# Community Advisory Council June 9, 2010 Action Items/Notes



These notes are in the following order:

- 1. Attendance
- 2. Correspondence and Handouts
- 3. Administrative Items
- 4. Community Comment
- 5. Agenda Setting
- 6. CAC SPDES Subcommittee Report
- 7. CAC SPDES Recommendation

#### 1. Attendance

Members/Alternates Present: See Attached Sheets.

#### Others Present:

J. Amabile, S. Aronson, L. Bates, P. Bond, J. D'Ascoli, N. Detweiler, L. Garber, K. Geiger, P. Genzer, D. Gibbs, N. Gittell, G. Goode, J. Granzen, J. Green, T. Green, M. Holland, M. Israel, S. Johnson, B. Lee, M. Maraviglia, R. McKay, D. Paquette, A. Rapiejko, J. Remien, D. Shaw, I. Smith, S. Tomkins, K. Trayer

#### 2. Correspondence and Handouts

Items one and two were mailed with a cover letter dated June 3, 2010. Items three through five were placed in the member's folders and items six and seven were available as handouts at the meeting.

- 1. Draft agenda for June 9
- 2. Draft notes for May 13
- 3. Aerial Maps of the Sewage Treatment Plant and Core Pine Barrens
- 4. List of SPDES Permit Modification Considerations
- 5. SPDES Subcommittee Recommendations to BNL
- 6. Copy of article; "Recovery Act Funding Accelerates Decommissioning of Brookhaven Lab Reactor"
- 7. Newsday article; "Brookhaven Lab to dismantle reactor by September 2011"

#### 3. Administrative Items

The meeting began at 6:36 p.m. Reed Hodgin, facilitator, reviewed the ground rules and the agenda. Those in attendance introduced themselves.

Jeanne D'Ascoli, liaison to the CAC, thanked everyone for altering their schedule and having the CAC meeting a day earlier due to a scheduling conflict with another event at the Laboratory. She said there is a 5-Year Review coming up and members of the CAC will be asked to provide input in September. This will include groundwater, soils, the HFBR, and the BGRR. The draft is

due to the regulators in February 2011. There was supposed to be a presentation today on the Peconic River, but because of the packed agenda, Skip Medeiros asked me to share the following information with you: :

The CAC was briefed last September on the Laboratory's intent to remediate sediment in the Peconic River at PR-SS-15 area and on the removal of the sediment trap. Supplemental sediment sampling was performed at those locations as well as at PR-WC-06 to determine the extent of the area to be cleaned up. Meetings were held with the regulators in 9/2009 and 1/2010 to discuss the path forward to remediate these three areas. The original plan was to perform the work during low river water levels. DOE funds are available to perform the supplemental sediment removal in 2010. The sediment removal will use similar techniques that were used in the original cleanup. If groundwater levels remain high supplemental dewatering may be necessary. We are working with regulators to update the equivalency permit, secure a disposal pathway, and access County property bordering the excavation area. Sediment removal is anticipated for fall 2010. A detailed presentation will be provided in September.

Hodgin said he will be moving the public comment period up to an earlier point in this evening's meeting to accommodate members of the audience that came here just for that.

Member Garber said there was a very well attended memorial service for Bob Conklin about a month ago, where a fish ladder in Grangebel Park, Riverhead was dedicated to him. He said Bob would have been pleased.

#### Approval of Minutes

Hodgin asked for corrections, additions, or deletions to the May 13, 2010 draft notes. Member Garber said that on page 4, his comment should say the "Peconic" River, not "a" river. Member Peskin said that on page 7, it should say acute and "latent" instead of acute and "late". Member Shea said that on page 8, her comment should say: Member Shea said that even low-level radiation is harmful. How does the shielding of a two pound monkey correlate to humans? She also asked how the crew safety limit of 3% above the normal cancer rate would be determined and over what time period. On page 10, her comment should say; Member Shea stated that humanoids visiting earth might think of us as lower life forms, much as we view the spider monkeys. They might use us for research experiments. She also said her statement about her experience should be at the end, in response to Dr. Cucinotta's statement about UFOs and should say; Member Shea responded to Dr. Cucinotta's remarks about Aliens not being able to come to Earth because of the high doses of space radiation by describing a daylight UFO experience she had in high school in Northern Ohio over 50 years ago witnessed by her and two teams of girls playing field hockey. Member Graves said that on page 6 it should say, could provide wetlands habitat, and leave out the part that says for fish. The notes were approved as amended with two abstentions.

#### 4. Community Comment

There were no comments.

Hodgin read a written statement from "In Defense of Animals" (see attached).

### 5. CAC Recommendation on NASA Research Proposal

Hodgin explained the process of consensus recommendation to the CAC and the audience. He said if consensus is not possible, there could be a super majority vote which will include 75% of members present. If that doesn't work, there will be a poll of CAC members to provide input to

the Laboratory. He said it is necessary to come to some sort of conclusion this evening so he asked permission to move through the entire process tonight.

Member Esposito said there has been sufficient discussion already on these topics.

Member Heil asked if there was any additional information from the Laboratory before discussions begin on the NSRL project.

Sam Aronson, Lab Director, said not at this point.

Hodgin explained the deliberation process to the CAC and audience members. He said the question is, "Does the CAC recommend, or not recommend that BNL conduct the NSRL neurobiology study that we have been discussing?"

Member Schwartz said he is uncomfortable with the choice that it be done or not be done. He said he would rather the choices be that either it not be done, or that the decision be made by the Laboratory in the usual manner.

Hodgin said he will leave the wording of the recommendation to the CAC.

Member Shea said she feels doing experimentation on higher life forms really needs to have a very serious reason. The one thing we didn't do is clarify why we need to go beyond Earth's atmosphere into space. I think that's an important issue. Is it to mine other planets? Is it to set up space technology for war? I don't know. This is a very important issue. They try to paint a pretty picture that we are looking for research on Alzheimer's. I don't see what that research has to do with this type of radiation. Since this is a new type of radiation that people don't experience on Earth, I would recommend that there is not enough information to warrant this.

Member Chaudhry said it would be useful to have more education on the plans NASA has in undertaking a mission as big as going to Mars and beyond. Most people don't know the objectives of NASA. Some people suspect this is more about keeping jobs. More education is needed on this project.

Member Jordan-Sweet said she is not against this research if it is justified. This, however, is not justified. We have more than enough information, but, I don't believe that manned space flight is something we should be spending our limited resources on. The level of our technology doesn't warrant this. Use unmanned space probes instead. The only benefit is psychological, for the morale of the population. I don't think it is warranted.

Member Castro asked what the validity of the experiment is. With all that we are faced with today environmentally, we should not be spending money on this.

Member Esposito said the organization she represents, Citizen's Campaign for the Environment, is adamantly opposed to this. This is a National issue and an issue of ethics and morals. Our policy is to fix Earth first. When we have the money to make the transition to renewable energies instead of maintaining our addiction to fossil fuels then maybe we can think about going to Mars. When people aren't going to bed hungry or homeless, or dying young because we don't have money for healthcare, then we can think about going to Mars. In the meantime, after we have done all that, hopefully our species will have evolved to the point where we don't feel the need and we don't think it's morally, ethically, or technologically necessary to inflict pain on another species that experiences emotion and discomfort the same way we do. That's what makes this an ethical question. I would hate Brookhaven Lab to be the first Lab in 10 years to go back to this type of research on non-human primates. Outer space

should be out of mind until we get this country where it needs to be. We have the wrong priorities. We should be participating in setting the Nation's priorities and I think we can make a positive statement about who we are as a species and what our priorities are as a Nation by rejecting this.

Member Krsnak said his organization agrees we should provide scientists and scientific staff at BNL with care and concern to conduct their experiments. That's very important. Thousands of people need BNL to do science. Personally, I don't understand how this relates to long term exposure, but we support BSA.

Member Heil said his opinion after reading the testimony provided by various people over the last two or three meetings is that he supports the research. Research into space provides a lot of benefit to mankind. There are enough safeguards in place and enough people have looked at this.

Member Peskin said some of BREA's members have helped conduct experiments in the past with animals to produce some wonderful medical advances. Also some of our members belong to PETA and similar organizations and are active in animal rights issues. A few actually are both, so I listened very careful to the debate so far. We know for sure that a lot of people are upset about this research, but we also know that NASA gave an enthusiastic defense of the proposal. We heard very little from BNL about their position. BREA's stand is that, if the resolution makes clear that we are talking about just this one experiment, than we support it. If it appears to be looking for a more general approval, then we oppose it. The wording of the resolution is crucial and needs to be developed before the vote.

Member Mannhaupt said she personally does not want to irradiate monkeys or any other animal. However, this has been a presentation unlike any other. This is setting a precedent on the CAC collective body being able to move forward in the future and make recommendations on science policy at this facility. I find this very nerve wracking. I don't know where it will go from here, but I know that 98 percent of the technology used today can be pointed back to the space program. I am not going to recommend to irradiate monkeys or not to irradiate them. I recommend that this is BNL's decision and I stand behind them.

Member Birben thanked the Lab for providing the opportunity for the Council and Community members to voice their concerns. I live in a local community that is both pet and wildlife friendly. My son and I are active members in our bird club where we try to promote creating natural habitats for migratory and native Long Island birds. We go on field trips and are very considerate of our natural habitat and wildlife. Professionally, I am a home care nurse so I appreciate the sensitivity of extending care and kindness to both people and animals. I find the repeated unsubstantiated statements linking research with descriptive words such as torture disconcerting. I see senseless suffering every day. If there is research that values and helps protect future human lives, I ask that it be considered without all the emotional framing that has clouded the facts. I can conclude that it would make sense for better research if these studies were conducted concomitantly, it would make for a better control factor. In conclusion, I think the facts should be considered with sensitivity. I am in support of BNL's decision.

Member Garber said there is an interesting book titled, "A Guinea Pig's History of Biology". Our understanding of anatomy and physiology is dependent very much on experiments which need various subjects. This is clear, There are a number of committees that deliberate on the ethics of whether a research project meets certain criteria. There were several of these committees that deliberated on this specific proposal and they gave it the green light. Regarding the question of whether or not there should be human exploration of Mars, the argument stated the reason for this controversy is the fact that higher animals are being used for this research. My

feeling is that there are people on committees with no axe to grind that determined that this met certain criteria. The question is does this group want to override that process. If this gets shot down it will have a chilling effect on many other potential projects. I am comfortable with the Lab going ahead with this even though it is a high profile difficult decision.

Member Schwartz said everything everyone has said so far makes sense. This venue is extremely valuable in allowing our community members to come in and speak to us. I wish I could be more enthusiastic about this experiment. I think it's a dumb experiment in support of a dumb objective. I can't personally find a scientific justification for it, however, I recommend that this group not recommend against the experiment. Ultimately the decision falls on the Director and he should make the decision taking into account all of these considerations.

Member Giacomaro said we cannot wait until all of mankind's problems are solved to pursue a mission like this. The United States needs space travel to preserve mankind. This is necessary. The only caveat my group has is that we would like to see the animals kept in a zoo-like environment, instead of being kept in a cage, to help the animals cope a little better.

Member Anker said why go to Mars. I don't think it is worth it for BNL to do this experiment for \$27,000 with all the controversy and negative public relations. Science and research is important, but there are all kinds of issues to consider. Bottom line is BNL is rising from past issues and being successful at it. I don't think this is worth the controversy, it could distract from BNL's good science. We are here to promote and protect the science and BNL.

Member Talbot said in all his years being a member of the CAC all the topics that have been put before him have dealt with promoting good science as a means of benefiting our global society as well as on an international scale. This issue is unique because it carries an emotional facet. I am not comfortable with violence or pain in any form, but I understand and believe that there are circumstances that need to be considered based on serving the greater good. There are people in this room that are healthier, and even alive, due to the advances in medical science. This progress would not have been possible without using non-human subjects to test and evaluate these medicines. Some of them likely caused pain and suffering to the animals that were used as human substitutes. Animal rights organizations such as PETA have been very successful at raising awareness of the animals used in testing and I am grateful to them for that. However, in this case I have heard testimony that there is no human substitute to evaluate the potential impact on humans that may be traveling in deep space for extended periods of time and the monkeys will be monitored to the highest standards of treatment.

Member Graves said there is no model or artificial means of studying the effects of space radiation on higher cognitive functions. There are subtle, complex effects. Lower animals have already been used and the information from those experiments has indicated there is a need for more information. The animals that will be used are not taken from the wild; they are bred specifically for this proposal. They would not exist if not for the proposal. The treatment of the animals has greatly improved over the past century largely due to the efforts of animal rights groups. NASA has invested a large amount of money in the research facility here at BNL with the expectation that when they need it, that facility would be available to them. That's an investment that is important to our local communities. Our astronauts are themselves experimental subjects. They do this knowingly, because they believe the risk is worth the benefit of the knowledge gained for all of mankind. It is my belief that space exploration is important to our future. I do not believe the animals will be tortured or suffer unduly. It is my understanding that there still are a couple of phases of the review that have not been completed, so we have incomplete information. I recommend following BNL and NASA's process and if that process recommends the experiment go forward, I would support that decision.

Hodgin asked if there was any additional input before he attempts to find commonalities.

Member Mannhaupt said that since the 80's she has been kicking at the doors at BNL about the legacy waste. She finds it disconcerting to make a recommendation on a science policy issue with the relationship that Brookhaven has with several entities that have been charged with a National policy decision to do this. I am sure it can be changed. My concern is this site and I want to reiterate that whatever Brookhaven decides to do, whether I personally like it or not, I will stand behind the decision of Brookhaven National Lab.

Member Shea said the reason why the CAC is here is to change the perception of the Lab. She said everyone has worked very hard and she has seen big changes. The Lab and the U.S. as a whole have a history of not treating animals used in experimentation very well. I question whether or not we really need to do this. We should seriously consider going to Mars with robots. This is a step in the wrong direction.

Hodgin said the Laboratory has asked for your input on this specific research project. I want to make it clear that they have not asked for your input on research in general.

Member Chaudhry said the more he hears, the more confused he gets in terms of his own personal feelings, whether to be pro-science or pro-ethics. It is difficult to formulate an opinion on this topic. There is no denying the fact that advancement comes from research and we need research. I would like to err on the side of supporting science and BNL.

Member Anker said these are federal dollars and she wants to reiterate how important public opinion is. She said she does not feel this is a positive thing for the Lab. She has concerns about all the controversy. The Lab has come so far in creating a good image.

Member Jordan-Sweet said she was impressed with the diversity of all the comments. She is concerned because this facility was built for NASA with their money and they expect to be able to use it when they have this type of experiment. If Brookhaven refuses, what are the ramifications? Does this set a precedent making it difficult to do animal experimentation in the future? Will this hurt the relationship between NASA and BNL?

Dr. Aronson said there has been some discussion with NASA over the issue of breach of contract. They have supplied the funding for this beam line and they have come to the aid of DOE in co-funding an important new piece of equipment for RHIC. They have been good partners. I don't think this experiment is a make or break thing with our relationship. I can't say with 100 per cent confidence that we can ignore the working relationship in making this decision.

Member Jordan-Sweet asked if it will have an effect on animal experimentation in the future when it might be more justifiable.

Aronson said we need to develop a Laboratory policy. This is not precedent setting.

Member Peskin said there seems to be an agreement that we will give the Lab a body of opinions that they can use to make the ultimate decision.

Member Esposito said there are two conflicting topics. This is about more than BNL. It's not naïve to try to cure society's ills, it is our responsibility. Space travel has taught us so much, but we are at a time in our history where we need to concentrate on fixing Earth first.

Member Giacomaro said he is not saying not to work to solve problems. It doesn't take much to destroy life on this planet. We need to continue exploring our options in space.

Member Mannhaupt said there are global implications. There is no yes or no answer from us. Just take our comments and make the decision. I trust BNL's judgment.

Hodgin said there seems to be a variety of values around the table. There are very different opinions on space exploration, animal research and the treatment of animals during research, and the benefits and validity of this project. I don't feel there is an opportunity for consensus on those topics. I also heard said that BNL should take the comments heard tonight and from other groups and use those to form a decision.

Member Mannhaupt asked if it is required to draft a response.

Hodgin said no, you can just submit your comments. They will be captured in the minutes.

Member Birben asked if there is an option for an anonymous vote.

Hodgin said no, that is not part of the process.

Member Shea asked if there could be two statements, one for and one against this proposal.

Hodgin said later on in the night we could try that or the individual statements can be grouped by topics.

Member Esposito said some are for and some are against this.

Member Jordan-Sweet said the closest thing to consensus is whether or not we can agree that we support the Lab.

Member Graves said we are an advisory body to the Lab. Trying to work on a statement can be frustrating. You have our input.

Hodgin asked if the statement could be," The CAC supports BNL in using its formal decision-making process for this experiment and recommends that it consider all of the comments from the members of the CAC and the perspectives presented as well as those provided by others from the community". Is there anyone around the table who feels that conflicts with their interest enough that we should re-word this?

Member Shea said she would vote against this proposal, but she does support the Lab. She doesn't want it to seem like she does not support the Lab because she cannot support this project.

Member Esposito said it should not say we support the Lab regardless of their decision. That was not what most people said.

Member Heil asked Dr. Aronson to express his opinion. Do you want us to go further or do you have enough information?

Dr. Aronson said he does not want to see the CAC struggle for a consensus that does not exist in an effort to help him clarify his decision making. The diversity of opinions is similar to what we have received elsewhere. This has been very informative.

Doon Gibbs said these opinions are enormously appreciated.

Hodgin said there is no consensus. Your comments are valuable. The Lab has what it needs.

Member Talbot said BNL management can use the information that has been given to them.

# 6. Agenda Setting

Jeanne D'Ascoli said there will be a presentation on the Peconic River and the Five-Year Review in September. She said we would like to give the CAC a tour of the NSLS II construction site and a presentation by Steve Dierker. We could have our October meeting earlier in the day so it is still light out for the tour, and then after that have a light supper to celebrate your anniversary, followed by the talk by Dierker. That would mean taking the summer off. Is everyone agreeable to that?

The CAC agreed.

Member Schwartz said there was a visit last week by the Deputy Secretary of the DOE where he announced additional money for cleanup. He would like a report to fill the CAC in on that.

D'Ascoli said we could put it on the September agenda.

Hodgin said if there is some pertinent useful information that can be sent out to the CAC that might be useful also.

**ACTION ITEM:** Send out information regarding the visit of Deputy Secretary Ponemann announcing additional money for cleanup.

#### 7. CAC SPDES Subcommittee Report

Hodgin said there was a briefing on the findings of the studies and the options for going forward at the last meeting. He said there is a summary of the main points and the results of the deliberations from the ad hoc committee that was established in order to build a draft recommendation for the CAC in your folders. He asked Member Esposito to brief the group on their findings, options, and recommendations.

Member Esposito thanked members Mannhaupt, Graves, and Garber for serving on the subcommittee with her. She then read their recommendation:

The committee makes the following recommendations to the CAC:

- 1. We recommend that the CAC support diverting the STP discharge from the Peconic River to groundwater. However, we object to the effluent being allowed to bypass treatment at the sand filters or other best technology available (BTA) provided on site. Effluent should be filtered either through NEW sand filter beds or other BTA before discharging to groundwater.
- 2. It's the strong preference of the CAC that a plan be crafted to allow for discharge within the Peconic River watershed in order to maintain the integrity of the wetlands and headwaters of the river system. The CAC believes this will mitigate potentially negative impacts to fish, wildlife and wetlands that may occur if discharge is redirected from the watershed recharge zone. BNL can supply options for groundwater recharge to occur within the watershed and perhaps within the vicinity of the STP. We understand the concern that some of these areas may possess contamination from past practices but we want to fully explore this option.

3. Should BNL divert effluent to groundwater outside the Peconic River recharge zone, a groundwater study should be conducted to predict and assess any impacts to: Direction or flow rates of existing plumes from BNL; wetlands; Carmans River; fish, wildlife, and other species dependent on year-round wet conditions in the headwaters; and drinking water wells on BNL property.

Hodgin said, so you are recommending that surface water discharge be replaced with a discharge to groundwater, but that should occur after final treatment in some way that replaces the current final treatment and that the discharge to groundwater be discharged in a way that the recharge location will recharge the Peconic River watershed. If it can't be discharged in that watershed, then there are other things to look at.

Bob Lee said he was pleased with the recommendation. We support comment number one. Regarding comment number two, the desired recharge location is in the Sewage Treatment Plant so it will be in the watershed, but it will be hydraulically disconnected. This means that as you recharge the water in the recharge basin it cannot re-enter the river as base flow.

Member Esposito asked if it will recharge into the river near the headwaters or downstream.

Doug Paquette said it will be much further downstream.

Lee said we know of no existing contamination, so that is not a concern. Many of the questions under comment number three have already been answered.

Hodgin asked if the CAC wants those answers tonight or in the future.

Member Esposito said a lot of work has gone into the wetlands, so she would like to know the impacts. Her priority is the wetlands.

Member Graves said a request was made for an aerial photograph of the site.

Member Esposito said that is available as a handout.

Hodgin asked if there are any impacts on the direction of flow rates to existing plumes under the preferred options.

Doug Paquette said the Lab does not anticipate that the recharge will have any impact on existing plumes, except OU V, which is fairly deep. The recharge is going to impact shallow groundwater flow in the filter bed area, so there will be some groundwater mounding. There should be no impact to the Carman's River watershed or to drinking water supply wells on BNL property.

Member Mannhaupt asked if the Lab will lose fish in the process.

Tim Green, Cultural and Natural Resource Manager, said not really. In the current conditions, the fish get trapped. There are periods when the river dries up. If we follow DEC guidelines and lower the gauging stations that would allow the fish to move easier, so as things dry up, they can move downstream and when they are wetter, they can move upstream.

George Goode said it's important to remember that this happens gradually. The Peconic River is fed by base flow from the groundwater so as we encounter dry periods, the water levels will start to go down, fish will retreat to deeper waters, especially if we lower the barriers, so there will be a natural progression in and out.

Member Graves asked where the water will enter the river after being recharged, and if it will be injected deeper.

Paquette said the old filter bed area was chosen because the current filter beds are underlain by near surface clay and there is a fairly large groundwater mound, so there is a potential for that recharge water to enter the Peconic River as base flow. This area is further away and the information we have now indicates that there is not as much shallow clay. There will be a groundwater mound that will form, so we will do more geotechnical borings to evaluate infiltration rates.

Member Graves asked if there is a way to get the recharge to the river further upstream to preserve wetlands and still meet the strict criteria of the DEC.

Paquette said one of the things we have to be careful of is not being perceived as saying it's a groundwater recharge when in fact you are getting base flow into the river. We have to demonstrate that the water will not re-enter the river nearby.

Member Garber said if we could move the water through the ground and enter the Peconic River watershed as high upstream as possible there would be an enormous cleansing process moving it through the soil. You would be creating wetlands, which is a good thing. He asked if the groundwater injected at the STP could be accomplished without much additional tree clearing. Is this a sensitive area for tree clearing?

Paquette said the area being proposed has some pitch pines, so there would be some clearing needed.

Member Garber asked how many acres are involved.

Paquette said each bed is about one acre, so it's about three. That still needs to be determined pending an engineer evaluation.

Member Graves asked if that was in the Core area of the Pine Barrens.

Green said yes.

Member Mannhaupt asked why the DEC would see the area upstream as base flow.

Paquette said the DEC wants the recharge to occur close enough to the existing discharge areas to sustain the wetlands within those tributaries.

Lee said the current stream bed remains wet because it is a surface discharge. If you put it to groundwater you won't get that surface discharge. It will recharge groundwater and raise the groundwater elevation in very minor increments. It takes 2,000 feet for that water to recharge into the aquifer.

Member Esposito said she would like to recommend taking down the gauges to allow the banded sunfish to migrate upstream.

Member Schwartz asked if it is important that the wetlands dry out sometimes or if it is better for them to stay wet.

Green said they are intermittent wetlands. Periodic drying is good for the wetlands.

Member Talbot asked if changing the injection points could cause pooling and the fish could get stranded.

Green said that happens now in some areas.

Member Talbot asked if the new sand filter beds that were spoken about are totally new or do you mean just replacing the sand in the old filter beds.

Lee said the existing sand filters were constructed in 1967. During that period they have scraped the surface and removed solids. Last year a foot and a half of sand was removed from the filter beds.

Member Graves asked if the area north of the STP is the old grenade range. If that area is not being used, perhaps since it is already cleared it might be an area that can be used.

Lee said yes it is and it is currently used as a practice range for our police force. It's an active firing range.

Member Anker asked if there is lead runoff from the firing range.

Lee said no, it is in a depressed area and the lead is cleaned out at least once a year.

## 8. CAC SPDES Recommendation

Hodgin said the first recommendation holds as written. Regarding the second recommendation, the CAC wants the discharge to occur within the Peconic River basin at a location that recharges the Peconic as close to the river and as far upstream as possible while being hydraulically disconnected to meet the requirements of the CAC. Also, you would like to recommend the removal of the gauging stations to allow more freedom of movement for banded sunfish upstream and downstream.

Member Graves said it should say modification rather than removal.

Member Esposito agreed.

Hodgin said the CAC also would like to do this in a way to minimize tree removal in the area.

Member Esposito suggested combining the second and third recommendation, taking out the first sentence. It should say, in addition, NEPA studies should include but not be limited to the following. Remove the bullet about the Carman's River.

Hodgin said we should leave number three as a separate recommendation about what the NEPA study should include. Is there anything else that should be included in the recommendation?

Member Mannhaupt said to remove the bullet about drinking water.

Hodgin asked if the subcommittee wants to rewrite their statement or go with the statements just made.

Member Esposito said we can go with what was said and just put it in the minutes.

Hodgin said Member Esposito will work with Sherry Johnson to craft the final recommendation. Is there anyone whose interest is not being met by the recommendation statements that was just made?

The CAC said no.

Hodgin said the consensus recommendation will be captured and sent to the Laboratory.

Member Sweet asked if this is a permanent change.

Hodgin said, yes, it is a permanent change.

Member Jordan-Sweet said then you can fill in the ditches because they are not going to be used.

Lee said the Peconic River will still flow during wet periods so that's not possible.

Schwartz complimented Reed Hodgin for helping the CAC reach their consensus recommendation.

Hodgin said the process of sending out a sub-group that represents diverse opinions and having them come back with something well crafted leads to easy work in reaching a consensus recommendation. He complimented the sub-committee.

The meeting adjourned at 9:17 p.m.

## **Testimony from In Defense of Animals**

Community Advisory Council

#### June 9, 2010

To the members of the Community Advisory Council, we thank you for taking the time to deliberate about the proposed primate experiment and for the opportunity to lend our voice to the discussion.

On behalf of our 80,000 members, In Defense of Animals, an international animal protection organization, would like to express our opposition to the proposed radiation experiment on squirrel monkeys, on the grounds that it is inherently inhumane and scientifically suspect.

We are not alone in our opposition. The European Space Agency recently released a statement in which ESA Director Dordain wrote, "ESA declines any interest in monkey research and does not consider any need or use for such research results." According to Animal Defenders International, this statement was included in a letter announcing that "ESA is opposing the necessity of complementary experiments with monkeys in combination with research objectives in Mars 500."

Mars 500 is a project of the Russian Federal Space Agency with the ultimate goal of manned spaceflight to Mars. The monkey experiments in question are strikingly similar to those proposed by NASA: in the Russian experiments, rhesus monkeys would be exposed to radiation and then kept alive to study the long-term effects on multiple measures of health, including cancer susceptibility and life expectancy. The ESA's position is not surprising, considering that professional radiobiologists reviewing the neurological effects of ionizing radiation have stated

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<sup>1</sup> Source: <a href="http://www.savetheprimates.org/news/european-space-agency-opposes-mars-monkey-experiments">http://www.savetheprimates.org/news/european-space-agency-opposes-mars-monkey-experiments</a>

that "animal research brings with it problems of extrapolation" and that "different species (even strains within species) may have different responses or sensitivities to radiation exposure."<sup>2</sup>

Like NASA, we consider chronic exposure to high levels of radiation, and the potential long-term injury to our astronauts that goes along with it, to be an unacceptable risk. Unlike NASA, we believe that using notoriously unreliable animal models, that is, one-foot-tall monkeys exposed to one-time bursts of radiation, is not the best strategy available for understanding the effects of space radiation on human health and, ultimately, for keeping our astronauts safe.

In his April 15<sup>th</sup> speech on Space Exploration in the 21<sup>st</sup> century, President Obama stated: "Critical to deep space exploration will be the development of breakthrough propulsion systems and other advanced technologies." He promised to invest in "groundbreaking technologies that will allow astronauts to reach space sooner and more often, to travel farther and faster for less cost, and to live and work in space for longer periods of time more safely," even directly asking, "How do we shield astronauts from radiation on longer missions?"

At IDA, we would also like to see NASA and Brookhaven spend their resources researching propulsion and shielding, which would decrease or even eliminate radiation exposure entirely. We suggest that scientists in these research communities use their incredible intellects to take on the root of the problem—radiation exposure itself—rather than attempt to study its symptoms using the archaic paradigm of animal experimentation. In the end, this will be better for everyone, monkeys and astronauts alike.

10/05/2010 - final notes June 9, 2010

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<sup>2</sup> Source: http://www.afrri.usuhs.mil/outreach/pdf/tmm/chapter7/chapter7.pdf

<sup>3</sup> Source: http://www.nasa.gov/news/media/trans/obama\_ksc\_trans.html

P = Present 2010 Affiliation		First Name	Last Name	Jan	Feb (canc elled)	Mar	Apr	Мау	June	July	Aug	Sep	Oct	Nov	Dec
ABCO (Garber added on 4/10/02)	Member	Don	Garber	Р		Р	Р	Р	Р						
ABCO	Alternate														
Brookhaven Retired Employees Association (Peskin replaced	Member	Arnie	Peskin			Р	Р	Р	Р						
Brookhaven Retired Employees Association (L. Jacobson new alternate as of 4/99)(A. Peskin 5/04)(Franz 12/09)	Alternate	Eena-Mai	Franz				Р	Р	Р						
CHEC (Community Health & Environment Coalition (added 10/04)	Member	Sarah	Anker	Р		Р	Р	Р	Р						
(added 12/08) (R. Andrejkovics removed 9/09)	Alternate														
Citizens Campaign for the Environment	Member	Adrienne	Esposito	Р		Р	Р	Р	Р						
Citizens Campaign for the Environment (Ottney added 4/02-taken off 1/05 Mahoney put on)(7/06 add Kasey Jacobs)(K. Jacobs off 1/08)	Alternate														
Colonial Woods Whispering Pines (added 06/09)	Member	Christine	Birben	Р		Р	Р	Р	Р						
Colonial Woods Whispering Pines (added 09/09)	Alternate	Joan	Milner												
E. Yaphank Civic Association	Member	Michael	Giacomaro	Р		Р	Р	Р	Р						
E. Yaphank Civic Association (J. Minasi new alternate as of 3/99) (M. Triber 11/05) (Munson 6/06) (Feinman 2/09)	Alternate	Bob	Feinman	Р		Р	Р	Р	Р						
Educator (changed 7/2006)(Bush member 5/10)	Member	Greg	Bush			Р	Р	Р							
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)(Bush 5/09)	Alternate	Adam	Martin												
Fire Rescue and Emergency Services	Member	Joe	Williams												
Fire Rescue and Emergency Services	Alternate	Don	Lynch												
Fire Rescue and Emergency Services	Alternate	James	McLoughlin												
Friends of Brookhaven (E.Kaplan changed to become member 7/1/01)	Member	Ed	Kaplan			Р									
Friends of Brookhaven (E.Kaplan changed to become member 7/1/01)(Schwartz added 11/18/02)	Alternate	Steve	Schwartz					Р	Р						
Health Care	Member	Jane	Corrarino												
Health Care	Alternate														
Huntington Breast Cancer Coalition	Member	Mary Joan	Shea			Р	Р	Р	Р						
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				Р	Р	Р						

				Jan		Mar	Apr	May	June	July	Aug	Sep	Oct	Nov	Dec
P = Present 2010 Affiliation		First Name	Last Name		(canc elled)										
IBEW/Local 2230	Alternate	Philip	Pizzo												
L.I. Pine Barrens Society	Member	Richard	Amper	Р											
L.I. Pine Barrens Society (added P. Loris 6/05)(Alayeva off 6/08) (Itriyeva 02/09) (Motschenbacher 6/09)	Alternate	Beth	Motschenbacher			P	P	P							
L.I. Pine Barrens Society	Alternate	Susie	Husted												
L.I. Progressive Coalition	Member	David	Sprintzen	Р			Р	Р							
L.I. Progressive Coalition	Alternate	None	None												
Lake Panamoka Civic Association (Biss as of 4/02)	Member	Rita	Biss	Р		Р	Р	Р							
Lake Panamoka Civic Association (Rita Biss new alternate as of 3/99) (Gibbons off 1/10)	Alternate														
Long Island Association (Groneman replace 10/05)	Member														
Long Island Association	Alternate	William	Evanzia												
Longwood Alliance	Member	Tom	Talbot	Р		Р	Р	Р	Р						
Longwood Alliance	Alternate	Kevin	Crowley												
Longwood Central School Dist. (switched 11/02)(Castro replaced Henigin 6/09)	Member	Maria	Castro	Р		Р	Р	Р	Р						
Longwood Central School Dist.	Alternate	Allan	Gerstenlauer												
NEAR	Member	Jean	Mannhaupt			Р	Р	Р	Р						
NEAR (prospect taken off ¾) (Blumer added 10/04)	Alternate	Karen	Blumer			Р									
NSLS User	Member	Jean	Jordan-Sweet	Р			Р	Р	Р						
NSLS User	Alternate	Peter	Stephens												
Ridge Civic Association	Member	Pat	Henagan	Р		Р	Р								
Science & Technology (added 1/13/05)	Member	Iqbal	Chaudhry			Р	Р	Р	Р						
Town of Brookhaven (Graves made member 6/06)	Member	Anthony	Graves	Р		Р	Р	Р	Р						
Town of Brookhaven	Alternate	None	None												
Town of Brookhaven, Senior Citizens	Member	James	Heil	Р		Р	Р		Р						
Town of Brookhaven, Senior Citizens (open slot as of 4/99)	Alternate														
Town of Riverhead	Member														
Town of Riverhead (K. Skinner alternate as of 4/99)	Alternate	Kim	Skinner												
Wading River Civic Association	Member	Helga	Guthy	Р		Р	Р	Р							
Wading River Civic Association	Alternate	Sid	Bail												