

Final

These notes are in the following order:

1. Attendance
2. Correspondence and Handouts
3. Administrative Items
4. g-2 Record of Decision / Response to Comments, Doug Paquette, Environmental and Waste Management Services Division
5. Community Comment
6. Wildlife Management: Deer, Ticks & Geese, Tim Green, Ph.D., Cultural & Natural
7. Resource Manager
8. Agenda Setting

1. Attendance

Members/Alternates Present:

See Attached Sheets.

Others Present:

M. Bebon, H. Carrano, F. Crescenzo, A. Csorny, J. D'Ascoli, B. Dorsch, L. Garber, K. Geiger, T. Green, B. Howe, S. Johnson, S. Kumar, D. Paquette, S. Penn, K. White

2. Correspondence and Handouts

Items one through three were mailed with a cover letter dated May 4, 2007. Items four through six were provided in the member's folders and item seven was available as a handout at the meeting.

1. A copy of the May 10 draft agenda
2. Draft notes for April 12, 2007
3. Final notes for March 2007
4. A revised agenda
5. An invitation to the Long Island Groundwater Symposium on June 6
6. A copy of the wildlife management presentation
7. A copy of the presentation on the g-2 ROD

3. Administrative

The meeting began at approximately 6:35 p.m. Reed Hodgkin reviewed the ground rules and the draft agenda. Those present introduced themselves.

Bruce Martin, alternate member, told the CAC that classes and finals scheduled on Thursday evenings prevented Adam Martin, member, from attending the last few meetings. Member Martin asked that his regards and regrets be relayed to the CAC.

Approval of Minutes

Reed asked for corrections, additions or deletions to the April 12 draft notes. Member Giacomaro asked his questions about the rate of water flow in the Peconic, the potential effect of increased water levels on testing data and the response from Skip Medeiros could be added to the dialogue on page two. Member Garber asked that it be noted on page eleven in paragraph four, that Gilbert Hansen of the Long Island Geological Society, is also a Professor of Geology at Stony Brook University. There were no further comments. The notes were approved as amended with no objections and four abstentions.

Ken White, Manager of the Office of Educational Programs invited the CAC to attend the first year celebration of the Open Space Stewardship Program, a school-community-government program initiated by the U.S. Department of Energy and Brookhaven National Laboratory to be held in Berkner Hall on May 24, 2007. Students will display their work and teachers will be recognized for their participation. Member Talbot asked if the event was open to the public and if information on the Open Space Stewardship program was available on the BNL website. White said the event was minimally advertised in order to control attendance and information about the Open Space Stewardship program could be found on the website. Member Evanzia asked why the New York State Marine Educators were not involved with the program. White explained that it was a very new program and he expects it to expand next year. He welcomed any contact information on available resources.

Members Mannhaupt and Guthy congratulated White on the success of the program.

Jeanne D'Ascoli relayed regrets for Sam Aronson and Marge Lynch, who were not able to attend the meeting. She also invited the CAC to attend the ribbon cutting ceremony for the Center for Functional Nanomaterials (CFN) on May 21. D'Ascoli said a CAC meeting will be scheduled to take place in the new building during the fall, and assured those who could not attend the ceremony there would be an opportunity to visit the building at that time

D'Ascoli told the CAC that Les Hill had been called away from the Laboratory on family business. She said the update on the HFBR and the BGRR would be postponed to the June CAC meeting.

4. g-2 Record of Decision / Response to Comments

Doug Paquette gave a presentation on the Record of Decision (ROD) for the g-2 Source Area and Tritium Plume (g-2), Brookhaven Linac Isotope Producer (BLIP), Former Underground Storage Tanks (UST's) and responses to CAC comments. Paquette told the CAC that the Record of Decision (ROD) and Responsiveness Summary were prepared after the October 12 through November 13, 2006 public comment period on the Proposed Remedial Action Plan (PRAP). Adjustments were made based on the comments received from regulatory agencies and the community. On March 13, 2007 the New York State Department of Environmental Conservation (NYSDEC) and the New York State Department of Health (NYSDOH) concurred with the ROD. The ROD was signed by the Department of Energy (DOE) on April 10, 2007 and the Environmental Protection Agency (EPA) on May 10, 2007.

Comments were received from various community groups including the BNL Community Advisory Council (CAC), Citizens Campaign for the Environment (CCE), The Pine Barrens Society, Wading River Civic Association and Science and Technology interests. A summary of the comments received include:

- At a trigger level of 1,000,000 pCi/L, perform a formal review of the remedy
- Eliminate the proposed 2,000,000 pCi/L trigger
- Active remediation if tritium approaches the site boundary at greater than 20,000 pCi/L
- The ROD should include a sampling strategy that includes public input

- Clarify frequency of cap inspections
- Active remediation should be part of every plan, not just contingency actions
- Agreement with proposed actions, but effectiveness must be verified

Paquette discussed the selected remedies contained in the ROD. He said there were no further actions required for the USTs because they had been removed and no further environmental concerns were identified. Remedies for BLIP and g-2 include continued source area controls, monitoring groundwater and related data, inspection and maintenance of caps to prevent storm water infiltration, twice yearly inspections, and land use restrictions to prevent possible human exposure. Additionally, groundwater will be monitored near and around source areas to verify the effectiveness of storm water controls. The g-2 plume will be tracked until it attenuates to less than 20,000 pCi/L. Contingency actions have been established for g-2 should unexpected levels of tritium be found. The review and reporting of monitoring data will continue in the Annual Groundwater Report and the CERCLA 5-Year Review process.

Member Esposito asked if the review would be annual. Paquette said the data would be reviewed continuously but reported annually.

Paquette spoke about CAC recommendations included in the ROD. The groundwater monitoring strategy for g-2 and BLIP source areas is similar to the previously proposed strategy. Existing permanent wells will be used and monitoring will occur quarterly until sources are remediated. The g-2 plume will be monitored by existing permanent wells in Building 912 and the Alternate Gradient Synchrotron (AGS) parking lot and additional temporary wells. Twenty five wells are planned for installation between May and June of 2007. Over the next five years, more than 100 temporary wells will be installed. The plume will be monitored until detected tritium concentrations are less than 20,000 pCi/L.

The ROD contains two contingency actions to address any unexpected monitoring results.

These actions were established in response to CAC comments. The contingency actions are:

- 1) If the tritium concentrations within the plume exceed 1,000,000 pCi/L actions will include determination as to whether improvements to the source controls are required and determination as to whether active remediation is required
- 2) If the tritium concentrations exceed 20,000 pCi/L south of Brookhaven Avenue; action will be taken to determine whether active remediation is required.

The ROD commits the DOE to prevent the migration of tritium at concentrations greater than 20,000 pCi/L beyond the BNL site boundary. If triggered, a process is in place to notify the regulatory agencies and the public. Paquette said the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) protocols will be followed to determine if a reevaluation of the remedy is required.

Member Esposito asked for the distance from Brookhaven Avenue south to the BNL site boundary. Paquette said it is approximately one mile and offers additional areas for monitoring if necessary.

Paquette told the CAC the next step would be to add the ROD and the associated documents to the Administrative Record. A press release will be issued on Wednesday, May 16, 2007 and a Notice of Availability for the ROD will be published in local newspapers. The ROD will also be placed on the BNL website and there will be periodic updates on monitoring results provided to the CAC.

Member Mannhaupt asked when data would be available from the 25 temporary wells planned for installation in May and June, and when the plume was projected to reach Brookhaven Avenue and Cornell Avenue.

Paquette said data is expected back from the temporary wells within one week of installation, but the release of the data is expected to occur at the end of the summer or in early fall. He said the plume is expected to migrate to the Cornell Avenue area in late 2008 and to Brookhaven Avenue in 2012. Wells will be installed to monitor the migration.

Member Esposito asked if the plume could reach Brookhaven Avenue sooner than 2012.

Paquette said the groundwater flow is about 250 feet per year and by that time; the plume may have already attenuated below 20,000pCi/L.

Member Martin asked if figures were available on concentrations at the source.

Paquette said groundwater is being monitored at the source and directly downgradient, the details are presented in the ROD. He said that concentrations have changed over time, but early on the concentration of 1.8 million pCi/L was recorded and after the cap was installed a concentration of 3.4 million pCi/L was seen.

Member Garber said there was a suggestion to put a plain water detector right under the caps to facilitate early detection if the cap was compromised. He asked if that suggestion was included in the ROD.

Paquette said the suggestion was not included in the ROD, but it could be examined in the future.

Member Esposito thanked Paquette for making the changes to the ROD as recommended by the CAC.

5. Community Comment

Member Mannhaupt said BNL was to be commended for accepting Member Garber's comment after the completion of the ROD. She said the offer of further investigation of a suggestion after a ROD was appreciated and noted the relationship between the CAC and BNL had come a long way.

6. Wildlife Management: Deer, Ticks & Geese

Tim Green, BNL's Cultural & Natural Resource Manager, gave a presentation on wildlife management. He began with an overview on the management of the White-tailed Deer. Green said there had been little movement on a management plan since the last CAC discussion on the topic and, as discussed previously, an area-wide approach to deer management was necessary for a successful program.

Green said several agencies were initiating action. The Farm Bureau is currently working with the New York State Department of Environmental Conservation (NYSDEC), focusing on increasing permits and fencing. Although fencing is an aide to management, it increases the challenge by limiting deer movement. One solution under consideration is the option to allow farmers to harvest deer and provide the meat to those in need. Green said venison is an excellent source of protein. The US Fish and Wildlife Service has initiated a hunt at the Wertheim National Wildlife Refuge (NWR) in an attempt to reduce both the damage to foliage at the refuge and automobile accidents caused by deer on surrounding roadways. Additionally, the NYSDEC has established longer hunting seasons and liberalized nuisance permits for landowners.

BNL conducted a deer population comparison in 2004. An aerial survey was taken at the Rocky Point Wildlife Management Area (5,100 acres), at BNL (5,300 acres) and at the Wertheim

Wildlife Refuge. Approximately 320 deer were estimated to be in the Rocky Point area, where hunting is permitted. The BNL population was estimated at 412 deer. Hunting is not permitted on the Laboratory site. As a result of the study, it was concluded that liberal hunting alone did not appear to lower the deer population. Given that the surveyed areas were similar in size, the difference between the two populations was not significant. BNL continues to monitor its deer population in partnership with the Foundation for Ecological Research in the Northeast (FERN) and The Nature Conservancy to identify the ecological impacts of deer overpopulation.

Member Esposito asked why the percent difference was not significant and what was done with the deer after they were killed during the hunt at NWR.

Green said although there was a 25 percent difference between the two populations, it was significant in numbers only. The difference is not significant when examining the damage to the environment. He said the deer that were hunted are often donated for food, used by a farmer, or left to nature.

Member Proios said some farmers believe a rotting carcass actually repels the deer and often that is the reason for leaving the deer in the field. A program existed last year, supported by the SC Soil and Water Conservation District and other grant resources that paid the farmers one dollar for every pound of venison. As a result of the program 8,000 pounds of venison were donated to food pantries.

Member Proios said another proposal was to provide venison to the jails after it was properly processed at the Suffolk County Farm meat processing plant. He said using the meat for humanitarian relief helped to alleviate the stigma associated with the hunting process.

Member Talbot asked if the estimated 320 deer located in Rocky Point was an acceptable population level for the area.

Green said most ecologists in the Northeast agree that 10 to 30 deer per square mile is acceptable. Given those parameters, less than 80 deer should live at BNL; they should be very rare.

Member Giacomaro asked if there were control techniques other than hunting that could be used to manage the deer.

Green said a successful technique being used is the Bait and Shoot technique. He was not certain it was permitted on Long Island.

Green said BNL now conducted land-based surveys of the deer population, as well as aerial surveys in order to compare findings. These efforts yielded over 90 sets of data. The deer were counted one half hour prior to sunup and one half hour prior to sundown to prevent duplication. The data revealed that the deer tended not to move far and preferred to congregate near roads rather than the forest, because the lawns provide the most nutritious food source. During the evening, the deer would congregate near buildings and toward the woods. These surveys are conducted in late spring and late fall in order to also measure the winter survival rate and spring births. Historically, population estimates rose through the spring of 2001 and dropped after the winter of 2004. The population has remained steady and currently it is estimated that 466 deer reside at BNL, which is equivalent to 57 deer per square mile.

Member Sprintzen asked if rapid deer reproduction was a function of evolutionary success.

Green said the success is related to the lack of predators. From a biological standpoint the lifespan of a deer living among its usual predators should be three to four years. With conditions

that limit hunting and natural predators, the deer tend to live seven to eight years. They lose their teeth, they gum their food to digest it and in general live a less healthy life.

Green said the deer impact on the environment at BNL is detected in many ways. Browse lines from feeding give evidence to altered forest structure potentially resulting in a loss of biodiversity and forest regeneration, though the results are not conclusive. He said that FERN conducted forest health monitoring throughout the Central Pine Barrens which examined the forest age class structure. Observations included record of similarities in age class structure among various forest types, and a high number of seedlings in all forest types but a low number of saplings in all forest types. The forest is not regenerating as it should, which causes concern.

Member Mannhaupt asked when the forest would be lost if everything remained status quo and no one did anything?

Green replied in 100 years or so. But it could be accelerated. For example, we've had damage from the stripped oak worm for the past six years in the northeast quadrant of the Lab that has caused over 25% mortality of the oak trees. The older trees die from insect damage and there's nothing to replace them.

Member Mannhaupt asked if loss of the forest could escalate to 75 years? Green agreed it could.

Member Giacomaro asked how many seedlings are normally expected to grow to the sapling stage, given that there are thousands of seedlings on a forest floor.

Green said it is generally expected that less than ten percent of detected seedlings will grow to the sapling stage, but at present, there are areas where no saplings were found in the forest.

Green said deer also carry ticks to the forest and the community. Suffolk County recently passed legislation to create a Tick Management Task Force (TMTF), which will review issues related to tick control and make recommendations. The first meeting is scheduled for May 11, 2007. One effort under examination for tick control is the 4-Poster; a feeder that treats deer with the insecticide permethrin. This method has been determined to be 90 to 98 percent effective, however it is not currently allowed for use in New York or Connecticut. Cornell Cooperative has recently proposed an experiment to address the concerns of the NYSDEC. Shelter Island and Fire Island are planned as treatment locations and BNL has been proposed as a control location.

Member Hall said deer are not the only transporters of ticks. Turkeys, small animals and other roaming creatures carry ticks throughout communities. He asked if Green had seen more ticks this season than in the past, if an increase was expected and how the field staff at BNL protected themselves from ticks.

Green said he had not seen more ticks yet, though he did expect an increase. He said the staff at BNL layers wind pants, gators (boots) and nylon shirts treated with permethrin over their clothing to protect themselves.

Member Esposito asked if permethrin was as effective as DEET.

Green said permethrin was one of the safest insecticides available and more effective than DEET. He had seen ticks survive exposure to DEET and die instantly when exposed to permethrin.

Member Conklin asked why there was reluctance to use the 4-Poster.

Green said it is illegal to feed deer and there is concern that a deer recently treated with permethrin could then expose a hunter to the insecticide.

Member Henagan asked if a dye component could be added to the mechanics of the 4-Poster that would temporarily mark the deer and alert a hunter that the animal had been recently treated.

Green said it was a good idea and asked Member Henagan to send him an e-mail with the suggestion.

Member Graves asked how often the clothing needed to be retreated.

Green said the clothing could be washed five times before it needed to be retreated.

Green said wild turkeys also host the Lone Star and other ticks, as well as their larvae, which could impact the success of the experiment. He said the wild turkeys were re-introduced to Long Island in 1992, and presently the turkey population at BNL was estimated to be approximately 300 birds. The turkey population throughout Suffolk County had stabilized to the point that it would now support hunting and the NYSDEC is developing regulations for a turkey hunting season. BNL may participate in a banding program to track the effects of the hunting. Approximately 20 birds are now banded annually, usually in late June.

Member Henigin asked if hunters were aware the turkeys were tick infested and how they handled that problem.

Green said the birds will always have ticks and the hunters needed to be aware so that they could deal with the ticks as best they can.

Member Esposito said guinea fowl were used at Suffolk Community College to help control the tick population.

Member Garber said field mice were another tick transporter. An experiment was done with permethrin soaked cotton balls, which the field mice would take back to their nests; to attempt to test the ability to control ticks on field mice.

Green said the Canadian goose population at BNL is two pronged; there is a population that arrives and leaves yearly on a migratory path and another that is permanent to the Laboratory because they have not learned to naturally migrate. Issues related to goose management include congregation and aggression near office buildings and lawns, control of excrement, and safety impacts caused by aggressive and protective geese.

Green said the U.S. Fish & Wildlife Service has released rules for goose nest management. The new rules allow for easy permit application, online registration, and various treatment options such as egg puncture, addling, oiling or nest destruction. The permitted action period is between April 1 and June 30 each year. These actions are supported by the Humane Society of the United States, PETA, Geese Peace and other interest groups. BNL has adopted a non-aggressive approach to nest management. Green said each nest reported as a safety issue will be evaluated individually and could be destroyed if warranted. The geese would then move to another location to nest. Although BNL will not hunt for nests, eggs will be oiled in nests discovered during routine activities.

Member Henagan asked why the nests would not be actively hunted.

Green said BNL is taking a conservative approach to nest management because there have been concerns raised by employees. He said a Brown Bag lunch is planned to provide employees the forum to discuss their concerns with nest management.

Member Hall asked if it was difficult to the access eggs in nests when the female goose is sitting on the nest and the male is protecting the nest.

Green said the staff works in pairs. One person will distract the male and the other person can then approach the nest. When approached with confidence a goose will eventually submit.

Member Garber said he was impressed with the infrared aerial shots of the deer at BNL and asked if night flights could be used to dart male deer with birth control injections.

Green said the method would be very costly.

Member Graves made an observation that lawns and turf grasses seem to be a common theme with deer and geese and problems with nutrient loading to groundwater. He wondered if the problems had ever been looked at holistically. Green replied that he didn't think so.

Member Sprintzen asked if there was a goal for the goose population at BNL.

Green said there was no goal at this time. The population will be assessed over time.

Member Mannhaupt said the CAC could provide support to help resolve wildlife management issues and suggested that Green coordinate with the Open Space Stewardship program to educate the next generation about wildlife protection.

Green said he was actively working with Ken White to develop programs to address this.

The CAC thanked Tim Green for his presentation.

7. Agenda Setting

Reed asked the CAC members to review the agenda items proposed at the April meeting and suggest new agenda items of interest. In addition to the items previously proposed, Member Talbot suggested an anti-terrorism update and Member Henagan suggested that BNL press releases be available to the members at monthly meetings.

Member Mannhaupt asked that the HFBR/BGRR update be on the agenda for next month.

Member Heil asked that the discussion of CAC process be added to the June agenda.

Future Agenda Items

- Anti-terrorism update
- Press Releases – BNL in the News
- Funding / budget overview
- BGRR / HFBR update
- Nano Safety
- CAC Process
- Information on cultural events

The meeting adjourned at approximately 9:05.

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	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			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	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					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												
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	P							
	L.I. Progressive Coalition	Alternate	None	None												
	Lake Panamoka Civic Association (Biss as of 4/02)	Member	Rita	Biss	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	Lauren	Hill												
	Long Island Association	Alternate	William	Evanzia	P				P							
	Longwood Alliance	Member	Tom	Talbot	P	P		P	P							
	Longwood Alliance	Alternate	Kevin	Crowley												
	Longwood Central School Dist. (switched 11/02)	Member	Barbara	Henigin	P		P		P							
	Longwood Central School Dist.	Alternate	Allan	Gerstenlauer												
	NEAR	Member	Jean	Mannhaupt		P			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	P							
	Peconic River Sportsmen's Club	Alternate	Jeff	Schneider												
	Ridge Civic Association	Member	Pat	Henagan	P	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	P							
	Town of Brookhaven	Alternate	None	None												
	Town of Brookhaven, Senior Citizens	Member	James	Heil	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							
	Town of Riverhead (K. Skinner alternate as of 4/99)	Alternate	Kim	Skinner												
	Wading River Civic Association	Member	Helga	Guthy	P		P		P							
	Wading River Civic Association	Alternate	Sid	Bail												