



BARNSTABLE
Water Resources



**Town of Barnstable
Comprehensive Wastewater Management Plan
Ad Hoc Committee**

Meeting Minutes

Date: July 14, 2025

**Location: Department of Public Works Conference Room, 382 Falmouth Road,
Hyannis, MA 02602**

*This meeting is being recorded and will be posted for future viewing on the Town of Barnstable's
Government Access Channel:*

<http://streaming85.townofbarnstable.us/CablecastPublicSite/watch/1?channel=1>

Committee Members Present (In-Person):

Scott Horsley, Chair; Tom Cambareri; Zee Crocker; Paul Neary, Town Council; Rob O'Leary; Louise O'Neil

Committee Members Present (Via Zoom):

Brian Hughes, Vice Chair; Butch Roberts

Committee Members Absent:

Kris Clark, Town Council; Glenn Snell; Gordon Starr, Town Council

Others in Attendance:

Dan Santos, Director, Department of Public Works; Rob Steen, Assistant Director, Department of Public Works; Griffin Beaudoin, Town Engineer, Department of Public Works; Amber Unruh, Special Projects Manager, Department of Public Works; Chris Gadd, Communications Assistant, Department of Public Works; Tom McKean, Director, Health Division; Tom Lee, Chair, Board of Health; Liberty Jackson, Intern, Department of Public Works; Members of the public.

Agenda:

Call to Order

Scott Horsley, Chair, called the July 14, 2025 meeting of the Comprehensive Wastewater Management Plan to order at 5:07 PM. The meeting of the committee was held in a hybrid fashion, with members attending in both the Department of Public Works Conference Room at 382 Falmouth Road in Hyannis and virtually via Zoom.

Administrative Items

a) Recording Notice

Chris Gadd, Communications Assistant, Department of Public Works, read the notice of meeting recording.

Chris also noted the location of cameras in the room as this was the committee's first time in the DPW conference room.

b) Roll Call

Chris Gadd, Communications Assistant, Department of Public Works, conducted a roll call from the committee. The attendance of members is reflected above.

c) Approval of Meeting Minutes

Scott Horsley, Chair, entertains a motion to approve the June 16, 2025 meeting minutes. Councilor Neary moves to approve the minutes. Tom Cambareri seconds. The committee unanimously votes to approve the June 16, 2025 meeting minutes.

Roll Call: Tom Cambareri (Yes); Zee Crocker (Yes); Scott Horsley (Yes); Brian Hughes (Yes); Paul Neary (Yes); Louise O'Neil (Yes)

d) Next Meeting

Scott Horsley, Chair, opens the discussion by inquiring about possible dates and times for the next meeting. Chris Gadd, Communications Assistant, Department of Public Works, provides several possible meeting dates and times. After some discussion, it was decided that the next meeting of the committee will be on Monday, August 11, 2025 at 5:00 PM in the Department of Public Works Conference Room, located at 382 Falmouth Road in Hyannis.

Scott notes an additional discussion on future meeting topics to be discussed by the committee and requests an update from Rob Steen.

- Rob Steen, Assistant Director, Department of Public Works, responds that the discussion tonight continues the discussion on I/A systems, including input from the Board of Health and Health Division, as well as additional data. Another meeting

may be needed, depending on how the evening's meeting goes. After this, there are a number of policy issues that can be brought forward for discussion. He notes an email chain pertaining to one of these policies, grinder pumps.

Scott asks the committee if there are any other topics that should be brought up for discussion.

- Tom Cambareri notes his interest in the grinder pump discussion and providing information to citizens about them. He notes other towns have put out information about grinder pumps but feels Barnstable has not.
- Tom Camabreri also notes the discussion on wastewater discharge and the recent lawsuit from the Conservation law Foundation (CLF). He wonders if there is anything for the committee to discuss within that topic, or if there is any form of update.
 - Rob Steen responds that he is uncertain what is allowed to be said about the suit and would have to discuss the topic with the Legal Department before bringing anything to the committee. While the DPW is involved from a technical perspective, the Legal Department oversees the suit.
- Scott responds that both topics are worthwhile, and requests Rob Steen discuss with the Legal Department what is able to be reported to the committee.
 - Councilor Neary notes that the CLF Lawsuit is on the next Town Council Agenda, with discussions occurring in Executive Session. This may not change what is able to be discussed.

Rob O'Leary joined the meeting in-person.

- Zee notes the charter and purpose of the committee to bring forth recommendations to the committee. This includes any other alternatives to the plan, which includes the current work of cranberry bog restoration and Mill Pond Dredging. He suggests this as a third item for future meeting topics.
- Tom McKean, Director, Barnstable Health Division, notes that Tom Lee asked if there should be a limitation on the number of bedrooms and wastewater discharge after connecting to sewer, related to capacity issues. He notes a lot of experience from the Board of Health with these limitations and would assist with it.
- Tom Camabareri asks if the discussion on flow neutral occurred with the Town Council.
 - Dan Santos, Director, Department of Public Works, notes the Town Council has discussed the item several times and will be discussing it again. Draft language was prepared by the Town's Counsel.

- Scott asks, in regard to Councilor Neary's note about the Executive Session, if this committee would be allowed to go into Executive Session to discuss the matter.
 - Rob Steen responds that he is uncertain.
 - Councilor Neary notes that the Legal Department would want to be in the room.
 - Dan notes that it is doubtful as this committee is not party to the issue. The Town Council is meeting in Executive Session to discuss legal strategy, which is not what this committee will do. There could be an update on factual information such as filings and statuses.

Discussion on Draft Watershed Permit

Scott Horsley, Chair, opens the discussion on the Draft Watershed Permit. Chris Gadd, Communications Assistant, Department of Public Works, notes that the Draft Watershed Permit is out for public comment. He notes that MassDEP has extended the window for public comments by one week, to August 18, due to technical issues with MassDEP posting the permit and related materials online. He notes this extension does not affect the awarding or processing of the watershed permit. He also notes that the Town does not receive any of the comments during this time.

- Scott asks if MassDEP has asked for any additional information.
 - Chris responds he is not aware of any requests.
 - Rob Steen notes there were several conversations with MassDEP during the technical review period. At this point the draft exists and is static.
- Tom Lee, Chair, Board of Health, asks where the draft permit can be found.
 - Chris responds it is available through MassDEP's Environmental Monitor and will send Tom Lee and Tom McKean the instructions for how to access the permit, which had also previously been shared with the committee.
- Scott asks Chris, in regard to accessing the permit, if it is possible to send the draft permit to the committee.
 - Chris notes he has not heard from MassDEP about if the permit can be sent through him. He notes not wanting to derail any of MassDEP's processes
 - Griffin Beaudoin, Town Engineer, Department of Public Works, responds that we can ask MassDEP again.
- Scott asks why they wouldn't allow the permit to be shared, as it is a public document.
 - Councilor Neary notes he recently visited the site and there was a red-lined, "final" document.

- Tom Camabreri notes the actual draft watershed permit is relatively short, but there is a variety of associated documents that make up the background of the permit, including the back-and-forth that was previously mentioned.
- Scott remarks that anybody who has trouble accessing the permit can reach out to him.
 - Rob Steen notes that Chris sent out the link and instructions to access the permit shortly after the last meeting.
 - Louise O’Neil notes she used the instructions to access the permit and had no issues.
 - Chris notes that if there is any issue reach out to him, but it is MassDEP’s process.
- Tom McKean notes that at several meetings with both MassDEP and Board of Health he has asked if I/A systems would be required with a watershed permit and the answer is “no”.
 - Rob Steen responds this is correct as the watershed permit is based on the CWMP, which doesn’t rely on I/A systems. However, the community may decide they want I/A systems in addition to the CWMP, which is what this committee is discussing. However, I/A systems would not be required by the state.
- Tom McKean notes that the previous meeting he attended felt like there was a strong push to implement I/A systems, as he felt he was the only one in opposition to implementing I/A systems.
 - Zee Crocker notes this is the nexus of the challenge. It’s nice to have a permit, but the permit doesn’t solve a problem. The question is how to move forward with a plan to propose to Town Council that addresses the problem within the context of the permit. He notes a concern about not having the money to accomplish what is needed through the permit. If the timeline is not achieved as outlined, even though it’s an adaptive plan, what does that mean? Once a system is fully certified and can achieve a high level of performance, does that fit into the solution? He sees a series of potential triggers that help offset if the plan does not achieve certain milestones. Should we then look at a solution that is longer term that goes beyond the permit load question.
- Rob O’Leary asks if other communities have dealt with using I/A systems as part of their watershed permit, and how they have resolved it.
 - Scott responds that the only existing watershed permit is for the Pleasant Bay Alliance, with Barnstable likely being second. However there are plans that utilize I/A systems. He notes that the six towns of Martha’s Vineyard are pursuing I/A systems as part of their plan.
- Rob O’Leary asks if, within the plans, there is language that requires systems going forward.
 - Scott responds there are two towns, Tisbury and Wellfleet, with health regulations in place. Mashpee has some regulations in place. Falmouth is “seriously considering” regulations.

- Zee notes that there are systems that MassDEP say can be used but are also not fully approved by the State, they are only provisionally approved. This is a hurdle but doesn't preclude the design from including elements down the road. This could be within the context of the permit, or beyond the permit such as the 500-foot setback as discussed at the last meeting.

A technical issue resulted in the Zoom meeting being turned off, and Brian Hughes leaving the meeting.

- Scott clarifies that none of the systems that achieve less than 10 mg/L are generally approved. MassDEP has a Best Available Nitrogen Reducing technology (BANRT) list that is acceptable to MassDEP and includes provisional approval. His understanding is that it is acceptable to use provisionally approved systems to satisfy a watershed permit.
 - Rob Steen notes that the Town is in the process of getting the watershed permit, which will hopefully be awarded soon, based on the CWMP which is already done. If the Town decides to put in I/A systems, it does not affect the watershed permit, it is a local politics issue. This is separate from substituting a portion of the plan with something else.
- Tom McKean notes that at the next meeting of the Board of Health there are two agenda items pertaining to I/A systems. Just about every agenda has I/A systems included. These properties are looking to add an additional bedroom or ADU or are close to wetlands. He indicates openness to setbacks to the waterbody.
- Scott asks Tom McKean to clarify what the existing requirement for approval is of I/A systems.
 - Tom McKean responds there is no current requirement.
 - Tom Lee notes the Board is open to the technology being used and does not want it to be limited, and it depends on what the best available option is.
- Scott asks how the Board of Health decides what is acceptable or what is used, aside from an engineer's assessment of the property.
 - Tom Lee responds he is open to any system.
 - Tom McKean notes the Board of Health is working on a draft regulation to require the Best Available Technology.
- Scott notes an option to reference the MassDEP BANRT List, which has some "blessing" from the State.
 - Rob Steen asks to confirm that the BANRT list contains systems that only achieve 19 mg/L.
 - Scott confirms this is correct. He notes some towns have their own regulations including Tisbury, which requires 13 mg/L or better, and Wellfleet, which requires 10 mg/L or better.

- Rob Steen notes this is the one of the issues with only referencing the BANRT List. If the Town were to consider an I/A, he argues there should be a limitation above the BANRT List.

The technical issue was resolved and Brian Hughes rejoined the meeting.

- Brian asks what happens if the Town does not meet the goals outlined in the CWMP. Do we monitor throughout the life of the CWMP and ask people to take corrective actions if we don't hit certain milestones? Or wait until the next 5-year update and suggest any fixes then.
 - Rob Steen responds that there is yearly monitoring that gets submitted, in addition to other reports and the 5-year update. The watershed permit has distinct points and times where certain thresholds must be met. Unless something "massively changes" there is not a concern of not meeting a goal. Because the data is compiled and reviewed annually, it will not sneak up on the Town.
 - Griffin reiterates the reporting that occurs, and that any missed goal would be reported and corrective actions would be implemented.
- Scott asks whether the goals are measured as a percent reduction that is achieved.
 - Griffin responds yes, it is about the load removal from source interdiction.
- Scott asks what the goals are for each year.
 - Griffin responds that the goals are outlined in the draft watershed permit by watershed. It varies by watershed.
- John Lynch, Citizen, asks about the effect of cash flow and debt servicing that would result from allowing property owners to opt-out of the sewer and go to an I/A, as it is a significant financial issue.
 - Rob Steen responds that the discussion on I/A systems has been an "and" not an "or". The properties anticipated to connect into the municipal sewer system are still anticipated to connect, even if the committee were to recommend I/A systems be implemented. The current discussion pertains to properties not anticipated to connect as part of the CWMP and/or properties that will not be connecting until a later phase.
 - Dan Santos, Director, Department of Public Works, notes there is no "opt-out" option.
- Zee Crocker opines that not having an opt-out option is 'a tremendous mistake'. Creating an off-ramp can save potentially hundreds of millions of dollars in the future. When looking at properties in Phase Three that won't be reached for 20 years, we know the systems are old and if we upgrade them sooner, then we will be ahead of the game. He asks if it behooves the group to address the question and create an off-ramp, potentially saving hundreds of millions of dollars.
 - Dan asks what the "hundreds of millions" of dollars is, assuming it is avoiding sewers.

- Zee responds that it is the cost of Phase Three.
 - Dan notes the premise is based on meeting the standard. Current I/A technology has been modeled and does not meet the standard for removal.
 - Zee clarifies that his idea is “when it’s ready”. When there are levels that are satisfactory, don’t miss the opportunity because we have a permit.
 - Dan notes the technology has to get very close to 0 mg/L
 - Zee responds that the numbers he sees now are 2-3 mg/L
- Rob Steen adds that both parties are saying the same thing. He clarifies that the previous discussion on where I/A systems could be implemented is an “and” conversation. He points to the Phase Three area which is approximately one septic lifetime away and it could be suggested to have septic systems be upgraded to I/A systems as they die. The plan has always included a monitoring aspect. If the actions being completed such as cranberry bog restoration and others, along with I/A systems, then it can be evaluated to see if there is a significant impact and attempt to get the plan changed at a later time.
 - Zee notes this is not in the permit.
 - Rob Steen responds that the permit is revisited every 5 years. We have a plan that allows the Town to be permitted and move forward while meeting the requirements of the regulators. As a community we can decide to do additional actions which may allow us to potentially modify the plan in the future. He notes there will likely be some sewerage in Phase Three regardless, to reach certain areas for reasons other than nitrogen.
- Tom McKean notes there are other contaminants than nitrogen. Sewer is much better than any one system.
- Scott notes there is a lot of unknown. These answers are still 20-30 years out. He notes the MEP Model is good, but not perfect. Another unknown is where the Town will be financially in 30 years. Another unknown is how well the I/A systems will work, though the track record is pretty good and they are getting better. It strikes him that a bunch of systems in Phase Three will need to be replaced. The cost of I/A systems is typically talked about as \$55,000, but the install cost of a Title 5 is half of that. The difference to adjust the nitrogen is the remaining half. Is it worth the Town investing?
 - Rob Steen notes that there are tax credits and other financial assistance to lower the cost of I/A systems for the property owner.
 - Dan notes the benefit of the extra \$27,000 can’t be defined within the waterbody.
 - Scott responds that calculations can be made, looking at the load.
 - Dan notes this has already been done. He emphasizes the questions of what the value of the reduction is.
 - Scott notes there is a permit requirement, and anything better than that is a step in the right direction.
 - Zee notes the TMDL math can be done and is uncertain of the argument.

- Scott asks if it isn't worth it if these actions could get us 80% there
- Dan says it's not 80% and asks what if it's 2%.
- Scott responds that if it's 2% the I/A systems are performing at about 24 mg/L
- Griffin notes that the watershed permit requires the Town to demonstrate compliance with TMDLs. Modeling of I/A systems at 10 or 11 mg/L showed them as insufficient to meet TMDLs at this time.

Continued Discussion of where to recommend policy on Nitrogen Reducing (NR) Septic Systems

Griffin Beaudoin, Town Engineer, Department of Public Works, presents a collection of data related to Property Transfers and Septic Failures. He notes this is only a presentation of the data and is not attempting to make a case for anything. He notes that property transfer data averages about 4.9% over the last ten years, which is higher than expected.

- Scott Horsley, Chair, asks if the data includes "within family" transfers.
 - Griffin responds he is unsure. If it's in a trust, he doubts it is included in this dataset.

Griffin notes that there are 140-160 septic failures according to data from the Health Division, which is 0.5% of parcels in town. For conciseness, the two averages were combined as 5%. This became the basis for a case study of the Three Bays Watershed.

Griffin shows a GIS-map of the Three Bays Watershed, overlaid with the existing CWMP phases. The document also shows a table of MEP Threshold Septic Loading Modeling within Three Bays. Data shows that 60.6 kg/day of nitrogen has to be removed, which converts to 22,084 kg/year.

Griffin presents a scenario of implementing I/A systems within 500' of water in Three Bays. This includes the Marstons Mills River. This includes a total of 947 parcels, with 171 having no septic. The parcels are further broken out by phase. Within 5 years, it's anticipated that 12% of the parcels within 500' of waterbodies would be on their way to receiving sewer. Phase Two would encompass 28% of these parcels and Phase Three would encompass 24% of these parcels. About 30% of the parcels are not in the CWMP at this time. This case assumes that septic systems have a life of 10-20 years.

- Tom McKean, Director, Health Division, asks if the assumed septic life is short.
 - Griffin responds that there is variability. With I/A systems there is no data on longevity. For the purposes of the discussion, it was decided to use 10-20 years.

Griffin continues by showing the results of this modeling using the previously discussed triggers. The first year of implementation would affect 39 properties and remove approximately 0.8% of the threshold removal rate. As time continues there are less parcels that are required to upgrade as it removes those who upgraded in previous years. In total, it is less than 40 parcels per year and less than 0.8% of the required load removal each year. By Phase Three of the CWMP, approximately 8% of the required load would be removed.

Griffin shows additional data that models with properties only in Phase Two onward, and Phase Three only. Overall, each scenario is a relatively small number of parcels and a small amount of the load to be removed each year.

Griffin shows another scenario which modeled I/A systems for all of Phase Three. This utilized the same math and shows that of the 1,800 parcels in Phase Three, 90 parcels would be affected in the first year of implementation. In total, it is less than 90 parcels per year and less than 2% of the required load would be removed. By Phase Three of the CWMP, approximately 20% of the required load would be removed. He notes a caveat to each scenario that the Town needs to sewer every parcel that has been identified as needing sewer, even if they previously installed an I/A System, to meet the TMDLs. This is a bet on the I/A technology as the levels were measured at 11 mg/L, which is provisional approval.

- Scott asks to confirm the area within Scenario 2
 - Griffin confirms that this scenario is for every property identified in Phase Three of the CWMP, which is the yellow area on the presented map, upgrading to I/A systems when they either sell or their existing system fails.
- Scott asks if the data assumes every parcel has an I/A system
 - Griffin clarifies that this assumes 5% of the parcels each year upgrading to an I/A system.
- Scott asks how long the data can be assumed for
 - Griffin responds the data is presented for 15 years. At that time there would be about 1,000 parcels still needing to upgrade, which is just under half.
- Tom Cambareri asks if the effluent from I/A Systems goes down to 5 mg/L, does the data stay linear.
 - Griffin responds it would be roughly linear.

Butch Roberts joined the meeting via Zoom.

- Scott asks if all parcels were upgraded, would the nitrogen removal reach 80%
 - Griffin responds no, the percentage of nitrogen removed starts dying off as you upgrade more parcels to an I/A system. The total percentage of the threshold scenario in Phase Three is about 30%.
- Scott asks how many parcels would be upgraded by the time the 20% removal threshold is reached.
 - Griffin responds it would be approximately 1,000 parcels of the 1,600 in Phase Three, or approximately 60%.
- Scott asks to confirm that doubling the number of systems would reach the 30% threshold removal.
 - Griffin responds this is correct, it would reach 30-35% of the required removal.

- Scott notes confusion on why the removal rate is not linear.
 - Griffin responds that the percentage shown is the percentage of the threshold that needs to be removed, not the percentage of the total load in the watershed. Within the area presented we only need to reach 30%.
- Scott asks what the estimate is for if all parcels in Phase Three are upgraded.
 - Griffin responds that it would achieve approximately 33% nitrogen removal. This is based on the numbers from sewer, which was approximately 33-35% nitrogen removal.
 - Dan notes the data from sewer has a nitrogen load of 0 mg/L.
 - Zee notes that the 0mg/L comes at a “gigantic” expense.
 - Griffin notes the model can be run at different percentages.
- Zee notes this goes back to time, specifically the time value of two things. First, there is a jump on what happens in Phase Three, which isn’t slated to start for a long time. Second, there is a potential to take a “huge chunk” out of how much needs to be sewered, which at present value could be over 100 million dollars. There are reasons to pursue this, even if it’s not a perfect solution. This ties into the potential success of restoring cranberry bogs, which when combined with this effort could get a big jump on saving the Town money and reducing nitrogen more quickly.
 - Rob Steen, as an individual and not on behalf of the DPW, notes his agreement with Zee. He adds that each scenario will bring their own political pain as they impose new rules on a group of people. He looks at time-of-travel from a perspective of the longest distance away where there will be impact. To him, if we take the political hit the value of doing the second scenario is better than the first but also notes that both scenarios can be done.
- Scott asks if an I/A system has more of a political hit than a sewer connection.
 - Rob Steen responds that one is not more of a hit than the other, but if you go to homeowner “X” and say the rules aren’t the same now, it can be assumed there will be people who aren’t happy about it.
 - Scott notes it will depend on who pays. There was a similar discussion in Wellfleet. The homeowner gets no value from installing an I/A system, the house is the same. The value goes to the public, so why would the homeowner pay for it?
 - Rob Steen notes this is a Town Council decision.
- Rob O’Leary asks why the benefit to the homeowner is \$0
 - Scott responds that if an I/A system is installed, there is only bragging rights for the property owner. It doesn’t change the property owner’s life.
- Rob O’Leary asks if an I/A system makes the home more valuable

- Scott responds he doesn't believe it does
 - Rob O'Leary responds that if the town requires it, there may be a benefit if you were selling a home with an I/A system.
 - Councilor Neary notes that the property owner could use the upgrade to their advantage as the buyer wouldn't have to pay for it, creating incentive.
- Scott notes his desire for the cost to be the same whether connecting to sewer, septic, or I/A, relative to the public benefit. In his mind, that is roughly half of \$55,000. A new Title 5 being installed is \$25,000-\$30,000. The value of the extra \$27,000 of an I/A system is for the public benefit.
 - Zee opines that there should be a betterment and allow people to potentially add another bedroom. He assumes this is the biggest question that the Health Division hears and assumes that if an I/A system were to allow that then many people would go for it. There is an argument that they would still need to connect to sewer at some point. However, getting a jump on the technology is worth the incentive to do it.
- Scott asks how the lifespan factors into the calculations provided.
 - Griffin notes it does not get factored in explicitly. The first scenario was prepared with tables removing each phase. It factors in around year 5 when approximately 90 parcels are connected to sewer.
- Scott asks if the math assumes a parcel that is further than the lifetime of a system away would need to have another system installed.
 - Griffin responds that is not contemplated in this model. The data presented is simply the total parcels with septic systems times the 5% of properties that may be triggered to upgrade, times concentration. In the background, there is a timing issue of certain properties being included in Phases of the CWMP
- Scott opines that the 10-20 years is pretty short, and there is pretty good evidence that the first thing that fails with new systems is the leeching field.
 - Griffin responds he is trying to quantify the data as it relates to the CWMP.
- Tom Cambareri asks to confirm that when the setback is set at 500', that 8% is removed.
 - Griffin responds yes, it is 8% of the threshold.
- Tom Cambareri asks if the setback was to be increased to 1,000', would the percent removed double?
 - Griffin responds the math was not run for 1,000', but it can be assumed that the percent of nitrogen removed would be more than 8% at 500'.
- Tom Cambareri asks if the 500' is what the committee wants to do, now having seen the data.

- Dan responds that this is where the life of the septic system comes in. Does it make sense if we are proposing to sewer the properties within less than a lifetime of septic? This could be problematic for the homeowner.
 - Griffin notes that in Scenario 1C (Phase 3 only w/in 500') 40% of the septic systems will be sewered as part of the CWMP.
- Zee argues that the 15-20 years for life of a septic system is not accurate. Approximately half the systems installed are seasonal. The timeline is completely different from what the math indicates. 70% of the contribution of effluent is seasonal, and he feels part of the conversation is missing.
 - Griffin responds that this effort attempted to get multi-variable calculus into a simplified form to help inform the decision.
 - Zee acknowledges that there are a lot of variables in the math and any calculation wouldn't be perfect.
- Scott asks if the committee were to recommend an I/A approach, and the Mill Pond and Cranberry Bog Restorations show benefit along with I/A systems, is there a possibility of the sewerage of Phase Three of the CWMP being modified or removed entirely.
 - Rob Steen responds that this has always been discussed. The first iteration of the CWMP talks about this, with monitoring of alternative systems. This is why the Town continues to pursue the alternative projects. The CWMP is not predicated on the alternatives but will evaluate these alternatives for potential future implementation. If, in his personal opinion, we continue these efforts and redistrict the Phase Three areas to not allow Title 5 Systems to be replaced with a Title 5 System, with some form of incentive, there is a nexus of activity in the same watershed. He would not predicate the plan on these efforts, but the CWMP is looked at every 5 years so at some point the data will exist and can potentially be presented to MassDEP and move forward from there.
- John Lynch, Citizen, asks if the policy would be for certain areas or town-wide.
 - Scott responds it will probably be for the targeted areas. At least for now, focus on the areas identified for nitrogen removal in the CWMP.
 - Griffin responds this is ultimately a policy recommendation.
- Rob Steen suggests getting the opinion of Tom McKean and Tom Lee, as their groups have a dog in the fight.
 - Zee notes this will be beneficial as Tom McKean and Tom Lee have insight into the "real world" as they are in every Board of Health Meeting. He asks what they are seeing and what the Board of Health says "yes" or "no" to.
- Tom McKean notes that he has been seeing I/A systems last longer.

- Rob Steen asks, if the committee were to pick one of the scenarios presented and bring them forward to Town Council and Board of Health, would the Board of Health be supportive of it? Presumably Town Council would want to see both the CWMP Ad Hoc's and the Board of Health's recommendation.
 - Tom McKean notes this would probably need to be brought to the full Board of Health, with presentations of the data similar to what Griffin presented.
- Councilor Neary asks, when Tom McKean indicated I/A systems are lasting longer, is he finding that is because they are maintained more robustly?
 - Tom McKean notes there is maintenance.
 - Scott notes there are less solids going out to the leech field.
 - Councilor Neary opines that the "average Joe" thinks about their septic system when the shower backs up. In his experience, there is not a regimented schedule of when the system is pumped. This may factor into the I/A systems lasting longer.
- Rob O'Leary asks what the standards for monitoring of I/A systems are.
 - Tom Lee responds that it depends on the system and there is an Operations & Maintenance Contract.
 - Tom McKean notes an example that could be 4 tests per year for the first two years, which could then be reduced to twice per year if the 8 tests come back satisfactory.
 - Zee adds that is for a provisional system, which may change.
- Scott notes that because the Pleasant Bay Alliance has a watershed permit, their requirements for monitoring are once per year, if I/A systems are used as part of the watershed solution. Discussions with other towns show this is likely to occur again. The frequency of testing will likely be once per year. He notes that MASSTC has a contract to go to Martha's Vineyard and conduct inspections and sampling of 14 systems per day. The final cost per system is \$110, plus an additional lab cost. Ultimately it is \$200-\$300. He believes the current model of homeowners having their own contract doesn't work, and a Responsible Management Entity (RME) is necessary as we look into installing "thousands" of I/A systems. MASSTC is currently working on this.
 - Rob Steen notes his understanding that an RME is required if the plan is predicated on it. If the plan is not predicated on I/A systems, there is a choice of whether to utilize an RME.
 - Scott responds that this is true but should be seriously considered if you want to save a lot of money, more than cutting the cost in half.
 - Rob Steen notes his understanding and clarifies his point that the sampling requirements are predicated on MassDEP having it as part of the plan. If it's not in the plan, it is up to the Board of Health to decide.
 - Scott notes that, according to MASSTC, there are many systems that are not adhering to the testing requirements, and that the homeowner-contract system "just doesn't work"

- Scott asks Tom Lee and Tom McKean what they will do if Town Council says a regulation on I/A systems should be adopted.
 - Tom McKean responds that Tom Lee would ask him to put it on the agenda for the next Board of Health Meeting.
 - Tom Lee notes that there must be a financial discussion to determine who is paying for it and how it will affect the homeowner. There is often a complaint from the homeowner about things being too expensive or looking for alternate ways such as not connecting to sewer.
 - Scott notes that if we put the full cost on the homeowner, it won't go well.
- Scott asks the question of how this will be paid for, or how the town helps finance the options. He notes there is a Community Septic Management Program through MassDEP which towns can apply for. There is also the County Aquifund, which is directed towards the homeowner. He feels there needs to be a way for the town to participate in the cost.
 - Brian Hughes, Vice Chair, notes that the cost of new technologies, such as solar power, decreases as they are adopted. He feels the \$55,000 cost is the pessimistic cost of the system.
 - Scott notes on this point that Long Island is installing these systems for \$30,000 each. It is free to the homeowner.
 - Dan notes that nothing is free to the homeowner.
 - Scott notes this is true, as they pay taxes. He notes that Long Island pays for theirs through sales tax. However, there is no charge to the homeowner for the installation.
 - Tom Lee notes that tribal members receive I/A systems for free on Long Island.
- Councilor Neary asks if I/A systems are upgradeable as technologies improve.
 - Zee responds that the question is relevant to phosphorus, and the answer is "we don't know, but probably". If the question is aimed at removing PFAS he is doubtful, and the removal of PFAS is better suited when taking the water out of the ground, not with wastewater. He adds that perfect shouldn't be the enemy of good. If the existing system does nothing for removal, and you upgrade, that is better than nothing. The challenge is looking at how to recommend something viewed as experimental by many as something that gets mandated to be done. To him, areas need to be identified with the largest negative impact on water, which he sees as the 500' setback. He has no problem with incentivizing by allowing a bedroom to be installed. He is willing to dilute with incentives and additional bedrooms if it accelerates the program. To him, accelerating the program allows us to get information on how an RME will work, how monitoring will go, and the failure rate. Until the systems are in the ground, we can't prove anything.
 - Tom McKean notes concern that any promise of additional bedrooms can't be less stringent than Title 5. There is already regulation that a property cannot exceed a certain amount per acre.

- Zee agrees with this.
- Rob Steen asks if the number of bedrooms messes up any of Griffin's math.
 - Griffin responds that it does not, the calculations were based on an average home in the watershed.
- Rob O'Leary asks for clarification on the Title 5 Conversation
 - Tom McKean responds that Title 5 only allows 6 bedrooms per acre if an I/A system is added. On a half-acre, only 3 bedrooms are allowed.
 - Scott adds that this was calculated as I/A systems achieving 19 mg/L. The regulation has not been updated, as there are now systems that perform better.
- Scott asks about variances, and whether a variance in the number of bedrooms would be through the Board of Health or through MassDEP.
 - Tom Lee notes his belief that it is a MassDEP variance.
 - Scott notes there may be some room there.
 - Tom Lee notes his view that MassDEP has changed a lot of personnel, and they are being trained to follow the book.
- Zee asks to clarify that if an I/A system is installed a property can have 6 bedrooms per acre, as opposed to 4 bedrooms per acre with a standard Title 5 system.
 - Tom Lee confirms this is correct.
- Dan asks if the regulation is within a Nitrogen Sensitive Areas
 - Tom McKean confirms this is correct.
- Zee notes this is an incentive as there is room for an ADU, as long as an I/A system is installed. He asks if the Board of Health has seen much of this.
 - Tom Lee responds that he has not seen many. He also notes that currently ADUs are by-right, due to the recent legislation passed.
 - Zee notes that they can do it by-right but still have to solve the wastewater problem. This is an opportunity to inform people of what they are allowed to.
- Scott asks if the committee were to recommend to Town Council to implement I/A systems, and Town Council agrees, how could the committee help to move it along through Board of Health.
 - Tom McKean notes there are already members of the Board who want this regulation.
- Scott asks how many members of the Board of Health there are.
 - Tom Lee responds there are 5 members, plus an alternate.

- Scott asks to confirm that there are some Board Members who are already in support of I/A systems.
 - Tom lee responds this is correct, with one or two members voicing support.
- Scott asks how the Town Council might consider financing this approach.
 - Councilor Neary responds that, when the financing of sewer came up, Mark Milne, Dan Santos, and others approached Town Council at \$17,000 for the sewer assessment, and he found it as a difficult hurdle. He petitioned to reduce the sewer assessment cost to homeowners to \$10,000. He is always concerned about the cost to the end user. It's not just the cost to install sewer or I/A systems, there will always be a recurring cost. There is a subset of people who are on a fixed income. In the Three Bays there may be people who have the means to cover the cost, but just because they have the means doesn't mean we should put the cost on them. If the question of the Town assisting financially, there are monster bills already. Every property owner should prepare for an additional \$2,000 per year for costs, for a number of reasons. He wonders if there are additional avenues for covering the costs. He asks if the Town should allow marijuana in town and every dollar from it pays for I/A systems. These are conversations that need to be fleshed out. He believes in the system and the need for nitrogen reduction but emphasizes the question of who will pay for it. The points brought up by the committee are excellent and seem like a no-brainer, but the question always comes back to who will pay for it.
- Scott notes a desire to learn how the \$18,000 tax credit interfaces with other town assistance. If the Town were to give a homeowner \$30,000 to subsidize the cost, can the property owner still get the tax credit? He notes literature that he interpreted as not allowing a property owner to receive the tax credit if they receive other forms of assistance.
 - Louise O'Neil notes she had her daughter go to an accountant with the information on the tax credit, as the daughter had to connect to sewer. She does not know how the conversation turned out.
 - Scott notes his understanding that the tax relief can be applied to either sewer connection or I/A systems.
- Scott asks if there is anyone in Town who may be able to help with this discussion.
 - Rob Steen responds that Mark Milne, Director, Finance Division, previously talked to the group. He notes that Kelly Collopy, Communications Manager, Department of Public Works, has talked with the County regarding this information. In all conversations, he goes back to Mark Milne. We could ask him to come back in.
- Tom Lee asks to confirm this is for the personal tax credit when you apply for the personal income tax.
 - Scott confirms this.
 - Tom Cambareri notes the tax-filer only gets a portion of it per year.

- Councilor Neary asks, as the sewer is coming online, has there been a reduction in costs for connecting to the sewer.
 - Griffin responds this data is not collected by the Town. If the property owner goes through the Aquifund the data is available and it's anticipated that an analysis will be conducted soon, but direct data is not collected.
 - Tom McKean notes, because he sees the contracts and therefore the prices, the price is higher than what he thought. He has seen \$15,000-\$20,000.
 - Griffin responds that this depends on several variables and is difficult to identify a single number for the cost.
- Councilor Neary notes when the conversation started on Nitrogen Reduction there was talk of systems costing \$30,000. On Martha's Vineyard there are quotes of \$70,000.
- Tom Cambareri notes discussion with someone included in the Strawberry Hill Road Project who paid \$3,300, but they live right next to the street.
 - Lousie notes discussion with another individual in the same project who paid \$10,000, who is "way off" the street.
- Zee asks if there is a mandated timeline for when property owners need to connect to sewer
 - Tom McKean responds property owners are required to connect within 6 months. They can get another 6 months if they have a signed contract.
- Zee asks how the connections are going, such as how many properties are connecting.
 - Griffin responds there are a lot of connections occurring, the inspectors are busy with installations. Over 50% of eligible properties are connected.
- Scott asks what the committee's feelings are on recommending and determining a granular approach such as the 500' or 1,000' setback and where it would be implemented.
 - Councilor Neary suggests 500'. The "sell" will have to be very clear and accurate, including what the tax credit means in real dollars and whether there will be any limitations.
- Scott asks whether the 500' setback would be in just the Three Bays Watershed
 - Griffin responds that it is ultimately up to the committee to decide. The data presented is a case study of one of the watersheds. Data shown at previous meetings included all the watersheds.
- Scott asks whether the 500' is to the septic system or the property line.
 - Amber responds the calculations are based on the property line.
 - Griffin adds it's a calculation based off of GIS lot lines.

- Zee notes there are two ways to look at this. The first is to look at the math by year, which is approximately 40 parcels per year. The second is to look at the cumulative amount, which could have a significant impact, both financially and for water quality. He adds that a common argument is that a standard family will argue they don't contribute significantly to the water quality. However, when combined with the other families there is an impact. He notes that he is included within the 500' setback and would be forcing himself to spend money. There is a significant part of the Three Bays area that doesn't get sewer in the CWMP and should be addressed according to him. The impact is not as major because many of those houses are occupied seasonally. He wonders if we could look at water usage and identify what is going on at a house-by-house basis.
 - Griffin notes that Centerville-Osterville-Marstons Mills (COMM) wouldn't provide an accurate report because they don't have deduct meters.
- Tom Cambareri asks about making the regulation applicable only to parcels near salt water. Would that make sense when combined with the other programs and projects?
 - Zee responds he would have to do the math. He notes there is a lot of work being done in the upper area of Three Bays, with a possibility of significant impact from the work in the cranberry bogs.
 - Scott notes that, once the water leaves the bog, there is still a good stretch along the river.
- Griffin shows the area identified in the scenario that would include the marsh areas.
 - Scott notes this is a good point, as there is money being spent on the restoration of the bogs, maybe we don't need to worry about upgrading the septic systems in that area.
 - Tom Cabareri notes we get the nexus of going at properties next to salt water, which helps with estuary protection and getting nitrogen out of the estuaries quickly.
 - Rob Steen argues that a house on the river would have nitrogen in the Three Bays Estuary almost as fast as the houses that are 400'-500' back from the estuary. It is probably hours, not years.
 - Tom Cambareri notes the nitrogen still must go through groundwater. Houses next to the saltwater have that same effect, but there is a question of whether it is the same in the freshwater area.
- Lousie asks about the other watershed areas that aren't getting sewer and whose septic fails, is that included? Is it townwide?
 - Tom Lee notes there could be an area around freshwater ponds.
 - Scott notes that pertains to Phosphorous and is different.
 - Griffin notes that the maps presented at the last meeting include the other two watersheds.

- Scott adds that previous comments have indicated the weather getting warmer, which may throw off the calculations.
- Tom Camabreri opines that the reason we're looking at Three Bays is because the plan is aggressive on the east side of town.
 - Rob Steen adds that the value of this action in the Three Bays is because it includes the Phase Three area. If anything were to be removed from the plan, it would be Phase Three, or portions of it. There needs to be an impact on that area to make any change. This doesn't exclude doing work in other areas but was highlighted to emphasize that potential.
 - Griffin notes it is fairly consistent with the original plan to take a non-traditional approach in a Phase Three area.
- Scott asks how the committee goes about drafting these recommendations.
 - Rob Steen responds that the committee was given a document at the last meeting to chew on. At some point the committee needs to decide what the recommendation should look like, and whether there should be more or less done. He notes there is now an understanding that the Health side of the discussion is on-board. There may be a desire to touch base with financials and Mark Milne, who could attend a future meeting.
- Scott suggests he sit down with Brian and review the document from the last meeting, then bring it to the group for discussion.
 - Rob O'Leary notes concern on a lack of discussion pertaining to the financial impact this would have on homeowners and the community.
 - Zee agrees with this but points out the mitigation efforts through the state. When compared to the cost of sewer expansion, there is a significant difference.
 - Scott asks if the committee should have Mark Milne come in again.
- Tom Cambareri notes this discussion is why he likes the 500' setback around saltwater.
 - Zee notes, to him, a potential approach is phased with phase 1 being salt water and the corridor up to the Marstons Mills River. It would include "X" number of houses and be based on some triggers. Within that context, there will be incentivizes such as ADUs that cost the town nothing. Within town, there are approximately 60% full-time residents, and it's also approximately 60% of those people who make over \$90,000 and get the full benefit of the tax credit. There are powerful incentives that are a low cost to the town. The second phase could be at the next update and go after the Phase Three area.
- Brian notes that it seems there is one branch that is what should be recommended, and another branch is how it should be paid for. There is interaction between the two, but they are independent. Town Council may want to weigh in more on the financial side.

- Scott notes that there needs to be a good financial answer if the committee were to recommend something.
- Tom McKean suggests a quick approach would be to ask the Board of Health to require an I/A system anytime they are near an environmental waterbody.
 - Scott asks for clarification
 - Tom McKean responds it would be any setback to a waterbody at any distance.
 - Zee notes this moves away from the context of the watershed permit.
 - Tom McKean notes there are approximately 5 variances on each Board of Health agenda.
- Tom Cambareri asks how the Board of Health would feel about a 500' setback under this approach
 - Tom McKean responds he is just trying to equip the committee and does not care as much about the distance.
 - Zee adds this approach could be taken as an “and” not an “or” to the original discussion on setbacks.
- Dan notes there are two discussions occurring. Zee is talking about requiring I/As within a set distance, and Tom McKean is talking about this in context of requested variances. Not everyone is seeking a variance.
 - Tom McKean responds that if there is a system within 100' they need a variance.
 - Tom Lee corrects this to the proposed 500'.
- Rob Steen asks whether the committee wants to have Mark Milne come in for the next meeting.
 - Several people indicate support, and Scott notes it is a good idea as Mark Milne will ultimately be handling the financials when it comes to Town Council.
 - Tom Cambareri notes that, pragmatically, if the recommendation is for around water and based on property transfer, the I/A system is “chump change” for that area.
 - Zee notes it will be a good idea to have Mark Milne come in because the numbers are only getting bigger.
- Griffin suggests compiling questions for Mark in advance
 - Scott notes one question of how this relates to the \$18,000 tax credit.
 - Dan notes it may be worthwhile to bring in a tax expert or tax attorney. That is not Mark's expertise.
 - Griffin suggests in the meantime work through the chair and compile questions.
- Scott asks how we find a tax attorney
 - Dan responds with uncertainty, saying he was only suggesting if someone knew one or someone in town who would be willing to come in.
 - Scott notes this is specific to the new legislation which is not clear.

- Dan asks if the regulation is permanent or is sunsetted.
 - Scott, Tom Lee, and Louise respond with uncertainty.
 - Tom Cambareri notes the first regulation wasn't sunset.
- Scott notes it would be ideal to get someone from the Massachusetts Department of Revenue but is uncertain who that person is.
 - Tom Lee notes his understanding that Mark Milne knows the subject pretty well. He has had discussions with Mark and there was useful information.
 - Zee notes the town has limited tools, and would need state legislature approval, which is not simple. A likely route is using SRF funding or other mechanisms. If I/A systems can be financed under that package, it will be powerful.
- Zee wonders if there is a way to look at the 100' variance item town wide.
 - Rob Steen asks to confirm this would be for both fresh and salt water
 - Tom McKean confirms; this would be any waterbody or wetland.
 - Griffin notes the variance is based on the septic system, which we do not have loaded into GIS.

Public Comment/Questions

No matters were heard.

Matters Not Reasonably Anticipated by the Chair

No matters were heard.

Adjournment

Scott Horsley, Chair, entertains a motion to adjourn. Tom Cambareri moves to adjourn the meeting. Councilor Neary seconds. The meeting is adjourned at 6:53 PM.

Roll Call: Scott Horsley (Yes); Brian Hughes (Yes); Tom Cambareri (Yes); Zee Crocker (Yes); Paul Neary (Yes); Rob O'Leary (Yes); Louise O'Neil (Yes); Butch Roberts (Yes)

Respectfully submitted by Christopher Gadd, Communications Assistant, Barnstable Department of Public Works

Addendum 1: Proposed Meeting Topics

All meetings are subject to change. Official agendas will be posted to the Town of Barnstable's Website in accordance with Open Meeting Laws.

Meeting Held/Topic Discussed
Next Meeting/Topic
Future Meeting/Topic

- Meeting #1 (Held Tuesday, October 22, 2024)
 - Introductions and overview of Town Council & DPW wishes for the committee.
- Meeting #2 (Held Monday, November 18, 2024)
 - Opportunity to ask questions from assigned homework to get up to speed on the current CWMP.
- Meeting #3 (Held Monday, December 16, 2024)
 - Presentation on Enhanced Innovative & Alternative Septic Systems.
- Meeting #4 (Held Tuesday, January 28, 2025)
 - Presentation on Growth
 - Presentation on Accessory Dwelling Units
- Meeting #5 (Held Tuesday, March 4, 2025)
 - Presentation on Additional Alternatives such as dredging and cranberry bog restoration
 - Amber Unruh, Special Projects Manager, Department of Public Works
 - Presentation on overall approach to funding of the CWMP
 - Mark Milne, Director, Finance Division
- Meeting #6 (Held March 31, 2025)
 - Discussion with Board of Health/Health Division on relevant policies
 - Tom McKean, Director, Health Division
 - Tom Lee, Chair, Board of Health
- Meeting #7 (Held April 22, 2025)
 - Discussion of the view of the CWMP through the lens of the Local Comprehensive Plan (LCP)
 - James Kupfer, Director, Planning Board
- Meeting #8 (Held May 19, 2025)
 - Formulation of recommendations to be made to Town Council
- Meeting #9 (Held on June 16, 2025)
 - Continuation of Formulation of Recommendations
- Meeting #10 (Held on July 14, 2025)
 - Continuation of Formulation of Recommendations
- Meeting #11 (Scheduled for August 11, 2025)
 - Continuation of Formulation of Recommendations
- Meeting #12 (Tentatively September)
 - Review of feedback from Town Council on proposed recommendations
 - Around this time the goal is to make presentations to Town Council
- Meeting #13 (Tentatively October)
 - Final recommendations, discussions, and any other related topics.
- Meeting #14 (Tentatively November)
 - Hold for final discussions.
- Meeting #15 (Tentatively December)
 - Potentially not needed
 - CWMP must be submitted to MassDEP in December 2025

Addendum 2: Potential Policy Discussion Items

Accessory Dwelling Units (ADU)

- *Information on ADUs was presented by James Kupfer at the 01/28/25 Meeting.*
- ADUs recently became codified under Massachusetts Law
- Specific questions pertaining to ADUs include:
 - Can sewerage and I/As incentivize ADUs, and vice versa?

Grinder Pumps

- *A request for this practice to be discussed was made by a resident through the DPW staff.*
- The current practice for grinder pumps is the first pump is purchased by the Town then becomes the responsibility of the property owner.
- Specific questions pertaining to grinder pumps include:
 - Should the existing practice be formulated/continued as is?

Innovative/Alternative (I/A) Systems

- *Information on I/A Systems was presented by Zee Crocker at the 12/16/24 Meeting.*
- Enhanced I/A systems are approaching general approval by MassDEP, and the committee could evaluate recommending I/A systems as part of the CWMP.
- Specific questions pertaining to I/A systems would include:
 - How to determine the usage of specific technologies
 - When could I/A systems be required to be used?
 - How could I/A systems be implemented & funded?
 - Would I/A systems be used in specific watersheds or across town?

Private Roads

- *A request for this practice to be discussed was made by DPW Staff*
- The current practice for private roads is for the Town to obtain an easement for sewer installation.
- Specific questions pertaining to private roads include:
 - Should the existing practice be continued as is?
 - Alternatively, should the Town take the road?

Sidewalks

- *A request for this practice to be discussed was made by DPW Staff*
- The current practice for sidewalks is to not include them in a CWMP project, instead submitting them as their own individual project.
- Specific questions pertaining to sidewalks include:
 - Should the existing practice be continued as is?

State Revolving Fund (SRF) and 0% Interest Loans

- *Information on SRFs and 0% interest loans was presented by Andrew Gottlieb at the 01/28/25 Meeting.*
- Town Council is workshopping potential changes.