

WASTEWATER MANAGEMENT SECTION NEWS

WINTER 2010

WATER RECLAMATION IN WASHINGTON

For most people, 'reclaimed water' is a puzzling thing, and something you don't think much about.

Reclaimed water starts at the wastewater treatment plant. Even though it starts as a waste, it's not wastewater and it's not greywater. It's a new, high quality, drought-proof water supply derived from treated wastewater. Water reclamation first came about in Washington in 1992 when people were dealing with drought conditions and saw the need to develop new water supplies.

Reclaimed water can be reliably treated so that it's the right water for the right use. It's simply a matter of designing and using the right treatment technology to line up with the desired use. In Washington we don't yet allow direct potable uses, but we do allow groundwater recharge for later withdrawal and use.

So why does reclaimed water matter? The reason is because it's a valuable water supply. Reclaimed water is the last new water supply available for some communities. To get more water for new users, communities have to obtain legal access to water supplies and then develop those supplies. That could be a new well, a water treatment plant on a stream, or even a dam to store surface water. Reclaimed water puts the water treatment process at a source that is always available. And since water right applications are backlogged by decades, reclaimed water is appealing since there is no need to get new water rights.

Why is the Department of Health involved? The main reason is because there are public health concerns with reclaimed water. The raw supply contains high concentrations of pathogens. Since reuse of the water can involve human contact, there's potential for increased public health risks. It's Health's responsibility to make sure those risks are fully addressed. The Department of Ecology plays a similar role with environmental concerns.

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Reclaimed water has become increasingly popular in the state since 1994 when design began on the first plant at Holmes Harbor on Whidbey Island. Since then, 19 plants have been put into operation and another 24 are in the last phase of construction and permitting, or planning and design.

See list of water reclamation projects on page 3

EVALUATION OF CHAPTER 246-272A WAC

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Last fall we completed an evaluation of the effectiveness of the small on-site sewage system rule, Chapter 246-272A WAC. Local health jurisdictions and other interests provided helpful feedback on the rule. The findings were presented to the State Board of Health at its October 2009 meeting. The material is available on our website's publications page at www.doh.wa.gov/ehp/ts/WW/pubs-ww-topic.htm#Technical under "technical information and references." ■

The Department of Ecology is leading work on a new reclaimed water rule. The rule is expected to be finished by December 2010. You'll find information on the rule-making process at www.ecy.wa.gov/programs/wq/reclaim/ruledvelopment.html.

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Send comments to the editor: Jan.Jacobs



MESSAGE FROM STUART GLASOE, WWMS MANAGER

It's a familiar passage that embraces the challenges of life: "May you live in interesting times." With the challenges facing the wastewater profession today, I think we can fairly say, "May you manage wastewater in interesting times!"

The downturn in the economy has clearly had widespread impacts. For state and local health agencies it's meant shrinking budgets and cuts in staffing and services. And for many in the industry it's meant less business and unexpected shifts in demand for services and products.

Simply put, everyone's adapting and making do with less. Mary Selecky, Secretary of the Department of Health, recently put it this way in a note to staff on the state budget: "We're in a tight spot, and solving the problem is going to be among the biggest challenges of our time . . . One thing is for sure: none of us should count on things going back to the way they were."

Over the past year I've been impressed by the dedicated and thoughtful work across the wastewater profession, especially the efforts of local health jurisdictions. Many counties have dealt with dramatic drops in revenue, and some are still struggling to find a path forward.

We rely heavily on our local health partners to implement the statewide on-site sewage program. We appreciate the ingenuity and sacrifices these talented professionals have made to balance their budgets and to sustain core public health services.

In many counties these core services now include O&M programs that help homeowners properly care for their on-site sewage systems. The great selling point of these programs is the cost savings associated with maintenance – helping homeowners detect and fix small problems before they become costly repairs or replacements. This message is never more important than in tough economic times.

I'm also proud of the forward-looking work we're doing to advance wastewater management in the state. Two examples of this are the work we're involved in to promote the safe and appropriate use of reclaimed water and greywater. (You'll find updates on both topics in the newsletter.) Let's see where we can take these issues in the years ahead.

Yes, we live in interesting times, and such times present unexpected opportunities. I'm confident that our collective efforts are putting things on a positive path forward.

Thanks, everyone, for your dedicated work improving sewage management across the state.

Stuart Glasoe
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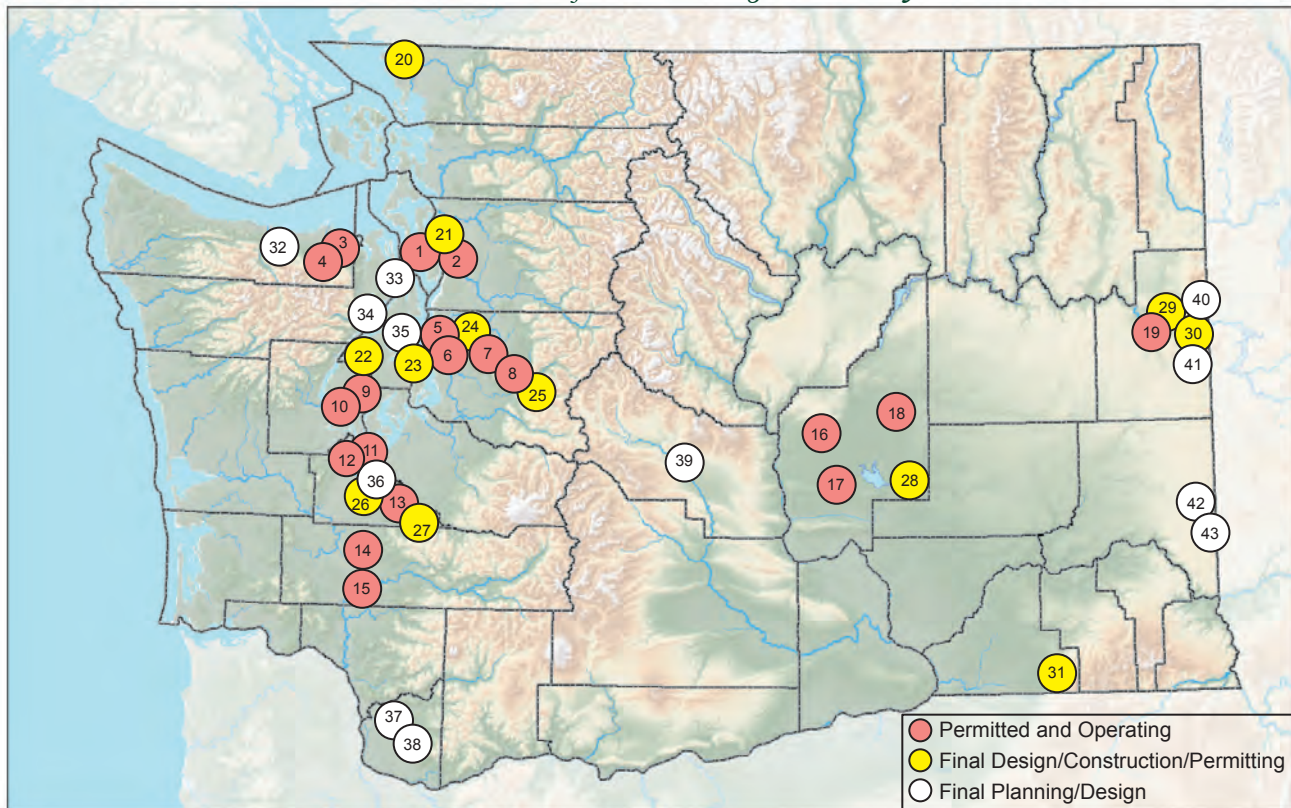


Water Reclamation, from page 1

Permitted & Operating Facilities	
1	Holmes Harbor Sewer District
2	City of Everett-Kimberly Clark
3	Sunland Water District
4	City of Sequim
5	King County – West Point
6	King County – South Plant
7	King County – Carnation
8	City of Snoqualmie
9	Mason County – North Bay Case Inlet
10	Shelton Regional Water Reclamation Facility
11	LOTT – Hawks Prairie
12	LOTT – Budd Inlet
13	City of Yelm
14	City of Chehalis
15	Cardinal Glass Industries – Winlock
16	City of Quincy
17	City of Royal City
18	City of Ephrata
19	City of Medical Lake
Projects in Construction & Permitting	
20	Blaine Lighthouse Plant
21	Warm Beach
22	Mason County – Belfair

Projects in Construction & Permitting (cont)	
23	West Sound Utility District
24	King County – Brightwater
25	WSP – North Bend Fire Training Facility
26	LOTT – Tumwater Irrigation & Recharge (Transmission Pipelines)
27	City of Tenino
28	Warden Water Reclamation Facility
29	City of Airway Heights
30	Spokane County Water Reclamation Facility
31	City of Walla Walla
Projects in Planning & Design	
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33	Jefferson Co – Port Hadlock UGA
34	Brinnon Black Rock Development
35	Silverdale Water District
36	LOTT – Woodland Creek Rehydration Project
37	City of Battleground
38	Clark County Regional Sewer Authority
39	Evergreen Valley Utilities
40	City of Liberty Lake
41	City of Spokane
42	WA State University – City of Pullman
43	Whitman Co – Stateline Project

Reclaimed Water Projects in Washington, February 2010



STAFF PROFILE: LESLIE TURNER

Leslie Turner trained in Alaska on on-site sewage issues before joining Chelan Douglas Health District, where she became famous for her ladybug boots. In 2008, Leslie made the transition from field inspector to desk regulator at the Department of Health. Leslie's duties include technical assistance, waiver reviews, updates to Recommended Standards and Guidance, coordinator for the Technical Advisory Committee and the Westside and Eastside on-site sewage coordinators, and review of proprietary wastewater treatment and distribution technologies for product registration. Leslie has an associate degree in humanities and dual bachelor's degrees in natural resources management and agriculture from the University of Alaska Fairbanks. She's also a registered sanitarian and a certified on-site sewage system inspector. ■

Leslie's signature ladybug boots



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DEPARTMENT CONCURS WITH CLASS B WAIVER FROM CLARK COUNTY

In January the Department of Health reviewed a Class B waiver request from Clark County Public Health. The department agreed to the site-by-site waiver which extends the county's O&M inspection interval for conventional pressure distribution systems (systems meeting Treatment Level E without advanced treatment) from one year to two years. The waiver is based on the following review criteria and mitigation measures:

- sixty percent increase in Clark County O&M inspections since 2007 and significantly better quality inspections;
- pressure distribution systems are not equipped with components and devices that require more routine O&M;
- pressure distribution systems have alarms that alert owners to high water conditions, pump failures, and line blockages;
- all pressure distribution systems in Clark County require pressure tests during inspections by certified O&M specialists to determine pump and drain line performance;
- Clark County staff follow up on all reported critical deficiencies and work with homeowners to resolve the problems;
- all newly installed Treatment Level E pressure distribution systems in Clark County will be required to be inspected within the first year of start up by a certified O&M specialist. Any deficiencies must be corrected before moving to the two year inspection cycle; and
- the O&M specialists can recommend yearly inspections for pressure distribution systems if there are public health or site concerns.

Clark County also committed to track overall performance of the systems and results of the policy change. If failures or other serious problems increase, then the county will reinstate the annual inspections. ■

GREYWATER RULE STARTING TO TAKE SHAPE

Work on the new state greywater rule is well underway with the help of a stakeholder advisory committee. Meetings started last September and are expected to continue through March. The statute authorizing the rule, chapter 90.46 RCW, requires us to finish the rule by December 2010.

We're trying to develop a tiered approach for managing and regulating greywater discharges. For all tiers, reuse of the greywater would be limited to seasonal conditions and subsurface irrigation.

The most basic tier is being designed to give homeowners a very simple way of reusing small amounts of greywater from lower-risk fixtures (bathtubs, showers, bathroom sinks, washing machines). Local health jurisdictions would have the option to require a simple record of these basic systems if they wish.

The second tier would be limited to greywater from the same lower-risk fixtures, but would allow higher flows, possibly limited storage and pumping, and increased oversight by local health jurisdictions. Numerous other issues are still under consideration.

The third tier would involve still higher flows, flows from the lower-risk features plus kitchen sinks and dishwashers, treatment processes, and more. Discussion of these third-tier issues has been the most limited so far.

Committee meetings are open to the public. For information on the rule-making process please visit our website at www.doh.wa.gov/ehp/ts/WW/greywater/greywater-rac.htm. And for regular updates on the project please join the greywater listserv at <http://listserv.wa.gov/cgi-bin/wa?Ao=WASTEWATER-GREYWATER>. ■

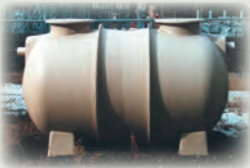
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IMPLEMENTING THE NEW SEWAGE TANK RULE

The State Board of Health adopted the new sewage tank rule in October and it took effect in December 2009. The rule establishes consistent standards for designing and constructing tanks, along with the process for getting plans and designs approved and registered by the Department of Health.

Under the new rule, sewage tank manufacturers are required to submit design and construction plans to the department for review and approval. The rule outlines the application and submittal requirements. After receiving approval, prefabricated sewage tank models and sizes will be placed on a registry. For cast-in-place tanks, designs will be approved as part of the individual on-site sewage system designs.



As we begin to implement the rule, one of the key issues is the transition from the current list of approved prefabricated tanks to the new Sewage Tank Registered List.

The rule provides a two year transition period. Between now and December 31, 2011, tanks from either list may be used in on-site sewage system designs. Beginning January 1, 2012, only prefabricated sewage tanks on the Sewage Tank Registered List can be used.

Applications and tank designs may be submitted at any time to the department. However, the department is guaranteeing that only those designs submitted by July 1, 2011 will be reviewed by the January 1, 2012 deadline.

The application form and accompanying affidavit are available on our website at www.doh.wa.gov/ehp/ts/ww/pubs-ww-all-bytitle.htm and www.doh.wa.gov/ehp/ts/ww/pubs-ww-topic.htm. ■

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UPDATE ON THE LARGE ON-SITE SEWAGE SYSTEM RULE

We're continuing to work on the rule for large on-site sewage systems (LOSS). We've received excellent input from the rule advisory committee, which includes representatives from local health and the wastewater industry. The committee last met mid-summer and is scheduled to meet March 3. We're aiming to hold public workshops in spring and adopt the rule by the end of the year.

We're revising the existing rule to address new requirements passed by the 2007 state legislature. We're also reorganizing the rule to more clearly outline the process for

gaining approval to install and operate LOSS. Key issues include:

- identifying the main steps in the site and plan review process;
- designing a more thorough analysis of the site and proposed treatment;
- determining public notice requirements for initial permits for large LOSS (systems between 14,500 and 100,000 gpd);
- evaluating the effect of changes in design standards, especially proposed reductions; and
- determining the requirements and level of detail in the annual operating permit.

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The statute requires the department to address environmental protection along with public health protection when reviewing LOSS designs. This will change the site evaluation part of the review process and will introduce monitoring requirements for most systems to ensure groundwater protection.

Effective July 1, 2009, permits for large LOSS began transferring from the Department of Ecology to the Department of Health as they expire. This will affect a total of about 24 systems; about 15 by the end of 2010. We intend to keep the transitional operating permits very similar to their last discharge permit from Ecology.

We've prepared interim policy guidance to help explain how the new statutory responsibilities will be implemented while the work on the LOSS rule is being completed.

For more information on the rule making project, go to www.doh.wa.gov/ehp/ts/WW/Loss/loss-rdc.htm. ■

WESTSIDE/EASTSIDE SEWAGE COORDINATORS MEETINGS

The semi-annual meetings have a new format with a CEU-qualified workshop in the morning and roundtable discussion in the afternoon. Last fall Richard Benson, the department's lead engineer for large on-site sewage systems, presented workshops on subsurface drip systems to the Westside coordinators and high strength waste to the Eastside coordinators. The spring meetings will include workshops on flood plain issues. Ideas for future meetings are always welcome.

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UPDATE ON TECHNICAL ADVISORY COMMITTEE

At its October meeting the TAC recommended that the department drop the Recommended Standards and Guidance (RS&G) for the Glendon Biofilter. The department rescinded the RS&G on December 31, 2009. The manufacturer is in the process of updating design and installation manuals which will be reviewed and approved by the department.

The TAC also helped prioritize updates to the RS&Gs. The top ranked RS&Gs to be reviewed and updated are Subsurface Drip Systems, Sand Lined Trenches, and Intermittent Sand Filters. Work on the documents has started and will be discussed at the committee's next meeting.

The TAC's spring meeting is scheduled for March 29, 2010 at the PUD #1 in Ellensburg. Agendas and other meeting material can be tracked at www.doh.wa.gov/ehp/ts/WW/WW-TAC.htm. Please check back for updates to the RS&Gs and other work of the TAC.

NEWS FROM THE LHJ FRONT

Thurston County: Henderson Inlet Shellfish Upgrade

The department recently upgraded 240 commercial shellfish acres in Henderson Inlet in Thurston County from Conditionally Approved to Approved. This means the upgraded area no longer has to be closed during rain events and shellfish can be harvested year round.

Henderson Inlet has been the target of diligent pollution control work for nearly three decades. In recent years the work has been supported by a shellfish protection district and guided by a citizen advisory committee.

A significant element of the shellfish protection district plan is Thurston County's on-site sewage operation and maintenance program that the county adopted in 2005 and put into effect in 2007. The comprehensive program ensures regular inspections of approximately 6,400 on-site sewage systems located on 6,000 properties in the watershed protection program area. The program also includes financial assistance for low income residents and a rebate program for installing septic tank access risers. Since the program started more than 1,600 homeowners have attended one of the 114 training workshops and nearly 1,000 septic tank risers have been installed.

For more information on the Henderson Inlet on-site sewage O&M program and the shellfish protection district, go to www.co.thurston.wa.us/health/ehrp/henderson.html and www.co.thurston.wa.us/shellfish/.



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Clark County: Salmon Creek Cleanup

As part of an EPA-approved cleanup plan, Clark County Public Health teamed up with Clark County Clean Water Program, Clark Public Utilities, and Clark Conservation District to clean up Salmon Creek. The creek is located north of Vancouver. The Department of Ecology released a study in 1995 showing the creek was polluted, and EPA approved the creek cleanup plan in 2001.

Clark County Public Health's contributions included the following:

- mailed educational materials to over 7,000 homeowners and worked with homeowners to replace 36 failing on-site sewage systems;
- conducted 450 surveys of undocumented / permitted on-site sewage systems;
- strengthened countywide regulations for on-site sewage operation and maintenance; and
- secured a Community Development Block Grant to provide zero-percent loans to low-income homeowners for on-site sewage repairs.

The results of the stream sampling, completed in 2009, are encouraging. Some of the water quality goals have been met, and others may not be achievable due to naturally occurring conditions. Bacterial standards have not yet been met at all sampling stations, but concentrations have decreased at all sites since 1995.

For more information, go to www.ecy.wa.gov/programs/wq/tmdl/SalmonCr/SalmonCr.html and <http://www.ecy.wa.gov/pubs/0910087.pdf>.



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DOH WASTEWATER LISTSERVS

Get the latest wastewater updates via email by joining the department’s listservs. You must join each list individually, and you can unsubscribe at any time.



Wastewater – General information such as updates on RS&Gs, proprietary product lists, TAC agendas, new WWMS newsletters, and other general topics.

Wastewater-Tanks – Sewage tank rule implementation updates.

Wastewater-LOSS – LOSS rule development updates.

Wastewater-Greywater – Greywater rule development updates. ■

WWMS CONTACT INFORMATION

The main phone number for our Tumwater location has changed to 360-236-3347.

Below is a list of managers and program leads. For a complete staff roster, visit www.doh.wa.gov/ehp/ts/ww/ww-staff.htm or call the main office number 360-236-3347 (Tumwater) or 509-329-2143 (Spokane).

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- Local Health Support
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Program Leads

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Craig Riley..... 509-329-2146
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Rule Revisions

- LOSS Rule
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- Greywater Reuse Rule
Lilia Lopez..... 360-236-3071

Website

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