Community Advisory Council
November 13, 2008
Action Items/Notes

Final

These notes are in the following order:

1. Attendance
2. Correspondence and Handouts
3. Administrative Items
4. Annual Groundwater Report, William Dorsch, Groundwater Protection
5. Agenda Setting
6. Community Comment
7. Natural Resource Management Update, Dr. Tim Green, Environmental Protection Division

1. Attendance

Members/Alternates Present:
See Attached Sheets.

Others Present:
L. Bates, P. Bond, J. Carter, N. Detweiler, B. Dorsch, D. Feldman, L. Garber, K. Geiger, D. Gibbs, M. Holland, M. Lynch, S. Johnson, R. McKay

2. Correspondence and Handouts

Items one through three were mailed with a cover letter dated November 7, 2008. Item four was included in the members folders and items five and six were available as handouts.

1. November 13 draft agenda
2. Draft notes for October 2, 2008
3. Final notes for June 12, 2008
4. Presentation on Annual Groundwater Report
5. Presentation on Natural Resource Management
6. Copy of News Release, "Pump Building Damaged Following Explosion at BNL, No Injuries to Workers"

3. Administrative Items

The meeting began at approximately 6:30 p.m. Reed Hodgin began by reviewing the ground rules and the draft agenda. Those in attendance introduced themselves.

Kathy Geiger explained to the CAC that there was an explosion at the pump house on October 14. She explained that there would be a presentation given to the CAC next month after the investigations are over and the final report is done.

Member Garber announced to the CAC that he attended the New York World Science Festival last summer. It was attended by 120,000 people and most of the talks were sold out. The dates

for 2009 are June 11 through 14. If anyone is interested in attending next year's festival, their website is: http://www.worldsciencefestival.com/.

Member Garber requested a budget update.

Doon Gibbs said that BNL is operating under a Continuing Resolution until March. It is possible that the Lab will know more after the new administration comes in, but until that time, we don't have any new information.

Approval of Minutes
Reed asked for corrections, additions, or deletions to the October 2 draft notes. The notes were approved as written with none opposed and two abstentions.

4. Annual Groundwater Report, William Dorsch, Manager, Groundwater Protection

Bill Dorsch reviewed the status of the groundwater plumes and treatment systems, their performance, and proposed modifications. This information can be found in the 2007 Groundwater Status Report, Volume II of the SER (Site Environmental Report). He explained that the mission of the Groundwater Protection Group is to protect and restore groundwater quality. Dorsch indicated the locations of the monitoring wells and reported that there are 725 permanent and 52 temporary wells used in the Restoration Monitoring Program. The sampling frequency is quarterly to annually with a total of 2,600 samples taken in 2007. In addition, there are 125 permanent and 24 temporary wells used in the Facility Monitoring Program for a total of 600 sample events. These wells monitor groundwater quality up and down gradient of research and support facilities. They are used to verify that controls such as, storm water infiltration controls and secondary containment systems, are working.

Dorsch explained that there are 13 groundwater treatment systems that are treating Volatile Organic Compounds (VOCs) and three systems that treat tritium or strontium -90. Since 1996, 13 billion gallons of contaminated groundwater has been treated and recharged to the aquifer and a total of 5,900 pounds of VOCs have been removed. Dorsch indicated on a map where the groundwater treatment systems are located and said that since groundwater flows to the south, the plumes also move southward.

He explained that there are three phases of operation for a treatment system. First, the system is constructed and turned on (Operation and Maintenance phase). The system continues to pump and treat until capture goals are met. For VOCs, the capture goal is 50 ppb. The OU III ROD and CERCLA cleanup goals are to meet drinking water standards by 2030. The second phase is the pulse pumping phase, which means turning the extraction pumps on and off at regular intervals. The closer you get to capture goals, the slower the rate of improvement. The pulse pumping stimulates the aquifer in the vicinity of the extraction wells to help achieve the capture goals and ultimately meet drinking water standards. This is done for a period of one or two ears and then the regulators are petitioned to shut down the system. The extraction wells will then stay in place in standby mode. Sampling will continue at regular intervals and the plume will be monitored for two or three years. If there is no rebound in VOC concentrations, the regulators will then be petitioned for closure of that system. If approved, the system will then be decommissioned and taken down. In clean-up, the drive is to achieve capture goals of 50 ppb; then the plume is monitored for natural attenuation until drinking water standards (5 ppb) are achieved. He gave a summary of the groundwater treatment systems indicating which systems are fully operational, where changes are being made, which systems are in the pulse pumping phase and which systems have been shutdown or decommissioned. Dorsch showed the CAC several color coded maps indicating where the plumes are located and how they have decreased in size over the last ten years. He explained that the plumes have been cut off at the site boundary and said the offsite portion of the plume is largely at drinking water standards. By

the time the on-site sections of the plume reach the Airport they should be below drinking water standards. If they are not, they will be captured by the Airport System. Of the 61 extraction wells, 15 are on standby at this point in time.

Member Esposito asked if there are more extraction systems south of the border and if the plume is going to take a turn to the west.

Dorsch replied that the plume is shifting further west than anticipated because of the influence of Carman's River and that another extraction well had been put in to capture it.

Member Giacomaro asked if the decisions that are made are based on cost and if the projected cost for completing the program is on budget.

Dorsch replied that it is too early to tell, but he anticipates that they will be on budget for the most part.

Member Conklin asked how far from the Carman's River the plumes were before they began to turn toward it and how deep the pull from the river is.

Dorsch answered that the plume appears to start to turn about one or two miles from the river. The hydraulic pull from the river is quite significant and goes about 150 feet deep. The Carman's River is considerably larger than the Peconic River.

Member Garber asked what the elevation of the plume is compared to Carman's River.

Dorsch said the plume is about 150 – 160 feet below ground surface while the water table is about 40 – 50 feet below ground surface. All the rivers on Long Island are ground water re-charge rivers.

Dorsch said that the Building 96 Treatment System was installed in 2001. The primary contaminant for this area is PCE (tetrachloroethylene). The site was originally used as a motor pool, repair shop, and truck washing facility in the 40s. It was used as a drum storage area from the 60s to the 80s and it is thought that one of those operations is the cause of the PCE contamination. When the treatment system was originally installed, it was thought that there was contamination trapped below the water table. The water table in this area is 17 – 20 feet below ground surface. At 40 feet below ground surface a number of discontinuous silt layers have been discovered and it is thought that the PCE is locked up in these silt layers and is flushing out slowly over time.

In 2004, potassium permanganate was injected in an attempt to oxidize the PCE. Concentrations reduced after that and capture goals were achieved, so the regulators were petitioned for shut-down of the system. However, concentrations came back up and it appeared that there was a continuing source of PCE contamination. If that went unchecked, groundwater cleanup goals would not be met. This summer, samples were collected from the silt layers and it was possible to narrow down the contamination to an area of about 20 x 25 feet and about 16 feet deep. As a precaution, a plastic cover has been placed over the area as a temporary cap.

Member Esposito said if the contamination is sitting on a layer of silt, why can't you just excavate it.

Dorsch said that is possible and the Lab is in the process of making a recommendation to DOE. It is thought that once the area is dug out, groundwater concentrations will drop. Just to make sure there aren't any hot spots in this area, a soil gas screening survey was done on a wider area. Nothing else showed up, so it appears that this is the area of concern.

Member Garber asked what was on the surface right above this contaminated area.

Dorsch replied that there was no pavement, just natural soils. Mostly sandy material on the surface and about one or two feet below that there is a natural silt layer where the PCE is locked up. The highest concentration is about nine feet below ground surface.

Member Chaudhry said that the VOC plume on the previous slide, which has traveled about 1 – 1½ miles south of the Long Island Expressway, doesn't look like it has moved in the past ten years. He asked if it will travel further south.

Dorsch said that as the plume travels south, the concentrations are reducing. Because of natural attenuation, the further it travels, the lower the concentrations are and that is why it looks like the plume has not moved.

Member Giacomaro asked for clarification on the natural silty area, it is only in that one area?

Dorsch said it is a silty material that when extracted is so saturated with PCE that you can actually smell it. The odor threshold for PCE is 150 ppm, so this is higher than that. It is very discreet, borings were done that were five feet apart and it was possible to define this one area. It is thought that at some point, something was spilled in that area and it became locked-up in the silt layers.

Dorsch reported that the SR-90 and tritium plumes are all within the site boundary. The HFBR tritium plume has a pump and recharge system associated with it. He reminded the CAC that George Goode had updated them when the contingency triggers were met last year at Weaver Drive and the system was turned back on. An additional extraction pump and recharge well were put in and have been operating since December 2007. This plume is monitored with geoprobes and the hot spot is characterized twice a year. The highest concentrations are about 80,000 pCi/L. In 2001 it was located just south of the HFBR, which is the area where low flow pumping remediation was done. The groundwater model shows that if concentrations are in the millions of pCi/L and it is possible to pump that water out and lower the concentrations to 500,000 pCi/L, by the time that it migrates to Weaver Drive it should be close to drinking water standards.

Member Esposito asked if there are still readings of over 1 million pCi/L.

Dorsch replied no, that was back in 2000 and 2001. Pumping will continue until the entire high concentration segment is captured, which will probably take several years. There is residual tritium above the water table trapped in the unsaturated zones below the HFBR building, so it is kind of capped. Periodically there are high water table rises that flush the tritium out which then enters the groundwater system and the result is the wells just down gradient of the HFBR peak up in tritium concentration. These peak tritium concentrations in each of the monitoring wells that are down gradient of the HFBR have been graphed over the past ten years. The all time high was in 1999, it has steadily declined since then. The highest that has been seen in the past year is 200,000 pCi/L, which was a response to an historic high water table in 2006.

Member Esposito commented that was still relatively high, indicating that there is still a source.

Dorsch said that it is high, but compared to 5 million, this is a pretty big improvement. Gauging from the trend, the peak concentrations over the next several years should reach drinking water standards. There is less and less inventory of tritium left in the unsaturated soil with each one of these flushes that occur.

Member Graves asked if 2006 was a historic high, was it 50-year, 100-year, and what was the time period?

Dorsch responded that it was a regional historic high. He said he will find out what the time period was and get that information back to the CAC.

ACTION ITEM: Find out the time period in 2006 that there was a historic high water table.

Dorsch explained that the g-2 tritium plume is extending into the area of the HFBR. The record high was in 2002. Since then, the peaks have dropped off considerably. It will continue to be monitored until all the concentrations are below drinking water standards.

There are two pump and treat wells that have been operating for several years treating the Sr-90 plume from the BGRR, which is located in the same area as the g-2 tritium plume. However, since the g-2 source area is several hundred feet north of the Sr-90 source area, it has had a longer time to reside in the aquifer so it has gone deeper into the aquifer. It is about 20 feet deeper than the Sr-90 plume. There are some higher concentrations of Sr-90 than originally thought; the problem is that it is in the same area as the g-2 tritium plume. You can't pump and treat Sr-90 and extract tritium from the g-2 plume and discharge it back to the aquifer at the same time. The good thing is that tritium moves at the rate groundwater flows, 250 – 300 feet per year. Sr-90 moves only about 40 feet per year. In another year or so, the tritium will have moved past the Sr-90 plume. When that happens, some additional extraction wells will be installed to reduce those concentrations and achieve clean up goals.

Member Giacomaro asked if there was a 20 foot difference between the Sr-90 and the tritium.

Dorsch explained that the tritium is about 20 feet deeper than the Sr-90 plume.

Member Esposito asked if the Sr-90 plume is moving as slow as originally anticipated.

Dorsch said that originally it was estimated to be moving at 20 to 30 feet per year, but it is actually moving 30 to 40 feet per year. We've collected so much information here and at the ChemHoles further south that we can really track and time it.

Member Giacomaro asked if the Lab had tried to extract the tritium below the Sr-90.

Dorsch said it is possible to do a surgical extraction but it would be difficult and there is risk involved.

Member Giacomaro asked how long before it could be done safely.

Dorsch said about a year or so until the one plume clears the other. He summarized, saying that good progress is being made in remediating groundwater both on and off-site. Modifications and proposed changes are reviewed by the regulatory agencies and BNL will continue to keep community stakeholders informed about the cleanup progress.

Member Heil asked, when samples are taken off-site, are they analyzed just for the constituents of concern and is the status of the groundwater generally satisfactory.

Dorsch replied that samples are analyzed for all VOCs; PCE is one part of the entire screening process. Nothing out of the ordinary has been encountered, other than the things that have been mentioned.

Member Giacomaro asked again about the PCE contamination area, if it is only 20 x 25 and 16 feet deep, can't you just dig it out.

Dorsch said, yes that is probably what the Lab is going to recommend to DOE.

Member Garber said he would be interested in comparing the inventory of the PCE contamination to a 55 gallon drum.

Dorsch said that the Lab went 20 feet down gradient of the source area and did a deep vertical profile to the clay layer and took samples from the clay layer all the way up and did not find anything.

5. Agenda Setting

Reed Hodgin said that in December the CAC will receive an updates on the HFBR and BGRR. Tom Butcher will give a presentation on oil burner efficiency research that is being done at the Lab from an energy and conservation standpoint. There is also a possibility of a nanoscience presentation and an NSLS II update. Whatever topics are not covered in December will be put on the agenda for January. Due to her teaching schedule, Vicki Colvin, the nanoscience expert from Rice University, is not available until May. She has been put on the agenda for the May 14th meeting.

Mike Holland, DOE Site Manager, explained the status of the contract competition for BNL. DOE is committed to Congress to compete management and operating contracts every 10 years. DOE is now in that process and has put a request for Expressions of Interest on its website. Organizations interested in bidding for the contract to operate BNL can post it on the web. The Expressions needs to be submitted to the Department by 3 p.m. on December 19.

Member Esposito asked if the Expressions of Interest are posted right on the website. She asked if that was how it was done 10 years ago

Holland said they are submitted right on the website and that it was probably not done that way last time. Once those Expressions of Interest are received, a Request for Proposals will go out between January and March 2009.

Member Campbell asked if there will be any opportunity for input to the formation of the RFP from the community.

Holland said he does not know, but he will find out.

Member Chaudhry asked if the contract competition is advertised in the Commerce Business Daily.

Holland responded that it will be in some of the trade papers. A selection and award will take place in October 2009. Then there will be a 60-day transition period; the new contractor will take over January 2010.

Member Esposito asked if Department of Energy makes the selection.

Holland replied there is a Source Selection Board and a Source Selection Official from DOE.

Member Giacomaro asked what the likelihood was of more than one Expression of Interest.

Holland said there is no way to tell. There were multiple bidders last time.

6. Community Comment

There was no community comment.

7. Annual Resource Management Update, Dr. Tim Green, Environmental Protection Division

Dr. Tim Green reviewed Chapter 6 of the 2007 Site Environmental Report. He gave an update on Fire Management and Natural Resource Management. He said the Lab is at the Five-Year Review for both the Fire and Natural Resource Management Plans. Chapter 6 covers the environmental monitoring of biota, post clean-up monitoring of the Peconic River, Internship Programs, and Cultural Resource Management.

Green said that the Lab has been monitoring Cs-137 content in deer since 1992. All of the samples are opportunistic. The Lab will go out and pick up a deer that has been hit by a car, providing they are notified. There were three deer onsite and eight offsite in 2007. The average Cs-137 for on-site deer sampling was 0.17 pCi/g wet weight. Off-site, within one mile of the Laboratory, the average was 0.81pCi/g wet weight. Wet weight is used because that is the best way to see what someone eating the deer would receive.

Member Esposito asked if there has been a decrease in levels over the past few years.

Green said previously the deer would get into the Former Hazardous Waste Management Facility which could have caused the levels to be higher. They are no longer able to get into that area. Since it has been cleaned up, it is no longer an issue. Overall, there has been a reduction since all the cesium contaminated soils have been cleaned up. On average, the levels are at or close to background levels.

Member Chaudhry asked if the values for the samples are taken on the bones.

Green replied that the samples for Cs-137 are taken from the meat of the deer. Sr-90 is tested on the bones. The 10-year average overall has shown a reduction.

Green said that every four or five years the grassy vegetation is tested. This past year, grassy vegetation in areas of soil remediation was tested. There were no positive results for Cs-137. The soil was also tested for Cs-137. There was one location outside of the ITD building that had levels of 4.47 pCi/g, other than that all levels were at background levels. Radiation controls determined that it is not a health concern. It is felt that while doing some work on the vegetation, a small pocket was turned over. The garden vegetable areas near the Apartments were tested and there was no indication of cesium found in the vegetables. The soil samples taken from the garden area were at background levels. The basin sediment is monitored for PCB, and there has been no change in either of the two basins. One of the basins had an increase in calcium and magnesium, which was due to cement dust from the former warehouse area that was broken up and washed into the storm drains and went down into the pond. That will attenuate. Semi-volatile organic compounds that are associated with gasoline were detected with values that were above action levels. When the area was re-sampled, there was nothing found. It appears to have been a contaminated bottle.

Green said that there was nothing above 0.24pCi/g in any of the fish that were tested. Pesticides, such as DDT & breakdown products, as well as insecticides, such as Dieldrin and Endrine are occasionally seen. PCBs have been sparsely detected in the Peconic River. He

said that there was an error in the SER handed out last month, in table 6.5 the levels were reported as mg/kg and should have been mcg/kg. It has been corrected on the website.

In aquatic vegetation sampling very low levels of Cs-137 have been seen, almost non-detectable. Cesium in the sediments ranges from around 1 pCi/g to non-detectable levels. Once the Peconic River cleanup was finished, one of the concerns was atmospheric mercury. Most of our rainfall comes up the east coast or across the Ohio Valley where there are a lot of coal-fired power plants. Precipitation samples are taken four times a year to check for radiation and mercury content. There were no radiological components to the precipitation. The highest reading for mercury was 13.5 ng/L in 2007.

Member Giacomaro asked if those are the only two things tested for in precipitation.

Green said yes, at this point in time.

Member Esposito asked what percentage of time mercury is detected, how many years has the sampling been taking place, and is anyone else doing this type of testing. She asked if this is public information.

Green said that usually there is some finding in one of the two sampling stations. Most of the time the reading is 4 or 4.5 ng/L and that is average for the northeast. This testing has been done at the Lab for two or three years. It would be difficult for someplace that doesn't do routine testing to do just this one test year round. BNL does this as part of our routine sampling. He said this is public information.

Member Giacomaro asked what classifies acid rain, and how long has the Lab been conducting this type of monitoring

Green replied anything below 5.6 pH is considered to be acid rain. He said the Lab has been monitoring the radiological aspect for over 40 years because of the reactors.

Member Giacomaro asked if the acid rain figures are available from years ago.

Green said that testing the pH range onsite started only four or five years ago.

Member Heil asked how many monitoring locations there are and if the findings vary between them.

Green said there are two locations. One is near the Sewage Treatment Plant and the other is near the Apartment complex next to the garden. There is not much variation in findings between the two areas.

Member Conklin asked if there is any data available from the Midwest where the coal-fired power plants are located so you could look at the numbers and trace the source back to a place and period of time.

Green responded that this is considered non-point source pollution because it is whatever is in the atmosphere that gets picked up by the rainfalls. It is difficult to track back to where exactly it comes from. The National Mercury Monitoring Network is tracking mercury deposition.

Reed said that the pollution can be isolated to regions, but not to specific plants.

Member Giacomaro asked what elements could be picked up in rain. When Mt. St. Helens erupted, could that have produced acid rain.

Green said anything that is in dust form can be picked up. Sulfuric acid and nitric acid can be picked up by rain and that is usually the cause of acid rain.

Green said that the Wildland Fire Management Plan is a separated sub-plan of the Natural Resource Management Plan which was approved in September 2003. The Plan describes BNL's response to wildland fires and use of prescribed treatments. It is on a five-year review cycle, which the Lab is in the middle of now. Two prescribed fire burns have taken place over the past five years. In order to have a successful burn, there are a lot of requirements that have to be met. It is necessary to have the right temperature, humidity, and wind speed and direction. This is an important training tool. Neighboring communities are notified. Originally the notifications were done door-to-door, but now post cards are mailed to neighboring homes. About 500 post cards were mailed to residents living in the Ridge area, which is just north of the Laboratory.

BNL is the only organization on Long Island that has done a Fire Protection Assessment, which looks at risks, hazards and values. Through this assessment the Lab has been able to identify which areas are at higher risk for a fire. The risk along the northern boundary is high due to trespassing. The hazards are areas that would cause more problems if they were to burn. They include the white pine forest, pitch pine, and cherry trees. The terrain also may be a hazard. If a fire were to start in a hilly area and the wind direction is right, the fire could flow right up the hill. Values are those things that need to be protected. This would include buildings, white pines, and those areas which have W.W. I trenches.

Recently, there have been some changes in the National Wildlife Fire Plan, so the Lab is in the process of upgrading its plan. BNL is working to increase the use of prescribed fires. More staff members are being trained in Basic Wildlife Firefighting and fire behavior. The Lab is working with The Nature Conservancy and NYSDEC to cooperatively have prescribed fires on site. The community in Ridge is a community at risk for wildlife fires. If the Lab can reduce the fuels in that area and a fire does occur, when it reaches that area, it will be protected. That is a key goal. Another goal is ecological. There has a been a lot of damage to oaks trees due to gypsy moths, so we would like to restore that area and get the forest to grow back.

Member Henagan said that there are piles of dead wood along the northern border to keep the ATVs out. He asked if that creates a fuel source for fire.

Green said that the piles of wood are meant to discourage ATVs. Because the wood is lying on its side it is less of a fuel source, it will not allow the fire to get up into the canopy of the trees.

Green said that the goal of the Lab is to have the updates complete by the end of FY09. He said that the Natural Resource Management Plan was approved in December 2003 and describes BNL's approach to natural resource management. There are 65 actions included in the plan. All of BNL's Annual Reports for the Natural Resource Management Plan are available on the Environmental Protection website under Natural Resources. This plan was developed using a technical advisory group.

Green told the CAC that a Lab-wide survey was sent out to employees in early October 2008 regarding opinions on deer management on site. He is in the process of reviewing the results and will meet with Lab management to decide a path forward. He will then report back to employees and CAC members regarding the results of the survey.

Member Martin asked if the deer population is rising.

Green said that according the latest survey, the deer population has increased from 400 to 600.

Green said there are no federally designated threatened or endangered species on site. However there has been an increase in the number of NYS designated endangered, threatened, special concern or vulnerable species on site. There were 29 species in 2002. There are now 41 species that have been identified including: the tiger salamander, banded sunfish, birds, insects, and plants.

Member Chaudhry asked if the Lab tracks insects that are endangered.

Green said that there are some damselflies and dragonflies that are threatened species. He explained that there are three classifications of endangered species: those that have been confirmed; those that are likely but have not been confirmed; and those that are potentially on site but have not been confirmed.

Member Giacomaro asked if the birds listed were migratory.

Green replied that they are all migratory birds. They are here in the summer time.

Member Graves asked if the Lab has looked into food plants for the butterflies.

Green said there is a small patch which the Lab is trying to grow; right now it is too small to support them.

Green said that tiger salamanders have been confirmed at 22 locations, which is five more than in 2003. A pond was added in the RHIC ring for drainage purposes for storm water management with the northern end specifically designed for the tiger salamander. It was designed to retain water through most of the summer and would grow the plants needed for the tiger salamander. The Lab has also restored the meadow marsh and Former Waste Management area ponds and designed them for the tiger salamander. A three and a half year study regarding the tiger salamander is nearing completion. It has been discovered that they use a much larger area around ponds than previously thought. The radius the tiger salamander will travel has increased from 800 feet to 1,200 feet from ponds. They tend to stay away from open fields. This research is important for the development of a recovery plan.

Green said that 195 banded sunfish were recovered from the Peconic River thanks to Member Conklin. Originally it was thought that Zeke's Pond was drying up, so 250 banded sunfish were returned to Peconic River. Since then, the pond has rebounded and there are now thousands of banded sunfish maintained there. There are more releases expected in the future. In 2003, when Zeke's Pond began drying up, the swamp darter was extirpated from BNL. The Lab plans to reintroduce them to the site.

Green said that nest management for geese was implemented in 2007. The population grew from 120 to 157 so the Lab began a more aggressive management plan in 2008. The current population now is 148. The turkey population on site is between 300 and 500 birds. New York State is looking into a turkey season on Long Island. Green said that BNL has been doing song bird surveys for nine years and there are currently 113 species. Bluebirds were a species of concern in New York, but they are not any longer. BNL has 56 nest boxes that are maintained and monitored by a volunteer; 40-50% of them are used by eastern bluebirds.

New York State has been conducting a state-wide inventory of dragonflies and damselflies. BNL has 60 species of the 120 listed for Suffolk County. This has sparked multiple studies for interns and OSSP.

Green said that invasive species are a problem, especially since the Lab has visitors from all over the world and occasionally seeds are brought in on cars, etc. The Lab has established two invasive free zones and is working with the Pine Barrens Commission for limited removal of the invasives.

Green said that the Upton Ecological and Research Reserve was developed by the Natural Resource Management Plan and was set aside by DOE in 2000 with four years of funding. Then in 2003 when funding ended, it transitioned into FERN (Foundation for Ecological Research in the Northeast) which conducts work throughout the Pine Barrens.

Green said that the Lab gets a lot of its information through interns. In 2001, there was one intern and one mentor. In 2008, there was one professor, two teachers, 14 college interns, three high school interns, and five mentors working with students. In total, since 2001, BNL has had 71 college interns, eight teachers, nine high school interns, two graduate students, three college professors for a total of 105 experiences. This is what started the Open Space Stewardship Program which has been so successful. Due to the loss of two mentors, in 2009 the numbers will be smaller. There have been dozens of projects completed on many topics. All of the posters for all of the students are available on our website under the Natural Resource Management Plan.

Green said that the Lab will continue to maintain and build upon existing actions, add focus on unresolved actions and actions in progress and add in actions for emerging issues. The Lab is looking to identify additional funding sources. He expects to have the plan update completed and approved by the end of FY09.

Member Campbell said that he worked in Building 515 for almost 30 years and asked for more information regarding the high levels of Cs-137 found there.

Green said that one of the cleanup areas was just outside the front door on the west side; it was cleaned up to under 23 pCi/g and filled in with six inches of clean top soil.

Member Giacomaro asked if the organic material from burning the undercoat of the forest could be sold and used as fertilizer in other parts of the world.

Green said it would be poor organic material and would cost more to cut it down than it would sell for.

Member Garber asked if there was any new information regarding deer management.

Green said there is nothing new on management techniques available. Most of the results of contraceptive work have shown that it does not work.

Member Chaudhry asked if it is possible to get a list of acronyms and their definitions.

Reed said that he will check with Jeanne D'Ascoli and if one exists, he will get a copy of it.

ACTION ITEM: Find out if there is a list of acronyms and their definitions and if there is; bring copies for CAC members to next meeting.

The meeting adjourned at 8:56 p.m.

Agenda Topics	Votes
~~Global Warming, Stony Brook, Pine Barrens~~ (1-10-08)	15
~~CAC as a conduit/resource to the community~~ (11-08-07)	13
~~Emergency Operations Center tour and drill~~ (6-12-08)	12
Nano technology	11
~~CERN – problems and implications~~ (4-10-08)	11
~~Site Environment Report – good and bad~~ (11-8-07) (10-2-08)	11
~~Nano safety~~ (3-13-08)	10
Regulator presentations on areas they oversee	10
Energy	9
Overview of programs	9
~~Deer Management~~ (4-10-08)	8
Anti-terrorism update	7
NSLS-II briefing	7
Nuclear power plant safety	6
~~Education Programs~~ (10-2-08)	6
~~Energy efficiencies~~ (9-13-07)	6
Sustainable transportation	4
~~Natural Resources management~~ (11-13-08)	4
~~Nano ES & H~~ (10-11-07)	3
Safety and Security	3
Experimental Review Process	3
Latest RHIC findings	2
How the Lab supports nuclear facilities in the N/E region	2
Status of P-2 road show	2
Heating plant and efficiency research	2
Lyme Disease	2
CAC process	2
Alternative fuels	2
Update on phyto/bacterial contamination remediation research	1
Deforestation	0
Work planning process	0

New Topics Added After September 2007 Vote

~~Global warming – BNL research~~ (5-8-08)
Nano toxicology
~~Nano ES&H issues at BNL and beyond~~ (5-8-08)
Nanotechnology/science at BNL
Nano management policy issues
Nano panel discussion with the DOE, EPA, and FDA
Renewable energy research at the Lab
BNL/CSHarbor/Stony Brook collaboration

P = Present 2008 Affiliation		First Name	Last Name	Jan	Feb	Mar	Apr	May	June	July	Aug	Sep	Oct	Nov	Dec
ABCO (Garber added on 4/10/02)	Member	Don	Garber	P	P	P	P	P	P				P	P	
ABCO	Alternate														
Brookhaven Retired Employees Association	Member	Graham	Campbell	P	P	P	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							
		Ann Marie	Reed												
Citizens Campaign for the Environment	Member	Adrienne	Esposito	P	P	P		P					P	P	
Citizens Campaign for the Environment (Ottney added 4/02-takenoff 1/05 Mahoney put on)(7/06 add Kasey Jacobs)(K. Jacobs off 1/08)	Alternate														
E. Yaphank Civic Association	Member	Michael	Giacomaro	P	P	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												
Educator (B. Martin - 9/01)	Alternate	Bruce	Martin			P		P					P	P	
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	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	P	
Fire Rescue and Emergency Services	Alternate	James	McLoughlin			P									
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	P			P	P						
Health Care	Member	Jane	Corrarino		P								P		
Health Care	Alternate														
Huntington Breast Cancer Coalition	Member	Mary Joan	Shea		P	P	P	P	P						
Huntington Breast Cancer Coalition	Alternate	Scott	Carlin											P	
Intl. Brotherhood of Electrical Workers/Local 2230	Member	Scott	Krsnak				P	P	P					P	

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(S.Krsnak replaced M. Walker 1/11/07)				P	P										
IBEW/Local 2230	Alternate	Philip	Pizzo												
L.I. Pine Barrens Society	Member	Richard	Amper		P	P							P		
L.I. Pine Barrens Society (added P. Loris 6/05)(Alayeva off 6/08)	Alternate			P					P						
L.I. Pine Barrens Society	Alternate	Susie	Husted												
L.I. Progressive Coalition	Member	David	Sprintzen	P	P	P	P	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	P	P	P	P				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														
Long Island Association	Alternate	William	Evanzia				P						P		
Longwood Alliance	Member	Tom	Talbot	P	P			P	P				P		
Longwood Alliance	Alternate	Kevin	Crowley												
Longwood Central School Dist. (switched 11/02)	Member	Barbara	Henigin	P		P		P	P				P	P	
Longwood Central School Dist.	Alternate	Allan	Gerstenlauer												
NEAR	Member	Jean	Mannhaupt				P	P	P				P		
NEAR (prospect taken off ¾) (Blumer added 10/04)	Alternate	Karen	Blumer	P									P		
NSLS User	Member	Jean	Jordan-Sweet	P		P	P		P						
NSLS User	Alternate	Peter	Stephens												
Peconic River Sportsman's Club (added 4/8/04)	Member	John	Hall	P					P				P		
Peconic River Sportsman's Club	Alternate	Jeff	Schneider				P								
Ridge Civic Association	Member	Pat	Henagan	P		P	P	P	P					P	
Science & Technology (added 1/13/05)	Member	Iqbal	Chaudhry	P	P	P	P	P	P				P	P	
Town of Brookhaven (Graves made member 6/06)	Member	Anthony	Graves	P		P	P	P	P				P	P	
Town of Brookhaven	Alternate	None	None												
Town of Brookhaven, Senior Citizens	Member	James	Heil	P		P	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	P					P	
Town of Riverhead (K. Skinner alternate as of 4/99)	Alternate	Kim	Skinner												
Wading River Civic Association	Member	Helga	Guthy	P	P		P	P	P				P		
Wading River Civic Association	Alternate	Sid	Bail												