

Achieving Nitrogen Zero in Wareham Drafting Committee Agenda – 11-18-10 10:00AM Wareham Town Hall Cafeteria

1. Introductions.
2. “Nitrogen Net Zero for New Construction” Bylaw.
3. Factors to Determine Nitrogen Load from New Development.
4. Opportunities to Minimize Nitrogen Load and Calculation of Offset.
5. Establishing a Fee Structure.
6. Further Information we Need.
7. Next Meeting.

Sign - IN

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(Bob George B. did not know about meeting!)

**Achieving Nitrogen Zero in Wareham
Town Hall Cafeteria
Drafting Committee Meeting Notes
November 18, 2010 – 10am-12pm**

Attendees:

- David Begley
- Bob Brady
- Donna Bronk (for John Churchill)
- Guy Campinha
- Bob Ethier
- Brian Grady
- Michael Martin
- Ed Pacewicz
- Dave Pichette
- Charlie Rowley
- Alan Slavin
- Richard Wheeler
- Korrin Petersen
- Kerri Driscoll

Call to Order – 10am (Bob Ethier)

The focus of this meeting was to provide background information, to provide an overview of the information that needs to be addressed in the regulations, and to brainstorm ideas for drafting the regulations.

Factors to Determine Nitrogen Load from New Development:

- Loading coefficients based on MEP assumptions. Broken down to per square foot figures for easier application to any size building/lawn/driveway, etc.
- BOH establishing standards for developers to apply will make it easier for BOH to review and determine whether nitrogen net-zero is achieved.
- Need to subtract existing conditions (including natural conditions) from buildout.

Ways to Minimize Nitrogen Load:

- A ban on fertilizer produces a 70% credit. Assumes that 30% will not comply with the ban.
- Alternative wastewater treatment – need to prove that the technology actually achieves a specific nitrogen concentration. HOA is ultimately responsible for the system, would need to have a good contract with the system installer. Need to consider reporting requirements.
- Stormwater bioretention – need to determine the state credit. Limitations on what types actually remove nitrogen. UNH study showing that subsurface gravel retention is the only design that removes nitrogen. Passive systems without maintenance requirements are going to be more successful.
- Reducing impervious surface – will need to coordinate with planning board to meet minimum road widths needed for emergency vehicles.
- Any subdivision within 1,500 feet of a sewer line is already required to connect.

- BOH permits for subdivisions are issued on an individual lot basis and one permit at a time. Need to consider how the offsets will be applied for lots 1 to 9. May need to consider a per lot nitrogen loading figure and pro rate the infrastructure.

Potential Offsets:

- Contributing to a municipal fund to address municipality's stormwater.
- Restoring a vacant/previously developed lot to natural conditions and placing a conservation restriction on the property. For tax takings, would there need to be town meeting approval?
- Connecting existing homes to a package treatment plant. Homes would need to agree to be part of a HOA and would be responsible for associated fees.
- Upgrading existing Title 5 systems to nitrogen reducing systems. Need to address maintenance, reporting requirements and overall compliance.
- Fertilizer restrictions on existing developments. Need to address compliance. Is there the potential for a town wide fertilizer ban?
- Maintaining natural vegetation on the property.
- Need to make it worth it for the developers to implement these practices.

Nitrogen Offset Fee:

- Nitrogen offset fee paid into an enterprise account with specific language about where the money can be spent.
- The town should create a capital plan to determine what offsets they are going to go after and then the fee could be fluid. Similar to a betterment or a hook-up fee?
- One time fee that will require a deed restriction. Will mortgage companies enforce the restriction? Is the building permit the appropriate mechanism for placing the restriction on the property?
- Can the offset fee be included in the regulations for all new development?
- Do you need to factor attenuation into the fee structure?
- What is the average maximum fee if you do not implement any LID? What is the average minimal fee if you implement all LID?

Other Discussion:

- New construction on sewer is only achieving 5 mg/l and is not required to be nitrogen net-zero – raising a question of fairness.
- Are groundwater monitoring wells needed?

Next Meeting:

- **December 9, 2010 @ 10am – Town Hall Cafeteria**