

COMPREHENSIVE WASTEWATER MANAGEMENT  
CITIZENS ADVISORY COMMITTEE (CAC)

April 20, 2006 – 4:00 pm  
Town Hall Meeting Room  
Main Street, Chatham, Massachusetts

**PRESENT:**

CAC: Fred Jensen, Bob DePatie, David MacAdam, Didi Lovett, Burt Segall, Phil Christophe,  
John Payson and Herb Bernard

CAC members not present: Chuck Pollard, John Randall, and Scott Tappan

TAG: Bob Duncanson, Bill Redfield, Bill Hinchey

Others Present: Al Haven, Chuck Bartlett

A table (attached) providing information about septic nitrogen loads 2002/2003 in the Little Mill Pond watershed (un-sewered properties) was distributed by John Payson.

The meeting was called to order at 4:00 pm.

**Item 1: Minutes**

Minutes of the March 30, 2006 meeting were approved with the following corrections:

- David MacAdam was removed from the list of attendees
- The phrase “to about 500,000 gallons per day” was added to the penultimate paragraph on page 2.

**Item 2: Review and discussion of DEP’s “Per capita” methodology for estimating septic tank nitrogen loading to a watershed**

Bob Duncanson explained that Brian Dudley (DEP) is preparing a letter in response to questions raised regarding the methodology used in determining the per capita nitrogen loading figures. Fred Jensen, Bob Duncanson, and Nate Weeks of Sterns & Wheeler have met with Brian Dudley to discuss the questions. The letter is expected to be completed in the coming week.

DEP is basing the calculation of septic nitrogen load in the MEP modeling on a figure of 2.1 kg/person/year. Sterns & Wheeler will review the DEP letter and prepare a technical memo for the town. Bob Duncanson said that he does not expect to see any major change in the MEPs use of the 2.1 kg/person/year.

John Payson asked if there could be an increase in the TMDLs. Bob Duncanson said that any changes (increases or decreases) will depend on the model re-runs currently underway and if the revised results cause DEP to modify the TMDLs issued in 2004.

David MacAdam asked about the significance of where the flow was measured, i.e., at discharge from septic, or at entering embayment. Bob Duncanson agreed that there was some confusion about how measurements were done in the past but explained that the errors in the 2003 report will be corrected in the new re-runs being done. He added that the important point is where the load actually enters the embayment.

The MEP model is being re-run for the south side embayments to include the four quarters of water data, additional water quality monitoring data, and to correct for the unit errors in the 2003 report. The soon to be released Pleasant Bay MEP report includes updated modeling for the Ryder's Cove system and Muddy Creek.

**Item 3: Updates on work in progress**

- a. MEP's Pleasant Bay water quality study.

Bob Duncanson noted that this report will be presented on May 25 at 7 pm at the Brewster Town Hall. An internal staff review draft report has been received and the Pleasant Bay Alliance has sent questions/comments. It is not yet known if the final report will be released publicly on May 25 or if additional adjustments will be made after that presentation. It will most likely be released via the internet.

- b. Cockle Cove Creek salt marsh study.

The Board of Selectmen has sent a letter to DEP requesting that the work be expedited. No reply has been received to date. A copy of that memorandum was distributed to CAC members.

- c. Re-runs of MEP's water quality model for Chatham, including the hydrodynamic scenarios.

The Board of Selectmen has sent a letter to DEP requesting that the work be expedited. No reply has been received to date. A copy of that memorandum was distributed to CAC members. The Town's contract called for an April 1 completion date.

- d. RFP for analysis of nutrient sources in Lovers Lake and Stillwater Pond.

As reported at the last meeting, the RFP is being developed and will be posted in the near future.

**Item 4. Discussion of the impact of USGS's 100-year-travel time for groundwater between Chatham's sewage treatment plant and the Cockle Cove Creek salt marsh.**

Burt Segall questioned the impact of the 100-year-travel time as indicated in the Sterns & Wheler presentation at the March 30, 2006 meeting. Bob Duncanson stated that he has conferred with Ed Eichner of the Cape Cod Commission regarding this issue and it is important to note that some of the time lines indicated much shorter travel times for some particle tracks (discharge) from the treatment plant. He noted that Cockle Cove Creek extends north to the vicinity of Route 28 and that it is important to remember that the particle tracks move laterally and vertically.

Burt Segall asked about the computations done to generate the timelines, noting that they are simple computations that use only one set of conditions. After additional discussion Bob Duncanson agreed to contact the Cape Cod Commission and USGS and try to arrange a meeting for Burt to discuss the methodology and rationale of these calculations. Burt Segall agreed to

meet with USGS and TAG staff if the meeting could be arranged in the next three weeks. If this near-term meeting can be arranged, the CCC/USGS staff may be invited to present the information to the entire committee at a future meeting.

Bob Duncanson added a clarification that the Cockle Cove Creek watershed has not been modeled as the MEP model is designed for open-water embayments rather than salt marsh systems. DEP/MEP is developing a new approach for use in salt marshes. Because the area was not modeled, the TMDL report indicated “zero” change for this area. The Town is hoping that the completion of the ongoing salt marsh study will result in an increase in nitrogen load that can be absorbed in the Cockle Cove Creek watershed.

Fred Jensen asked if there was information about what portion of the effluent was reaching the estuary more quickly (10 years vs. 50 to 100 years). Bob Duncanson stated that the USGS information was primarily focused on wells and freshwater ponds. He agreed to check if there is any data available about this.

It was noted that a recent news article about the new Martha’s Vineyard treatment facility indicated that an increase in treated effluent discharge had resulted in shorter travel times. This situation could occur in Chatham.

Burt Segall asked about pumping water from the ground and the effect on the water table. Bob Duncanson stated that the ground water lenses on Cape Cod provide adequate water; however, we should consider possible impacts if we are taking water from one lens and discharging/replenishing in another.

John Payson cited the *Monomoy Capacity Study* of 1998 that indicated that five Cape towns will experience water shortfalls by the year 2015. Bob Duncanson explained that many of the existing wells are shallow (<100’) but that the water table sits over bedrock that, in many places, is >300 feet below the surface. Thus, we are only tapping a fraction of the available water.

Bill Redfield added that the *public* water supply constitutes less than 5% of the water that is available.

John Payson requested additional information about the long-term water supply, stating that the CAC should be convinced that there is sufficient water available for future use.

**Item 5. TAG’s schedule for completing wastewater and nitrogen management recommendations for the remaining watershed areas of Chatham.**

Bill Hinchey had asked to address the CAC regarding scheduling and communications between the TAG and CAC. He thanked the committee for the opportunity to discuss the larger issues related to the completion of the Comprehensive Wastewater Management Plan. He reminded the CAC that the CAC and the Board of Selectmen had indicated a desire to accelerate the planning process and this has been done by addressing issues on multiple fronts.

Bill Hinchey explained that the BOS had asked for information about the impact of projected wastewater needs on the capital facility plan, and that his staff had prepared a “worst case scenario” financial plan that outlined fiscal issues related to wastewater planning. This was done

for BOS review and was not presented to the CAC for comment. At this point in time, it is more appropriate for the CAC to be reviewing watershed information but not be too concerned with specific financial issues. As planning proceeds and we gain a better understanding of alternatives in each watershed, then it will be possible and appropriate to begin discussing the financial implications of these options. As the process progresses, it will become increasingly important for the CAC to discuss solutions and costs.

Regarding the schedule for additional work, Bill Hinchey indicated that it is difficult to put a specific schedule on paper. This is primarily because of the delay in completing the Cockle Cove Creek salt marsh study. Until this study is completed, no decisions on the Cockle Cove Creek watershed can be finalized.

Bill Hinchey indicated that as additional recommendations/study data become available, they will be presented to the CAC for consideration. At least a 30 day period for CAC consideration will be provided for prior to a presentation/recommendation going to the Board of Selectmen.

Regarding fiscal concerns, Bill Hinchey indicated that once real alternatives / plans are developed it will be possible to generate a real cost estimate for the project. Then methods of financing can be determined. He mentioned the real estate transfer tax that will be on the Town Warrant at the May Town Meeting. This article will authorize the town to seek approval from the State Legislature to assess a real estate transfer tax in Chatham. If approved at the state level, the tax will need to be approved at a future Town Meeting.

The May 2006 Town Meeting will also be asked to approve \$1.1 million in funding for detailed design of a new wastewater treatment facility. While the CWMP cannot be completed until the Cockle Cove Creek salt marsh study is completed and further work is done on that watershed, the funding authorization will enable us to move forward when appropriate without waiting another year in the Town Meeting cycle.

Bill Hinchey indicated that the detailed design work, and permitting, will likely take 12 to 18 months. During that time, it is hoped that the CWMP will be completed. DEP has agreed to allow us to begin detailed design on the new treatment plant prior to completion of the CWMP. Thus we are accelerating our planning process and working on multiple fronts at the same time. This may cause some discomfort or difficulty in charting work and progress, but it is hoped that it ultimately will save time and money.

Several CAC members requested a schedule of upcoming work. While it is difficult to create a schedule with many unknowns and other agencies involved, Bill Hinchey agreed that he would attempt to provide scheduling information for the committee.

As planning proceeds, information will be provided to the BOS and decisions will be made regarding equitable funding options. Some that have been discussed include: betterments, tax rate, and real estate transfer tax. These are complicated decisions that cannot be made until we can compare watersheds and can put the entire plan together.

John Payson stated that the information he had provided in the table distributed at the beginning of the meeting indicated that the MEP had over-estimated nitrogen-loading figures by as much as 70% in some areas. He stressed the importance of using accurate information.

Bill Hinchey responded that he is dealing with concepts at this point and trying to provide the town information of the magnitude of the project.

David MacAdam suggested that the presentation at Town Meeting should include information about a “no action” alternative to wastewater remediation as many voters may not be aware of the potential results of taking no action to solve wastewater problems. Bill Hinchey agreed that it would be helpful to provide information about the results of taking no action to address the problems of nitrogen-loading.

Bob Duncanson added that many citizens are very aware of the problem and are anxious to move ahead with solutions.

Burt Segall suggested that public health issues should also be included in the Town Meeting presentation.

A 2/3 vote will be needed at Town Meeting and there will be a ballot item to authorize the proposed expenditure for treatment plant design as it exceeds proposition 2 ½ limits.

Al Haven, Chair of the Water & Sewer Advisory Committee, informed the CAC that the WSAC voted to support the treatment plant design article. There was some discussion of the role of the WSAC and it was suggested that the BOS should provide guidelines and a better definition of the role of the WSAC. Bill Hinchey indicated that the BOS would be happy to do so.

Al Haven added that Bill Redfield and the Water and Sewer Department are doing a good job of serving the community.

Fred Jensen noted that construction costs are accelerating at unprecedented rates and indicated that accelerating the project could save significant money for the town.

#### **Item 6: Other Business**

Fred Jensen noted that the recent WIC (Barnstable County Wastewater Implementation Committee) minutes indicated that the WIC is adjusting to a new role since the creation of the Cape Cod Water Protection Collaborative. Bob Duncanson indicated that the intent is to transition the WIC into a technical advisory group to the collaborative, thus membership may shift in the future to people with more scientific and technical backgrounds.

John Payson made a motion that the CAC continue to receive minutes of the Collaborative. The motion passed unanimously.

Didi Lovett requested, and then made a motion, that David MacAdam read a document (attached) he had circulated regarding wastewater issues. It was suggested that David MacAdam only read parts of the document that have not already been discussed. Bob Duncanson suggested that the document be distributed and included on the next meeting agenda.

The motion passed unanimously.

David MacAdam paraphrased some of the information as follows:

The BOS did not consult the CAC regarding the real estate transfer tax proposal.  
Is the CAC's task nearly done?

Regarding the CAC:

*“Looking at the original Needs Assessment Report (NAR):*

*“Phase 4: Development and Screening of alternatives”*

*“Item 6: Identify and develop flow and loading reduction alternatives including water and wastewater policies, low flush and composting toilets, and water reuse.”*

*“Item 8: Screen the alternative technologies, solutions, and plans to select up to ten alternatives that will receive a detailed evaluation.”*

*A water use charge would come under the heading of “flow and loading reduction alternatives including water and wastewater policies. . . “ (Item 6 above). **How can the present market, which determines the price of water, possibly represent the true cost of this resource, or the by-product wastewater produced from it, if there is no charge for the environmental damage caused by it?** Item 6 seems to me to direct the CAC to explore a water-use charge as a funding alternative before moving on to non-usage-based funding alternatives such as the proposed real estate transfer tax. Worth noting is that endorsing the Town's initiative to obtain State approval of a real-estate transfer tax is tantamount to endorsing such a tax. After all, why would we be going to the trouble of obtaining State approval for a tax we subsequently did not levy. Bringing this article to Town Meeting at this time is a political slight of hand that could cost us the option of exercising this funding alternative in the future after more conventional alternatives are exhausted and its need becomes more acute.*

There was brief discussion of a water-use tax. Didi Lovett asked Bill Redfield to explain why a water-use tax is not a viable option. Bill Redfield explained that state law requires that water rates be “fair and equitable” and based on the provision of water. In order to add any additional charge, it would be necessary to petition the state legislature and it is unlikely that they would grant such a request.

David MacAdam stated that this might be done in the same way that we are seeking approval from the State for the real estate transfer tax.

Bill Redfield explained that a water use surcharge would not address everyone in town as many are not on the town water system.

David MacAdam noted that other towns are going to have great difficulty financing wastewater treatment projects adding that Chatham should seek state and federal funds. Bob Duncanson stated one of the major purposes of forming the Cape Cod Water Protection Collaborative was to obtain financial assistance.

## **Item 7: Next Meeting**

After brief discussion it was decided that there would be no meeting in May. Members were encouraged to attend the May 25<sup>th</sup> presentation of the Pleasant Bay MEP Report at the Brewster Town Hall at 7 p.m.

A meeting was scheduled for June 15 at 4 p.m.

The meeting was adjourned at 6:35 pm.

Recorder: Marie Williams