



Town of Brookhaven Long Island

Mark Lesko, Supervisor

Minutes

Carmans River Technical Advisory Committee
November 17, 2010
Town of Brookhaven

Members Present: Dr. Lee Koppelman, Chair (Center for Public Policy, SUNY SB), Tullio Bertoli (TOB PELM), Henry Bokuniewicz (SUNY SB School of Marine Science), Steven Colabufo (SCWA), Eva Greguski (TOB PELM), Jeff Kassner (TOB PELM), Andrew Rapiejko (*Prospective Member* - SCDHS), Chris Schubert (USGS), Bill Spitz (DEC), Mary Anne Taylor (CDM), John Turner (TOB PELM).

Members Absent: Steve Terracciano (USGS).

Others: Dick Amper (LI Pine Barrens Society), Julie Hargrave (Central PB Commission), Robert Kessler (CSYL), Liz Krolik-Alexander (TOB CD#4), Kevin McAllister (Peconic Baykeeper), Michael Madigan (Open Space Council), Dan Morris (Open Space Council), John Pavacic (Central PB Commission), Tom Talbot (Middle Island Civic), Dave Thompson (Open Space Preservation Trust), Chic Voorhis (NP&V), Tom Williams (Post Morrow Foundation).

1. General Remarks

- **Dr. Koppelman** opened the meeting with a discussion on land use impact. He stated expanding the E-W boundaries aren't relevant as per the existing data. He also noted the river is in a "steady state" and that land use over the past 50 years has not had much impact upon the river. **Andrew Rapiejko** noted there are some specific instances of impact, such as MTBE, but that spill data is available.

2. Review of Minutes

- Minutes of November 10 meeting reviewed and corrected. Minutes were approved.

3. Committee Reports and Review of Assignments

- **Jeff Kassner** distributed a list of impairments to the river with their associated management recommendations. Some of the recommendations have already been

Department of Planning, Environment and Land Management

Tullio Bertoli, Commissioner

Brenda Prusinowski, AICP, Deputy Commissioner

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addressed. **Dr. Koppelman asked for a written report on various data sources. He also noted that the inventory phase should also be completed.**

- **Mary Anne Taylor, Chris Schubert and Steve Colabufo** addressed previously distributed questions from Karen Blumer re: CDM model characterizing it as unreliable. **Mary Anne Taylor** explained the “model” is comprised of the equations describing groundwater flow, the model code (computational approach to solve the finite difference equations), the conceptual model, and the input to the numerical model, as well as the applications. The computer codes used to solve the equations of groundwater flow have been reviewed and approved by the International Groundwater Modeling Center at the Colorado School of Mines in Boulder about thirty years ago, have been accepted by the USEPA and NYSDEC for use on Superfund sites and have been used all over the world. The fact that the model has continued to be used by SCDHS, SCWA and for NYSDEC and NYSDOH applications over the past 14 years, indicates that it has proven to be a reliable tool. **Steve Colabufo** suggested that almost all of the questions can be answered in the CDM report that accompanies the model. She stressed the model is just a tool that can be used to help understand observed data characterizing groundwater flow and contaminant transport. **Dick Amper** (during Public Comment) **complimented Mary Anne Taylor’s explanation on modeling and requested that she write it up in a one page summary.**
- **Dr. Koppelman asked the TAC to submit their comments on Henry Bokuniewicz’s long term monitoring analysis for the next meeting. Eva Greguski** asked for a source citation on research item #9 (septic nitrogen). **Chris Schubert** said he had similar source citations.
- **Andrew Rapiejko** gave an update on his data mining exercise and will be sending the link to **Jeff Kassner** by the end of the week.
- **Chris Schubert** asked if cost recommendations should be included in the long term monitoring analysis. **Dr. Koppelman** said they should be noted in the implementation chapter at the end, as policy makers need to know what dollars need to be allocated. **Jeff Kassner** asked if policy and management recommendations are the same thing. **Dr. Koppelman** confirmed they are.
- **Dr. Koppelman** distributed a written charge to the hydrogeological working group. **Steve Colabufo** asked about the accuracy of using the most current data, as it was taken during a period of high groundwater. **Dr. Koppelman** said the current data reflecting excessive rainfall can represent the worst possible scenario. **Chris Schubert** questioned the headwaters area, as he thought the contributing area already contained Cathedral Pines County Park. **Dr. Koppelman** stated that members of the public have questioned the boundaries outside of the 50 year contributing area.
- **Jeff Kassner** distributed land use and zoning maps for areas north of Route 25 including a data analysis spreadsheet. He stated he would have further analysis next week. **Dr. Koppelman** asked that the maps be reproduced to 8 ½ x 11 sizes. He also asked about applying land use and nitrogen loading. **Mary Anne Taylor** said she has done a quick analysis and will flesh it out for the next

meeting. Dr. Koppelman also addressed the issue of support for sewers, and noted they should be included in the policy recommendation section.

- **Jeff Kassner** asked if the CDM model approach used in the Forge River watershed could be applicable to the Carmans River. **Mary Anne Taylor** noted that the County had considered the Forge River application as a pilot that could be used elsewhere to assess the potential impacts of proposed development on nitrate levels in the groundwater. The same approach would be appropriate for application to the Carmans River watershed, but it would also be necessary to define where the sewer discharge is going to go. **Henry Bokuniewicz** asked if this is essentially a surface water model and if it is look at relative versus absolute numbers. **Mary Anne Taylor** stated that it was a groundwater model and it had been successful in matching observed nitrate levels in the SCDHS monitoring wells adjacent to the Forge River. As further transport to/in the river was not assessed, it should be assumed that this approach would bound the problem and could be used to assess relative results from different alternatives. **Dr. Koppelman** asked **Jeff Kassner to identify additional modeling and/or research, if necessary.**
- **Dr. Koppelman** asked if there are other areas of research that go beyond the 90 day deadline. **Chris Schubert** noted **Henry Bokuniewicz's** report should have most items. **Dr. Koppelman** asked **that if other areas of research are noted, they should be submitted next week.**
- **Dr. Koppelman** brought up the issue of dredging and asked **Chic Voorhis** if he was able to get the data released from the county. **Chic Voorhis** stated that they are reluctant to release the data without a report, but extensive research is on the Suffolk County Lakes website. The report is expected this winter. **It was suggested that Dr. Koppelman call Carrie Meek Gallagher to see if he can get an early copy of the report.**
- **Chris Schubert** stated a request needs to be sent from the TAC if cost estimates from the USGS are to be included in the recommendations. **Dr. Koppelman** asked **for him to draft a sample letter.**
- **Kevin McAllister** gave his report on numeric nutrient standards, stating the verbal data given to him by Alexander Smith, NYS DEC. **Bill Spitz** gave a lengthy response and indicated the numbers given to him are not to be seen in a vacuum, as they are not analogous and are still a work in progress. **Dr. Koppelman** asked **him to prepare a summary response for the TAC.**
- **Dr. Koppelman** distributed **a summary of additional assignments that are to be completed asap, including a 1 page description of a living inventory, to be prepared by John Turner.** **Dave Thompson** said Chart Guthrie should have an informational chart. **Andrew Rapiejko** said the Cashin study should also have additional information.
- **Chris Schubert** distributed the USGS response to the O'Malley thesis. In general, there was a lack of documentation of the analyses used.
- **Chris Schubert** discussed the flow alterations and health of the river systems. He discussed the stated appearances of start of flow south of the Longwood Library parking lot. He said the drywells are found there, and they can constrain the start

of flow. He also said the local transportation infrastructure in the last 50 years has probably altered the start of flow drastically. **Mary Anne Taylor** agreed; it had been documented that construction work in the area over a decade ago had modified conditions at the Suffolk County Flow Augmentation Needs (FANS) monitoring site in Cathedral Pines Park that was established by the County, USEPA and NYSDEC circa 1988 as a control site.

- **Chris Schubert** discussed the Nature Conservancy document distributed by Kevin McAllister and said it appeared to assume groundwater goes in two dimensions. As such, the conclusion can reflect source area loading. **Henry Bokuniewicz** reviewed that paper previously, and noted the hydrogeology has been simplified.

4. Public Comment

- **Dan Morris** said the questions presented by Karen Blumer were prepared with help from a hydrogeologist. **Dr. Koppelman** said the questions were answered by **Mary Anne Taylor** during her explanation. They can also be answered by reading the report. He asked **Bill Spitz** about Horseblock Road radiological data; **Bill Spitz** said that it is an ongoing investigation with the DEC and is not really relevant to the TAC. He continued to ask about a TCE plume and noted there is new data available.
- **Dave Thompson** said he heard a lecture given by Dr. Gil Hanson several years ago that described the Carmans River as an ancient river valley. He thought that that the northward trajectory meant that the headwaters should be further north.
- **Kevin McAllister** asked about the public viewing data. **Eva Greguski** said all data, once vetted by the committee, would be uploaded to the website if the files are small enough. He asked **Henry Bokuniewicz** about his long term analysis proposal, and asking for a consistency for data collection standards with NYSDEC, as there seems to be some variation. He also asked what a reasonable assumption is for future nutrient loads and hopes we can reconcile the modeling. **Mary Anne Taylor** agreed that there is disconnect – the groundwater model was tasked to estimate the potential nitrogen levels in the groundwater adjacent to the river; it has not been used to assess transport through the hyporheic zone, nor transport/transformation to the river. **Bill Spitz** said there are a variety of loading models. **Kevin McAllister** said there remains to be an information gap. Finally, he stated that a lot of work is characterization leading to good policy. **Dr. Koppelman** said the end game is management of the river so the water quality is retained. **Kevin McAllister** stated the current narrative standard is still deficient.
- **Dick Amper** (see above summary suggestion to **Mary Anne Taylor**). He said it is good there is some wiggle room and we've taken a conservative approach. There is an area of caution we can apply to recommendations. He discussed the slow rate of parcel acquisitions in the county and asked how we can speed up the process. **Dr. Koppelman** said the delays often happen during negotiations.
- **Mike Madigan** distributed a list of questions regarding the model.

5. Schedule next meeting

- Next meeting is scheduled for Wednesday, November 24 at 9AM in the OLD PELM CONFERENCE ROOM, FIRST FLOOR.

6. Adjourn

Prepared by Eva Greguski, TOB, PELM
