Community Advisory Council
April 12, 2007
Action Items/Notes

Final

These notes are in the following order:

1. Attendance
2. Correspondence and Handouts
3. Administrative Items
4. Update on Peconic River Sampling, Part II, Skip Medeiros, Environmental & Waste Management Services Division
5. Community Comment
6. Update on Peconic River Sampling, Part II continued
7. Agenda Setting

1. Attendance

Members/Alternates Present:
See Attached Sheets.

Others Present:
M. Bebon, J. Carter, M. Cowell, H. Corrano, A. Csorny, K. Geiger, G. Goode, T. Green, M. Green, M. Holland, B. Howe, S. Johnson, M. Lynch, L. Nelson, S. Penn, G. Penny, A. Peskin, A. Rapiejko, E. Rehbein

2. Correspondence and Handouts

Items one through six were mailed with a cover letter dated April 6, 2007. Item seven was provided in the member's folders and items eight and nine were available as handouts at the meeting.

1. A copy of the April 12 draft agenda
2. Draft notes for March 8, 2007
3. Final notes for February 2007
4. A draft copy of the categorized flip chart notes from February & March
5. A color copy of the corrected chart from the Peconic River –Part I presentation
6. A copy of an article on mercury (at the request of Member Conklin)
7. Additional information - a correction to the January 2007 notes, a table on Peconic River sediment, and a membership report
8. A copy of the Peconic River, Part II presentation
9. Information on the Peconic River Sportsman's Club (handed out by Member Hall)

3. Administrative

The meeting began at approximately 6:43 p.m. Reed Hodgin reviewed the ground rules and the draft agenda. Those present introduced themselves.

Member Graves announced that the Town of Brookhaven is planning to open its facility to the public for a lecture series that will be developed in cooperation with BNL, featuring BNL employees speaking about research and projects at the Laboratory. The idea was a result of discussions held at the previous two CAC meetings. Graves said the initial stages of planning

had begun and invited interested CAC members to share suggestions for the lectures at any time.

Member Hall circulated information about the Peconic River Sportsman's Club (PRSC) from the Club's website that highlighted their accomplishments and efforts related to environmental preservation and restoration.

Approval of Minutes

Reed asked for corrections, additions or deletions to the March 8 draft notes. Member Garber asked the fourth sentence in the fourth paragraph on page five be changed to read "If you have concentrated colloidal suspension, as it is drying, it is able to draw on the perimeter and you will get much higher concentrations." There were no further comments. The notes were approved as amended with no objections and three abstentions.

4. Update on Peconic River Sampling, Part II

Member Conklin asked to make a statement as a follow up to the previous month's presentation on the Peconic River sampling. Conklin read his statement entitled "Concerns and Congratulations" to the CAC. He said the Peconic River cleanup showed many signs of success, such as the restoration of swampland at the head of the river, the restoration below the Sewage Treatment Plant (STP) outflow, and the removal of mercury from river bed sediment. Conklin commended Dr. Tim Green of BNL and CAC Member Tom Talbot for their efforts to secure the safety of several threatened fish species prior to the remedial dredging during cleanup. In closing, Conklin congratulated BNL and its employees for a positive result and encouraged all to "keep their eyes open…. and keep looking ahead."

Member Sprintzen requested that a copy of Member Conklin's statement be attached to the notes. A complete copy of Member Conklin's statement is attached.

Skip Medeiros continued the presentation on the 2006 Peconic River Sampling data from last month focusing on surface water and wetlands. The long-term monitoring requirements for the Peconic River involve monitoring sediment, fish, surface water and wetlands to determine the long-term effectiveness of the remedial effort. Surface water monitoring data is useful in identifying and/or locating potential mercury issues. Wetlands are monitored for re-planting success, invasive species control and to determine the success of the re-establishment of wetlands after cleanup. Monitoring data is reviewed annually with the Environmental Protection Agency (EPA), the Department of Environmental Conservation (DEC), Suffolk County Department of Health Services (SCDHS) and the Department of Energy (DOE) to evaluate the need for additional monitoring and action.

Medeiros reviewed the locations of the surface water sampling stations. Twenty-one stations are located in the Peconic River. There is one additional station located in the Connetquot River that is used for comparison purposes only. In the Peconic, there are three stations upstream of the Sewage Treatment Plant (STP), a series of stations out to the site perimeter and seven stations out to Schultz Road. Surface Water sampling occurred in June and August of 2006. There were 20 samples taken in June and 14 samples taken in August. He said the water was sampled for three results: the total amount of mercury in the sample, the amount of methylmercury in the sample and the amount of total suspended solids. The unit of measure for the mercury was parts per trillion (ppt).

CAC members asked for clarification of the sampling process, the amount of water taken and the process of collection.

Medeiros said collectors take samples upstream of a station to minimize any impact caused by disturbed sediment. Approximately one liter of water was taken per sample. The vessel is dipped and capped under water, leaving no head space for volitization or escape of material in the sample. All of the collectors are trained in appropriate collection techniques and use equipment and clothing that do not contain mercury. The samples are then measured for concentrations of mercury in the water at the time it flowed past the station.

Member Giacomaro asked if the sampling was conducted when the weather was dry as opposed to a rainy day, if information on conditions is recorded, and if rainfall is looked at to determine potentials effects on mercury detection.

Medeiros explained the sampling is always done on schedule regardless of the weather, dry or wet isn't taken into consideration, to obtain data in all conditions. The conditions at the time of sampling are noted, as are flow rate, oxygen levels of the water, the depth and temperature of the water and water quality indicators. He said rainfall is not monitored as part of this project.

Tim Green, Cultural and Natural Resources Manager said BNL had begun to monitor rainfall and will continue on a quarterly basis, during the first rain event. Last month, 7 nanograms per liter of methyl mercury were recorded in rainfall, equivalent to 7 ppt. Skip compared the rainfall to the information on his chart.

Member Kaplan asked for the minimum detection level of mercury and if there were any significant differences between the findings in June and August.

Medeiros said the minimum detection levels used in these studies were 1 ppt. for mercury and .05 ppt. for methyl mercury. He said the data did not indicate that precipitation was driving the results of the testing from one month to the other.

Medeiros told the CAC there were difficulties collecting samples in August because the water levels decrease throughout the summer. The water level was too low to collect samples at three stations upstream of the STP, at the STP outfall and at two stations between the site boundary and Schultz Road.

Member Garber asked for the size of the collection container and the depth of the water during collection in the problematic areas.

Medeiros explained that problems arise when collection is attempted in water that has a depth of less than a foot. The potential exists for artificial disturbance of the sediment which could inject sediment, measured by parts per million (ppm) into an area where a parts per trillion (ppt) sample is being collected. Collection was not done in water shallower than one foot to minimize the potential for that to occur.

Member Giacomaro asked for clarification on the chart reference points.

Medeiros said there were several August samples that contained higher levels relative to the June samples. The six most upstream August total mercury samples located 0.3 miles downstream of the STP to and just upstream of the stream gauging station HMn, had elevated total mercury values. He showed the CAC the mapped location of the sample with the highest reading, 1,360 ppt. Because this was the highest level detected during August sampling, a reevaluation was done on the sample and it yielded a reading of 1,370 ppt. The value was analytically confirmed.

Member Giacomaro asked if the rate of flow was measured and what the rate of flow was in June and in August and questioned if that could account for the differences. Would the levels would be more concentrated in less water and then dissipate in more water?

Medeiros said that observation was similar to Member Kaplan's that levels could be affected by rainfall, the amount of water that comes in with a low concentration. Medeiros also pointed to where a tributary joins the main river and said yes, it is potentially diluting the concentrations at Schultz Road versus upstream of Schultz Road.

Member Garber asked if the ratio of elemental methylmercury in the elevated sample was the same type of ratio as found in a lower reading.

Medeiros said this is referred to as the percent methylmercury of a sample. The total mercury is divided into the methylmercury. There is variation on this throughout the river. The readings were as high as 60 percent and as low as 1 percent. The numbers also differ from June to August. On average, June was 19 percent and August was about 32 percent. It is a dynamic situation. A higher concentration of mercury does not necessarily mean there is a higher percentage of methylmercury.

Member Henagan asked since turbidity was measured, was it known if the water was more turbid at that sampling time point and if the turbidity affected the sample because of the depth of the water. He also asked if turbidity testing could detect that the sediment had been artificially disturbed prior to collection and provide an explanation for an elevated reading.

Medeiros said there are three units of measure used to determine the amount of organic material in water. The first is Natural Turbidity Units (NTU), which is the measurement that is effected by the amount of organic material in the water, The Total Suspended Solids (TSS) and Suspended Solids Concentration (SSC), which is not used at this time. The TSS was high in the sample, but that does not give way to cause and effect.

Member Talbot asked if the 1,370 ppt. reading was retested using the original sample or if the sample had actually been retaken and if there had been a particular anomaly related to that sampling process that caused the higher reading.

Medeiros said the same sample was reanalyzed to check for an analytical error from the laboratory. He said there are many possibilities that could affect the sample, such as sediment in the current, detection of a dissolved form of previously undetected mercury or perhaps, the method of collection. He said a conclusion cannot be drawn without further investigation. There were some elevated measurements in August, from the property line to Schultz Road and from Shultz Road downstream. With one exception, the measurements indicated greatly reduced levels.

Medeiros summarized the surface water sampling total mercury results for June 2006. The June total mercury increased between upstream and downstream of the STP. The total mercury trended downward from the STP to downstream of the property line, results which were similar to 2003 and 2005. The levels increased from the property line to Schultz Road and trended downward from downstream of Schultz Road to Connecticut Avenue. There was an overall spatial trend of generally decreasing mercury concentration with increasing distance between the STP and Connecticut Avenue.

Member Garber asked if the Peconic River flowed underground in August, would that filter mercury and contribute to the low readings downstream.

Medeiros said the vast majority of the distance of the Peconic River gains stream during most of the year. Groundwater contours converge as they approach the river and effect what flows to the river, not down and away from it. The river dries at different locations in August but not throughout its entirety.

Summarizing the results of the surface water sampling for August 2006, Medeiros said the water level was too low to collect samples at three stations upstream of the STP, at the STP outfall and at two stations between the site boundary and Schultz Road. The six most upstream August total mercury samples had elevated total mercury values and the remaining eight August total mercury samples (from Schultz Road to Connecticut Avenue) resulted in the lowest values analyzed at each station since the start of the remediation program.

Member Kaplan asked if the outflow of the STP was constant from day to day, if there was a significant difference of the flow from the STP from July to August and asked why a sample could be taken from the outflow in June but not in August.

Medeiros said there were variations but the difference in flow was seasonal rather than daily. The flow from the STP is a function of the size of the population using the Laboratory at a given time. In August, the STP location used for collection in June was recharging down to the ground. There was not enough water to collect a sample without collecting sediment.

Member Kaplan asked why the data collection is done at that time when it is known there will be difficulties with sample collection and interpretation of the resulting data.

Medeiros said though it was possible to check the STP prior to collection, several other locations take a days' work to reach.

Kaplan said the August data is probably not useful. The June data tells a story.

Medeiros said there is useful information; there are areas where unexpected results are seen. It may be only this year or there may be several years of this type of data. He said he would rather have data to evaluate than no data at all because the level was low.

George Goode, manager of the Environmental and Waste Management Services Division said the August sampling date was important for the evaluation of methylmercury. The warmer temperature of the water increases bacterial activity and the concentration of metabolic mercury which is then the conduit to fish.

Medeiros said samples were originally collected four times per year. At that time it was determined that the methylmercury was highest during the August period and that was the driver for the analysis. He said that is not always true everywhere in the river.

Member Hall said there was always enough water in the Peconic in August to take a canoe into the river.

Medeiros said that was true, however, a minimum of one foot of water is needed at the sampling stations, which is why they were too low to collect from. There was water but it was lower than one foot.

Member Alayeva asked if the sampling stations could be moved to coincide with the changes in the depth during the year.

Medeiros said that is one choice among others that is being considered.

Medeiros presented the data related to methylmercury. He said the June 2006 concentrations of methylmercury decreased with increasing distance downstream to the property line, increased to Schultz Road and decreased to Connecticut Avenue. There were three samples in August 2006 that exceeded the June 2006 samples. They were located closest to the property line. These were the only elevated samples. In August 2006, the three most upstream samples and

the eight most downstream samples yielded methylmercury results that were substantially lower than June 2006.

Member Garber asked if finding higher levels of methylmercury in samples taken in warmer temperatures was expected.

Medeiros said yes. The conversion of mercury to methylmercury is performed by bacteria that live in the sediment. As the temperature rises, their metabolism rises. As their metabolism rises they need more energy, they do more work. Consequently, it is expected the highest percent of conversion of mercury to methylmercury will occur in August.

Member Conklin asked if the organisms were anaerobic.

Medeiros said the organisms were anaerobic, which is indicated by the finding that the levels of dissolved oxygen are at its lowest in the year.

Member Sprintzen asked how accurate and reliable the testing could be when the samples are so miniscule, if there was an error range within the testing and to what extent could data results vary due to inaccuracies that could occur during testing.

Medeiros said there are two components to testing, the collection of the sample and the analysis. Because the analysis of the sample is done at parts per trillion (ppt) levels, the levels for Quality Assurance (QA) and Quality Control (QC) are doubled on this project. Typically, for sediment or surface water sample, one sample for every 20 is taken for QAQC and tested for things like Lyme disease, ticks, field lice, or contamination from field equipment and other factors. For this project, one QAQC sample is taken for every 10. EPA protocol prescribes collection of five percent or one sample for every 20. The QAQC data received is very detailed and Medeiros said he saw no indication of an error. The other component is sample collection. A deer herd crossing or the collection of a sample downstream from a turbulent area could factor into the result. Medeiros said he sees good procedures in the field, but there is attention given to the effort to minimize the potential for sampling error.

Member Sprintzen said he would expect a margin of error in the analysis of sampling.

Reed asked Medeiros what an error bar for this analysis might look like if it combined all the sources of uncertainty. Medeiros said it would probably be something like this. (Medeiros made an indication) Reed said plus or minus a factor of two.

Member Sprintzen asked, when comparing analyses, is the number important or is the ratio important.

Medeiros said on a low number it would make a big difference and on a high number it would make a minimal difference.

Member Hall said when the tests were done at the Peconic River Sportsman's Club (PRSC) the club's lab said there was no margin of error. When the samples were compared to the samples taken by BNL, almost every sample was the same. It was unbelievable how close they were. It was like they were done by the same lab and they weren't. The technicians of the lab could not tell where the samples had come from.

Medeiros reviewed the issues and planned actions. He said the August water levels prevented sampling at several stations thereby limiting the data set. A proposal will be made to the regulators to collect August samples in late July to early August to maximize the number of samples collected. He said it is important to get the trends in the data to identify the areas that will need to be looked at more closely. Another issue is the total mercury increase between

stations upstream and downstream of the STP. Medeiros said that additional mercury sediment and water samples will be collected upstream of the STP to evaluate for a potential mercury source between sample stations upstream and downstream of the STP.

Member Giacomaro asked where the area of concern would be and when would notification of a problem occur.

Medeiros said it is known the higher values are less favorable than the lower values. The EPA has written a water quality criterion document which had been based on a bioaccumulation factor formula; so much methylmercury in the sediment, results in so much in the water, results in so much in the fish. The approach was terminated because there were many environmental factors influencing the numbers. Instead, what is now measured is the means by which exposure to methylmercury could occur. The means to exposure is through the consumption of fish. A 0.3 milligram per kilogram (mg/kg) detection limit in fish was established.

Member Giacomaro said if the fish exposure is measured to the millionth level and the methylmercury is measured to the trillionth level would the detection be minimal, and asked if the results from cumulative exposure to the water are measured.

Medeiros said that is true, that it would depend on how the mercury is obtained and what else is eaten. Because of all the unknown causes the EPA has chosen to represent the end result of what is in the fish rather than an intermediate point along the way. Medeiros said the methylmercury does accumulate, not from drinking the water but from consuming organisms in the food chain that have consumed organisms that consumed the bacteria or, to a smaller extent, from the flow of water across gills of the fish.

Reed clarified that the water is being used in this process, not as an indicator of the effect on the fish but as an indicator of where a source of mercury in the sediment may exist.

Member Anker asked since there is more water in June than in August, are the sample readings accurate because the June samples are diluted. She asked if the amount of water available is considered when evaluating the data.

Medeiros said it is valid to sample during both months because they are representative of different periods of the year during which the production of methylmercury is elevated. When evaluating the data, the amount of water available relates to the depth needed to conduct the sampling. The actual changes to the river occurred in inches, not feet.

Member Anker said it seems that it is hard to get numbers for comparison when there are so many variables. Medeiros said it was a challenge.

Reed asked the CAC to take a moment to consider adjusting the evening's agenda to accommodate the length of discussion on the Peconic River sampling. The CAC voted to amend the agenda in order to continue the discussion.

Member Graves asked how many control samples were taken from the Connetquot River and how many control samples will be taken overall.

Medeiros said twelve control samples will be taken throughout the study. There were four taken in 2003, four were taken in 2004, two in 2005 and two in 2006.

Member Hall said the two rivers really could not be compared because Connetquot River is spring fed; the vegetation grows over the river and protects it from the sun. On the same day in August the temperature of the Connetquot River was 57 degrees and the temperature of the

Peconic River was 82 degrees. He asked if two additional samples could be taken at the PRSC.

Medeiros said yes, additional sampling could be done by shifting the location of one sample and adding another one and told Member Hall to drop him a note detailing the location he would like tested.

Medeiros said the June methylmercury results that were generally higher than August increased between the site boundary and Schultz Road. Additionally, the August methylmercury results for the three samples closest to the property line were elevated relative to June. The Total Organic Carbon (TOC) contained in the samples collected in 2007 will be analyzed to improve interpretation of methylmercury and dissolved oxygen levels in the surface water.

Member Kaplan said he did not see anything in the data that indicated there was a problem with the mercury. He asked why the investigation would go after the TOC or if the Lab had considered consulting with experts on methylation to try to get a consensus on the best way to gather information. Member Kaplan did not believe the question could be answered by going after the TOC alone and said when examining parts per trillion, one spec of material could completely throw off an entire result. He was concerned about the effort and money being spent on this and suggested that some thought be put into how best to use resources.

Medeiros said he had not assembled a group of people but the information was reviewed with the contractor used to prepare the report in the past. Additional testing of the sample would not incur large costs; it was just a matter of asking for more information. Medeiros said using consultants to assist with the evaluation of the data is being considered. The CAC will be informed when a decision is made.

The remediation was completed in 2005 and this is the first full year of testing. These are all things that help stabilize the condition of the river. A small spec of contaminated sediment could yield a very large increase in the concentration that is measured in the water sample. In the open water sections of the river the cover has almost doubled. In the wetlands, low marsh areas where most of the remediation occurred, the cover increased from 85 percent last year to an average of 92 percent. There are many things happening in the river that are bringing it back to its natural form.

Member Conklin said something is skewing the information. The removal of sediment during cleanup could also have had an effect on the results because the locations for the benthos to carry out methylation had been reduced.

Reed clarified that Member Kaplan was asking if advisors should look at the information to gain an understanding of what information is real and what is insignificant.

Member Anker asked if the STP was still being used, how it is being monitored, what is being done to prevent the accidental disposal of waste and if scientists receive an orientation about the importance of proper disposal of waste.

George Goode said the STP is being used and is monitored. In additional to that, the Pollution Prevention program is in place to help address that issue. Discharge of chemicals is not allowed in sinks. There are controls in place and there is training related to the proper methods to use when handling chemical and radioactive waste in the laboratories. To help address accidental disposal, the plant is a tertiary treatment plant. If a discharge occurred in error, most common chemicals would be broken down by bacterial action at the plant. There are postings at every sink which provides a list of prohibited chemicals and reminds the scientists that the sink is connected to the Peconic River. It is called the “fish posting”, which is famous around the Lab. A lot of training goes into that. All those chemicals are collected and taken to the recycling facility.

The STP is monitored in compliance with the State Pollutant Discharge Elimination System (SPDES) permit. The discharge permit requires monitoring for chemicals on a twice monthly basis. There is an automatic sampler at the plant which collects fluid from the influent and the effluent. The fluid is monitored for minerals, pesticides, PCB's and organic chemicals. Goode said there is a web-based environmental training program mandatory to all scientists, the EMS ISO14000 Program, and every experiment goes through an Experimental Safety Review. The chemicals planned for use are examined and proper managing techniques are reviewed. There are many controls in place.

Member Krsnak concurred and said that the Lab makes its environmental concerns very clear to all employees.

5. Community Comment

There was no community comment.

6. Update on Peconic River Sampling, Part II, continued

Skip Medeiros continued with his presentation on the Peconic River sampling focusing on the data resulting from the 2006 Wetlands Monitoring Report. Medeiros told the CAC that a DEC permit was required in order to begin the remediation project. In order to expedite the permit process an Equivalency Permit was obtained. This permit hastened the application process but still obligated BNL to the stringent remediation standards and requirements of a regular DEC permit. Principal requirements of the permit were wetland vegetation cover and survival, and reduction of invasive species cover.

The DEC permit requirement called for the predominance of native vegetation within the restored low marsh, high marsh and shrub-forest wetland areas after restoration, with 65 percent of the cover in the low marsh comprised of native herbaceous plants. Additionally, less than 10 percent cover was permitted in any one wetland area by invasive species, such as the common reed (Phragmites autralis), reed canary grass (Philaris arundinacea) and purple loosestrife (Lythrum Salicaria). The DEC eventually dropped the requirement for control of the reed canary grass because it was well established prior to the remediation project and control would require extensive use of herbicides, excavation or both. All of these requirements applied to the remediation areas only.

The monitoring process took place between August 27 and September 11, 2006. There were 64 transects (one meter wide) surveyed. Plants along each transect were identified in accordance with the U.S. Fish and Wildlife plant classifications. The percentage of cover was calculated for each transect.

During 2006 several activities took place to assist the remediation effort. Based on the 2005 survey, several transects in the low marsh community were not expected to achieve the 65 percent cover goal by 2006. Between August 3 and August 17, 2006 an additional 2,215 plants were harvested, made into plugs and transplanted from non-contaminated on-site and off-site locations to the areas in question. This was in addition to the 4,000 plants transplanted during the initial remediation effort. The areas were surveyed again for percent plant cover between August 27 and September 11, 2006.

Based on the distribution of invasive species as determined in the 2005 Wetland Monitoring Report, phragmites were hand-pulled in eight of the 64 surveyed transects between June 27 and July 12, 2006. Attention was paid to harvest the section of the plant below ground, the rhizomes, and the seeds, in order to interrupt the reproductive cycle of the plants. The survey for invasive species cover was conducted in August of 2006.

The results of the percent cover survey yielded results that exceeded the minimum requirement of 65 percent coverage by native herbaceous plants in the low marsh. On BNL property the percent vegetation cover by native wetland plants ranged between 79 and 100 percent with an average of 90 percent. Outside BNL property the percent vegetation cover by native wetland plants ranged between 89 and 100 percent with an average of 95 percent. The average for all transects was 92 percent.

The monitoring results for invasive species were equally as successful. There was no purple loosestrife identified at any of the 64 transects in 2005 or 2006. The phragmites cover on BNL property ranged from zero to less than one percent. The same results were detected outside BNL property. The results far exceeded the minimum requirement of less than 10 percent of invasive species cover in any remediation area. Medeiros said the harvest effort was very effective and played an important role in the remediation.

Medeiros showed the CAC pictures of the restoration area taken in August 2004, August 2005 and September 2006. The pictures showed various stages of the return of the plant material. In September 2006 it is clear the vegetation is coming back very well.

Medeiros said, in summary, the DEC requirement of 65 percent native wetland vegetation cover in low marsh was achieved, with an overall average of 92 percent and no area with less than 79 percent cover. Additionally, the Dec requirement that less than 10 percent invasive species cover in any one wetland restoration area was also achieved, with an overall average of less than one percent invasive species across all cleanup areas. The DEC will inspect the wetlands in the spring of 2007 to confirm that the Equivalency Permit conditions have been met.

Member Kaplan said the results were tremendous and asked if there would have to be a continued effort to control the invasive species.

Medeiros said they are committed for the next few years to continue to assess, evaluate and take action if indicated. There was a very low average percent cover, but there is a requirement in place with the EPA and the Army Corps of Engineers to continue to monitor for three to five years.

Member Anker asked if the phragmites existed before the remediation, if the cause of the phragmites was known and if the Lab's approach to controlling them would be successful elsewhere.

Medeiros said there was phragmites surrounding the remediation areas when the project began. As the cleanup areas grew, the phragmites had been removed. There has not been a removal effort beyond the cleanup areas. Medeiros said it is hoped the effort to control the phragmites will continue be successful but it is difficult to say if it will be. He said methods such as these could be successful elsewhere if as much effort is put into the surveying and removal of the phragmites.

Member Garber asked if phragmites were a brackish water plant.

Medeiros said it is an adaptive plant and can grow anywhere there is shallow water and sunlight.

Member Campbell said the marshes near his home were totally dominated by phragmites and grasses and asked if there were any treatments known to be used for controlling these invasive plants in large areas.

Medeiros said there are herbicides that can be applied using a process called “wicking”. This process is kinder to the environment because the herbicide is rubbed on the leaves of the plant. The herbicide is transferred internally through the plant, decays the rhizomes and ends the life of the plant. He said controlling phragmites on a large scale is an onerous task.

Reed and the CAC thanked Medeiros for his presentation.

7. Agenda Setting

Reed asked the CAC if they wished to continue the discussion on agenda setting from the March meeting or if they wanted to defer the discussion until next month’s meeting. Member Sprintzen said he would like to know what is anticipated for next month. Jeanne D’Ascoli said she was not aware of any topics slated for next month’s agenda at this time.

Reed told the CAC they were given a list of open discussion items on agenda and agenda setting which resulted from last month’s discussion. He suggested a discussion on some of those topics to try to move toward closure on some of them and asked the CAC members to review the list.

CAC members discussed and suggested potential agenda items. Reed recorded the suggestions on a flip chart. Jeanne D’Ascoli asked if the CAC members would take a moment to review the suggested agenda items in order to determine if there was mutual agreement on the topics. Reed reviewed the flip chart notes and asked if the topics were of interest to the CAC members present. A final list of potential agenda items was created. The completed list of flip chart notes on future agenda items is attached.

Member Shea suggested a rating sheet to help prioritize the agenda items.

Member Garber suggested a speaker, Gilbert Hansen, of the Long Island Geological Society and a Professor of Geology at Stony Brook University, as an option for a discussion on global warming.

Member Anker asked for information about an article in Newsday which mentioned current litigation between BNL and previous employees. Mike Bebon, Deputy Director for Operations said it was BNL policy not to comment on litigation currently in process.

May Agenda
BNL Wildlife
Status of the reactors
g-2 ROD/Response to comments (tentative-pending regulator signoff)

The meeting adjourned at approximately 9:27.

Flip Chart Notes
CAC Future Agenda Items
April 12, 2007

Agenda Items

- Ticks - Deer Ticks and Lyme disease
- CERN Accelerator - problems and implications
- Deer population
- Other animals, turkeys
- Nano facility update
- Global Warming – Stony Brook, Pine Barrens
- Security and Safety – better define
- Nano Safety
- Research and how it is funded – programs in jeopardy
- Heating Plant and efficiency research
- 20-ft. overview of programs
- Status of reactors

Statement made by Bob Conklin
CAC Meeting
April 12, 2006

Concerns and Congratulations

Ecology:

Some of the following has been presented to this group before. The headwaters of the Peconic River is experiencing a succession process considered by ecologists to be in its latter stages of aquatic succession where there is sufficient build up of stream (pond) sediment that the swamp stage is evident in many areas. The water is shallow and tussocks are scattered in the stream bed. This is the type of habitat needed by the "rare" fresh water fish species (as classified by the DEC). These include fish that most of us have never heard of: the Eastern Mud minnow, the Bridled Shiner, Creek Chubsucker, the Banded Sunfish, Swamp Darter and the Tessellated Darter. Most of these, at one time, have been found in these sluggish headwaters.

When the sediments are dredged, the riverbed deepened, open waters restored, the habitat becomes conducive to larger predator fish as the Pickerel and Large Mouth Bass which are the common fish found throughout the 21 mile extent of the river. These predators severely limit the survival of the aforementioned "rare" fish. The clean up has so impacted some 5 plus miles of the headwaters of the Peconic River.

Time to pat BNL administration and especially Dr. Tom Green for his efforts to rescue the Banded Sunfish before the dewatering and dredging proceeded. CAC member, Tom Talbot, also contributed time and effort toward this endeavor. All of nature's creatures, even the insignificant, deserve our considerations.

Another positive attempt at restoration took place just below the sewer plant outflow to the river. This outflow, at times, supplies 90+ % of the river's water at this point. A backwater area had the sediment hand dug around the tussocks in an attempt to maintain the integrity of the area. Another ecological pat on the back.

Mercury:
The pros & cons of the Peconic clean up have been debated and discussed by this group for years and years. No one will argue that excessive mercury, especially in the form of methyl mercury, is of any benefit to us or the living environment. Mercury is a natural element found on the periodic chart. It was built into the plans for our earth. Mercury is released to the atmosphere whenever forests or coal are burned. It has its own cycle – like the water cycle. We will live with it forever. If we concentrate it or it is concentrated by some natural process, we

say we have pollution. We have effectively removed most of the elemental mercury from some 5 miles of River by dredging the sediments and shipping the dried product to someone else. It has been further concentrated. We have helped alleviate our local problem and handed it to someone else. The article sent by Sherry in this month's mailing hints at the magnitude of this problem.

The results of the cleanup, as presented to us, indicate an excellent result obtained by great effort on behalf of the lab and its employees.

5 plus miles of river were affected and only 2 very small areas did not meet the stringent targeted goal. This is a most positive result. You are to be congratulated – a pat on the back – but keep your eyes open – stay vigilant. This is not the conclusion of this issue.

It is a great start for the local residents. They can feel much better about what some considered a contaminated river.

2007 Affiliation		First Name	Last Name	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Chart Key - P = Present															
ABCO (Garber added on 4/10/02)	Member	Don	Garber	P		P	P								
ABCO	Alternate	Doug	Dittko												
Brookhaven Retired Employees Association	Member	Graham	Campbell	P	P	P	P								
Brookhaven Retired Employees Association (L. Jacobson new alternate as of 4/99)(A. Peskin 5/04)	Alternate	Arnie	Peskin		P										
CHEC (Community Health & Environment Coalition (added 10/04)	Member	Sarah	Anker		P	P	P								
		Ann Marie	Reed												
Citizens Campaign for the Environment	Member	Adrienne	Esposito		P										
Citizens Campaign for the Environment (Ottney added 4/02-takenoff 1/05 Mahoney put on)(7/06 add Kasey Jacobs)	Alternate	Kasey	Jacobs	P		P									
E. Yaphank Civic Association	Member	Michael	Giacomaro	P	P	P	P								
E. Yaphank Civic Association (J. Minasi new alternate as of 3/99) (M. Triber 11/05) (Munson 6/06)	Alternate	Brian	Munson												
Educator (changed 7/2006)	Member	Adam	Martin	P											
Educator (B. Martin - 9/01)	Alternate	Bruce	Martin												
Educator (A. Martin new alternate 2/00) (Adam to college 8/01)(add. alternate 9/02) (changed 7/2006)	Alternate	Audrey	Capozzi												
Environmental Economic Roundtable (Berger resigned, Proios became member 1/01)	Member	George	Proios	P	P	P									
Environmental Economic Roundtable (3/99, L. Snead changed to be alternate for EDF)	Alternate	None	None												
Fire Rescue and Emergency Services	Member	Joe	Williams												
Fire Rescue and Emergency Services	Alternate	Don	Lynch	P	P	P	P								
Fire Rescue and Emergency Services	Alternate	James	McLoughlin												
Friends of Brookhaven (E.Kaplan changed to become member 7/1/01)	Member	Ed	Kaplan			P	P								
Friends of Brookhaven (E.Kaplan changed to become member 7/1/01)(Schwartz added 11/18/02)	Alternate	Steve	Schwartz			P									
Health Care	Member	Jane	Corrarino			P									
Health Care	Alternate														
Huntington Breast Cancer Coalition	Member	Mary Joan	Shea	P	P	P	P								
Huntington Breast Cancer Coalition	Alternate	Scott	Carlin												
Intl. Brotherhood of Electrical Workers/Local 2230 (S.Krsnak replaced M. Walker 1/11/07)	Member	Scott	Krsnak	P	P	P	P								
IBEW/Local 2230	Alternate	Philip	Pizzo												

2007 Affiliation		First Name	Last Name	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
L.I. Pine Barrens Society	Member	Richard	Amper		P	P									
L.I. Pine Barrens Society (added P. Loris 6/05)	Alternate	Elina	Alayeva	P	P		P								
L.I. Pine Barrens Society	Alternate	Susie	Husted												
L.I. Progressive Coalition	Member	David	Sprintzen	P	P	P	P								
L.I. Progressive Coalition	Alternate	None	None												
Lake Panamoka Civic Association (Biss as of 4/02)	Member	Rita	Biss	P	P										
Lake Panamoka Civic Association (Rita Biss new alternate as of 3/99)	Alternate	Joe	Gibbons												
Long Island Association (Groneman replace 10/05)	Member	Lauren	Hill												
Long Island Association	Alternate	William	Evanzia	P											
Longwood Alliance	Member	Tom	Talbot	P	P		P								
Longwood Alliance	Alternate	Kevin	Crowley												
Longwood Central School Dist. (switched 11/02)	Member	Barbara	Henigin	P		P									
Longwood Central School Dist.	Alternate	Allan	Gerstenlauer												
NEAR	Member	Jean	Mannhaupt		P										
NEAR (prospect taken off ¾)(Blumer added 10/04	Alternate	Liz	Bowman												
NSLS User	Member	Jean	Jordan-Sweet	P	P	P									
NSLS User	Alternate	Peter	Stephens												
Peconic River Sportsmen's Club (added 4/8/04)	Member	John	Hall		P	P	P								
Peconic River Sportsmen's Club	Alternate	Jeff	Schneider												
Ridge Civic Association	Member	Pat	Henagan	P	P		P								
Science & Technology (added 1/13/05)	Member	Iqbal	Chaudhry	P		P									
Town of Brookhaven (Graves made member 6/06)	Member	Anthony	Graves		P	P	P								
Town of Brookhaven	Alternate	None	None												
Town of Brookhaven, Senior Citizens	Member	James	Heil	P	P	P	P								
Town of Brookhaven, Senior Citizens (open slot as of 4/99)	Alternate	None	None												
Town of Riverhead	Member	Robert	Conklin	P	P	P	P								
Town of Riverhead (K. Skinner alternate as of 4/99)	Alternate	Kim	Skinner												
Wading River Civic Association	Member	Helga	Guthy	P		P									
Wading River Civic Association	Alternate	Sid	Bail												