

**Date:** 25 August 2011  
**To:** Eric Worrall, Kevin Brander, MassDEP Northeast Region  
**CC:** Zach Crowley, MassDEP - Boston  
**From:** Fred Knight, chair of Wayland Waste Water Management District Commission (WWMDC)  
**Subject:** Proposal for Additional Capacity for Wayland Waste Water Management District

## Motivation for Additional Capacity

The developers of the Twenty-Wayland Town Center in Wayland, MA want to move forward with their second phase of development while building their first phase. In order to secure financing, 20W needs permitted waste water treatment capacity up to their 45,000 gpd. Currently, DEP's permit calls for delaying the increase from 28,000 gpd, which was granted on 7 June 2011, to the full 45,000 gpd until after a demonstration that the first phase of their development, which will contain approximately 28,000 gpd of Title V capacity, actually produces flow within Title V limits.

In addition, Wayland's Board of Selectmen and Economic Development Committee would like more waste water disposal capacity to spur economic development near the town center. The desire is to not have the limitation be the current value of the NPDES permit, namely 52,000 gpd average annual outflow, but instead the limit of the treatment capacity of the new Waste Water Treatment Facility (WWTF) that is now in construction.

Finally, the current users of the WWTF will be charged significant new betterments in 2013. The Waste Water Management District Commission (WWMDC) wants to spread the cost of these betterments among as many users as possible and with the highest possible aggregate capacity.

So there are three reasons to add outfall capacity to the WWMD

1. To speed the development of the Town center
2. To encourage economic development
3. To spread infrastructure costs among as many users as possible.

These are discussed more fully in the next section.

## Background

As you are aware, Wayland's Waste Water Management District (WWMD) has a Federal NPDES surface water discharge permit to the Sudbury River of 52,000 gallons per day (gpd) of annualized average flow. In addition, the aggregate Title V capacity of current users of the WWMD is 77,000 gpd, which, if interpreted according to **310 CMR 15.203(6)**, is equivalent to a Title V capacity of half this value or 38,500 gpd Title V capacity. However, MassDEP, using Title V tables for predicted wastewater discharge,

consider the WWMD “oversubscribed,” that is, connected users have capacity in excess of the Federal NPDES permit. While Wayland has provided aggregate data showing actual water use under 50% of Title V capacity for users generating flow (only a portion of the users), DEP lacks the regulatory discretion to issue connection permits using any other basis than Title V. The Northeast Regional Office has included in the connection permit for Twenty Wayland the ability to demonstrate through individual meters actual water use over a demonstration period (likely 1 year) to show input less than expected Title V flows for the 28,000 gpd permit. Based on such demonstration, MassDEP would release the permit for the remaining 17,000 gpd. That option is appreciated, but still leaves the Town without a demonstration option for the remaining connections and Twenty Wayland with considerable delays to access requested capacity and unable to respond to market forces.

We much prefer the proposal that is part of the broader regulatory reform effort shared with me by Zach Crowley. It follows our meeting a couple of months ago with Rep. Tom Conroy and representatives of the economic development team and DEP headquarters staff. Under a new proposal, the conceptual design is that MassDEP would permit just the wastewater treatment plant, and not each individual connection. The municipality would manage the connections from new developments, using if they prefer the actual flows demonstrated by the plant to govern decision-making. We believe MassDEP shares our frustration concerning the limitations of Title V as a predictor of wastewater discharge to resource areas. Water conservation measures, improved fixtures, and modifications in business practices have eroded the degree of accuracy of current Title V standards as a credible and reliable predictor of treated wastewater. As long as our Federal and MassDEP permit for operating the wastewater treatment plant is based on outfall to surface resource, there will always be a degree of imprecision in measures based on water use. Our shared goal, then, is to improve the accuracy and predictive value of these other measures used to evaluate additional permits.

The developers of the Wayland Town Center want to move forward with their second phase of development while building their first phase. Market demand for the residential component, as well as additional interest in the retail space, suggests a need for the remaining capacity requested in their permit application by the summer of 2012. More importantly, leasing and development financing requires a commitment to capacity well in advance of the actual need for wastewater treatment. In addition, the adjacent Wayland Commons residential development has experienced robust sales and wishes to construct additional units that require wastewater capacity. A number of properties currently connected to the facility are considering renovations, expansions or alternative uses that will impact wastewater flows. We would like to utilize the capabilities of the new treatment plant.

Finally, the current users of the wastewater treatment facility will be charged significant new betterments in 2013 for the \$5.2M facility. The Wayland Wastewater Management District Commission (WWMDC) wants to spread the cost of these betterments among as many users as possible and with the highest possible aggregate capacity. For capacity, economic, financial and equity reasons, we want MassDEP approval our

proposal to address the capacity issues of concern to the department.

## Options Considered for Additional Capacity

The options to create more waste water capacity in Wayland center are the following.

1. **Add outflow capacity using the closed Wayland-Sudbury Septage Facility.** Costly due to crossing the Sudbury River. Requires vote at Wayland's Town Meeting.
2. **As a back-up provide for trucking of outflow from the new Waste Water Treatment Facility (WWTF) to remote facility.** Very costly and only would be used in a temporary situation.
3. **Add outflow capacity via more surface water discharge via the Sudbury River.** Requires new NPDES permit.
4. **Add more outflow capacity via ground water discharge north to conservation land called Cow Common.** Requires Conservation Commission permission and is inside Zone II Wellhead Protection Area
5. **Add more outflow capacity via ground water discharge south to a new leaching field under playing fields near the Town Building.** Uses existing area outside Zone II Wellhead Protection. Requires design that could be accomplished in two months. See figure 1. A rough calculation indicates that a leaching field of this magnitude could possibly double the outflow capacity. Of course, detailed design is required to assess the true impact.

Given these considerations, option 5. is preferred.

## Proposal for Additional Capacity

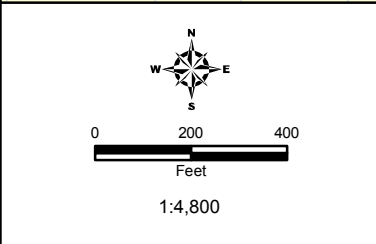
Wayland is prepared to apply for a groundwater (GW) discharge permit to provide an alternative, additional means of discharge. The amount of the GW permit request will be determined by the permitting process. We discussed with Tighe & Bond the feasibility of constructing leaching fields beneath soccer and baseball field adjacent to the Town Building (see attached exhibit/map) sufficient to meet the Title V predicted flow from current connections, any additional predicted flows based on expansion or change in use of existing connections, and new development that could be constructed under current zoning and within the design capacity of the new treatment facility. We have received an estimate of \$30,000 to \$40,000 to complete the permitting process. Unlike the septage facility, which had the advantage of being permitted, the land adjacent to the Town Building is under the jurisdiction of the Board of Selectmen.

We request that MassDEP advise whether it is willing to expedite review of the permit application, and if a groundwater discharge permit is granted, it would release the remaining 17,000 gpd requested by Twenty Wayland in its sewer connection permit based on the availability of an alternative, additional discharge location. The Town is prepared to immediately commence the application process if such assurance can be offered. It will take necessary steps to construct the groundwater discharge site if outflows approach the NPDES limit.



**FIGURE 1  
GROUNDWATER  
DISCHARGE**

- LEGEND**
- Proposed Valve Chamber
  - Proposed Force Main
  - Proposed Groundwater Discharge
  - 3' Wide Leaching Trench
  - WWTP Parcel
  - Effluent Distribution Box



**NOTES**

1. Based on MassGIS Color Orthophotography (April 2008)  
Orthophoto Sheet ID # 21179020

Wayland Town Offices  
Wayland, Massachusetts

August 2011

**Tighe&Bond**