

MINUTES
BOARD OF SELECTMEN
Saturday, March 16, 2013 10:00AM

REVISED

Location: Earle Mountain Room

Present: Selectman Aimee J. Eckman, Chair; Selectman John F. Knight, Vice-Chair; Selectman Wallace F. Adams, Clerk; Selectman Linda S. Burt; Selectman Martin F. McDonald; Sheila Vanderhoef, Town Administrator, Assistant Town Administrator Nan Balmer

Also Present: Jeffery H. Davis, DBA Organization Renewal Associates
Jane Crowley, Health Agent; Jeff Thibodeau, Environmental Planner; Glenn Olson, Fire Chief

The meeting was called to order at 10:00am.

Municipal Water Discussion

Mr. Jeffery H. Davis, DBA Organization Renewal Associates, was present and acted as Moderator Facilitator of the meeting, as contracted by the Town to do so.

The Board of Selectmen were present to discuss and answer questions of the public as to Why a Municipal Water System is needed for the Town of Eastham. Also present on the panel were Health Agent Jane Crowley, Environmental Planner Jeff Thibodeau, and members of the Board of Health, the Finance Committee, and the Water Management Committee.

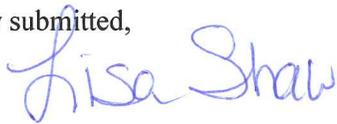
The powerpoint presentation and the list of questions asked by the public at this meeting are attached to these minutes.

ADJOURNMENT

The meeting was adjourned at 12:00pm.

Respectfully submitted,

Lisa Shaw



QUESTIONS FROM THE WATER MEETING TOWN HALL MARCH 16, 2013

1. If the flow of water on the east side of town is toward the ocean, why are all the public wells on the east side of town. Won't they eventually be impacted by ground water flow?

Ans. Route 6 is the high point. Half of the town flows to the ocean. This half is less developed.

2. Of the 6,000+ connections, are private roads included?

Ans. Yes. All houses could connect.

3. RE: Private Ways, i.e., Streets not owned or serviced by the Town of Eastham
Will these Private Way streets receive equal treatment, i.e., from a time point of view, as to the installation of municipal water as streets that are owned and approved by the Town of Eastham? Or will Private Ways street construction be delayed, while approved and owned Eastham streets receive water construction first? Or is it correct to say: Private Way Streets are "*second class citizens*"?

Ans. Please see phase construction plan. The big mains need to go in first. This provides fire protection to 75% of the houses in town by the end of phase one.

4. If town water is addressed this spring, how quickly will the town need to deal with wastewater? What is the range of expense associated with a wastewater system?

5. I am all for a public water supply. My question has to do with the installation process. Being a home owner of property on a private road, would I have to pay first and be tied in last? I would hope that we would be treated equally and not as we are in regards to snow removal.

Ans. Please see phase construction plan. The big mains need to go in first. This provides fire protection to 75% of the houses in town by the end of phase one.

6. Why is mandatory septic pumping not implemented? This should be first on the list of things to do! At Town Meeting I hear the term "Free Money" being thrown around quite a bit; why can't we use some of these funds for water for the town? What is "free Monies"? Why are we always transferring it from place to place? timatzol@comcast.net

7. RE: Eastham Municipal Water vs. the current local economy. Unemployment rates according to the US Bureau of Labor Statistics: MA>>6.7% Barnstable County>>7.4% Eastham>>13.1% Is this the time to go forward with Municipal Water at this May's Town Meeting??

8. Homes that are rented are required to test water every year. How many homes in town do have water tested yearly? What percentage is this to the total # of homes? How many homes are not issued permits because of a failed water test?

9. Will Phase I include a water supply along Rte. 6 from Wellfleet to the Orleans Rotary? (Thus providing municipal water to businesses and provide fire hydrants!)

Ans. Yes

What do you say to a new home owner (or old) who was told to put in "state of the art" Title V within the last 5 years or so to the tune of \$30,000.00?

Ans. This septic system will help preserve our estuaries which are impacted by nitrogen.

10. If cesspools are a concern, why are they still allowed? Our water is a concern; many homeowners rent to people who bring many more visitors to the rental than the waster system can handle. Can't you do a town-wide physical survey to verify existing cesspools? I am charged to test water for a rental property, yet there are owners who don't declare their properties as rentals, many of which have old cesspools near our private wells. Why not survey all owners to furnish the town with a list of neighbors who they know rent or rent with cesspools, etc. to get a handle on those properties which may be problems to the town and their immediate neighbors.

11. What are the credentials/qualifications/training of each panel member that allows them to address questions about water quality, physics of ground water flow, public health, and epidemiology?

12. Why aren't the selectmen allowing public discussion with different points of view being expressed? Don't you think your arguments hold up to critical evaluation?

13. This meeting is about why water. So, why are you able to talk about financing and design and we have to stick to specific "water" issues?

14. At a selectmen's meeting, Chairman Eckman said if this article fails, they would have a special in the fall for a partial system. Is this still the plan?

15. If we have town water will septic systems, wells, cess pools, and poor environmentally dangerous choices, pesticides and fertilizers from my neighbors who don't hook up pollute my well? What recourse will I have if they do not protect the water as I do by not using weed-free, pesticides, etc.?? What will the town do for me and my family then??

Ans. Your private well could be impacted by a neighbor. You need to contact a lawyer to determine your legal rights

16. Brackett Development is an eyesore. With a water system, will we be subject to more over-crowded development areas under the disguise of affordable?

Ans. Only if zoning laws change. Sewering is an addition constraint on increasing building density.

17. The foremost and most important problem we have is the plume running from the corner of the dump in a cone-like formation toward Alston Avenue. A logical is to dig new wells for the affected residences and ensure that they have state of the art septic systems. This is a necessary situation for all residences in town. Why don't our elected officials get busy and start being proactive in preserving our environment? How about your ideas on this subject?

Ans. The Board of Selectmen have proposed a municipal water system to address these concerns. Short term action such as water testing and supplying bottled water have been implemented.

18. Please give scientific analysis why only a few wells are affected (100 Meetinghouse, 325 Schoolhouse and 50 Alston) and next door neighbors are not affected.

19. What does runoff from the roads mean? How does it affect our water? What is the affect of using salt and not sand on icy roads? Is there a scientist or chemical engineer who knows these answers?

Perhaps we need to "solve" little problems and not create bigger ones.

Ans. Eastham uses an anti icing policy to minimize salt use. Municipal wells are located far from the roads.

20. The Colley residence installed a filtrations system with reduced toxins and eliminated 1,4-dioxane 50%!! How does this system operate? What are the mechanics of such a system?

21. How much protection does a home owner get from a whole-house water filter system? Would a municipal water system eliminate the need for one or do they serve different functions?

Ans. Protection provided by whole house systems varies based on complexity. Municipal water eliminates the need for private water treatment systems.

22. Last year our health agent stated that a working title 5 system was not a health hazard. On Tuesday it was stated by the DR. on the panel that the Brackett Road development has a septic system that works so well that you could almost drink the water. This is confusing. Do we have so many in town that are faulty? Why did the opening remarks by others on the panel on Tuesday state that we are losing the battle with good water because of our septic system. How many systems in our town are working and how many are not working?

Ans. Title V systems remove dangerous bacteria. They do not remove nitrogen or chemicals. Alternative septic systems, such as at Brackett Landing, treat effluent to a higher level and remove nitrogen. Failed septic systems are replaced as they fail. Many are upgraded when homes are sold.

23. Will the alternatives in the upcoming IRAP document eliminate the need for a town-wide municipal water system??

24. There has been a lot of attention given to N. East Eastham's water problems. Has any testing been done or will it be done in South Eastham along Boat Meadow Marsh for salt water incursion into wells along with high amounts of iron?

25. Repeat of Ques. 23: At Tuesday's meeting, a question was raised regarding "Alternatives" that may be presented in the upcoming IRAP document. What are those alternatives and will they eliminate the need for a town-wide water supply system?

26. Isn't it true that the DEP could make it mandatory for Eastham to put in partial sewer system within the next 1 – 10 years? Then what? How do we afford water, if approved, then sewer on top of that?

27. Last year no wells in Eastham were sighted by Silent Spring as problematic. Per Aimee's comments, there is new data about possible "emerging" contaminants." What is she talking about for the four (4) areas tested?

Ans. Silent Spring tested for emergent contaminants entering the groundwater from septic systems; these include pharmaceuticals, fire retardants and cleaning products.

28. What chart do you have that exemplifies the water tests taken in the plume area? When will this be available to the public?

29. From my experience as a real estate professional, shallow wells have serious water problems. Also, cesspools are environmentally dangerous. Of the residents with problems in the plume area, which ones have shallow wells or cesspools? Have any of the properties been exposed to contaminants from their own misuse of the property, such as gas or oil spillages or over populated "animals and pets" (horses, etc.)?

30. What kinds of problems can a well that is old and outdated have on water quality? Are there any well drillers who can answer how the wells can be maintained, also?

Ans. There are several well drillers in this area who can check out your well.

31. At what point in the horizontal dimension of the plume area does the vertical depth exceed the depths of any and all wells in its southeasterly movement? How many feet is that from the beginning, the specific corner of the dump, where the problem begins.

Ans. The depth of all private wells is not known. Eastham was created by retreating glaciers. The underlying geology is complicated with clay layers and influences from ponds. General ground water flow direction can be determined but extensive geological exploration would be required to answer this question.

32. How many residences of our population of 6000 people reside in the plume area? How many wells are above the plume? How many are below the plume? Where can I print a current diagram of the plume?

33. Isn't the dump a Federal Super Fund Site and what is the plan to remove it and clean it up?
Ans. The Eastham Landfill is not a Super Fund Site. It was capped in accordance with MA DEP Regulations. There are no plans to remove it

34. What alternative whole-house water filtration or water purification systems have been explored? If you can treat public wells that become contaminated, why can't you treat private wells?

Ans. Extensive equipment and technical experience is needed to treat water. There are economies of scale in water treatment and testing that make home treatment impractical and costlier than municipal water.

35. What are the 2000-2010 population figures (growth for Eastham)? Why are we using current #'s? (see questions 54 and 55)

36. How many wells are contaminated and where are they located?

37. Why is it that the Town of Eastham is the only town on the Cape without municipal water? Are we so resistant to change or meeting our responsibilities? Could it be something in our water that causes us to be last??

Ans. The implementation cost appears to be the greatest obstacle.

38. Exactly how does the dioxane dissipate (and become less(?) diluted) as it flows away and vertically – as it fans out from the dump area?

39. For rental certificate – would expanded testing required by landlord – could results be used to estimate likely contaminants in more wells?

Ans. The simplified well test is limited in what can be detected.

40. In a P.W.S. system, if contaminants are found – what types of treatments are used and where does the contaminated material end up?

Ans. Each situation is different. The main defense for potential contamination is to take the impacted well off line and use the other wells at different locations. Eastham has plenty of water and there is redundancy built into the system.

41. What if a home is sold privately (without a realtor)? Does the B.O.H. still inspect the property?

42. How quickly do you propose chemicals now tested for in a normal water test will change in fifty or sixty years? We have experienced, in the last fifteen years, favorable changes in our water quality. Could you please explain the scientific reason for such an event?

43. When will a current report be available for the public concerning the landfill runoff?
(Let's not forget why we are here.)

44. Is there a way that the town can calculate the number of visitors and summer residents who come to Cape Cod every summer? If so, what is the average number of people in town during the summer?

45. Since phosphates have been banned in MA for years, why is the concept of banning the sale of contaminating lawn and other household chemicals, on the Cape – where we all sit above that “tub of water,” dismissed out of hand by the weakened argument that there is no way to regulate that ban?

Ans. Please see Thursday, March 27, 2013, Cape Cod Times cover story on Falmouth's attempt to regulate fertilizer. There is case law which prohibits towns from banning things which are legal in the state.

46. How many known cesspools are there in our town?

47. Can horse manure and feces from dogs and cats contaminate water?

Ans. Yes.

48. How many wells test with dioxane above 3m/l? Will we use our town million dollar emergency fund to build new wells and septic systems for our neighbors who have water issues because of the dump that was capped?

49. Why are we allowing cesspools to continue to be used? How many are there in town?

50. If a cesspool or a septic system or a well is not up to properly working order, regulations should be established by the town and those properties should not be occupied. Why does the town not do something (I will leave the creativity to you) to address the real problems? Do you have any ideas about this?? Thank you.

51. Wellfleet has the same problems we have: pollution near the dump and areas of small lots. They solved their problem for \$3,000,000.00. Why are we starting with a town wide project?

52. Other than supplying bottled water to our neighbors in the plume area, what else has the town done for them? The federal government provides many solutions for drinking water problems. Have any been investigated? If yes, which ones?

53. How extensively is the town's single source aquifer degraded by septic influx?

54. The slide showed today left out 2010 census data in which Eastham's population is 4956, a decrease of approximately 500. Why was the most recent census data left out?

55. The 2010 census shows we lost over 500 residents since 2000. Why did your chart showing rising population not show that?

56. If I test my well now for nitrate levels, is the town going to provide bottled water, a well, etc. or is it just for the landfill area?

Ans. The town is not responsible for nitrates in well water and will not supply bottled water.

57. During the installation of the drainage system along Route 6 several years ago. Were water lines installed for a future water supply? trafine@aol.com

Ans. No. Given the number of houses on Route 6, water lines will be needed on both sides.

58. How many homes are in the run-off area from the dump? What are your plans to correct the runoff from the dump?

59. If 5ppm is the town limit, why are measurements at 2ppm? What would charts look like at 2.5ppm, 3ppm, and 3.5ppm?

Ans. A Barnstable County study indicates that wells with nitrates at 2ppm are being impacted by septic systems.

60. Have we tested any of the higher nitrate water sites fully for other contaminants? What were the results?

61. Why hasn't the town taken some simple steps to manage what chemicals we use that go into our septic systems – i.e. chemicals on lawns – phosphate-free detergents, etc.?

Ans. These regulations need to be addressed at the state level. The town has tried to set an example by adopting an organic land management policy for the fields and lawns it manages.

Need for Water

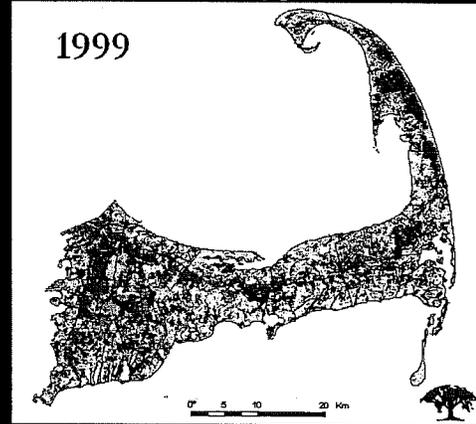
Vision Statement:

"The Board of Selectmen recognize that every citizen of the Town of Eastham has the right to a clean and safe water supply;

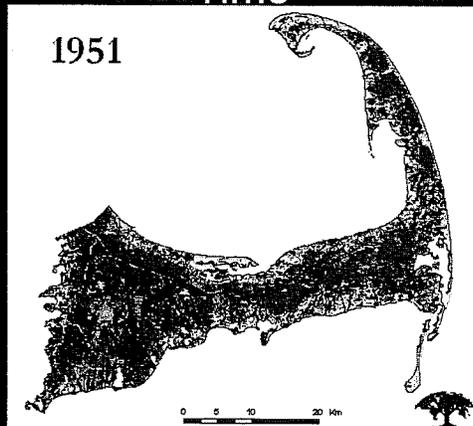
Therefore, we propose the development of a municipal water system for our Town.

This will provide for immediate and long term public health, improve fire safety, and protect property values; ensuring the continued vitality of the Town and its citizens, now and for future generations."

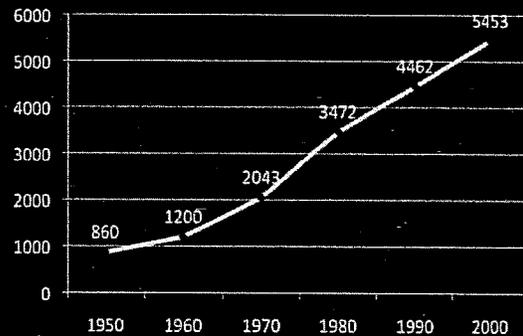
Eastham's Development Over Time



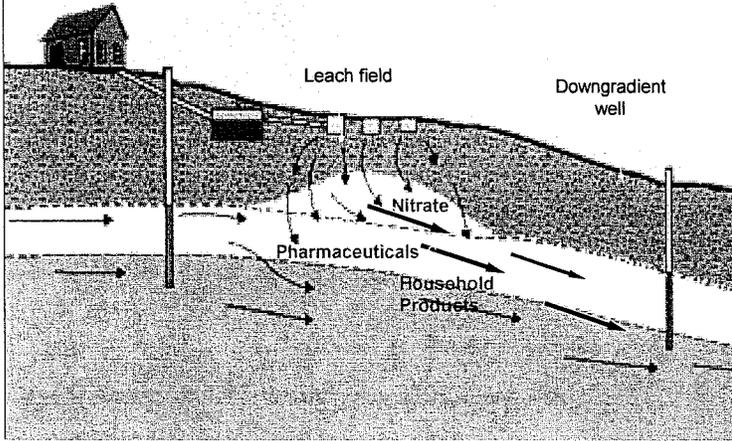
Eastham's Development Over Time



Population Changes since 1950



Title V septic System



NITRATE IS AN INDICATOR OF WASTEWATER IN WELL WATER

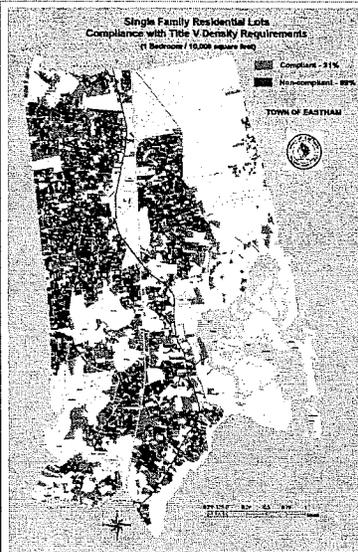
MORE NITROGEN = MORE CONTAMINANTS

Nitrate > 1.0 ppm is above background
From: Cape Cod Commission

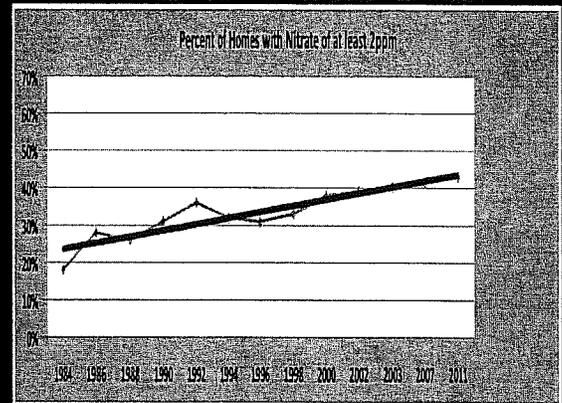
Nitrate > 2.0 ppm influenced by septic system
From: Barnstable County Department of Health

Bedroom density and nitrate levels

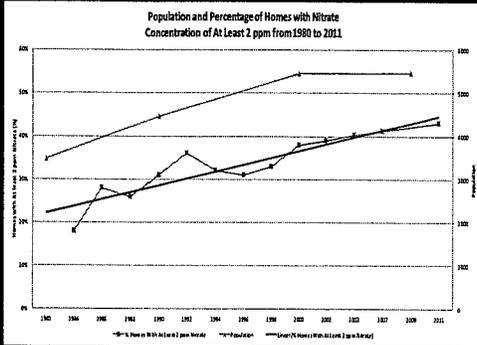
70% of single family residences (7 out of 10 homes) exceed the Title 5 standard for density on nitrogen sensitive lots



Homes with nitrate of at least 2 ppm continue to increase over time.

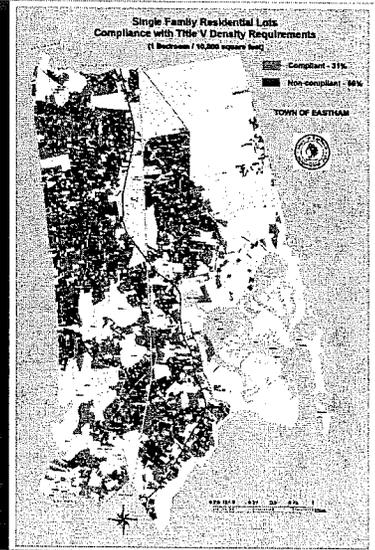


Population and Nitrate Increase with Time



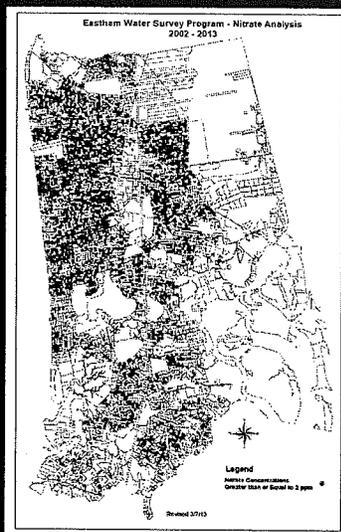
Bedroom density and nitrate levels

70% of single family residences (7 out of 10 homes) exceed the Title 5 standard for density on nitrogen sensitive lots



This is a Town-Wide Problem

(Red = properties with 2 ppm Nitrate or greater)



Other "stuff" in our water...

- Pharmaceuticals and "emerging contaminants" (Silent Spring study)
- Lawn fertilizers and pesticides
- Road Runoff
- Landfill contaminants
- What was once considered safe is no longer the case!
- What will we learn tomorrow?

1,4 Dioxane

- Showing up in wells down gradient from capped landfill.
- First appeared offsite in November of 2012
- Current MassDEP standard is 3ppb
- 9 households offered bottled water
- 1 new well installed
- July 2013 standard to change to 0.3ppb

Need for Water

Issues:

- Overdevelopment
- Septic impacts Town-wide
- Landfill contaminates

Benefits:

- Protect public health
- Increased fire protection
- Increased property values
- Investment for future generations
- Water during power outages

Need for Water

Eastham Wastewater Mgmt Plan
GHD Inc., 2009
Principal Conclusions

“The Town needs to protect the public health by providing a reliable public water supply from a protected source.”

Our Proposed Plan for the Water System

Town-wide Water System

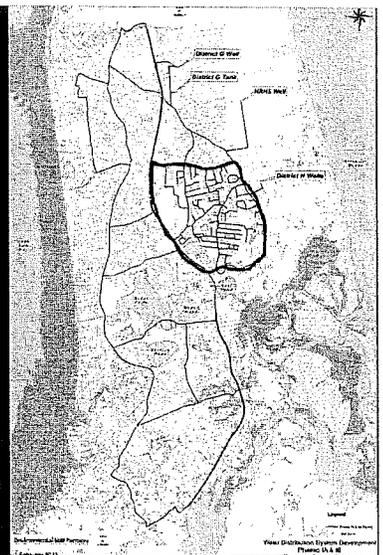
6 Phases
6646 connections

12-year construction program
2 years per phase



PHASE 1

- WELLFIELDS
- TRANSMISSION MAINS
- STORAGE TANK
- CONNECTION OPPORTUNITIES:
 - 2056 Total
- Expanded to address landfill issues



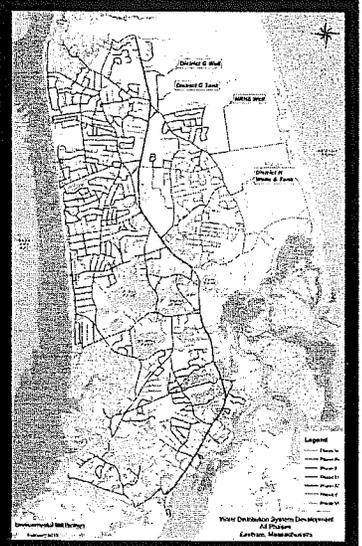
PHASE 1

- WELLFIELDS
- TRANSMISSION MAINS
- STORAGE TANK
- CONNECTION OPPORTUNITIES:
 - 2056 Total



Detail of design and Installation:

March 19th @ 5 p.m.
March 23rd @ 10 a.m.



Detail of Financing and Operating costs

Total cost for 6 Phases: \$114,800,000

Information Sessions:

March 26th @ 5 pm

March 30th @ 10 am

Town of Eastham Website:

www.eastham-ma.gov

Educate yourself at future meetings!

- Design & implementation:
 - March 19th @5p.m. & 23rd @10 a.m.
- Financing & Operation:
 - March 26th @5 p.m. & 30th @10 a.m.
- Wrap up (all 3 presented)
 - April 13th & 27th @10 a.m. & 1 p.m.

Questions?

“Need for Water”

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Nauset Lens Groundwater Model

