

COMPREHENSIVE WASTEWATER MANAGEMENT
CITIZENS ADVISORY COMMITTEE (CAC)

November 28, 2007 –4:00 pm
Selectmen's Meeting Room, Town Offices, Chatham, Massachusetts

PRESENT:

CAC: Phil Christophe, Fred Jensen, Didi Lovett, David MacAdam, Chuck Pollard, John Randall, John Raye, Burt Segall, and John Payson

CAC members not present: Bob DePatie, Scott Tappan

TAG: Bob Duncanson, Bill Redfield

Others Present: Nate Weeks (S&W), Al Haven, Bill Schweizer, Gloria Freeman, Ron Bergstrom, Chuck Bartlett, Paul Kelley, Brian Dudley of Mass. DEP

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

Continuation of discussion by CAC members of Stearns & Wheler's responses to the written comments submitted by CAC members regarding the Preliminary Draft of the CWMP.

Fred Jensen indicated that this meeting would be a continuation of the agenda from the November 7 and October 25 meetings with plans to review questions and the S&W responses from those committee members who had not been heard at previous meetings: John Payson and Fred Jensen.

Prior to beginning discussion, Fred Jensen invited Brian Dudley to address the committee regarding the preliminary draft CWMP and TMDLs.

Brian Dudley stated that he has had the opportunity to review the preliminary draft CWMP and finds that it touches on many issues and concerns regarding the restoration of Chatham's embayments. He explained that the TMDLs were an outgrowth of the Federal Clean Water Act which requires states to evaluate water quality and address impairments in a scientifically and technically definable way. The TMDL is a measure of the amount of pollution that a system can absorb without causing impairment to water quality.

He noted the distinction between point and on-point source pollution and the difficulty of assessing a daily load when working with non-point sources where distribution is more diffuse. Point source pollution, e.g. a single pipe discharge from a WWTF, is more easily regulated as a TMDL in kg/day as it is easily quantified. Non-point source pollution, i.e. septic system discharges, are more difficult to quantify due to their diffuse nature and thus are difficult to regulate as a daily load (TMDL) as they are usually measured as an annual load. However, case law requires TMDLs to be presented as a daily load. He encouraged the committee not to focus on the TMDL numbers, but to look at the threshold concentrations at sentinel (water quality monitoring) stations. The goal of our work is to support eelgrass restoration, where applicable,

and to create an environment capable of supporting benthic (bottom-dwelling) animals where eelgrass is not an issue.

He reviewed the history of early (2003) MEP reports which were based on three quarters of water use data vs. the later MEP report (2007, and the 2006 Pleasant Bay Report) which used whole-year (four quarters) water use data and also included revised build-out figures, and later data related to the Cockle Cove Creek study to produce current TMDLs and watershed targets. He explained that DEP is looking for a CWMP implementation plan which will meet the thresholds as identified in the MEP Technical Reports. Preliminary DEP review indicates that Chatham's CWMP will accomplish that goal.

He noted that DEP has revised the TMDLs in accordance with the current data, but explained that the thresholds based on sentinel station water quality data had not changed, and these should be the focus of our clean-up efforts. He reiterated that the committee should not focus on the "daily load" aspect of the TMDL requirement as it was developed to meet Federal Clean Water Act requirements. The overall target is the restoration of embayments.

It may take years before we will know if the plan is "successful" as there will continue to be ground water/septic flows after sewerage is accomplished.

Brian Dudley recognized concerns expressed earlier by John Payson regarding the data used in the modeling. He explained that regression analysis has been used to validate the calibration in the models. Data points were measured and compared with present conditions. Once the model has been calibrated, it is validated against other data such as salinity. These analyses result in increased confidence in the validity of the model as a predictive tool.

He explained that DEP is responsible for eelgrass mapping and explained that if, after initial implementation activities has been accomplished, there is not a resurgence of eelgrass that will not necessarily mean that the plan has been a failure. Many factors are involved and we will use "Adaptive Management" to re-align goals and techniques through time.

John Payson asked about setting priorities to sewer areas adjacent to sentinel stations first. Brian Dudley said that DEP's role is not to be involved in setting priorities for Chatham.

Bert Segall asked about monitoring as part of the plan, asking if we are able to achieve the target levels prior to completion of the plan, would we then be able to discontinue additional sewer installation? Brian Dudley explained that because of the multitude of factors involved, it is difficult to anticipate what will happen in the future. He noted that there will be considerable lag time in assessing results/success due to travel time of underground discharges.

John Payson asked about annual vs. seasonal peaks. Brian Dudley explained that the modeling is based on peak conditions or worst case conditions. Again, he reminded the committee not to focus on TMDLs but on implementing the plan to achieve threshold concentrations. The MEP model determines what amount of nitrogen needs to be removed from each watershed in order to achieve target concentrations.

Bob Duncanson echoed Brian Dudley's suggestions that it is percent removal numbers that we need to understand (not TMDLs).

Nate Weeks of Sterns & Wheler said that it is important to keep the information simple in order for the citizens of Chatham to understand the plan. He referred to Figure 2-4 in the plan which shows percentage removal figures by watershed.

There was additional discussion in which John Payson questioned disproportional changes in the data between the 2003 and 2007 reports. Bob Duncanson explained that there were major changes in data used in the 2007 work (4 quarters of water use data vs. 3 quarters of water use data; a new water use year; additional embayment water quality monitoring data; a new build-out analysis; data from the Cockle Cove Creek study), so that he would have been surprised if there had not been significant changes. He reiterated that we are now focusing on the updated 2007 South Coast and 2006 Pleasant Bay MEP Technical Reports. It was suggested that all tables referring to 2003 data be removed from the report.

Fred Jensen thanked Brian Dudley for his comments and insight.

The meeting turned to the discussion of John Payson's written comments and Sterns & Wheler's responses regarding the draft CWMP.

John Payson referred to a change in removal percentages in Sulphur Springs (on a chart he distributed, attached) and asked why the change was so significant. After much discussion, it was suggested that a separate meeting with John Payson and those who had run the models be set-up. John Payson asked again how the change in numbers had occurred.

Nate Weeks explained that changes had resulted from the use of the new, updated data and indicated that S&W has investigated and questioned the work and now feels very comfortable with the figures and the modeling results. He stated that it is important for the CAC to find a way to make John Payson comfortable with the figures as it is important for the CAC to show unified support and understanding of the plan.

Discussion returned to the written comments submitted by John Payson: (pages 13-23)

While many of the questions asked had been answered to John Payson's satisfaction, there was discussion regarding several issues:

Article 2 of the Sewer Regulations. In response to John Payson's concern about the discontinuance of Article 2 of the town's Sewer Regulations, Bob Duncanson explained that there is no recommendation to discontinue Article 2; however, Article 2 will be revised, if appropriate based on the CWMP. He explained that current sewer allocations on a property-by-property basis are required under the Sewer Bank. Nate Weeks noted that we have planned for maximum levels of treatment (volume and quality) with the goal of being able to serve everyone so it is not necessary to attribute specific flow amounts to individual properties. Allocation limitations/restrictions occur when there is not adequate treatment, or recharge, capacity.

Board of Health Authority. Referring to bullet 5 on page 1-2 of Volume 1 of the CWMP, John Payson interpreted the wording of the explanation to indicate that Board of Health regulations would not be enforced. Bob Duncanson explained that the Board of Health has the authority to waive certain regulations during interim periods, in order to prevent individuals from “double-paying”. For example, if sewer installation is imminent in a particular neighborhood, a homeowner may not be required to pay for an expensive IA system upgrade, but would be required to meet Title 5.

Sewering Priorities. Bob Duncanson indicated that the town will develop criteria regarding where to begin, based on nitrogen sensitivity of the embayments, economic redevelopment issues, Route 28 reconstruction plans, etc. There will also be discussions with developers and existing properties, such as CBI, to prevent wasting dollars and to generate maximum advantage to the town from planned private projects.

There was discussion of providing data to John Payson. Nate Weeks indicated that the data is available. There was discussion about extending the timelines for approval of the CWMP by continuing discussions of re-worked data. Nate Weeks added that the Board of Selectmen has indicated that we need to move forward with this project. When a community goes forward with a plan, it is important to look at the forest, not the trees; we need to be careful of comments made by committee members that might confuse the public about the project.

John Randall indicated that he feels it is important to look at the big picture rather than the minutia of specific data. He indicated that the committee’s role is to evaluate the concepts and engineering done by others. Burt Segall agreed that additional data analysis would not be productive and indicated that looking at individual flows from each property is not good engineering. The CAC needs to address the broad issues when presenting the plan to the community.

Fred Jensen called for a vote from the committee regarding the request for additional data for John Payson: In favor: 2; opposed: 7.

It was again suggested that John Payson meet with Bob Duncanson and Nate Weeks as the committee forum is not conducive to the discussion of specific data questions.

It was agreed to continue the discussion at a meeting on December 6 at 4:00 pm. Bob Duncanson agreed to arrange a location and notify the committee.

The meeting was adjourned at 6:30 pm.

NEXT MEETING

Thursday, December 6, 2007 at 4 pm. Location TBA

Marie Williams
Recorder