		
Plantings																█		
Final Inspection/Approval																	█	
Maintenance Plan Approved by DNREC																	█	
Education/Outreach Public Meeting																	█	
Final Report																		█
Water Quality Monitoring	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█

Agenda Item 7. Citizen monitoring

Citizen monitoring is going well. Dave Wilson presented the following.

Summary of Water Monitoring

October 21, 2015

Water Quality Monitors

- Sue Callaway
- Tony Caputo
- Glenn Daniels
- Frank McNeice
- Dick Oliver
- Jack Whitney
- Dave Wilson

2015 Highlights

- Diffusers turned off in November 2014
- Eleven sites monitored weekly
 - 10 sites on active lot (5 dead end sites and 5 mid canal sites)
 - 10 additional passive sites for water program in 2 and 4 foot Canal
 - 2 Dead-end not required monitoring at Lake Development by local in 2015
- Three sites have continuous monitors 100-250 ft from canal water end
 - Fathom, Sandpiper, and Seabreeze
- 100 buoys of oysters placed in York canal in June followed by several floating gardens
 - 2 continuous monitors in York canal for DO temp, conductivity, depth and turbidity
 - 2 continuous monitor at 2 Canal canal
- DNREC has water removed algae accumulation from June 2-22
 - Total algae accumulation in April, 2015
- Five dead gizzard shad found in Fathom and Brandywine canals in April
 - attributed to "herring disease"
 - 20 fish were kept

2011-2015 DO Summary

Number of Mornings DO < 4mg/l June-August

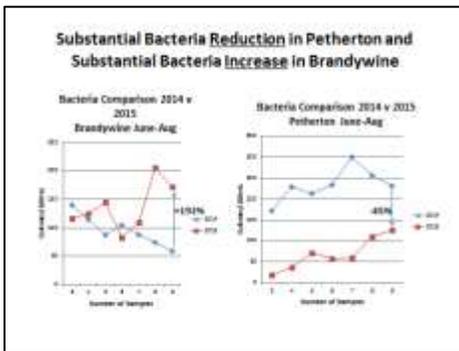
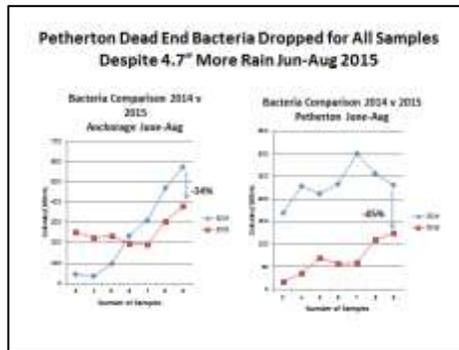
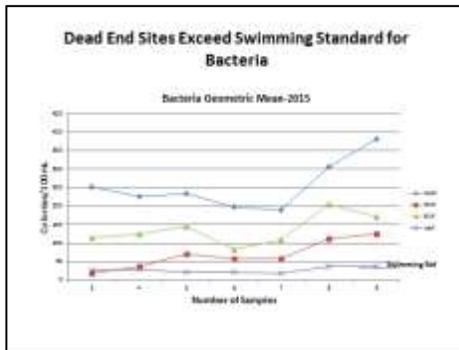
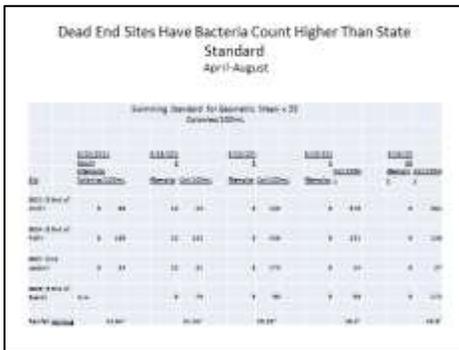
Site	2011	2012	2013	2014	2015
All 12 Sites	12	12	12	12	12
Mid Canal	12	12	12	12	12
Dead End	12	12	12	12	12
Active	12	12	12	12	12
Passive	12	12	12	12	12
...
Average	12	12	12	12	12

Dead End Sites Below DO Standard Most of Jun-Aug

13 Samples each year taken every Tuesday 7-8:30am

Mid Canal Sites Above DO Standard Most of Jun-Aug

13 Samples Taken Every Tuesday 7-8:30am



Summary for 2015 Monitoring June-August

- 2015 hotter and wetter than 2014
 - 2.7" more rain June-August
 - 18 more days with temperature >80°F
- Improvement in DO and Bacteria at East End of Petherton
 - 10% reduction in # DO samples at red relative to 2014
 - 40% reduction in bacteria count relative to 2014
 - Reduction in # of samples exceeding standards
- Bacteria levels still exceed state standards at 3 dead-end sites
 - Make swimming standard at mid season
- Nutrient analysis for 2009-2014 showed 30% reduction in Dissolved Inorganic Nitrogen in 2014 Relative to Year before the 1.50ppm Ozone Improvements
 - Plan to continue using U of ME Biological Lab for analysis of 2015 samples

The problem with taking data is that sometimes it is hard to explain the results. Why is Petherton looking better? Could it be to some residual effects from the diffuser project???

Agenda Item 8. Oyster Gardening

Tony Caputo presented the following.

“The spat that was delivered to us in the first week of September should have grown considerably. Even though we got an unusually late start with the spat, mine have turned into oysters with shells about the size of a quarter and the baskets have become much heavier. For those of you with older oysters, they too should have experienced further growth. If your baskets have become too heavy to manage let Bob Collins (302-226-8105 x111) know and he will adjust things.

Bob will soon be communicating with you on how to manage your oysters over the winter. For now it is important that the oysters have some water circulation so cleaning the cages helps them. Cages overburdened with algae affect the oysters' ability to filter water, grow and survive. For the rest of this year the new oysters should be cleaned with a hose and not power washer. Older oysters can withstand a power wash. In natural environments of our bays the algae does not grow as heavy as it does in our cages, so cleaning the cages helps the oysters grow and survive.

I would like to remind you why we are gardening, the CIB goal is to:

- 1) prove oysters can grow in the various environments in the Inland Bays,
- 2) create a “micro-ecosystem” habitat for other marine species that can be studied,
- 3) give spat a protected environment to grow in for future harvesting by CIB,
- 4) educate folks on the ecology and value of a healthy oyster population in the Inland Bays, and
- 5) study the effects of oyster filtration in our environments of the Inland Bays.

The oysters and their ecosystem are also a great entertainment for visitors, especially my grand kids!

The older oysters that the CIB harvests from our cages are used to try to get these mature oyster to grow and spawn in other Inland Bays environments. There have been some successes, such as placing them in rip rap. Massive oyster populations were virtually wiped out by the 1980's due to diseases. Our oysters are immune to those diseases and the goal is to repopulate the bays with them to improve water quality and ecosystems. A healthy mature oyster can filter up to 50 gallons of water a day; here is a video showing their filtering power (scroll down):

<http://www.cbf.org/about-the-bay/more-than-just-the-bay/creatures-of-the-chesapeake/eastern-oyster>"

Agenda Item 9. Public outreach meeting

The committee felt that it would be more efficient to use News Updates to convey water quality information than to have a public presentation. George took the action to prepare some News Updates with documents that we have already created. Frank Weisgerber said that he has had lots of questions about how the oysters are doing in the York Canal. George took the action to get that information. [Update: Marianne Walch reports that they checked the three cages of oysters for mortality. One cage had zero mortality. The two other cages had about 20% mortality which was lower than they expected. The cage that had zero mortality had some tender loving care from the homeowner next to the cage. He washed them quite often. All had been washed periodically by the CIB but it looks like more washing is beneficial.

Agenda Item 10. What else should we be doing?

Next meeting is scheduled for December 10, 2015 at 10:00.

Agenda Item 11. Adjournment

Jack Whitney made a motion to adjourn. Tony Caputo seconded it. The motion passed unanimously.