

**Jean, Hilary (DEP)**

---

**From:** Jean, Hilary (DEP)  
**Sent:** Wednesday, November 16, 2011 7:34 AM  
**To:** 'mhatch@wayland.ma.us'  
**Cc:** 'rsuozzo@tataandhoward.com'; Mahin, Thomas (DEP)  
**Subject:** Wayland- Waste Management Plan

Michael,

This email acknowledges the receipt of the revised Management Waste Plan dated November 7, 2011 as presented by you engineer, Tata and Howard in a letter signed by Randal Suozzo, P.E.

Thank you submitting the updated plan which we will keep on file. Please inform us if there are further changes to the plan.

This will likely be the only communication from us concerning this plan. Please keep a copy of this correspondence in your files.

Regards

Hilary Jean

\*\*\*\*\*

For internal Use Only

Hilary Jean  
MassDEP- NERO-Drinking Water Section  
205B Lowell Street  
Wilmington, MA 01887  
TEL (978) 694-3229  
FAX (978) 694-3498



**TATA & HOWARD**  
Water and Wastewater Consultants

November 7, 2011

**RECEIVED**

NOV - 9 2011

Mr. Hilary Jean  
Department of Environmental Protection  
Northeast Regional Office  
205B Lowell Street  
Wilmington, MA 01887

DEP  
NORTHEAST REGIONAL OFFICE

Subject: REVISED Waste Disposal Plan/Residual Management Plan  
Baldwin Pond Water Treatment Facility – Wayland, MA  
PWS# 3315000

Dear Mr. Jean:

On behalf of the Wayland Department of Public Works, we would like to offer the following Revised Waste Disposal Plan and inclusion of a Residuals Management Plan. The original plan was submitted to your office in March, 2010 with the intent to recycle the dried sludge collected from the Baldwin Pond Water Treatment Facility's (WTF) neutralized and residuals streams.

The Baldwin Pond WTF produces several waste streams including sanitary waste, instrumentation analyzers waste, filter backwash waste, membrane cleaning waste, sediment from the detention tank, decant residual waste, neutralized process waste, hazardous waste from manual manganese sampling, and solid waste from the outdoor sand filter beds.

- The sanitary waste stream is collected and contained in the lower level of the facility for periodic pumping to onsite septic leaching trenches.
- The waste from manual test samples performed to measure manganese concentration in the process water contains alkaline cyanide. This waste is stored onsite in a hazardous chemical container to be periodically collected by a hazardous waste collection agency.
- The online instrumentation analyzer waste streams as well as much of the filter backwash waste streams are recycled to enclosed concrete decant tanks located in the lower level of the facility. The recycling of the analyzer waste is possible because they are inline instruments with no reagents. The portion of filter backwashes containing chemicals are not recycled.

**Tata & Howard**

[www.tataandhoward.com](http://www.tataandhoward.com)

67 Forest Street, Marlborough, MA 01752

T. 508-303-9400 F. 508-303-9500

1000 North Main Street

Lakeville, MA / Portland, ME

Menden, CT / Goodyear, AZ / Nashua, NH

- The chemically enhanced backwashes (CEBs) and membrane cleaning waste streams, and sediment from the ozone detention tank are sent to an enclosed 50,000 gallon concrete neutralization tank located in the lower level. The sediment waste is collected no more than annually and manually vacuumed or pumped from the detention tank to the neutralization tank through the access hatches. The following paragraph describes what happens to the waste in the neutralization tank.
- All process waste streams including residuals from the decant tanks and residuals and neutralized process waste from the neutralization tank (which also includes the sediment from the detention tank) are pumped to onsite sand filter beds. Expected volumes are expected to average 40,000 gallons per day (gpd) with a maximum of 60,000 gpd. The solids in this water based on piloting are expected to be between 50-150 mg/L, which will predominately be iron, manganese, and aluminum. The sand filter beds contain two basins each sized for a capacity of 45,000 gallons for redundancy.
- The solids in the water sent to the sand beds are collected on the surface to be periodically handled as described in the Residuals Management Plan. The water that is discharged from the sand filter beds is regulated under NPDES general permit No. MAG640075.

#### Residuals Management Plan

A Residuals Management Plan is required for WTFs producing residual waste. Residual waste is produced at the Baldwin Pond WTF in the form of dried solids located on the surface of the sand filter beds. The solids are scraped from the surface using machinery and hauled away by a waste disposal company. The dried solid material will be scraped off every 6-12 months, or more often if standing water is present for more than 24 hours.

If you have any questions or require any additional information, please do hesitate to contact us.

Very truly yours,

TATA & HOWARD, INC.



Randal A. Suozzo, P.E.  
Senior Project Engineer

cc: Mr. Donald Ouellette, DPW Director  
Mr. Mike Hatch, Supt. Water Division