

**Section 208 Area Wide Water Quality Management Plan Update
Monitoring Subcommittee**

**Tuesday, September 30, 2014
1-3pm**

**Superior Court House
Rooms 11 and 12
Main Street, Barnstable, MA**

Attendance: Scott Horsley, Tom Camberari, Marcel Belaval (EPA), George Heufelder, Brian Dudley, Amy Costa, Joann Muramoto, Danielle Donahue, Judith Underwood, Matthew Reardon (DEP), Chris Neill, Sia Karplus, John, Lindsay Counsell (Three Bays), Ed Eightner, Bob Duncanson [phone], Tim Gleason (EPA)[phone]

1. 208 Status

- a. Danielle provided an update of the 208 release and public hearings that have been held to date. She noted the upcoming public hearings and that the public comment period for the Draft 208 Plan Update closes on November 20th. Tom offered information about the report and recommended that those who haven't yet read the plan review it.

2. Technology Monitoring recommendations

a. Aquaculture (Joann)

- i. Their working group developed monitoring framework, pilot testing, and long term implementation
- ii. Shellfish Aquaculture
- iii. Shellfish Bed Restoration

iv. Discussion:

1. Q - Ed: What is overall objective for document? Is it to set minimum standards? Those would also need to consider site specific elements...
 - a. Joann: Purpose is to develop general monitoring recommendations. We understand that there are site specific considerations and have built that into section 6.
 - b. Bob: Document is intended for use by towns to consider what monitoring may entail when it comes to actual implementation.
 - c. Tom: Our mission is to provide general guidance and demonstrate a method to determine what your nitrogen credit should be for specific technologies. Intention is to move projects forward and have confidence in the amount on nitrogen credit taken.

2. Q – Ed: Suggests that these monitoring protocols be provided as guidance, considerations for implementation, rather than used as regulatory standards by CCC and DEP.
 - a. Brian: As these technologies become more mainstream there will need to be standardization of monitoring.
3. Q – Sia: Ed, is there something that you don't think should be here?
 - a. Ed: More concerned about what is not included. For example there should be considerations about when to sample on the tide.
4. Q – Ed: Again questions the document's purpose.
 - a. Joann: Not intended to replace QUAPP or create new ones. If it evolves to that place we could go further. But this was always intended to be more general.
5. Q – Marcel: Brings up the bigger question of what the documents provide. We should determine if there should be blanket statements for site specific testing.
 - a. Tom: a generic QUAPP would be needed. But more specific one would be required down the line. Other considerations could include sediment etc.
6. Q – Matthew: Would need to consider if the area is sufficient, (group responded that this would be siting criteria which is not monitoring)
 - a. Sia: We're looking at how they work as filters not about the eco systems. We're using water quality results to really see how successful they are at nitrogen removal.
7. Q – Marcel: If there is a QUAPP for these technologies who is approving the QUAPP (when there is one)?
 - a. Brian: No that has not yet been decided.
 - b. Sia: there are 2 very good QUAPPs existing - Center for Coastal Studies and SMAST. I would recommend that we recommend those 2 options and have them adjusted as needed.
 - c. Bob: Sia's idea sounds good. The site specific locations would need to be modified but the standards would be based on existing.
 - d. Joann: Agreed that it is congruent with how they envisioned the process.
 - e. Bob: Recommended including general language referencing the existing QUAPPs.
 - f. Tom: Agreed that that approach could work with other specific QUAPPs for those that don't fall under the existing ones.
 - g. Matthew: It's important to consider how the data is being collected, reviewed and by whom. To make sure that it is referenced to see that N reductions are being met.

- h. Scott: In terms of the adaptive management approach this monitoring data would need to be synthesized in order to evaluate the progress of the approaches being used.
 - i. Brian: that would involve sentinel station data. We wouldn't be able to tell progress right away though.
 - j. Tom: That's why we have different monitoring for the pilot testing timeframe.
8. Q – Sia: There has been discussion about the monitoring being housed by the County. Does that include data collection, analyzation, and preparation of reports?
- a. Tom: Yes, that has been considered as a regional efficiency and the data would need to be analyzed and prepared. As a committee we should be prepared to make recommendations on the issue.
9. Q - Scott: Cost... Is it appropriate to consider general costs? We would like to include as much information about this in the Tech Matrix
- a. Sia – there are some numbers in section 2. Cooperative Extension has some numbers that could be used for that purpose too. (Little Pond study numbers - \$1500 for 5 size classes 20 animals each)

b. I/A Systems and Eco Toilets (George)

i. I/A Systems:

1. The draft report presented demonstrates the worst possible case, monthly monitoring. There are 2 elements first as the monitoring of the service contracts and then the discharge monitoring. Monitor compliance and system operating.
2. Recommended monthly testing be completed by the County BCDHE or another third party because it would be speedily transmitted to the operator of record.
3. TMDL compliance needs to be discussed.

ii. Eco Toilets:

1. Two maintenance aspects
2. Does not include the handling of residuals

iii. Discussion:

1. Q – Sia: The number presented here for I/A cost is significantly different than BCCR, why?
 - a. George: This gets closer to TMDL compliance and all required compliance issues.
2. Q – Sia: Can monitoring be done every 2 months?
 - a. George: Given the variability of the data that we have seen through our testing, the discussions that we've had involve

monthly (worst possible case) testing. Now that could change when more data starts coming in. If the data stabilizes then the frequency could be lessened.

- b. Brian: I would envision that rather than the frequency of the sampling be reduced that the universe of the sampling could be reduced.
3. Q – Scott: Variability in the Title 5 systems exist as well yet we use an average nitrogen concentration of 26.25 ppm to classify them. Once we learn the average during the pilot time frame can we use an average in the same way?
 - a. George: at some point the data should provide the answers. It may be required permanently.
4. Q – Tim: Does this then require a management entity? If different testing frequencies are required it seems that there should be a greater entity managing the data and collections.
 - a. George: The County has an existing entity that could accomplish that. The costs should be spread.
 - b. Tim: this should be brought up in the monitoring reports so that the Towns have an idea of all the planning considerations.
 - c. George: will include 2 scenarios for comparison:
 - i. Each homeowner pays differently based on their frequency
 - ii. Town establish entity to equalize the cost for homeowners
5. George: The plan prepared here assumes buy-in from regulators that 19 mg/L is 50% reduction.
 - a. Discussion of the efficiency and cost of I/A technologies
6. Ed: Have to have a comparison to loading and percent.
7. Sia: We should recommend the installation of water meters for each of these homes so that we could compare. George indicated that he would incorporate this recommendation.

c. Others – Update

- i. PRBs Marcel doesn't have an update
- ii. Sia commented that it was very productive to review the
- iii. Chris posted DCR commissioner for inlet widening of Bournes Pond to SharePoint

3. Other

a. Mashpee CWMP – Aquaculture

- i. Draft EIR accomplished, part of scope on draft was to provide better numbers on how they aim to monitor and implement. In effort to move projects forward and have confidence in the amount on nitrogen credit taken.

b. Environmental Bond Bill

- i. Tom provided an overview of the Environmental Bond Bill Levy fees for management entities to manage Title 5 systems. \$4.5 million for alternative technology testing and pilot projects and \$4 million for monitoring.

4. Next Meeting Agenda

- a. PRBs
- b. Inlet Widening
- c. Review TMDL Compliance
- d. Review 208 Recommendations