

To: Paul Niedzwiecki
Cape Cod Commission
From: Hilde Maingay
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Two board members of The Green Center, Inc., Earle Barnhart and Hilde Maingay, have participated as stakeholders in the Falmouth Watershed Group and the Upper Cape West and South working group.

The Green Center, Inc. thanks the CCC for the considerable effort put into this Section 208 plan and preceding meetings, hearings, reviews and extensive data collection that resulted in the Technologies Matrix.

This 208 report has great potential as a tool to develop environmentally and socially responsible plans that can address local wastewater issues and related pollution problems.

However, without a clear set of parameters, other than achieving the required TMDL, towns and watershed communities are left to decide on their own which combination of technologies to embrace – regardless of the long-term consequences some of these technologies might have on climate change, the environment, and affordability. As Paul Niedzwiecki said: ' I don't care which technologies each community wants to use as long as it can reach the TMDL.'

This seemingly democratic approach may have far reaching unintended consequences which will come back to haunt us all with projects that are too costly, too wasteful, too slow, too narrow in scope and might never achieve the ultimate goal: water quality that can restore aquatic eco-systems which support the socioeconomic services we depend on, without harming other eco-systems in the process.

Recommendation: The Section 208 report should go beyond just providing the option for a triple bottom line approach. It should require and regulate such an approach to achieve the greatest benefits for the local and global eco-systems at the least cost.

Based on our experience in the past four years with the CCC, local officials and water quality committees, we have little hope that the public and local ENGO's will have any more say in the development of future 208 watershed plans than in the development of past CWMP's. There has been a general lack of public outreach and transparency. Meetings have been poorly publicized and poorly attended, often scheduled during work hours. Public hearings were seemingly held to satisfy regulatory requirements, with little intent to use or follow up on the concerns or advice from the public.

Recommendation: The Section 208 plan should include strategies needed to improve public outreach and participation.

Ever since we got involved in local wastewater issues, the CCC has based all its presentations, models and financial plans on these assumptions:

1. Densely populated area will have to be sewerred, and the other technologies might be applicable for other areas – based on \$\$ figures not on best environmental practices.
2. Flush toilets are the way of the recent past, the present as well as all of the future we are now planning for. Polluting and contaminating expensive clean drinking water is acceptable.
3. Present economic conditions will remain the same for all the future we are now planning for, without taking into account the enormous costs associated with climate change mitigation and adaptation, aging infra structure, storm damage, rising costs of living, stagnating incomes and other 'externalities'.

The Section 208 plan is still based on these same assumptions, which limits the triple bottom line approach, limits 'thinking out of the box', and ignores the importance of resilience.

Recommendation: The Section 208 plan should require a sequenced wastewater mitigation (triple bottom line) planning process for all areas, densely populated or not, near the water or inland. It should phase out the use of purified drinking water for flushing human waste, emphasize conservation and recovery of all nutrients. It should require a great deal of financial resilience in the selection of technologies.

Due to the inherent conventional baseline approach - sewers are not only necessary, but more sewerred is going to be needed - in this report, various regulations and technologies have been created to deal with the adverse consequences of this technology. There are two that concern us in particular: The disposal of treated effluent and the MA DEP designated Nitrogen Sensitive Areas on the Cape. Treated effluent is a mix of valuable nutrients, cec's, pharmaceuticals and host of chemical pollutants, many unregulated at present. No body of water or piece of land is 'suitable' to receive this concentrated mix of nutrients and pollutants, nor should the air be polluted by incinerating sewage sludge (renamed biosolids to give it a more positive appeal). Looking solely at nitrogen is short sighted, satisfies outdated regulations but does little to protect our water, land and air on the Cape and beyond.

The Green Center, Inc is opposed to the use of biosolids on agricultural land, to the dumping of liquid effluent on land, into injection wells or into to ocean.

Recommendation: The Section 208 plan should prioritize technologies that recover nutrients, separate human waste from chemical pollutants, and employ natural biological systems to break down cec's and pharmaceuticals locally.

The Technologies Matrix can be an excellent tool as long as everyone realizes its limitations. As a work in progress, new information will require regular updates. However we have little confidence that these updates will happen and necessary corrections will be made. Several errors in the Source Reduction Toilet section have remained unchanged for over a year after repeated efforts to point these errors out.

Recommendation:

On page 3-2, In Figure 3-1 under the category "Prevention" and "Cape-Wide" add

- Ban Kitchen Garbage Disposals*
- Restrict use of chlorine bleach (not for personal/residential use. requires permit)*
- Change the toilet symbol used for composting, packaging and incinerating by removing the water-holding tank. These systems do not flush and do not use water. Make same changes in the Technologies Matrix.*

On page 3-19 last paragraph on right

- Composting toilets need **periodic** (not annual) removal of compost...etc... (the periods vary greatly between each system and number of people using a particular system. Could be less than a year and could be several years)*
- Packaging toilets require **regular** (not daily) collection. (Depends totally on the number of uses. One roll of biodegradable packaging material is good for 300 uses, and comes in a package of 5 rolls, good for 1500 uses)*
- Incinerating toilets require periodic collection of ash, **which can be use on site as a soil amendment.***

It is important to point out that there is a detailed description of maintenance considerations for source reduction toilets, but not for 'conventional' flush toilets, which too have maintenance considerations including keeping them clear of solids that can cause pipe blockages.

Conclusion: The Section 208 plan is well written and provides much good information. However, unless it gets a greater emphasis on the triple bottom line and long-term sustainability in the final report, and several factual errors are corrected in the technologies matrix, I cannot support this document as is.

Hilde Maingay
The Green Center, Inc.
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