Good morning Barbara: I hope you had a restful holiday and that you are doing well. I wanted to let you know that I have been retained by residents of Pond Village with respect to their ongoing concerns regarding the Cloverleaf 40B project. I attach their latest letter to the ZBA.

As you can see, my clients are not opposed to the development of a 40B project on this site. Indeed, they welcome and support it. However, they continue to have well-founded concerns regarding potential impacts to water quality. Recently, they were pleased to hear that an alternative and innovative wastewater treatment was proposed. The system design holds great promise. Nevertheless, my clients are concerned that: (a) there has been inadequate due diligence; and (b) there are insufficient assurances in the event that this novel “pilot” technology does not achieve desired results.

My clients and I are willing, ready and able to work with the ZBA as it winds down its review of this project. It is our goal that this process would produce an approval that would enable the project to proceed expeditiously in a manner that adequately safeguards water resources. To that end, I would be pleased to speak with you prior to Thursday’s hearing so that we can discuss a path forward that would allow this project to be realized in 2021.

Feel free to call me at your leisure or let me know a time when you may be available for a chat.

Best, Jay
Zoning Board of Appeals
Town of Truro
Truro, MA 02666

January 4, 2021
via email

Dear ZBA Chair and Members:

We are all supportive of affordable housing at the Cloverleaf site. We recognize the pressing need for affordable housing in Truro, and we continue to welcome it in our neighborhood. However, all possible care and diligence must be taken to ensure that the health of the people in our community and our aquifer, drinking water, pond, and bay are protected and not threatened or compromised in any way by the Cloverleaf project. The process thus far has not been adequate to ensure these protections.

Given that the MassDEP has approved the proposed BioMicrobics I/A system for piloting status only (i.e., "intended to provide field-testing and technical demonstration to determine if the technology can or cannot function effectively") and that the Applicant has provided performance data on only one other BioMicrobics system designed for comparable volumes of sewage (a system that has been in operational mode since 2019 only), there is no margin for error nor the slightest leeway for any shortcomings in monitoring, operations and maintenance (O&M), or contingency planning of the small wastewater treatment plant (SWWTP).

The piloting program for MassDEP notes the possibility of failure and necessary replacement of any failed system. Such a failure would not only leave the residents of the project—many of whom will be low- to moderate-income households—with no viable wastewater system, but would also contribute to pollution to water supplies, the nearby pond, and the bay. Notwithstanding the acknowledgement by MassDEP that a system in a pilot program may fail, the Applicant has failed to provide evidence that it can construct and operate a back-up system that would produce adequate results to protect local resources.

It is not only adjacent neighborhoods that stand to be adversely impacted by an unproven failed system. The residents of the Cloverleaf project would be most directly impacted and might not necessarily have the resources to uproot themselves and move in the event of a failure of the system.

In order for us to be assured that the project will not compromise our watershed and private well drinking water and negatively impact the health of current and future residents—either in the near-term or over the 99-year life of the project—the following safeguards must be put in place and actions taken:

- The engineering work provided to the Town—and by extension, provided to the Applicant—by Horsley Witten Group and described as a “peer review” must be reviewed by an independent and credentialed third party with expertise in wastewater treatment design and maintenance, groundwater hydrology, drinking water safety, and other relevant disciplines.
• The 5 mg/L effluent total nitrogen level proposed for the I/A wastewater treatment plant — currently described as a goal\(^1\) — must be determined achievable and the design and maintenance required to achieve 5 mg/L must be documented in an engineering plan that is in turn verified as achievable by an independent third party expert.

• A thorough hydrogeological study, and peer review of the same, must be conducted in advance of the consideration of any Board of Health (BoH) regulation waivers to determine the discharge flow and projected wastewater plume. The report should assess the impact of the proposed discharge on all potentially impacted groundwater sources and all private drinking water supplies. Without such an evaluation, using a widely accepted model such as the U.S. Geological Survey’s MODFLOW, the impact on neighbors and downgradient residents and surface waters cannot be understood. Given that the Town was well aware, prior to moving forward with the 39-unit plan for the Cloverleaf site, that Pond Village is designated as an area of special concern in terms of groundwater quality (Weston and Sampson, 2014, 2018), and is known to be nitrogen sensitive already, the Town’s decision not to require such a study is arbitrary and capricious at best and irresponsible at worst.

• If (a) the findings of the hydrogeological study, (b) the resultant understanding of groundwater flow and pathways, (c) third-party review of the hydrogeological study, and (d) third-party review of the proposed I/A system and monitoring, O&M, and contingency plans result in the reasonable conclusion that the system may not achieve the required performance, waivers should be denied.

• If (a) the findings of the hydrogeological study, (b) the resultant understanding of groundwater flow and pathways, (c) third-party review of the hydrogeological study, and (d) third-party review of the proposed I/A system and monitoring, O&M, and contingency plans result in the reasonable conclusion that the system is deemed to be feasible, comprehensive and detailed conditions to any BoH regulation waivers must be put in place that relate to the operations and maintenance of the system, as well as clear protocols for system remediation/replacement should the system fail to achieve an average of 5 mg/L over any 12-month period, or exceed 10 mg/L. In addition, any waivers must include a rigorous and realistically actionable contingency plan in the event of system failure. Indeed, given that the proposed system is in piloting status as per MassDEP, no waiver should be granted nor Comprehensive Permit issued unless and until the Applicant has supplied plans for a viable alternative/back-up system that could be expediently installed.

• If third-party peer review results in a conclusion that the system, as designed, could be successful, a system of monitoring wells must be put in place outside of the project boundary and downgradient from the Cloverleaf site at intervals and locations informed by the hydrogeological study and determined sufficiently rigorous by experts in groundwater hydrology.

• The party or parties that will be responsible for each step in the monitoring plan and O&M plan (e.g., Truro BoH, contracted SWWTP operator, property manager, property owner) must be clearly and specifically identified.

• A clear and detailed step-by-step contingency plan must be included, with identification of the party or parties responsible for each step in contingency plan implementation (e.g., Truro

\(^1\) "The Board could request that the system design be adjusted to meet a goal of achieving an average nitrogen concentration of 5 mg/L, and should not, after the first six months of operation, exceed a nitrogen concentration of 10 mg/L."  Mark Nelson, Horsley Witten Group, Nov.30, 2020
BoH, contracted SWWTP operator, property manager, property owner), as well as timelines and deadlines for each required remediation step.

- Given the aforementioned risk of failure of the system, any approval should be conditioned upon the Applicant’s deposit and maintenance of a sufficient sum for repair, upgrade, maintenance, and/or replacement of the I/A system.
- Transparency of the I/A system’s performance, including a plan for “real time” release of monitoring data to the public, must be guaranteed.

None of these concerns are being presented to the ZBA for the first time. We have raised these issues in multiple letters to the ZBA and in comments during ZBA public hearings. It is our earnest wish that a successful and viable affordable housing project be built on this site. Upon consultation with our counsel Jason Talerman of Mead, Talerman & Costa, LLC, we have little doubt that it would be preferable to take the extra time now to ensure that the project can be viable. Please let’s work together to address these issues now, to avoid appeals and delays in getting this affordable housing project realized.

Respectfully,

Concerned Members of the Pond Village Watershed Community
Elizabeth Sturdy

From: Barbara Huggins Carboni <BHugginsCarboni@k-plaw.com>
Sent: Wednesday, January 6, 2021 9:08 PM
To: 'Art Hultin; Arthur Hultin; Darrell Shedd; 'Darrell Shedd'; 'Fred Todd'; Fred Todd; Chris
Lucy; John Thornley; John Dundas; Heidi Merlini
Cc: Elizabeth Sturdy
Subject: CONFIDENTIAL - ATTORNEY CLIENT PRIVILEGED COMMUNICATION - NOT A PUBLIC
RECORD

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From: Jay Talerman <jay@mtlawyers.com>
Sent: Wednesday, January 6, 2021 2:38 PM
To: Barbara Huggins Carboni <BHugginsCarboni@k-plaw.com>
Subject: RE: Cloverleaf revised draft

Barbara:

We have had a chance to review the proposed conditions on the wastewater system. We agree that each such conditions would be necessary and appropriate. However, as a threshold matter, we still feel that consideration of a waiver is premature. Again, this is a pilot system that has yet to receive approval for general use. This project will also produce more gpd than the Westport system handles and accordingly, there is insufficient data to support a firm conclusion on feasibility. It is therefore axiomatic that there is a real potential this system may not achieve the desired results. To that end, we propose that the requested hydrogeo study be completed now so as to assess potential impacts in the event that the system fails to perform as designed. By doing such analysis now, the Board and other stakeholders can assess the risks and benefits of proceeding toward an approval. It makes no sense to install the system, hope that it performs and then demand replacement if it doesn't. In such event, the damage would already be done. It is essential to assess potential negative impacts now so that the Board can properly apply the balancing test demanded under c. 40B. Moreover, a failed system would leave the entire project in jeopardy. We earnestly do not want that to happen as it is our sincere desire that this project succeeds in delivering much needed affordable housing.

Relatedly, we are also concerned that the conditions expressly contemplate a potential replacement of the system but do not indicate what that replacement would consist of. Taking the necessary belt and suspenders approach here, we believe that the Applicant should present a plan for potential replacement now. If the Applicant is unable to do so, the conditions that have been proposed are meaningless.
As I may have mentioned, I have a previously scheduled hearing in another community tomorrow night. However, with your hearing starting at 5:30, I will be able to “attend” for an hour or so. I would be grateful if the Chair could accommodate me during that time.

Best, Jay

Jason R. Talerman
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 Ramirez before you print.

From: Barbara Huggins Carboni <BHugginsCarboni@k-plaw.com>
Sent: Wednesday, January 6, 2021 2:56 AM
To: Jay Talerman <jay@mtclawyers.com>
Subject: Cloverleaf revised draft

Hi Jay,

I’ve attached a revised draft of the decision, which includes the additional conditions drafted by Mark Nelson, and incorporates a few changes.

Barbara

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Dear ZBA Chair and Members:

As you know, we unanimously support affordable housing on the Cloverleaf site. Our primary concern is that the development, especially given its quadrupled scale, not endanger the health of the people downgradient of the project, namely the residents of Pond Village. To this end, among other concerns, we have specific reservations about the untested nature of the small wastewater treatment plant (SWWTP) proposed by the applicant. Given the uncertainty of its performance, a comprehensive contingency plan of action should it fail must be a critical part of the conditions of any comprehensive permit, should one be granted. We address the contingency plan as proposed to date and its weaknesses in the attached flow chart.

The flow chart encapsulates the statements in memoranda by J.M. O'Reilly & Associates in August and September and comments made by Mr. O'Reilly at ZBA public hearings. We believe it is an accurate reflection of the process described and all comments made. The chart also amends the early performance goal of 10 mg/L of total nitrogen to 5 mg/L as referenced by Mark Nelson at the December 7, 2020 ZBA meeting.

The monitoring of effluent will be an ongoing operation throughout the life of the project. If the nitrogen levels meet the designated standards, then there is no failure and we simply cycle indefinitely in the upper left corner of the chart. However, if the nitrogen levels exceed 10 mg/L at one sampling or if they exceed 5 mg/L averaged over the previous 12 months, the SWWTP fails. In that case, it will be resampled, and if it passes, routine monitoring is resumed. Should it fail, though, the owner will notify the Board of Health of steps to bring it into compliance and the owner will implement these in a timely manner. The effluent will be tested after 30 days and if passing, routine monitoring is resumed. However, if it still fails, the owner will again notify the Board of Health while consulting the manufacturer about timely steps needed to correct the problem, followed by further monitoring. Should the SWWTP fail again, effluent will stop being released. Instead, it will be pumped out and trucked offsite until a replacement is installed and operational. The new replacement SWWTP would then operate under the same contingency plan.

We note that many places in the flow chart allude to corrective actions and timely responses without being specific. Of course, the actions and response times will vary, but some illustrations of possibilities would be helpful. If ultimately the problems cannot be corrected, the interim procedure is daily pumping until the SWWTP can be replaced.

We respectfully request that this flowchart be made part of any conditions of waiver so that it will be clear to all what the performance requirements are for the SWWTP. We would be happy to talk about this on the agenda of the next ZBA public hearing following the January 7 hearing.

Respectfully,

Concerned Members of the Pond Village Watershed Community
Contingency Plan for Cloverleaf SWWTP

interpreted from J.M. O'REILLY
2020-Aug-14
Updated per 2020-Dec-07

diagram revised 2020-Dec-28

BOH notifications within 2 business days of receipt of state certified lab report.
All test results and BOH communications to be publicly available.

Legend
TN: Total Nitrogen
P: Publicly Available
*shift to 90 days after 12 months of successful compliance.

Wait 30 Days
Resume Monthly Testing

Is TN <10 & 12mo avg <= 5 mg/L ?
Yes=OK
No=FAIL

Notify BOH
Re-sample 48 Hours

<10 AND 12mo avg <=5 ?
Yes-OK
No=FAIL

Review with BOH steps to comply
Owner takes timely steps
Wait 30 Days
<10 AND 12mo avg <=5 ?
Yes-OK
No=FAIL

Consult Manufacturer
Owner takes timely steps
<10 AND 12mo avg <=5 ?
Yes-OK
No=FAIL

Notify BOH
Corrective actions to BOH

Page 2
Corrective actions to BOH

FAIL

SWWTP has failed 4 times in a row up to this point.

7x24 Pumping

Replace System

"There are very few systems that are cut there that treat waste between 2,000 and 10,000 gallons per day."
J.O'Reilly 10/8/2020