July 30, 2009

Secretary Ian A. Bowles
Executive Office of Energy & Environmental Affairs By Email
Attn: MEPA Office
Anne Canaday, EOEA #14197
100 Cambridge Street, Suite 900
Boston, MA 02114

RE: BIRCH ROAD WELLFIELD REDEVELOPMENT & WATER TREATMENT PLANT
EOEA #14197 DEIR

Dear Secretary Bowles and Ms. Canaday:

I appreciate this opportunity to submit written public comment for the proposed project titled "Birch Road Wellfield Redevelopment & Water Treatment Plant," EOEA #14197, located in Framingham, MA.

I have reviewed the April 18, 2008 MEPA Certificate on the Expanded Environmental Notification Form and the DEIR submittal and find the report inadequate in its site environmental analysis, incomplete in its groundwater testing, and inaccurate in a number of its conclusions, particularly with respect to the DEIR's finding of no adverse impacts to Wayland's water supply aquifers. If further groundwater monitoring and site análysis is not accomplished prior to the significant expansion of these groundwater withdrawals there would remain the potential for significant harmful impacts on the current and future groundwater resources of the Town of Wayland.

In the absence of this additional information, it is unreasonable for the Town of Framingham to ask Wayland to potentially jeopordize its wetland resources and groundwater aquifers by substantially increasing the yield of the Birch Road wellfield so that Framingham can economize, save tens-of-millions of dollars and improve its stormwater management, "...such work to be funded in part by savings realized from this Project" (xvii).

I respectfully request that you not allow the proponent's request for the Draft EIR to be considered the Final EIR for reasons stated below.

Chemical Compounds of Concern

Beyond the use of a prolonged pumping test to "determine the capacity and quality of the aquifer", the consultants stated the need "to evaluate the interaction between groundwater and potential environmental receptors." (p. 338)

Detection of Picloram – The presence of picloram (0.1 ug/L in well TW-2) suggests that there is a residual impact from the long-term brush control of the NSTAR right of way for the utility lines funning North to South to the immediate west of the Birch Road Site.

Picloram is a systemic herbicide used for woody plants and broadleaf weed control and sold under trade names of Tordon and Grazon. It can be sprayed on foliage, injected

into plants, applied to cut surfaces, or placed at the base of the plant where it will leach to the roots and is applied extensively because of the growing resistance of many grass and weed species to other herbicides.

Picloram (Pyridinecarboxylic acid) has been produced by Dow since 1963 and is the most persistent of its family of herbicides and does not adhere to soil and leaches to groundwater. It was used in a mixture with another herbicide 2,4-D (as "Agent White") and during the Vietnam War was sprayed on foliage that survived treatment with Agent Orange. It was extensively used in Massachusetts for railroad ballast weed control and clearing utility rights-of-way. Since picloram has been designated by EPA as a "restricted use" pesticide – a material only for use by certified applicators and those under their supervision – there are no residential uses for picloram. The most likely source is the utility maintenance of the power lines to the west of the wells.[1] While picrolam itself is slightly toxic with potential liver and kidney effects, it contains the contaminants hexachlorobenzene (HCB - which is a probably human carcinogen – Group B2) and nitrosamines.[2]

The DEIR mentions correctly that the MCLG (Maxmum Contaminant Level Goals) for picloram had been set at 0.5 ppm, but failed to mention that "The MCL has also been set at 0.5 ppm because EPA believes, given present technology and resources, this is the lowest level to which water systems can reasonably be required to remove this contaminant should it occur in drinking water."[3]

Since picloram has been associated with a number of U.S. reports of human poisonings and extensive groundwater contaminations, the EPA restricted the compound due to concern that picloram is likely to contaminate surface and groundwater supplies.[4] This toxicity has been understood since the 1970's and the compound's presence in the capture zone of the Birch Road wellfield suggest that such usage for utility right-of-way clearing had not been monitored by Framingham in an effort to protect groundwater resources.

Detection of Perchlorate – The DEIR notes that perchlorate was detected (in TW-1 and TW-3) "...persistent, low level detections) and "...suspected that the source ...may be the bedrock aquifer." And was discovered "... on the last day of the pumping test".(2-19) but "subsequent sampling results for perchlorate were non-detect." (p. 1-6) Since perchlorate is often associated with dynamite blasting, is it possible that Framingham Sand and Gravel nearby was blasting in the long-term operation of their facility? Will

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[1] Picloram "...may be used in formulations with other herbicides such as bromoxynil, atropine, diuron, 2,4-D, MCPA, triclorpyr, and atrazine among others". "The compound is mobile and relatively persistent in soil and can therefore leach to groundwater". Picloram Pesticide Information Profile, Cooperative Extension Cornell and other universities. http://pmep.cce.cornell.edu/profiles/extoxnet/metiram-propoxur/picloram-ext.html

[2] Chemical Watch Factsheet for Picloram, Beyond Pesticides/NCAMP Factsheet. http://www.beyondpesticides.org/pesticides/factsheets/Picloram.pdf

[3] EPA Consumer Factsheet on: PICLORAM http://www.epa.gov/safewater/contaminants/dw_contamfs/picloram.html (Nov 28, 2006)

[4] NCAMP Factheet, op cit.

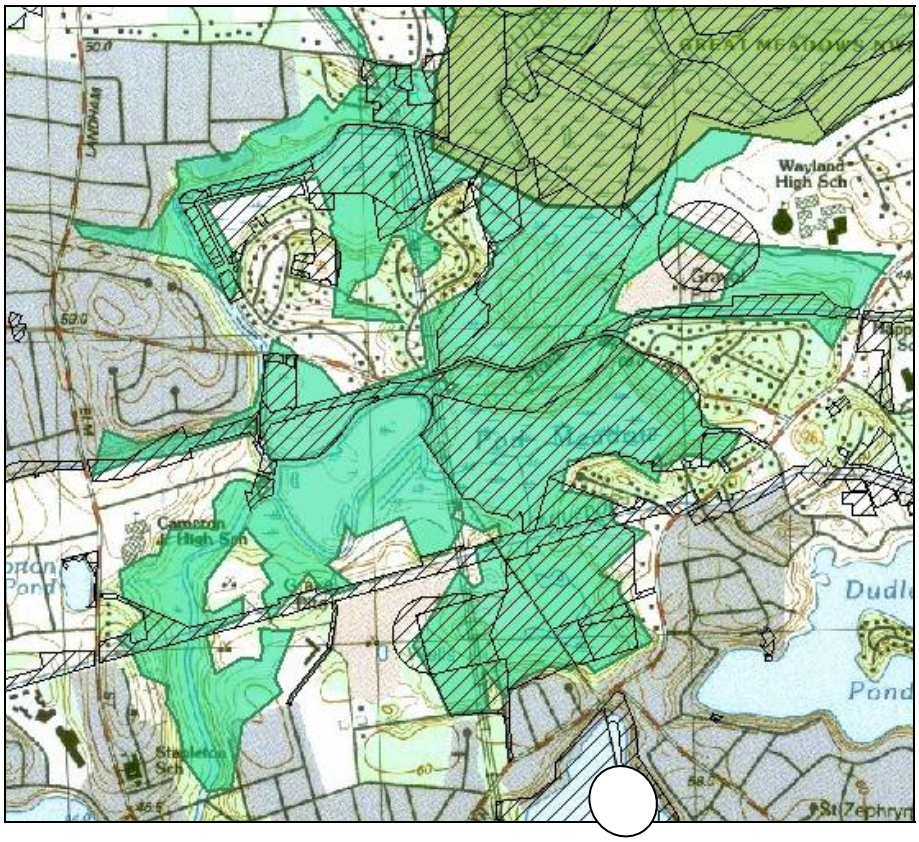
prolonged pumping of Birch Rd well induce higher concentrations of picloram and perchlorate? Further pump tests might help determine the answer to that question.

Detection of Arsenic (2.4.4) – The DEIR states: "The groundwater at the Birch Road Well test site does contain low levels of arsenic" in 3-4 ug/l concentrations. Although below the MCL of ug/L, "the extent of arsenic removal is of concern to the Town in the event concentrations increase over time." (p. 2-11)

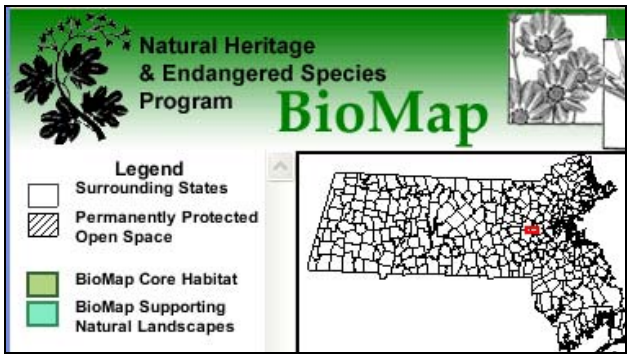
2.2.7 NHESP – Natural Heritage and Endangered Species Program

While it is technically correct to state that "there are no areas of Priority Habitat or Estimated Habitat associated with the site", the site directly sits on an important "Supporting Natural Landscape" to the Core Habitat endangered specias area at Great Meadows NWR on the "Wild and Scenic" Sudbury River some 700 feet to the north.

These "Supporting Natural Landscapes" are most directly associated with the swamps and wetlands located between Birch Road and the Sudbury River, and the NHESP BioMap clearly indicates the surface streams flowing from Birch Road through these wetlands.



Birch Road Wellfield is clear circle at bottom of map located in the NHESP *Supporting Natural Landscape* that connects to the NHESP *Core Habitat* to the North. Happy Hollow wells # 1 and # 2 are in located in the hatched circle at the upper right of map West of Wayland High School.



NHESP Biomap for Wayland and Framingham at Birch Road.[5]

On maps showing the groundwater context, there is no sign of the Meadowview Well.

The Sudbury River: Is located just over 2,000 feet to the north and Northwest of Birch Rd wells, with highly permeable sand intervening.

[5] Natural Heritage & Endangered Species BioMap
http://maps.massgis.state.ma.us/BIOMAP/viewer.htm

Sudbury River runs out of water in Framingham.
Dry Sudbury River bed, Aug 1999 below, full bed Oct., 2000.

Potential Project Impacts to Dudley Pond

The DEIR discussion of Dudley Pond in Wayland: "However the presence of silt to the east makes it highly unlikely that Dudley Pond, which is located 2,000 feet east has a direct hydrogeologic connections with the project site." (2.2.4) and "...it is likely that Dudley Pond is underlain by a low-permeability silt layer that restricts recharge to the aquifer."

With the drilling ten years ago of the MWRA 18-mile MetroWest Water Supply Tunnel 400' below the Walden-sized pond,[1] Dudley Pond sprung a leak in 1999 and rapidly dropped 3½', most likely as a result of the drilling. The hundred-plus homes affected would undoubtedly have lost tremendous property value without the water. A number of residents noted a receding shoreline up to 25' was accompanied by their bouts with depression as a result of the loss. An MWRA spokesman stated that the 135-210 gpm of water (up to 200k gallons per day) was entering the tunnel below Dudley Pond, although some of it might have come from Lake Cochituate and other bedrock sources. The MWRA managed to seal the leaking fissures draining the pond and were able to retain water in the pond only as a result of continuous pumping of finished drinking water from the nearby MWRA Hultgren pipe into the pond. A similar problem happened during the summer of 2008 when the 16' tunnel was bored under Farm Pond in Framingham .

This experience suggests that additional connectivity testing would be precautionary to determine potential impacts of additional wells and increased withdrawals at Birch Road wellfield before an FEIR can reliably state that it is "highly unlikely that Dudley Pond...has a direct hydrogeologic connection with the project site", especially since the underlying bedrock has been so recently disturbed by the extensive MWRA tunneling.

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[1] Dudley pond loses water as MWRA tunnels beneath it, neighbors want problem fixed. The Boston Globe, Jan. 2, 2000.

2.3 Potential Environmental Hazards

Gas Station – "...an independently owned fuel dispensing facility (gas station) is located to the south..." and tracked under RTN 3-23117, located "...approximately 1,000 feet south and hydraulically upgradient of the Birch Road well site.(2-22).

Utility Lines – An overhead utility bisects the well site from north to south. What is known about vegetation management by the responsible utility?

Any potential for mobile contamination sources such as gas, oil, or chemical trucks spilling on Rt 126 with tricky corners there and heavy traffic?

What issues revolve around delivery of petrochemicals to the gas station (and spill remediation), or delivery and storatge of process chemicals to Birch Road for water treatment. Are any Birch Road treatment residuals to be stored or disposed of onsite?

Do any transformers within one-half mile of the proposed sells contain PCB's?.

Private Wells, Irrigation or Potable in the area? Do we know the status of any? Are there any abandoned private wells in the vicinity and has this been checked? Are there any underground storage tanks (UST) within one-half mile of the Birch Road Wells?

3.2.3 Interbasin Transfer Act (ITA – 313 CMR 4.00)

It is difficult to comprehend that a legal opinion regarding Framingham's "grandfather capacity" for 1.5 billion gals/yr from the Sudbury River to Boston Harbor would support such and inter-basin transfer. Even given that the original *capacity* of the Birch Road well site was 3.17 mgd, the difference represents an additional 400 million gallons per year being transported – via MWRA sewers – to Deer Island for processing.

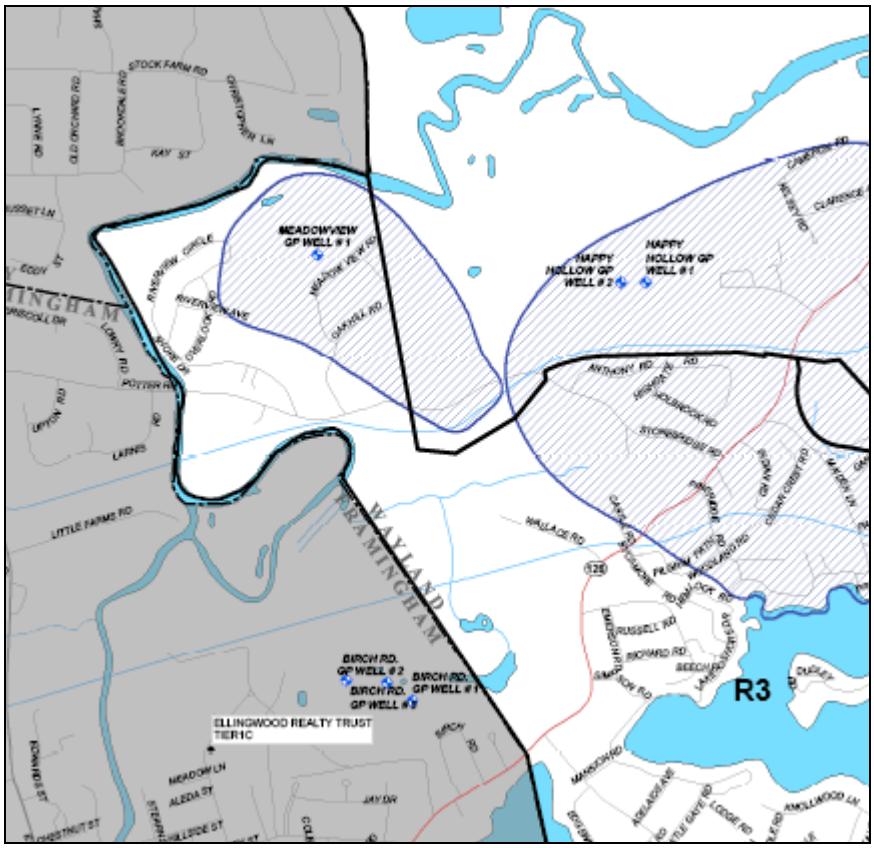
Should these wells be approved by DEP, Framingham should be compelled to reprocess this water, becoming one of the first water *reuse* communities in Massachusetts under the new water reuse regulations. Such uses might include golf course (how many in Framingham), nurseries, municipal plantings, landscapes for corporate headquarters, etc.

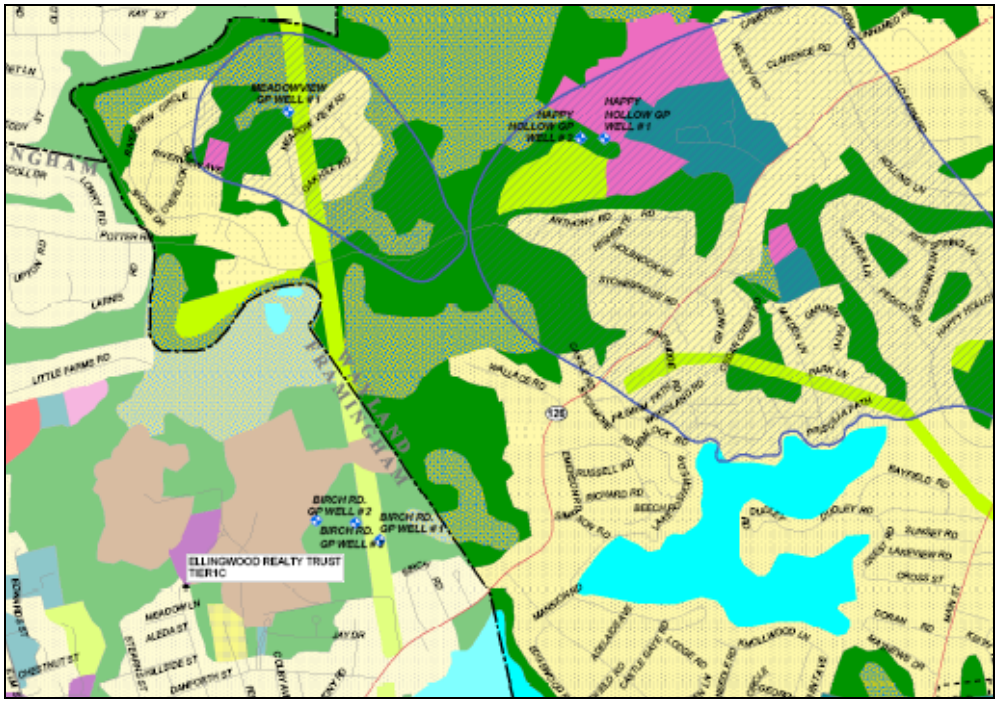
That "the Town's legislative entitlement to the Sudbury River and the waters that flow into it for use as a public water supply has never been repealed or abandoned." (3-3), claiming that because the Winter Street pump station has additional unused capacity is hardly an answer or justification that "...the Town maintains that this project is exempt from review under the Interbasin Transfer Act.:

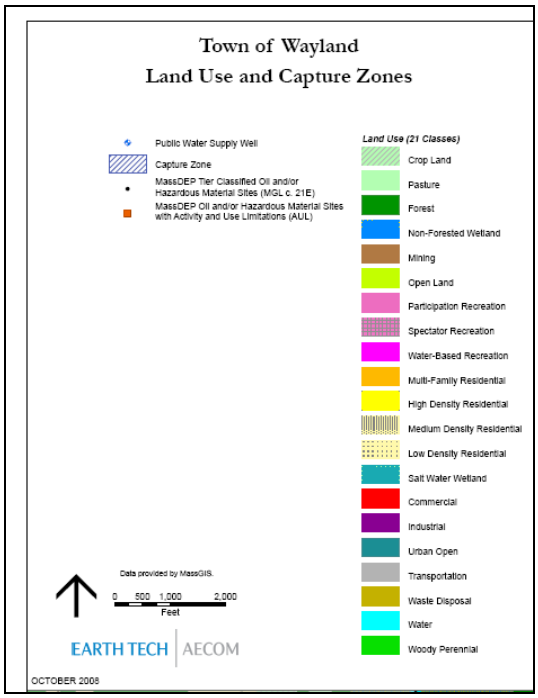
Even if legally or technically legitimized, such a transfer should not be allowed in such a critical groundwater resource area with three Wayland well fields and two significant lakes and many square miles of adjacent wetlands involved.

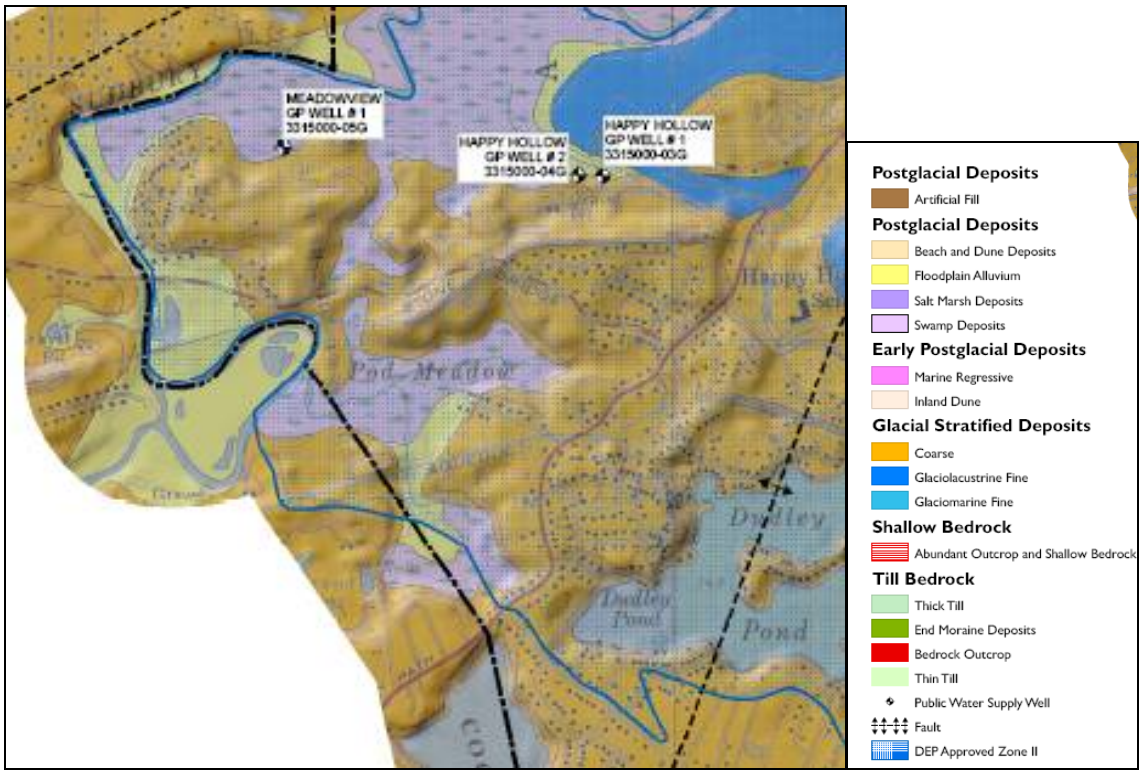
Wayland Earth Tech AECOM Study of Well Capture Zones – 2008

Below are graphics from the Earth Tech report indicating the capture zones of the Meadowview Well #1 (currently offline) and Happy Hollow Wells # 1 & # 2. The Framingham Birch Road wellfield is noted at the bottom of the graphic, without the delineation of the capture zone.


MEADOWVIEW GP WELL # 1
HAPPY HOLLOW GP WELL # 2
HAPPY HOLLOW GP WELL # 1
BIRCH RD. GP WELL # 2
BIRCH RD. GP WELL # 1
BIRCH RD. GP WELL # 3
ELLINGWOOD REALTY TRUST TIER1C
R3
FRAMINGHAM
WAYLAND


MEADOWVIEW GP WELL # 1
HAPPY HOLLOW GP WELL # 2
HAPPY HOLLOW GP WELL # 1
BIRCH RD. GP WELL # 2
BIRCH RD. GP WELL # 1
BIRCH RD. GP WELL # 3
ELLINGWOOD REALTY TRUST TIER1C
FRAMINGHAM
WAYLAND


Town of Wayland
Land Use and Capture Zones
Public Water Supply Well
Capture Zone
MassDEP Tier Classified Oil and/or Hazardous Material Sites (MGL c. 21E)
MassDEP Oil and/or Hazardous Material Sites with Activity and Use Limitations (AUL)
Land Use (21 Classes)
Crop Land
Pasture
Forest
Non-Forested Wetland
Mining
Open Land
Participation Recreation
Spectator Recreation
Water-Based Recreation
Multi-Family Residential
High Density Residential
Medium Density Residential
Low Density Residential
Salt Water Wetland
Commercial
Industrial
Urban Open
Transportation
Waste Disposal
Water
Woody Perennial
Data provided by MassGIS.
0 500 1,000 2,000
Feet
EARTH TECH | AECOM
OCTOBER 2008


MEADOWVIEW GP WELL # 1 3315000-05G
HAPPY HOLLOW GP WELL # 2 3315000-04G
HAPPY HOLLOW GP WELL # 1 3315000-03G
Pond Meadow
Dudley Pond
Pond
Postglacial Deposits
Artificial Fill
Postglacial Deposits
Beach and Dune Deposits
Floodplain Alluvium
Salt Marsh Deposits
Swamp Deposits
Early Postglacial Deposits
Marine Regressive
Inland Dune
Glacial Stratified Deposits
Coarse
Glaciolacustrine Fine
Glaciomarine Fine
Shallow Bedrock
Abundant Outcrop and Shallow Bedrock
Till Bedrock
Thick Till
End Moraine Deposits
Bedrock Outcrop
Thin Till
Public Water Supply Well
Fault
DEP Approved Zone II

Recommendations:

That DEIR not be accepted as a final FEIR due to insufficient groundwater testing, inadequate modeling of potential impacts on adjacent wetlands and streams, and lack of meaningful groundwater data on critical Wayland wells adjacent the Zone II of the Birch Street wellfield.

Additional testing and coordination should be accomplished with Wayland's critical natural resources and wellfields in mind before a final FEIR for this project can be issued.

Thank you for your consideration of my comments on this project.

Sincerely,

Kurt Tramposch

Kurt Tramposch MPH
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Member: APA, APHA, NGWA, USGBC
Wayland Water Dept. – Wellhead Protection Committee
SuAsCo Watershed Council – Steering Committee
New England Water Works Assn. – Groundwater Committee