

***Not Enforcement, Reinforcement  
Caution! You're about to enter a No-  
Swim Zone ☺***



## New Wastewater Operators Newsletter

**First Annual Review April 2, 2011**

**Dear Ladies and Gentlemen:**

**My email victims list is now 196 strong and growing weekly. Last month it was 187. Better and better. ☺**

**Monthly, I'll share some great ideas I see or hear of, at plants around Eastern and Central Washington, and elsewhere. If you have an idea you'd like to share, let me know.**

**This newsletter started out as a small thing last March for sharing cool ideas and offering up surplus equipment and supplies. Thanks to your interest and moral support, not to mention my huge ego, it continues.**

**I just wanted to review what's been done in the past 12 months, in case you missed anything you'd like to revisit.**

**1<sup>st</sup> issue, March 2010**

**Highlighted Chelan's Swiveling Washdown Device for circular clarifiers.**



**1<sup>st</sup> issue, March 2010, cont.**

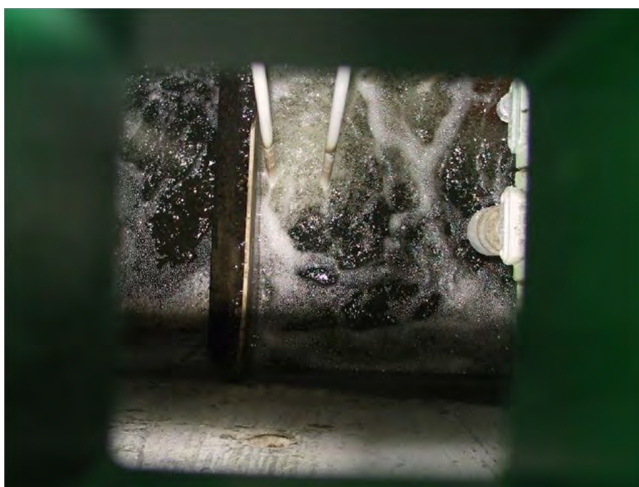
**Link to certification practice exams at the SW Washington PNCWA section web site:**  
[http://swws.pncwa.org/SWWS\\_Web\\_Site\\_3/Wastewater\\_Practice\\_Exams.html](http://swws.pncwa.org/SWWS_Web_Site_3/Wastewater_Practice_Exams.html)

**2<sup>nd</sup> issue, April 2010**

**Highlighted Pomeroy's effluent post-aeration system. It has become one of Ecology's "Success Stories", viewable here:** <http://www.ecy.wa.gov/pubs/1010038.pdf>



**Glenn Davis of Pomeroy**



**Above: view down into the effluent wetwell.**

**Left: The small blower Glenn purchased and installed.**



3<sup>rd</sup> issue, May 2010

We saw how Roger Mickelson and his crew saved the City of Entiat \$249,000 and more on the construction of a building to house a belt filter press for biosolids over the project engineer's and contractor's live bodies.



Left: The building



Left: Mods that Roger did to shut down the press in case cake accumulated in the auger junction.

We learned all about DMRs from the “Information Manual for Treatment Plant Operators”, downloadable here: <http://www.ecy.wa.gov/biblio/0410020.html>

There was an article and links all about duckweed, too.

4<sup>th</sup> issue, June 2010

Medical Lake's Steve Cooper and Wayne Edgar added strain relief to their new Hach HQ40d multi-channel meter and set up a nice support stand for calibrating the associated probes.



Left: The Hach meter with strain relief.

Below: Wayne Edgar



Left: Probe calibration stand with rubber stopper feet.

**5<sup>th</sup> issue, July 2010**

**I found Entiat's Royce Model 711 SS Interface Meter <sup>TM</sup> interesting (pictured below). It measures solids concentrations instantly and accurately. It also detects clarifier sludge blanket levels (and more!) for about \$1600.**



**We reproduced Ron Trygar's article "What the Heck is SVI?"**

**6<sup>th</sup> issue, August 2010**

**We saw Moses Lake's tractor driven pump stirring up the black stuff in a biosolids holding basin. That's Jim Whitmore in the photo (next page).**



6<sup>th</sup> issue, August 2010, cont.



I wrote a short article “Hand Calculating a Geometric Mean”.

We also explored apparatus and strategies for getting TSS tests done.

7<sup>th</sup> issue, September 2010

This one features 2 cool ideas:

Ron Shumate of Benton City uses a bug zapper to control filter flies in his UV disinfection room. We also explored other ways (chemicals) to control them. Photos on the next page:

7<sup>th</sup> issue, September 2010, cont.



Above: Ron Shumate, near the aeration basin.

Below: the bug zapper.



7<sup>th</sup> issue, September 2010, cont.

Mesa's Cade Scott gave us the pressure washer galvanized wand extension for cleaning lift stations.



Left: That's Cade Scott with his invention.

Below: The business end





7<sup>th</sup> issue, September 2010, cont.

Robert Scott shared the article “Understanding the Basic Principles of Nitrogen” with us.



8<sup>th</sup> issue, October 2010

I finally got some smarts and published this one in Adobe Reader format.

It featured Winthrop's Rick Karro's swing gate check valve chlorine residual sampler device,



Above: Swing gate check valve

Left: Rick Karro taking a sample.

8<sup>th</sup> issue, October 2010, cont.

...and Colfax's Matt Hammer's 6-place BOD bottle rinser (photo below).



Robert Scott (Water's Edge Resort and Spa, Westbrook, Connecticut) shared a great article on "Benefits of smoke testing a collection system".

9<sup>th</sup> issue, November 2010

I whipped out a special word about lagoon liners and maintenance thereof.

9<sup>th</sup> issue, November 2010, cont.

We showcased Oroville's new screw press which produces pasteurized Class A biosolids. Here's Ted Williams (Oroville) and Shane Harvey (FKC Co. Ltd.) giving it a shakedown run.



10<sup>th</sup> issue, December 2010

I shared the replacement of old sparge ring/vertical turbine mixer systems with fine bubble diffusers in Grand Coulee-Electric City's WWTF aerobic digester. See the before and after on the next page...



10<sup>th</sup> issue, December 2010, cont.

**Before:**



**After:**



**North Central Laboratories shared a tech tip article on GGA Calculations for BODs.**



11<sup>th</sup> issue, January 2011

We showcased J.R. Simplot's Moses Lake potato processing plant biogas producing anaerobic digester called "Bertha".



NCL shared another tech tip article on membrane style DO/BOD probes and meters.

We also explored Online Calculators (in this case, for serial dilutions) here: <http://www.handymath.com/>

And finally, 12<sup>th</sup> issue, February 2011

We showcased Wilbur's new plant: Clarifier grouting



12<sup>th</sup> issue, February 2011, cont.

Wilbur's plant at start up:



North Central Labs provided another tech tip article on MDL. Their tech tip web page: <http://www.nclabs.com/htmldocs/technical.html>

Throughout my first year as Publisher-In-Chief of “New Wastewater Operators Newsletter” I’ve shared job openings, retirements, scenic photos and numerous links to hopefully helpful web sites.

If you’ve missed any of the newsletters because you’re one of my newer email victims, just ask and I’ll send.

Thanks for all the great positive feedback. You guys and gals are the very best! A big dam Saaaaalute! to all my newsletter subscribers. Please let me know if there’s a special subject you’d like to explore here.

March’s newsletter is late. Keep the faith—I’ll git ‘er done.

All the best,

Darrel Fleischman

## Windy Day on Banks Lake, 3-31-2011



It's my latest desktop image. Email me if you'd like the high resolution version. The water was purty that day. 😊