



WAYLAND BOARD OF PUBLIC WORKS

TOWN OF WAYLAND

41 COCHITUATE ROAD, Wayland, Massachusetts 01778-2697

April 28, 2015

Wayland School Committee
Town of Wayland
41 Cochituate Road
Wayland, MA 01778

Subject: Protection of Wayland's Happy Hollow wells near WHS athletic fields

Dear School Committee Members:

Wayland's Happy Hollow wells are one of the two principal sources of Wayland's drinking water. The two wells were sited after an extensive study of water sources. After near-flooding in 2010, we have drilled three nearby replacements at a higher elevation. In June 2013 fecal coliform was detected in raw (not treated) water; [wells were off-line until a retest proved they were safe](#). Since then Wayland has installed an expensive chlorine injection and analysis system as required by the Massachusetts DEP.

The loss of these wells would be catastrophic for Wayland. As Wayland's Water Commissioners, we are charged with protecting this drinking water source.

Risks are classified by their proximity to the wells. Legally the DEP identifies proximity by [Zone 1 and Zone 2 areas](#); another specific delineation is the 'capture zone' where water falling on the surface will reach the well during normal pumping. The capture zone for the Happy Hollow wells was delineated in 2010. These areas are shown in the town GIS and at the end of this letter.

In 2007 the WHS artificial turf playing field was permitted by the Conservation Commission, appealed, then allowed by a Massachusetts DEP [Superseding Order of Conditions \(DEP 322-661\)](#). This order sets out **specific requirements of ongoing maintenance and reporting, and requires that a Certificate of Compliance be requested and obtained** from Wayland's Conservation Commission (conditions 67, 68).

There is also an existing [Operations and Maintenance plan](#) which was made part of the agreement and which is now being reviewed by School, Recreation, and DPW staff.

These requirements have the force of law. Even if there were no risks to our wells, a failure to abide by a Superseding Order of Conditions may result in fines and [DEP enforcement actions](#), and potentially the loss of use of the field for some period.

Wayland's [Wellhead Protection Plan](#) reviews all town wells and assess potential risks to them. On pp 28-29 the plan expresses concerns that the proximity of the WHS field may pose risks.

To assess those risks the Board of Public Works has recently arranged for two assessments:

- [Analysis for zinc and lead](#) in the raw water of *all* town wells. (Nashoba Analytical)
- [Drainage Assessment WHS Turf Field](#), (Eggleston Environmental)

Both the zinc/lead analysis and the drainage assessment have been distributed to Conservation, the Health, Recreation, and School Departments.

The zinc and lead analysis showed no detectable lead at all wells except traces at Baldwin Pond #2. Levels of zinc were no more than 1/100th of the allowed levels, and the Happy Hollow wells were lower than other wells. This is good news and addresses one of the concerns in the Wellhead Protection Plan.

The drainage assessment however noted several deficiencies -- some of which you have already begun to address in the recent spring cleanup by removing the loose synthetic fibers and crumb rubber. The report notes that several of the conditions from the DEP Superseding Order of Conditions are incomplete or cannot be verified. These conditions protect Wayland's wells.

There are no 'smoking guns' – the Board of Public Works and DPW's Water Division will continue to work prudently to minimize risks. We are considering installation of monitoring wells to identify a problem before it reaches a well.

We ask that the School Committee and School Department review the Drainage Assessment for its WHS field.

By adhering to the Superseding Order of Conditions, following or updating the Operation & Maintenance plan, providing the maintenance reports to the Board of Health as required, providing the as-built plans as required, and applying for the required Certificate of Compliance, the School Department can do its part to protect the Happy Hollow wells.

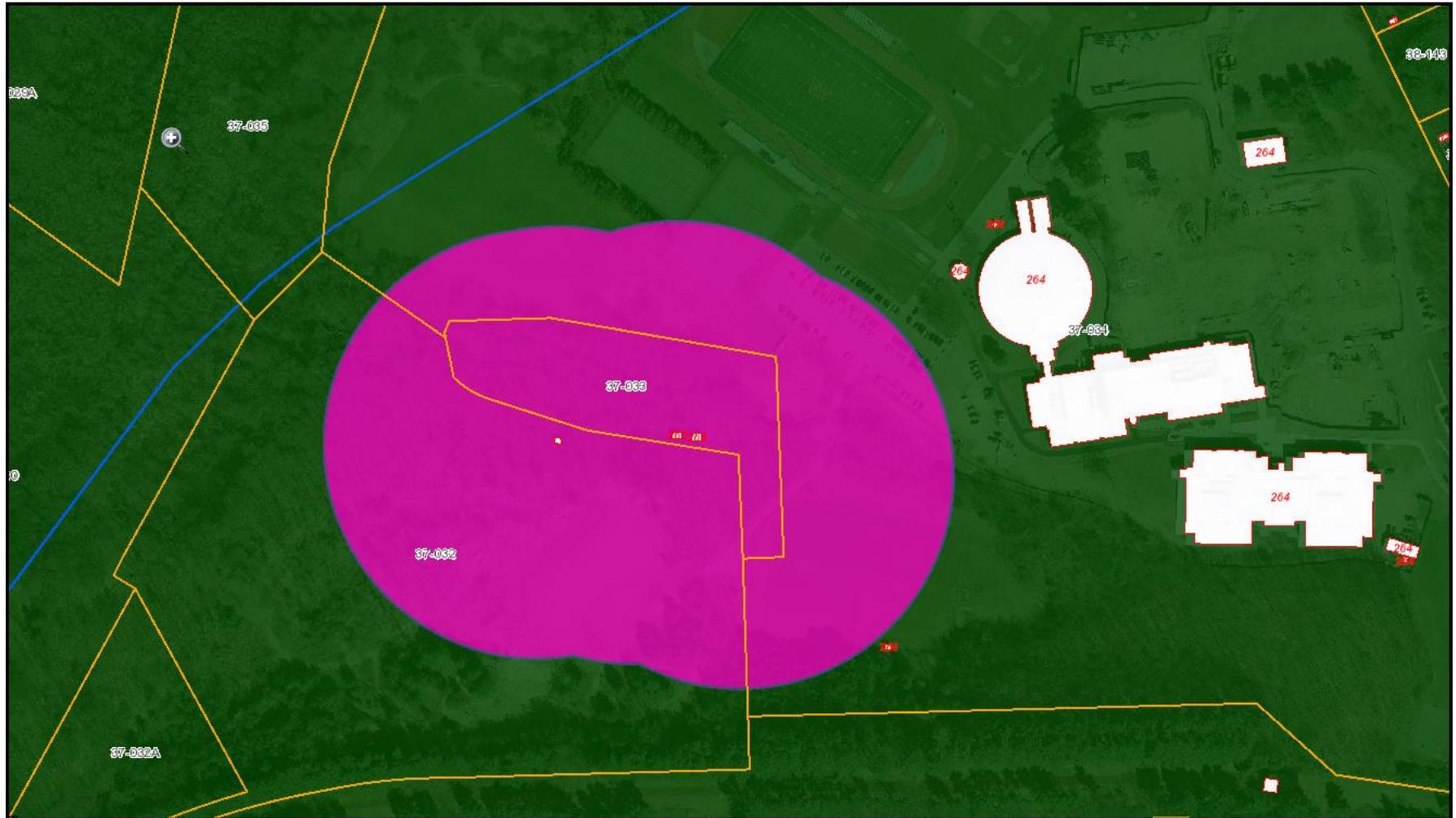
Please keep our board informed of your progress in meeting these requirements.

Thank you for your consideration,
BOARD OF PUBLIC WORKS
as WATER COMMISSIONERS

Christopher Brown
Chairman

cc: Wayland Conservation Commission
Wayland Board of Health
Wayland Recreation Commission
Nan Balmer, Town Administrator
Ben Keefe, Public Buildings Director
Stephen Kadlik, DPW Director
Don Millette, Water Superintendent
Allyson Mizoguchi, WHS Principal
Stephen Cass, WHS Athletic Director
Cherry Karlson, Board of Selectmen (Schools Liaison)

Relation of the WHS structures to wellhead protection areas. Source: Wayland GIS 4/28/2015



Magenta: DEP ZONE 1 Wellhead Protection area (approx. 400' radius)
Green: DEP ZONE 2 Wellhead Protection area
Blue Line Wellhead 'Capture Zone' as established by 2008 Earthtech AECOM