

## TOWN OF SOUTH BETHANY

### Minutes – Canal Water Quality Committee Meeting December 15, 2011 (1:00pm) at the South Bethany Town Hall

- **Meeting Called to Order At 1:00 PM** – Members present were George Junkin, Dave Wilson, Al Allenspach, Ron Wuslich, Sue Callaway.
- **Canal Water Quality Monitoring – Dave Wilson** Dave reported that monitoring is going well. He presented the following charts

<b>South Bethany Canal Bacteria Summary (2009-2011)</b>								
<b>Total Enteroco Geometric Mean</b>								
<b>Swimming Standard for Geometric Mean &lt; 35 Colonies/100mL</b>								
<b>Site</b>	<b>Site Description</b>	<b>8/25/2009 Count</b>		<b>8/31/2010 Count</b>		<b>8/23/2011 Count</b>		
		<b># Samples</b>	<b>Colonies/100mL</b>	<b># Samples</b>	<b>Colonies/100mL</b>	<b># Samples</b>	<b>Colonies/100mL</b>	
SB01	E End of Anchorage Canal	8	337	8	38	8	86	
SB04	E End of Petherton	8	161	8	86	8	189	
SB07	Mid Length of Layton	8	24	8	22	8	34	

The above chart shows that SB07 was “swimmable” the last three years and that the east ends of Anchorage and Petherton (SB01 and SB04) were never “swimmable.”

<b>South Bethany Canal Dissolved Oxygen Summary (2009-2011)</b>								
<b>Number of Mornings DO &lt; 4 mg/l June- August</b>								
<b>Site</b>	<b>Site Description</b>	<b>2009</b>		<b>2010</b>		<b>2011</b>		
		<b>#Samples</b>	<b># &lt;4mg/l</b>	<b>#Samples</b>	<b># &lt;4mg/l</b>	<b>#Samples</b>	<b># &lt;4mg/l</b>	
SB01	E End of Anchorage Canal	12	58%	14	100%	13	100%	
SB02	Mid Length of E-W Anchorage	12	25%	14	50%	13	62%	
SB04	E End of Petherton	12	58%	14	86%	13	92%	
SB05	Mid Length of Petherton	12	17%	14	43%	13	54%	
SB07	Mid Length of Layton	12	25%	14	21%	13	62%	
SB09	Near S End of Bayshore	12	50%	14	71%	13	85%	
SB10E	E End of Russell	12	58%	14	79%	13	77%	
SB10W	W End of Russell	12	58%	14	86%	13	69%	
SB12	S End of Canal Drive Near	12	25%	14	43%	13	54%	

Notes:

1. First sample where all sites were <4mg/l occurred July 28, 2009, July 6, 2010, and June 14, 2011.
2. Number of weeks where all or all but one site were <4mg/l was 3 (25%) in 2009, 4 (29%) in 2010, and 6 (46%) in 2011.
3. Samples taken between 7 and 8:30AM on Tuesday

The above chart shows that the east ends of the Anchorage and Petherton Canals are significantly worse that the west ends.

George asked if Dave needed more help. Dave stated that Jack Whitney and Frank McNeice had volunteered. Ron Wuslich said that he would also be willing to help.

- **Oyster Gardening – Allan Allenspach** Al reported that the oyster gardeners had lowered the oyster baskets down close to the bottom of the canals for the winter to

avoid freezing. He reported that there are about 80 gardeners working for the CIB. Al coordinates about 50 gardeners in South Bethany.

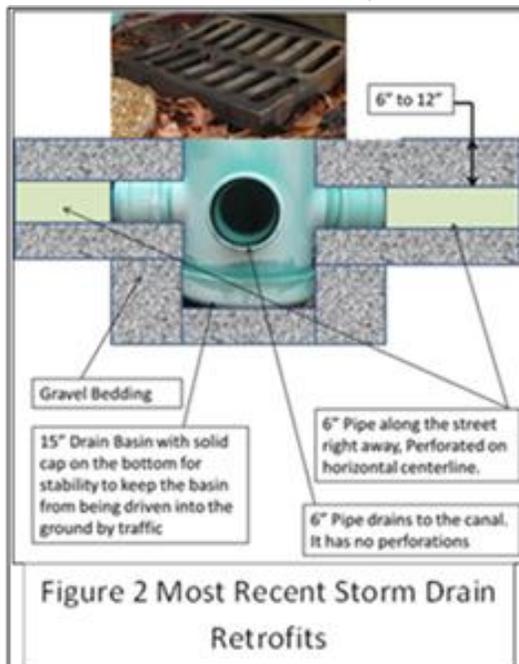
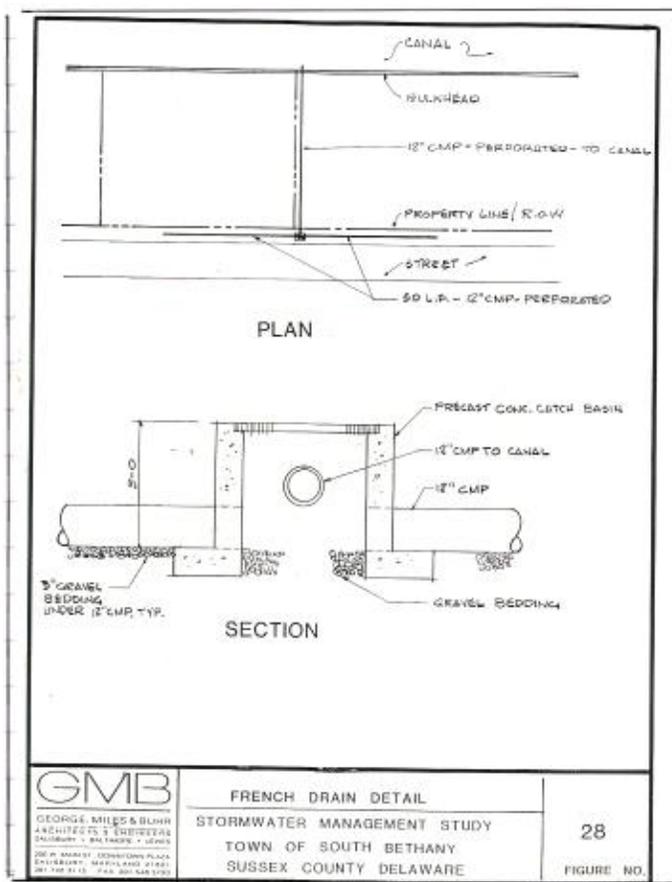
George said that there were additional people in South Bethany that wanted to be oyster gardeners. Sue said that she was interested and knew others that were interested. Al said that they should call him and he would coordinate with EJ Chalabala at the CIB. George and Al both said that they would get together with EJ from the CIB to make it happen. (Mr. E.J. Chalabala, Restoration Coordinator [restoration@inlandbays.org](mailto:restoration@inlandbays.org).) Dave said that once you get on the list you really have to keep on EJ and Brian to finally get your oysters.

Al also reported that he had seen an article about the level of CO<sub>2</sub> rising in the waters, making the water more acidic and affecting fish life. George asked Al to forward the article to him.

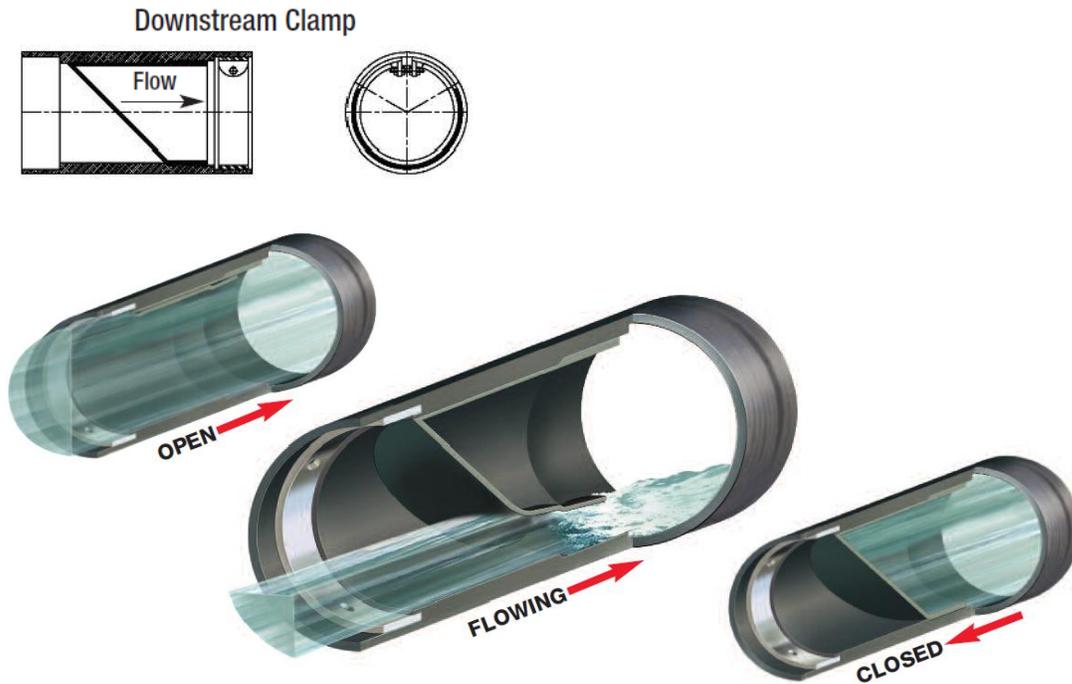
- **Home Owner Education Program**

- **Voluntary Disconnection – Outside Showers** – Andy Ross had volunteered to do this last year. George will contact him to see if anything has been done. It was suggested that George talk to Dennis Roberts since he does this kind of work. Maybe he could put something together if Andy has not done so.
  - **Voluntary Disconnection – Rain Water Down Spouts** – No one has yet volunteered for this task.
  - **Impervious Surfaces** – Al Rae volunteered to work with Ms. Sally Boswell, Education & Outreach Coordinator for the CIB [outreach@inlandbays.org](mailto:outreach@inlandbays.org) on this task last year. George will check up on this.
  - **Delaware Coast-A-Syst** – Sue Callaway volunteered to summarize some of the pertinent information in *Delaware Coast-A-Syst* for inclusion in a newsletter or an e-news update. Ron Wuslich suggested that the Town require licenses for those who keep boats on the canal and issue to them pertinent water quality information when they procure their license.
- **“Adopt-A-Canal” Program – Clean Up Trash & Debris** – Sue suggested that we change the name of this activity so that it is not confused with the Beautification activity “Adopt-A-Canal End.” Some suggestions that were made; “Adopt Your Canal,” “Volunteers for Clean Canals.” We are looking for other suggestions. No matter what the name is we need a volunteer to coordinate this effort. In his absence Jack Whitney’s name was suggested. George will talk to him.
  - **Inspection/Recommendations/Documentation W. Side Storm Drains** – George is organizing this effort. Dave has volunteered to help and George will try to recruit Frank McNeice to also help. There are about 100 storm drains that channel stormwater into the South Bethany Canals. These drains will be inspected and documented to determine the design of each system (diameters of pipes, perforated pipes, relative location of pipes, French drains, etc.) Recommendations will be made for improvements. One recommendation that has already been made is to raise the level of the pipe going to the canal. See next 3 figures for information relative to the recommendation. A second recommendation, for storm drains in low areas, is to put check valves in the pipe going to the canals so that extremely high tides do not back flow into the low streets. Steve from GMB suggested [www.tideflex.com](http://www.tideflex.com). See below.

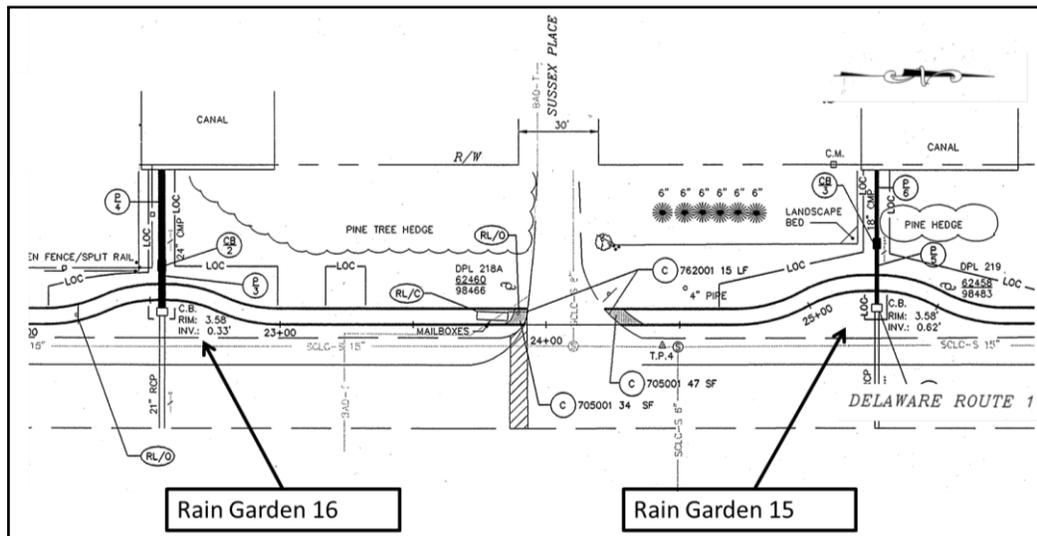
- Figure 1 – Recommendation from GMB Report

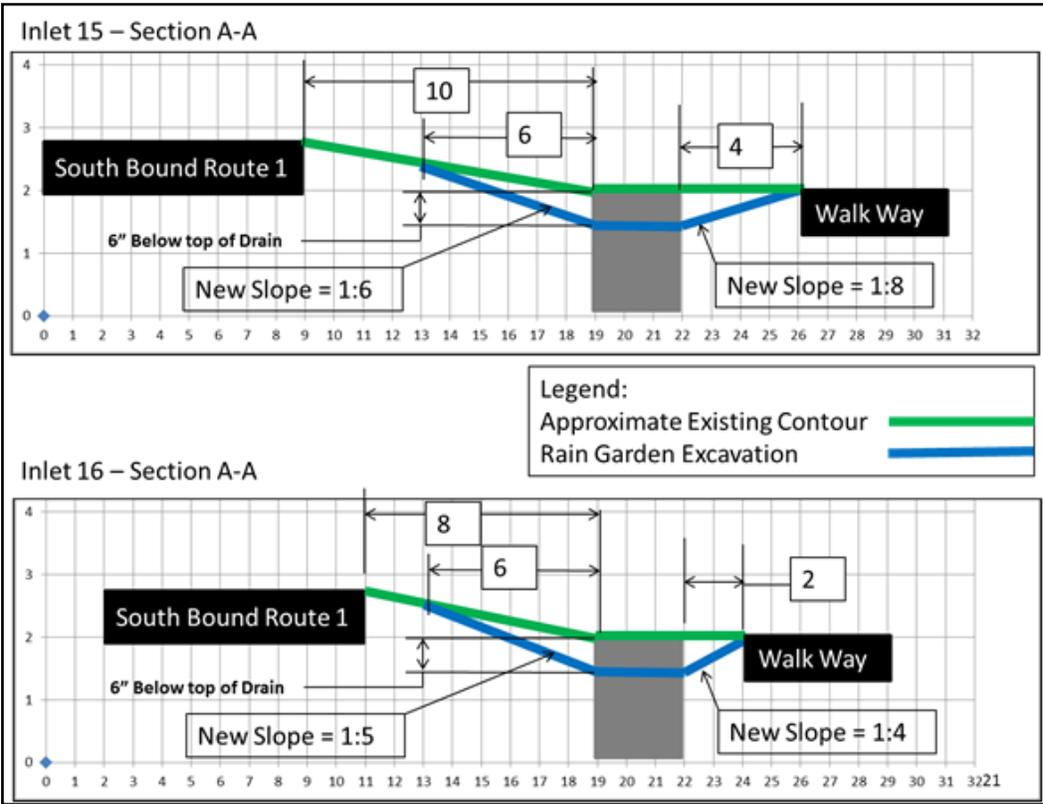
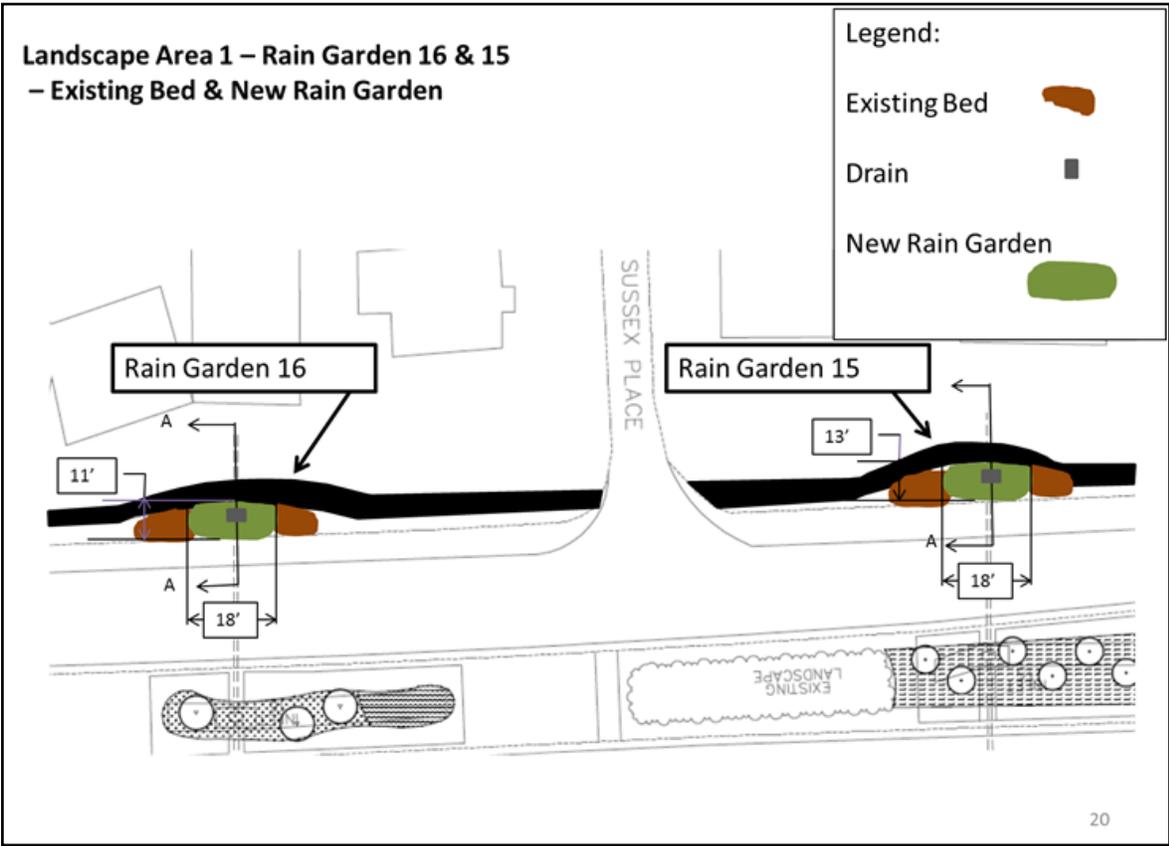


The Checkmate Valve designed for inline service fits inside the existing pipe and does not protrude into the canal. Its cracking pressure is less than 2 inches of head pressure.

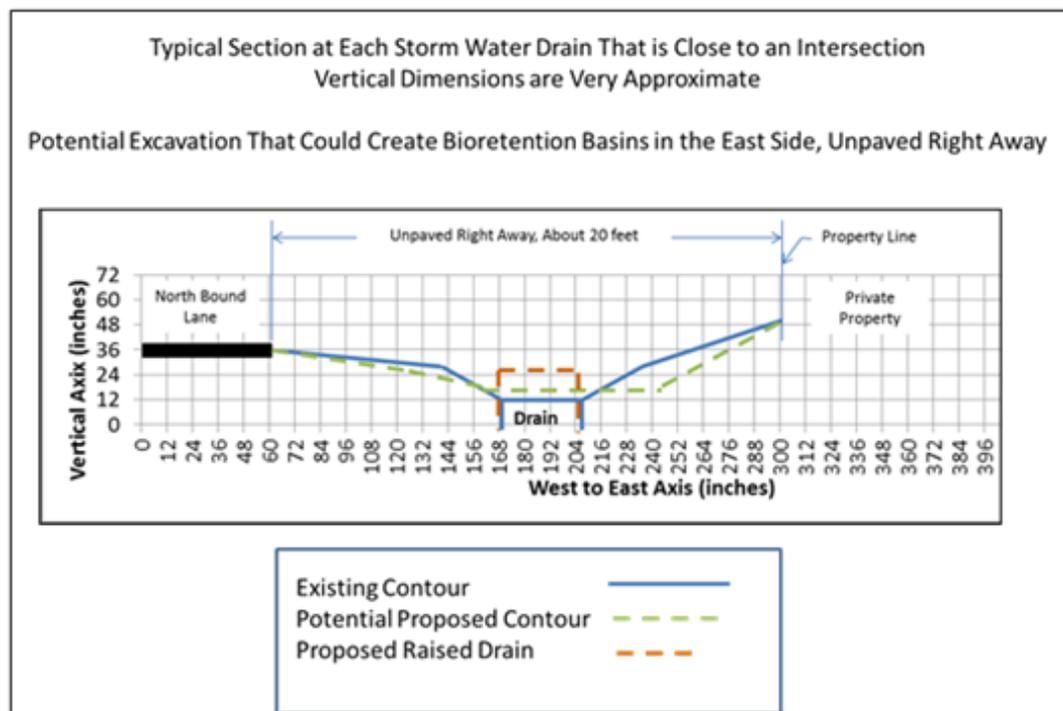
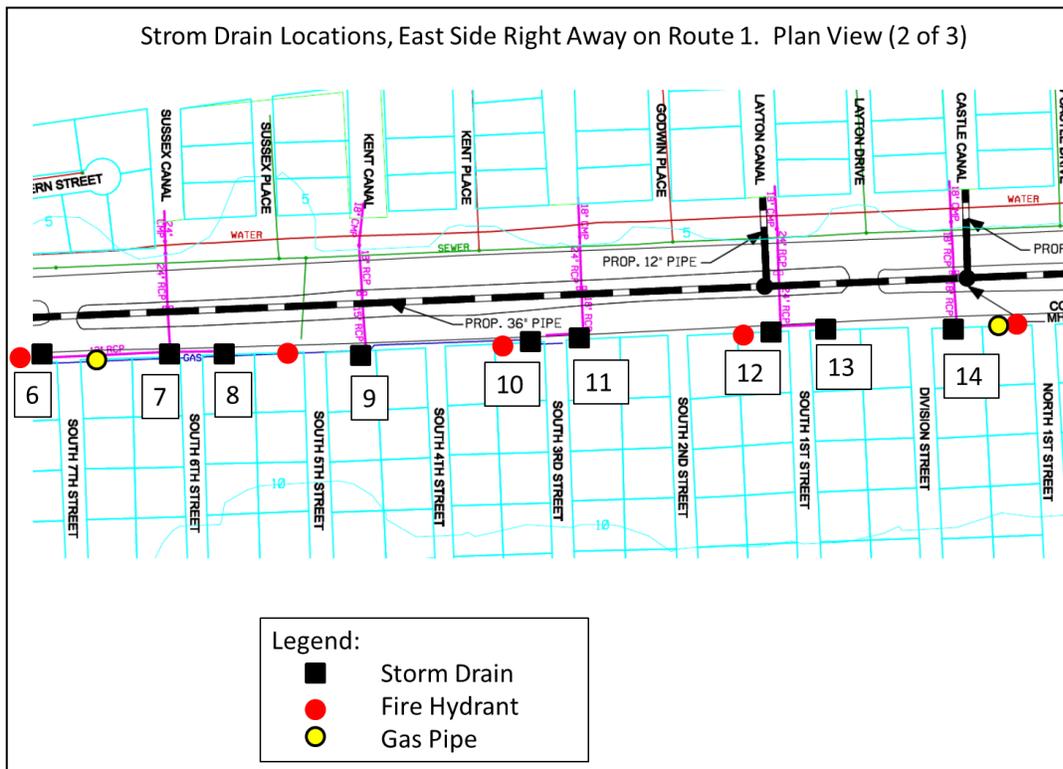


**West Side Route 1 Rain Gardens** – George Junkin and Sue Callaway presented an update on a grant the Town has to create rain gardens on the west side of DE Route 1 along the walkway. A typical plan is shown in the figures below.





**East Side Route 1 Bioretention Areas – George Junkin.** There are 23 storm drains in the DE Route 1 east side right away. The charts below are typical, showing the concept to retrofit the east side to improve water quality. Chris Bason from the CIB is working to get a grant for the east side through Middlesex and South Bethany.



- **Route 1 Median – Bioretention Areas – Sue and George** reported that this task was successfully completed by October 28 as required by the DE DOA Tree Grant
- **Meeting Adjourned at 2:45 PM**