TOWN OF WAYLAND - TOWN CLERK'S OFFICE

NOTICE OF MEETINGS OF TOWN BOARDS/COMMITTEES/COMMISSIONS

Posted in accordance with the provisions of the Open Meeting Law

NAME OF BOARD/COMM: Wayland Wastewater Management District Commission
FILED By: Jane Capasso
DATE OF MEETING: Wednesday, 30 March 2016
TIME OF MEETING: 7:30 PM
PLACE OF MEETING: Wayland Town Building

REVISED - PROPOSED AGENDA

Note: Items may *not be discussed in the order listed or at the specific time. Times are approximate.*

7:30	1.	Call to order
7:31	2.	Public comment
7:35	3.	Introduction to five topics of interest to discuss. See notes below.
7:45	4.	Rationale for Title V design flows at Town Building and Public Safety Building
8:00	5.	Status of aggregate Title V design flow for Town Center
8:15	6.	Comparison of 2004 and 2016 Proposals to connect the Library to the WWMD
8:30	7	Method on issuing future building permits should include wastewater considerations
8:45	8.	What if…? Robustness of WWMD against hypothetical changes in Title V design flows for WWMD users.
9:00	9.	Update on accounting of betterment funds
9:10	10.	Approval of extra hours worked by Jane Capasso per request from the Personnel Board.
9:15	11.	Topics not reasonably anticipated by chair 48 hours in advance of the meeting, if any.
9:21	12.	Calendar: upcoming meetings and events, including hearings.
9:30	13.	Public Comment
9:30	14.	Adjourn

Notes for WWMDC meeting

4. Rationale for Title V design flows at Town Building and Public Safety Building

Some consideration has been given to whether the Town Building and Public Safety Building are assigned reasonable Title V design flows, resulting in two opinions: keep the allocations as they are to not open up a call by other WWMDC users for review of their allocations or reduce the allocations because of less-then-50% water use. I argue here that the allocations are in line with other entities in the WWMD and should remain as is. Inherent in this opinion is that these buildings are essentially office buildings and, with modifications for under-utilized areas, should be treated as such.

Here is the argument for the Town Building. Per the town's GIS web site, the area of the Town Building is 57,000 sqft. The portion that is offices is all but the gym (8000 sqft) and the large hearing room (7000 sqft). Thus, applying the Title V rule of 75 gpd/1000sqft for an office building, I es-

timate a Title V design flow of (57000-8000-7000)/1000*75 = 3150 gpd. This is actually a bit larger than the 3000 gpd currently assigned, but essentially the same.

Now, if we were going to use the alternative (cf., 310 CMR 15.203(6)) of 200% water usage, the Title V design flow would be 981 gpd * 200% = 1962 gpd. However, this method is not justified if the building falls under a stated category, namely an office building. Retaining the 3000 gpd design flow, the water usage is 33% of Title V design flow. In fact, this ratio is about the same as the aggregate of all WWMD users, namely 27,490 gpd water use in FY2016/Q2 for 72,828 gpd aggregate Title V design flow or 38%. In other words, it appears that many users' water use is below 50% of Title V design flow—-with an average of 38%. Hence, not only is treating the Town Building under the catch-all rule not justified, but the actual water use is similar to the average user in the WWMD.

Likewise for the Public Safety Building, the GIS-specified area is 24,700 sqft. I estimate the portion that is not offices to be the garage (~5000 sqft) and jail cells (~1000 sqft). Thus, applying the Title V rule of 75 gpd/1000sqft for an office building, I estimate a Title V design flow of (24700-5000-1000)/1000*75 = 1403 gpd. This is actually a bit larger than the 1100 gpd currently assigned. As with the Town Building, treating the building under the catch-all rule is not justified.

Overall use by WWMD condo owners is relevant. There are over 70 2-bedroom condos in the WWMD. Each is assigned 220 gpd of Title V design flow, but there is a wide range of water usage, from 25 to 288 gpd or 27% to 131% of Title V design flow. So there is, indeed, a wide range of water use. However, taken in aggregate, all the condos have a 31% average water use as a fraction of Title V design flow. In words, it appears that the catch-all rule is quite conservative. If it weren't, then I would expect the average water use to 50% of Title V design flow—-but it's 31%, on the average.

In summary, the Town Building and Public Safety Building should be treated as office buildings, as long as the non-office areas are subtracted. I have shown here that doing this results is Title V design flows above what is now in place, and there is not a justification in lowering them.

One more note. This is the opinion of the WWMDC chair, alone. The WWMDC will discuss this on 30 Mar 2016.

5. Status of aggregate Title V design flow for Town Center

   TBD after consultation with the Town Administrator.

6. Comparison of 2004 and 2016 Proposals to connect the Library to the WWMD

   It turns out that the WWMDC in 2004 earmarked 500 gpd for the Library, but the Library was never connected, due a variety of circumstances (e.g. operational on-site septic system, 2010 flood, lag in capital funding). The only thing that was done in 2004 was to run a connection stub under the Rts 27/126 roadway. As is the case for the 2016 ATM, a privilege fee or PILOB is requested by the WWMDC. Here is a tabular comparison of the 2004 proposal between the Library and the WWMDC and Article Z in 2016

Date	2004	2016
Proposal	WWMDC to Library with partial funding at 2004 ATM	Library Trustees to Town in Article Z for 2016 ATM
User	existing Library at 5 Concord Road	existing and expanded Library at 5 Concord Road
Design Flow	500 gpd	820 gpd

Primary cost basis	Privilege Fee based on original betterment for WWMD users (circa 1999)	Payment in Lieu of Betterment (PILOB), equivalent to Selectmen's payment for other Town Design Flows at Town Building, Public Safety Building, and Municipal Pad
Cost	$25,181	$53,490
Cost in $/gpd	$50	$65
Associated costs	$11,950 for piping under Rt126/27 ~$10,000 plumbing in Library	FY2017 operating cost, ~$2000, assume no flow until after FY2017, assume use of on-site leaching field in FY2017
Total Initial Cost	$11,950 for piping under Rt126/27 in Article 14 of 2004 ATM; remainder (~$38,000) not implemented	$56,000 for 2016 ATM Article
On-going costs	Based on current operating expenses for being part of the WWMD	In FY2018 and beyond, based on current operating costs of WWMD users

7. Method on issuing future building permits should include wastewater considerations

   To be provided by the Town Administrator

8. What if…? Robustness of WWMD against hypothetical changes in Title V design flows for WWMD users

   The following shows that there is a ***Hefty Margin*** for WWMD Discharge to Sudbury River, even if hypothetical (read: unlikely) changes occur.

   As a follow-up to our discussion at the 9 Mar 2016 WWMDC meeting, I thought I would estimate some extraordinary and hypothetical increases in flow to the WWMD to illustrate the current hefty margin for WWMD discharge to Sudbury River relative to DEP ACO, which allows 41,600 gpd in a 3-month average, and NPDES permit, which allows 52,000 gpd in an annual average.

   As an example, let's consider the conversion of the Town Building into condos. Here, I assumed the building of 57,000 sq ft, less the gym at 8000 sqft, less the large hearing room at 7000 sqft, converted to 1000-sqft condos. Numerically, we have:

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+57000 sqft = building area per gis web site
- 8000 sqft for gym
- 7000 sqft for large hearing room
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 42000 sqft
Assume 42 condos @ 1000 sqft
            220 gpd Title V design flow, est. 110 gpd actual flow
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 4620 gpd increase actual flow to WWTF, 42 * 110 gpd
 2000 gpd = all other connections, incl. Town office new bldg
24000 gpd = current flow
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30620 gpd = total flow
41600 gpd = threshold to trigger TB leaching field
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   So, the Town Building converted to condos would add an estimated 4620 gpd of actual flow, but the aggregate flow is not even 73% of the DEP threshold. The town offices would be relocated I as-

sume and also connected. To emphasize, the increment in wastewater usage if the Town Building were to be converted to condos still leaves the total flow significantly below the DEP's ACO threshold.

I tried to hypothesize other additions, namely double the restaurants at the Town Center (which triggers the TC owner to build a leaching field) , connect all other users, and add an expanded library.

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24000 gpd = current flow
 2000 gpd = all other connections, incl. Town office new bldg
 4620 gpd = condo conversion, actual flow to WWTF, 42 * 110 gpd
 8975 gpd = DOUBLE the total flow of all restaurants at Town Center
  500 gpd = estimated flow from an expanded Library at current site
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40095 gpd = total estimated flow
-4995 gpd = average flow accommodated by required leaching field at TC
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35100 gpd = net flow to the WWTF
41600 gpd = DEP's threshold to trigger TB leaching field
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 6500 gpd = remaining margin below DEP's ACO threshold
16900 gpd = remaining margin below NPDES permit
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In summary, I cannot fathom a scenario when we would trigger either the DEP's threshold for building an additional leaching field at the TB, or get close to the NPDES permitted value or the ultimate capability of the WWTF.

I would be happy to calculate increases for other scenarios.