2018 O&M Workshop

On-Site Septic System Program
February 2018
Field Effectiveness of Ultraviolet Disinfection Units in On-site Wastewater Treatment

Jeremy Simmons
February 8, 2018
2018 On-Site Operations and Maintenance Workshop
3629 S. D St. Tacoma, WA
Project Team

• Washington State Department of Health
  ▪ Randal Freeby, John Eliasson, Leslie Turner, Jeremy Simmons

• Tacoma-Pierce Public Health Department
  ▪ Gary Porter

• Thurston County Public Health and Social Services
  ▪ Steve Petersen, Erik Iverson

• University of Washington
  ▪ Meagan Jackson
Outline

• UV Disinfection Units
• Field Work and Insights
• Study Results
• Going Forward
Ultraviolet Disinfection for Wastewater Treatment

- Damages DNA and RNA
  - Inactivates microorganisms in wastewater
- UV dose = contact time x UV intensity (x UV transmittance)
  - Depends on hydraulic load, organic load, pretreatment, age of bulb, etc.

UV Disinfection Units in WA

- Over 6,000 units, 90% in Puget Sound region
- Tested according to bacteriological reduction protocol with NSF/ANSI-Standard 40
- Maintenance plan is required:
  - Thurston: semiannual inspections, quarterly sampling
  - Pierce: annual inspections
Motivation for Study

• Uncertainty about levels of treatment achieved in the field
• Field reports from LHJs to DOH of electrical failures, bulb failures, occasional fires
• UVD units require more maintenance than most other on-site treatment systems
Study Design

• Invited all owners of UVD units in Pierce and Thurston Counties to participate.
• 32 OSSs in Thurston County
  ▪ 22 effluent samples
• 65 OSSs in Pierce County
• Field work: June-August, 2017
• Makes: Salcor 3G, The Disinfector, Norweco
Data Collection for Study

Onsite Observations
- Control panel
- Power supply to UVD unit
- UVD housing unit
- UV bulb and protective sleeve

Laboratory Analysis
- Fecal Coliform CFU/100 mL
- Standard Method 9222 D

Field Measurements
- Temperature (°C)
- pH (standard units)
- Dissolved oxygen (DO) (mg/L)
- Conductivity (µS/cm²)
- Turbidity (NTU)
- UV transmittance (UVT) (%)
Results
Problems Due to Lack of Access

• No Access to UV Disinfection Units in 6 of 97 observed systems (6%)
  ▪ No access point on record drawing

• No Access to UV bulb and sleeve in 8 of 97 systems (9%)

• Limited access in 16 of 87 units (18%) because of short cable
Problems Due to Lack of Access, cont.

• No Access to Freefall Effluent Sampling Point
  - Not required in Pierce County
  - 10 of 32 in Thurston County (32%) did not have access
Malfunctioning UVD Units

- 40% of UVD units in Pierce had a bulb that wasn’t burning. All bulbs were burning in Thurston.
- 16% of UVD units in Pierce had a high biofilm deposit that likely inhibits disinfection. No high deposits observed in Thurston.
# Other Issues

## Prevalence of Installation and Key Component Functioning Issues in Pierce and Thurston County

<table>
<thead>
<tr>
<th>Installation Issues</th>
<th>% OSSs in Pierce Co. (n=65)*</th>
<th>% OSSs in Thurston Co. (n=32)*</th>
<th>Total % (n=97)*</th>
<th>90% CI for Total %</th>
</tr>
</thead>
<tbody>
<tr>
<td>UVD unit on non-dedicated circuit</td>
<td>84.4</td>
<td>75</td>
<td>81.2</td>
<td>80 ± 7</td>
</tr>
<tr>
<td>Inadequate cable slack</td>
<td>28.6</td>
<td>0</td>
<td>18.4</td>
<td>19 ± 7</td>
</tr>
<tr>
<td>Power switch inaccessible</td>
<td>14.1</td>
<td>6.2</td>
<td>11.5</td>
<td>13 ± 6</td>
</tr>
<tr>
<td>UVD housing unit unprotected from flooding or debris</td>
<td>13.8</td>
<td>6.5</td>
<td>11.2</td>
<td>13 ± 6</td>
</tr>
<tr>
<td>UVD unit not protected from power disconnection</td>
<td>8.3</td>
<td>3.1</td>
<td>6.5</td>
<td>8 ± 5</td>
</tr>
<tr>
<td>Cord length between ballast and UV bulb &gt; 50 feet</td>
<td>1.8</td>
<td>0</td>
<td>1.1</td>
<td>3 ± 3</td>
</tr>
<tr>
<td>Control panel not watertight</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>2 ± 2</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Issues with Current Functioning of Key Components</th>
<th>% OSSs in Pierce Co. (n=65)*</th>
<th>% OSSs in Thurston Co. (n=32)*</th>
<th>Total % (n=97)*</th>
<th>90% CI for Total %</th>
</tr>
</thead>
<tbody>
<tr>
<td>LED indicator incorrect (n=33)</td>
<td>37.5</td>
<td>11.1</td>
<td>30.3</td>
<td>32 ± 14</td>
</tr>
<tr>
<td>Damage or leakage in protective sleeve</td>
<td>28</td>
<td>16.7</td>
<td>23.8</td>
<td>25 ± 8</td>
</tr>
<tr>
<td>Electrical corrosion or damage</td>
<td>21.1</td>
<td>3.2</td>
<td>14.8</td>
<td>16 ± 7</td>
</tr>
<tr>
<td>Leaks/cracks in UVD housing unit</td>
<td>5.2</td>
<td>6.5</td>
<td>5.6</td>
<td>7 ± 5</td>
</tr>
<tr>
<td>Protective sleeve incomplete</td>
<td>4</td>
<td>0</td>
<td>2.5</td>
<td>4 ± 4</td>
</tr>
<tr>
<td>Splice box lid or cord grips loose</td>
<td>1.7</td>
<td>0</td>
<td>1.1</td>
<td>3 ± 3</td>
</tr>
</tbody>
</table>

*Reported statistics are percentages of total systems where the indicator of interest was observed.
# Maintenance Results

## Median Time, in Months, since Most Recent Maintenance Performed on UVD Units

<table>
<thead>
<tr>
<th></th>
<th>Pierce Co. (n=65)</th>
<th>Thurston Co. (n=32)</th>
<th>All (n=97)</th>
</tr>
</thead>
<tbody>
<tr>
<td>OSS Inspection</td>
<td>6.9</td>
<td>2.9</td>
<td>5.4</td>
</tr>
<tr>
<td>% Out of Compliance</td>
<td>9.2</td>
<td>22.6</td>
<td>13.5</td>
</tr>
<tr>
<td>UV Bulb Replacement</td>
<td>34.6</td>
<td>20.1</td>
<td>29.6</td>
</tr>
<tr>
<td>% Longer than 24 Months</td>
<td>58.1</td>
<td>35.0</td>
<td>50.8</td>
</tr>
<tr>
<td>UV Protective Sleeve Cleaning</td>
<td>13.5</td>
<td>3.1</td>
<td>13.5</td>
</tr>
<tr>
<td>% Longer than 12 Months</td>
<td>57.8</td>
<td>13.3</td>
<td>43.6</td>
</tr>
</tbody>
</table>

1 unit missing data for OSS inspection, 34 units missing data for UV bulb replacement, and 3 units missing data for sleeve cleaning.

In many cases, maintenance did not meet manufacturer recommendations.
Possible Contributions to Poor Functioning

- Pretreatment and ATU performance can impact effluent fecal coliform concentrations.
  - Correlation between conductivity and FC (cor=0.51)
  - Correlation between turbidity and FC (cor=0.37)

<table>
<thead>
<tr>
<th>Descriptive Statistics of Wastewater Quality Parameters for Sampled OSSs</th>
</tr>
</thead>
<tbody>
<tr>
<td>FC &lt; 200 CFU/100 mL (n=20)</td>
</tr>
<tr>
<td>---------------------------</td>
</tr>
<tr>
<td>Temperature (°C)</td>
</tr>
<tr>
<td>pH</td>
</tr>
<tr>
<td>Conductivity (µS/cm)</td>
</tr>
<tr>
<td>Dissolved Oxygen (mg/L)</td>
</tr>
<tr>
<td>Turbidity (NTU)</td>
</tr>
<tr>
<td>UV Transmittance (%)</td>
</tr>
<tr>
<td>Flow rate (gpm)</td>
</tr>
</tbody>
</table>

Descriptive statistics include mean ± SD.
Effluent FC Quality

• UVD units in Thurston Co. have effluent with low fecal coliform concentrations.
  ▪ Low flow rate
  ▪ Properly functioning

Thurston County has set Action Levels for each Treatment Standard: two or more of the past four sample results > treatment standard

Descriptive Statistics for FC Measurements in 22 UVD Units in Thurston County

<table>
<thead>
<tr>
<th></th>
<th>Description</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>GM ± GSD</td>
<td>Mean ± SD</td>
<td>18.1 ± 3.6 CFU/ 100 mL</td>
</tr>
<tr>
<td>Mean ± SD</td>
<td></td>
<td>61.1 ± 149.1 CFU/ 100 mL</td>
</tr>
<tr>
<td>Minimum</td>
<td></td>
<td>&lt; 10 CFU/ 100 mL</td>
</tr>
<tr>
<td>Median</td>
<td></td>
<td>&lt; 10 CFU/ 100 mL</td>
</tr>
<tr>
<td>Maximum</td>
<td></td>
<td>690 CFU/ 100 mL</td>
</tr>
<tr>
<td>Below detection limit</td>
<td></td>
<td>16 (73%)</td>
</tr>
<tr>
<td>Below Action Level A</td>
<td></td>
<td>21 (96%)</td>
</tr>
</tbody>
</table>
  (400 CFU/ 100 mL)       |             | |
| Below Action Level 2     |             | 22 (100%) |
  (1,600 CFU/ 100 mL)     |             | |
Predicted Effluent FC Quality

- Observed: 4% UVD unit effluent samples >400 CFU/100 mL
- Predicted 95% confidence interval: 0-14% UVD unit effluent samples >400 CFU/100 mL
Conclusions

• When ATU and UVD unit are properly functioning and the OSS has low flow rate, effluent fecal coliform is low.
• 25% of observed units did not have a functioning bulb.
• Various other issues were present.
• Differences in county enforcement matter.
Going Forward

• WADOH will take results into consideration during WAC review.
  ▪ Local management plan requirements (e.g. effluent sampling, restrictions on UVD unit installation)
  ▪ Clarification of minimum service requirements
• Reliability of UVD unit performance will require participation of many stakeholders.
Thank you!

For further questions, contact:
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360-236-3346
Jeremy.simmons@doh.wa.gov
Loweflow OSCAR Install and Maintenance

Dave Lowe
February 2018
RSS Process Tips and Resources

2018 O&M Workshop
Kristen Farley
February 2018
Overview

• RSS volume.
• Lifecycle of an RSS.
• Receipt and processing.
• Field review.
• Time frames.
• Holds.
• Resources.
### Report of System Status Applications 2013-2017

**Line Graph:**
- Y-axis: Count of Applications
- X-axis: Months from January 2013 to December 2017
- Trendline indicating an overall increase in applications over the years.

<table>
<thead>
<tr>
<th>Year</th>
<th>Jan</th>
<th>Feb</th>
<th>Mar</th>
<th>Apr</th>
<th>May</th>
<th>Jun</th>
<th>Jul</th>
<th>Aug</th>
<th>Sep</th>
<th>Oct</th>
<th>Nov</th>
<th>Dec</th>
</tr>
</thead>
<tbody>
<tr>
<td>2013</td>
<td>251</td>
<td>256</td>
<td>314</td>
<td>385</td>
<td>353</td>
<td>353</td>
<td>446</td>
<td>375</td>
<td>375</td>
<td>308</td>
<td>315</td>
<td>271</td>
</tr>
<tr>
<td>2014</td>
<td>347</td>
<td>263</td>
<td>306</td>
<td>370</td>
<td>388</td>
<td>401</td>
<td>379</td>
<td>388</td>
<td>366</td>
<td>329</td>
<td>247</td>
<td>262</td>
</tr>
<tr>
<td>2015</td>
<td>264</td>
<td>324</td>
<td>383</td>
<td>528</td>
<td>408</td>
<td>518</td>
<td>471</td>
<td>457</td>
<td>402</td>
<td>352</td>
<td>340</td>
<td>298</td>
</tr>
<tr>
<td>2016</td>
<td>264</td>
<td>338</td>
<td>471</td>
<td>450</td>
<td>537</td>
<td>610</td>
<td>549</td>
<td>595</td>
<td>480</td>
<td>436</td>
<td>391</td>
<td>287</td>
</tr>
<tr>
<td>2017</td>
<td>306</td>
<td>346</td>
<td>467</td>
<td>470</td>
<td>595</td>
<td>646</td>
<td>567</td>
<td>548</td>
<td>549</td>
<td>544</td>
<td>390</td>
<td>279</td>
</tr>
</tbody>
</table>

**Total:** 3,917

Tacoma Pierce County Health Department

**Healthy People in Healthy Communities**
Lifecycle of an RSS

Application Received → Processing → Out for inspection → Issuance/Hold → Digital Scanning
Receipt and Processing

Data pulled from website around 8:30 a.m.
  • When the 10 days starts.

Administrative staff prepares applications.
  • Site information verified.
  • Missing information addressed.
  • As-built printed.
  • Current RME report printed.
  • Barcodes added.
  • Open/expired HD applications attached.

Application scanned to field review.
Field Review
What Affects Time Frames

On-site Sewage and Well Permitting Program

Response times

Listed below are the various applications we receive and our goals to meet the response times.

<table>
<thead>
<tr>
<th>Applications</th>
<th>Business Days</th>
</tr>
</thead>
<tbody>
<tr>
<td>Report of System Status</td>
<td>10</td>
</tr>
<tr>
<td>Building site and remodel (with office review)</td>
<td>20</td>
</tr>
<tr>
<td>Building site and remodel (with field review)</td>
<td>30 calendar days</td>
</tr>
<tr>
<td>Repair (with field review)</td>
<td>5</td>
</tr>
<tr>
<td>Resubmittal reviews</td>
<td>15</td>
</tr>
<tr>
<td>Record drawing/as-built (with office review)</td>
<td>10</td>
</tr>
<tr>
<td>Final Installation Inspection (with field review)</td>
<td>3</td>
</tr>
<tr>
<td>Platting (preliminary and final plat)</td>
<td>30</td>
</tr>
</tbody>
</table>
RSS Map

RSS mapping allows an overview of volume and timeframe.
RSS - Average Number of Days* to First Inspection

<table>
<thead>
<tr>
<th>YEAR</th>
<th>NUMBER OF DAYS</th>
</tr>
</thead>
<tbody>
<tr>
<td>2017</td>
<td>5</td>
</tr>
<tr>
<td>2016</td>
<td>6</td>
</tr>
<tr>
<td>2015</td>
<td>5</td>
</tr>
<tr>
<td>2014</td>
<td>5</td>
</tr>
<tr>
<td>2013</td>
<td>4</td>
</tr>
<tr>
<td>2012</td>
<td>4</td>
</tr>
</tbody>
</table>

*Weekend days not included.
Holds

Common holds

• Site doesn’t match As-built.
• Previous deficient RME.
• Undocumented site conditions.
• Unsecured lids.

Prevent holds

• Prepare the customer—locked gates or dogs.
• Have an As-built during inspection.
• Look at previous inspection reports.
• Double check inspection report.
• Double check the lids!
• Guidance document.
RME Unlocks

Unlock Reports

Please select a report, or select the Report Type and enter the Report ID to unlock.

Report Type:  
ReportID:  
Comments:  

Unlock Report  Decline Unlock  

Export History

The requestor will be notified of unlock request result. Comments will be included in the notification email and will be saved for historical look-up. Declining the request will email the requestor without comments.

<table>
<thead>
<tr>
<th>Select</th>
<th>Report Type</th>
<th>Report ID</th>
<th>Request reason</th>
<th>View</th>
<th>Decline</th>
</tr>
</thead>
<tbody>
<tr>
<td>✔️</td>
<td>CSS Inspection Report 639690</td>
<td>pumping gallons are wrong no pumping was done at the time of inspection</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>✔️</td>
<td>CSS Inspection Report 553144</td>
<td>Inspection was done 1/30 not 2/1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>✔️</td>
<td>CSS Inspection Report 645310</td>
<td>Please unlock so I can correct date - this was 2013 - sorry</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>✔️</td>
<td>CSS Inspection Report 051496</td>
<td>NEED TO CHANGE REPORT TYPE TO SALE OF HOME</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
What Resources are Available?

• Phone/email list.
• Area map.
• Clarification of requirements.
• RME User Guide.
• 90 Day Conditional RSS.

<table>
<thead>
<tr>
<th>Site Conditions</th>
<th>OSS Configuration</th>
<th>RSS Requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td>Two structures</td>
<td>Two separate OSS (two drainfields)</td>
<td>Two evaluations, two reporting fees, two RSS applications</td>
</tr>
<tr>
<td>Two structures</td>
<td>Separate tanks, one shared drainfield</td>
<td>One evaluation and reporting fee, one RSS application</td>
</tr>
<tr>
<td>Two structures</td>
<td>Shared tanks and drainfield</td>
<td>One evaluation and reporting fee, one RSS application</td>
</tr>
<tr>
<td>One Single-Family Residence (SFR)</td>
<td>Two OSS serving structure</td>
<td>One evaluation per system, one reporting fee and one RSS application</td>
</tr>
<tr>
<td>One Multi-Family (Duplex, Triplex, 4plex, etc.) Not Condo</td>
<td>Two or more OSS serving a structure</td>
<td>One evaluation per system, one reporting fee per system and one RSS application per system</td>
</tr>
<tr>
<td>Community System (SFR, Condos, or Commercial)</td>
<td>Owner maintains individual tank(s) and connects to community system (shared components)</td>
<td>One evaluation of owner maintained tank(s) with pumping, one reporting fee, one RSS application per unit; community/shared components must be up-to-date or inspection is required</td>
</tr>
<tr>
<td>Community System (M/F, Condos or Commercial)</td>
<td>Management Entity maintains all OSS components or all components are shared</td>
<td>One evaluation and reporting fee per OSS, one RSS application per unit; tank pumping not required but community/shared components must be up-to-date or inspection is required</td>
</tr>
<tr>
<td>Mobile Home Park</td>
<td>Multiple OSS</td>
<td>One evaluation and reporting fee per OSS, one RSS application per mobile home park. If units have been converted to condos, then an RSS is required for the unit that is selling.</td>
</tr>
</tbody>
</table>
90 Day Conditional Issuance RSS

- RSS on hold.
- Document all outstanding deficiencies with estimates for all known repairs.
- Agreement signed by both the buyer and seller, then reviewed by HD.
- Conditional RSS issued.
- When repairs are completed, the RSS is issued non-conditionally.
- Failure to complete repairs in 90 days will result in recordings against the title.
Status Inquiries

• Check anytime online at https://eco.tpchd.org/#/pa2/search

• Before inspector review call the general RSS line (253) 798-7392.

• After RSS is placed on hold, contact the inspector directly.
  • Bob Suggs (253) 798-2868
  • Greg Alton (253) 798-4821
  • Kristen Farley (253) 798-6023
  • Jacob Smith (253) 798-3792
  • Maggie Morehouse (253) 798-3819
  • Shume Merid (253) 798-2871
  • Mike Free (253) 798-6058
  • Erica Welborn (253) 798-3493
Questions?

We are a LIVE apiary; hundreds of thousands of bees are present!
Some are very grouchy and will sting unprovoked!
DO NOT ENTER if you are allergic or afraid of bees!!!
New Health Department Website & Envision Connect Online: Checking Your Application Status

2018 O&M Workshop
Kaitlynn Forsberg
February 2018
Our New Website

www.tpchd.org

• Healthy People
  – Asthma, communicable disease, family health, etc.

• Healthy Places
  – Food safety, pools, schools, waste disposal, surface water.

• Healthy Homes
  – Dirt alert, drinking water, septic systems
    o Septic systems.
    o Operation and maintenance of your system.
    o 3-D models.

• I want to…
  – Search feature.
Envision Connect Online (ECO)

Report complaints
  • Onsite sewage, food safety, foodborne illness and solid waste complaints.

View inspection reports
  • Current food establishment inspection reports.

Pay an invoice
  • Food, water, and solid waste operating permits.

Research an application’s status
  • Use service request number, house and street, or parcel number.

Apply online
  • New septic design, individual well, remodel, repair, tank replacement, plat, BLA, and more!
Virtual Demonstration

- www.tpchd.org
- eco.tpchd.org
2017 Workshop Topics – Updates and Best Practices

2018 O&M Workshop
Robert Suggs
February 2018
Discussion Topics

• Drainfield locates.
• Partial repairs or tank replacement.
• Fee change clarification.
• ‘ON’ records.
• Drainfield investigation.
• Timer settings.
Camera Locates

Health Department policy on waterfront lots.

Locates

• Why are you requested to do the locate?
• Specify tools and techniques.
Camera Locates

Document in Online RME

- Length of drainfield.
- Type of pipe.
- Approximate depth.
- Condition.
- Step downs, D box.
- Inspection ports.
- Paint on ground, make measurements.
Camera Locates

Document via a basic site plan

• Meet requirements of Chapter 2.
• Date of locate.
• Length of drainfield.
• Type of pipe.
• Approximate depth.
• Step downs, D box.
• Inspection ports installed.
Tank Replacements and Partial Repairs

Tank only replacements
  • Can be done by installer only.
  • Like for like = installer okay.

Significant alterations = designer required.

Site plan requirements.
  • Basic; in Chapter 2.

Partial repairs, case by case basis.
  • May allow for more than 10’ of drainfield replacement.
  • Move tanks like for like
  • Replacing a sand filter with an Aerobic Treatment Unit (ATU)
  • Basic site plan requirements in Chapter 2.
New Online RME Fees

- Pumping or inspection same fee = $40.
- Copy of letter in folder.
When to Separate “ON” Records

• One record per septic system.
• Multiple zones count as one drainfield.
• No record of property in Online RME.
  – Email EHsepticsystems@TPCHD.org.
  – Alisha Roston at (253) 798-4727.
Drainfield Investigations

Digging to expose laterals

• Why?
• What did you find?
• Were inspection ports installed?
Drainfield Investigations

Stress testing

• No standard.
• Specify your procedure.
  – Gallons used?
  – What time period?
Timer Settings

Drawdown unchanged
  • Always have record drawing onsite.
  • Set to record drawing.

Drawdown *not* specified in Record drawing
  • Check your math.
  • Review past O&M inspection reports

Timer setting issues = Common reason for RSS on hold
Timer Settings

Drawdown has changed from record drawing

• Investigate why.
• Set to match new drawdown.
• Enter old and new settings in RME.
Timer Settings

Making changes to drainfield

- Currently an EMMR.
- Set to match new drawdown or desired GPD.
- Enter old and new settings in Online RME.
- Explain in comments of Online RME.
Questions?

Robert Suggs  
rsuggs@tpchd.org  
(253) 798-2868

Key Peninsula Office  
Key Center Coral  
9013 Key Peninsula Hwy N. Suite D  
Lakebay, WA 98349  

(253) 432-4948  

Tuesdays and Thursdays from 9 a.m. - 12 p.m.  
Other staff available from 12 - 2 p.m.  

Tacoma-Pierce County Health Department  
Healthy People in Healthy Communities
2018 Changes

• Combined individual forms.
• Late fees.
  – $125 initial application.
  – $30 each additional application.

• Contact information.
  – E-Mail: OSCP@tpchd.org
  – O&M primary: Alisha Roston, aroston@tpchd.org
  – Installation/designer primary, Sara Bird, sbird@tpchd.org
Initial Certifications

We consider certifications initial if:

• First certification year.
• Additional firm (installation/O&M).
• Tech to specialist.
• Inactive for more than 12 months.
O&M Initial Certification

Firm Certification
- $620 Fee – Pumpers or $170 fee–No trucks.
- Registered and current with OnlineRME.
- L&I contractor license.
- Proof of liability insurance—$1,000,000 or more per occurrence.
- Trucks: inspection completed within past 90 days.

Individual Certification - Technician
- $240 fee.
- 8 CEUs.
- Tech exam.

Individual Certification - Specialist
- $240 fee.
- 24 CEUs.
- Written description of experience.
- Specialist exam.
- Proprietary system certifications (if applicable).
O&M Firm Application

2018 Operation & Maintenance Firm (No Trucks) Application

Applications submitted or post marked after Feb 15, 2018 are subject to a $125 late fee. This includes incomplete applications.

Name of Firm: Bella Rose
Firm Address: 9 3/4 Call Way
City: Hogsmeade
State: WA
Zip: 90210
Phone: 867-5309
Fax: 867-5309
Firm Email: owfry@bellarose.com
Mailing Address: 9 3/4 Call Way
City: Hogsmeade
State: WA
Zip: 90210

Owner(s)/Manager(s): Francesca Raven

Certified Individuals (Each individual requires a separate application for their specialty)

Name: Francesca Raven
Name: Maleficent LeStrange
Name: Name
Name: Name

(Assert additional pages if necessary)

Categories (Check all that apply to your business)
- O&M Specialist on Staff
- Complete RSS Process

Additional Requirements
- Include fee(s):
  - Registered and current on OnlineRME,
    - Account ID 9999
  - Attach a copy of L&I Contractor License.
  - Proof of Liability Insurance for $1,000,000 or more per occurrence.

As an O&M Firm in Pierce County, you must comply with all requirements and responsibilities of this certification in accordance with the Tacoma-Pierce County Health Department On-Site Sewage Code, Chapter 2. This certification may be suspended or revoked, or you may face disciplinary action for violating on-site regulations.

Send this completed application and fee to:
Tacoma-Pierce County Health Department
EH Certified Professionals
3629 South D St., MS 1035
Tacoma, WA 98418-0613

Information submitted is subject to Public Records Act, Chapter 42.56. RW

Environmental Health

3629 South B Street, MS 1035, Tacoma WA 98418

Page 5 of 7

(253) 794-6270
O&M Specialist Application

Current status:
- O&M Technician
- O&M Specialist
- Installer

A separate form is required for each certification. Applications submitted or postmarked after Feb. 15, 2018 are subject to a late fee. This includes incomplete applications.

First Name: Francesca
Last Name: Raven
Firm Name: Bella Rose
Firm Mailing Address: 9 3/4 Cali Way
City: Hogsmeade
State: WA
Zip: 90210
Individual Phone: 867-9305
Individual Email Address: raven_francesca@bellarose.com

Attach a copy of your Continuing Education Unit (CEU) certificate and exams showing successful completion within the past 12 months (March 16, 2017 through March 14, 2018.)

Continuing Education - *Only Initial certification requires CEUs and completion of exam.

**Technician**
- Initial certification requires 8 hours of CEUs, and tech exam.
- Renewal certification requires 4 hours of CEUs.

**Specialist**
- Initial certification requires 24 hours of CEUs, a written description of experience, and specialist exam.
- Renewal certification requires 8 hours of CEUs.

**Installer**
- Initial certification requires 8 hours CEUs, a documented minimum of one year experience working under supervision of an installer, and installer exam.
- Renewal certification requires 8 hours CEUs.

As an Installer, O&M Specialist, or O&M Technician in Pierce County, you must comply with all requirements and responsibilities of this certification in accordance with Tacoma-Pierce County Health Department On-Site Sewage Code, Chapter 2. This certification may be suspended or revoked, or you may face disciplinary action for violating on-site regulations.

Information submitted is subject to Public Records Act. Chapter 42.56 RCW.
O&M Technician Application

Current status:  
- [ ] O&M Technician  
- [ ] O&M Specialist  
- [ ] Installer

A separate form is required for each certification. Applications submitted or postmarked after Feb. 15, 2018 are subject to a late fee. This includes incomplete applications.

First Name: Maleficent  
Last Name: LeStrange  
Firm Name: Bella Rose

Firm Mailing Address: 9 3/4 Cali Way  
City: Hogsmeade  
State: SO  
Zip: 90210

Individual Phone: 867-9305  
Individual Email Address: msfevil@bellarose.com

Attach a copy of your Continuing Education Unit (CEU) certificate and exams showing successful completion within the past 12 months (March 16, 2017 through March 14, 2018.)

Continuing Education - *Only initial certification requires CEUs and completion of exam.

- [ ] Technician  
  - Initial certification requires 8 hours of CEUs; and tech exam.  
  - Renewal certification requires 4 hours of CEUs.

- [ ] Specialist  
  - Initial certification requires 24 hours of CEUs, a written description of experience; and specialist exam.  
  - Renewal certification requires 8 hours of CEUs.

- [ ] Installer  
  - Initial certification requires 8 hours CEUs, a documented minimum of one year experience working under supervision of an installer; and installer exam.  
  - Renewal certification requires 6 hours of CEUs.

As an Installer, O&M Specialist, or O&M Technician In Pierce County, you must comply with all requirements and responsibilities of this certification in accordance with Tacoma-Pierce County Health Department On-Site Sewage Code, Chapter 2. This certification may be suspended or revoked, if you may face disciplinary action for violating on-site regulations.
Truck Inspections

Health Department
  • Renée Avelino – (253) 798-2831.
  • Bob Suggs – (253) 798-2868.

WOSSA
  • Completed at WOSSA or at your site.
  • (253) 770-6594.

King County

We won’t charge $90 fee if performed by WOSSA or King County.
Installation Initial Certification

Installation Firm

- $400 fee.
- L&I contractor license.
- Proof of liability insurance—$1,000,000 per occurrence.
- Consult with Health Department O&M lead.
- Registered on OnlineRME (if applicable).

Individual Installer

- $240 fee.
- 8 CEUs.
- One year documented experience under supervision of certified installer.
- Installer exam.
2018 Installation Firm Application

Applications submitted or post marked after Feb. 15, 2018 are subject to a $125 late fee. This includes incomplete applications.

Name of Firm                  Bella Rose
Firm Address                  9 3/4 Cali Way
Hogsmeade                     SO
City                          90210
State                        Zip
Phone                        867-9305
Fax                           867-9305
Firm Email                   owlery@bellarose.com
Mailing Address              9 3/4 Cali Way
City                          SO
State                        Zip
Owner(s)/Manager(s)           Francesca Raven

Certified Individuals (Each individual requires a separate application for their specialty)

Name                       Name
Name                       Name
Name                       

Additional Requirements

- Include fee.
- Registered and current on OnlineRME (if applicable)
- Attach copy of U&I Contractor License
- Proof of Liability Insurance for $1,000,000, or more per occurrence.
- If new to Pierce County, we require a consult with a Tacoma-Pierce County Health Department O&M Lead before you can submit your application. Contact an O&M Lead at (253) 798-6470.

Note: As a Certified Installation Firm In Pierce County, you must comply with all requirements and responsibilities of this certification in accordance with the Tacoma-Pierce County Health Department On-Site Sewage Code, Chapter 2. This certification may be suspended or revoked, or you may face disciplinary action for violating the applicable regulations.

Send this completed application and fee to:
Tacoma-Pierce County Health Department
EH Certified Professionals
3629 South D St. MS 1035
Tacoma, WA 98418-8813

Information submitted is subject to Public Records Act, Chapter 42.56 RCW.
Installer Application

Current status:
- O&M Technician
- O&M Specialist
- Installer

A separate form is required for each certification. Applications submitted or post marked after Feb. 15, 2018 are subject to a late fee. This includes incomplete applications.

First Name: Jo
Last Name: Potter
Firm Name: Bella Rose
Firm Mailing Address: 3/4 Cali Way
City: Hogsmeade
State: CO
Zip: 90210
Individual Phone: 8687-9305
Individual Email Address: seeker7@bellaRose.com

Attach a copy of your Continuing Education Unit (CEU) certificate and exams showing successful completion within the past 12 months (March 16, 2017 through March 14, 2018).

Continuing Education - *Only initial certification requires CEUs and completion of exams.

Technician
- Initial certification requires 8 hours of CEUs, and tech exam.
- Renewal certification requires 4 hours of CEUs.

Specialist
- Initial certification requires 24 hours of CEUs, a written description of experience; and specialist exam.
- Renewal certification requires 8 hours of CEUs.

Installer
- Initial certification requires 8 hours CEUs, a documented minimum of one year experience working under supervision of an installer, and installer exam.
- Renewal certification requires 8 hours of CEUs.

As an Installer, O&M Specialist, or O&M Technician in Pierce County, you must comply with all requirements and responsibilities of this certification in accordance with Tacoma-Pierce County Health Department: On-Site Sewage Code, Chapter 2. This certification may be suspended or revoked, or you may face disciplinary action for violating on-site regulations.
O&M Certification Renewal

Firm Certification
• Same as initial certification.

Individual Certification – Technician
• $240 fee.
• 4 CEUs.

Individual Certification – Specialist
• $240 fee.
• 8 CEUs.
Installation Certification Renewal

Installation Firm

• $400 fee.
• L&I contractor license.
• Proof of liability insurance—$1,000,000 per occurrence.
• Registered on OnlineRME (if applicable).

Individual Installer

• $240 fee.
• 8 CEUs.
Designer & Professional Engineer Application

$50 fee—to appear on Health Department list (optional).
Copy of Washington State Designer or Professional Engineer License.
Legislative Updates and WOSSA Truck Inspections

John Thomas
WOSSA
February 2018
Financing Clean Water in Pierce County

Tacoma-Pierce County Health Department
February 8th & 10th, 2018
Since 1994, Craft3 has invested over $470 million in entrepreneurs, nonprofits and individuals.

• Lending throughout Oregon and Washington.
• Offices in Astoria, Bend, Klamath Falls, Portland, Port Angeles, Seattle, Spokane, Walla Walla.
• Capital from over 120 public/private grants and loans, including from banks, foundations, governments, and individuals.
Serving many sectors and industries.

- Septic system repair/replacement
- Home energy upgrades
- Urban small business, including retail and service industry
- Community facilities
- Established nonprofits
- Clean energy, clean tech, and energy-efficiency
- Agriculture and fisheries
- Food systems and value-added processing
- Manufacturing
- Land and water conservation
Our Clean Water Loan helps repair or replace failing septic systems.

- Full cost of designing, permitting, installing, maintaining a septic system.
- Competitive rates, no up-front cost.
- Highly inclusive for range of property types and incomes.
- Deferred payment options may be available for lower incomes.
- Sewer connection allowed when approved by the local health jurisdiction.
## Clean Water Loan rates and terms.

<table>
<thead>
<tr>
<th>Annual Household Income</th>
<th>Interest Rate</th>
<th>Loan Terms up to 15 years**</th>
<th>Example Project And Loan</th>
</tr>
</thead>
<tbody>
<tr>
<td>Up to $35,000, owner-occupied</td>
<td>1.99% (2.04% APR)</td>
<td>Borrower may choose to have: Deferred payment*** Interest-only payments*** -or- Fully-Amortized payments.</td>
<td>Deferred Payment Option: $15,000 loan amount*, No monthly payments for 179 months, 1 balloon payment of $19,456 due on 180th month.</td>
</tr>
<tr>
<td>$35,001 - $55,000, owner-occupied</td>
<td>3.99% (4.36% APR)</td>
<td>Borrower my choose to have: Interest-only payments.*** - or- Fully-Amortized payments.</td>
<td>Interest-only Payment Option: $15,000 loan amount*, 179 monthly interest payments of $50.83, 1 balloon payment of $15,051 due on 180th month.</td>
</tr>
<tr>
<td>Greater than $55,000 - or - Non-owner-occupied, rental property or secondary home</td>
<td>4.99% (5.62% APR)</td>
<td>Fully-Amortized payments of principal and interest.</td>
<td>Fully-Amortized Repayment: $15,000 loan amount*, 180 monthly principal and interest payment of $118.58.</td>
</tr>
</tbody>
</table>

** Principal balance and interest (if applicable) due on sale, transfer, refinance or maturity. Subordination may be available with lender approval, fees may apply.  
*** If, after 15 years, homeowner has not sold, refinanced or otherwise transferred ownership of the property, is in compliance with the loan agreement, and meets relevant lending/program criteria, the 15-year loan period may be extended, at the lender’s sole discretion, for up to an additional five years.
An inclusive approach to credit.

<table>
<thead>
<tr>
<th></th>
<th>Craft3*</th>
<th>Typical Lender</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maximum Debt to Income</td>
<td>&gt;50%</td>
<td>45%</td>
</tr>
<tr>
<td>% of income for monthly fixed expenses</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Maximum Loan to Value</td>
<td>≥120%</td>
<td>75-80%, some up to 90%</td>
</tr>
<tr>
<td>(Equity) Amount owed compared to value of home</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Minimum Credit Score</td>
<td>590</td>
<td>680 or 720, some 660</td>
</tr>
<tr>
<td>Craft3 uses highest score, not lowest or average</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mortgage Payment History</td>
<td>Up to 2 lates in last 12 months</td>
<td>No lates last 24+ months</td>
</tr>
<tr>
<td>Allowable Bankruptcy History</td>
<td>discharged/dismissed 12+ years</td>
<td>5-7 years, if</td>
</tr>
</tbody>
</table>

* General Guidelines may not represent all lenders. Craft3 may issue different credit determinations on a case-by-case basis after review of each application.
Launch of Regional Loan Program.

- In 2016, Washington State Departments of Ecology and Health, Craft3, and several Western Washington counties launched the Regional Loan Program.
- Program consolidated and expanded county-level loan programs into a scalable, unified effort.
- TPCHD acted as lead agency for first 2 rounds of Ecology funding that supported regional approach.
- Current members of the Regional Loan Program include Clallam, Grays Harbor, Island, King, Kitsap, Mason, Pacific, Pierce,
What’s next for the Regional Loan Program.

- 2017-2019 Capital Budget expected to allow expansion of Regional Loan Program to Clark and Cowlitz Counties by end of 2Q 2017.
- In 2017, Clark County applied on behalf of Regional Loan Program to Ecology for expansion into Northeast Tri County Health District, servicing Ferry, Stevens, and Pend Oreille Counties. Applications have been ranked, but funding is not yet available.
# Wash. Regional Loan Program Results.

<table>
<thead>
<tr>
<th>Region</th>
<th>Loans (#)</th>
<th>Loans ($)</th>
<th>Low income (#)</th>
<th>Low Income (%)</th>
<th>Gallons wastewater treated/ year</th>
<th>Average loan amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>CLALLAM</td>
<td>13</td>
<td>$299,156</td>
<td>5</td>
<td>38%</td>
<td>1,445,400</td>
<td>$23,012</td>
</tr>
<tr>
<td>GRAYS HARBOR</td>
<td>2</td>
<td>47,553</td>
<td>2</td>
<td>100%</td>
<td>262,800</td>
<td>$23,777</td>
</tr>
<tr>
<td>ISLAND</td>
<td>25</td>
<td>$643,523</td>
<td>8</td>
<td>32%</td>
<td>2,803,200</td>
<td>$25,741</td>
</tr>
<tr>
<td>JEFFERSON</td>
<td>10</td>
<td>$251,029</td>
<td>9</td>
<td>90%</td>
<td>1,051,200</td>
<td>$25,103</td>
</tr>
<tr>
<td>KING</td>
<td>33</td>
<td>$991,234</td>
<td>16</td>
<td>49%</td>
<td>4,993,200</td>
<td>$30,037</td>
</tr>
<tr>
<td>KITSAP</td>
<td>76</td>
<td>$1,723,675</td>
<td>29</td>
<td>38%</td>
<td>9,898,800</td>
<td>$22,680</td>
</tr>
<tr>
<td>MASON</td>
<td>16</td>
<td>$378,079</td>
<td>8</td>
<td>50%</td>
<td>1,839,600</td>
<td>$23,630</td>
</tr>
<tr>
<td>PACIFIC</td>
<td>13</td>
<td>$221,739</td>
<td>8</td>
<td>62%</td>
<td>1,226,400</td>
<td>$17,057</td>
</tr>
</tbody>
</table>

Program start: 7/15/16 - 12/31/17
# Wash. Cumulative Results.

<table>
<thead>
<tr>
<th></th>
<th>Loans (#)</th>
<th>Loans ($)</th>
<th>Low income (#)</th>
<th>Low income (%)</th>
<th>Gallons wastewater treated/ year</th>
<th>Average loan amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>CLALLAM</td>
<td>44</td>
<td>$913,083</td>
<td>23</td>
<td>52%</td>
<td>5,708,400</td>
<td>$20,752</td>
</tr>
<tr>
<td>GRAYS HARBOR</td>
<td>2</td>
<td>$47,553</td>
<td>2</td>
<td>100%</td>
<td>262,800</td>
<td>$23,777</td>
</tr>
<tr>
<td>ISLAND</td>
<td>25</td>
<td>$641,471</td>
<td>8</td>
<td>32%</td>
<td>2,803,200</td>
<td>$25,659</td>
</tr>
<tr>
<td>JEFFERSON</td>
<td>59</td>
<td>$1,493,485</td>
<td>38</td>
<td>64%</td>
<td>5,773,800</td>
<td>$25,313</td>
</tr>
<tr>
<td>KING</td>
<td>38</td>
<td>$1,160,884</td>
<td>17</td>
<td>45%</td>
<td>5,603,400</td>
<td>$30,550</td>
</tr>
<tr>
<td>KITSAP</td>
<td>469</td>
<td>$10,483,883</td>
<td>187</td>
<td>40%</td>
<td>60,158,010</td>
<td>$22,354</td>
</tr>
<tr>
<td>MASON</td>
<td>121</td>
<td>$2,633,428</td>
<td>68</td>
<td>56%</td>
<td>144,30,825</td>
<td>$21,764</td>
</tr>
<tr>
<td>PACIFIC</td>
<td>44</td>
<td>$713,539</td>
<td>28</td>
<td>64%</td>
<td>4,082,400</td>
<td>$16,217</td>
</tr>
<tr>
<td>PIERCE</td>
<td>94</td>
<td>$2,274,079</td>
<td>22</td>
<td>23%</td>
<td>13,489,200</td>
<td>$24,192</td>
</tr>
<tr>
<td>SNOHOMISH</td>
<td>27</td>
<td>$569,512</td>
<td>13</td>
<td>48%</td>
<td>3,547,800</td>
<td>$21,093</td>
</tr>
<tr>
<td>THURSTON</td>
<td>18</td>
<td>$434,249</td>
<td>7</td>
<td>39%</td>
<td>2,452,800</td>
<td>$24,125</td>
</tr>
<tr>
<td>WHATCOM</td>
<td>30</td>
<td>$694,723</td>
<td>15</td>
<td>50%</td>
<td>4,117,200</td>
<td>$23,157</td>
</tr>
<tr>
<td>TOTAL</td>
<td>971</td>
<td>$22,059,889</td>
<td>428</td>
<td>44%</td>
<td>122,429,830</td>
<td>$22,719</td>
</tr>
</tbody>
</table>

Program start: 12/1/03 - 12/31/17
# Roles in Washington

<table>
<thead>
<tr>
<th>State Agencies, Legislature</th>
<th>Craft3</th>
<th>Local Health Agency</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Capital&lt;br&gt;- Program Guidelines</td>
<td>- Matching capital&lt;br&gt;- Lending &amp; servicing&lt;br&gt;- Outreach/Marketing</td>
<td>- Design approval&lt;br&gt;- Permitting&lt;br&gt;- Regulation/enforcement&lt;br&gt;- PIC/Outreach</td>
</tr>
<tr>
<td>Approved OSS Professionals</td>
<td>Property Owner</td>
<td>Other Partners</td>
</tr>
<tr>
<td>- Loan brochures to client&lt;br&gt;- Recommend best options to client&lt;br&gt;- Complete design &amp; installations</td>
<td>- Pick and manage contractor&lt;br&gt;- Obtain permits, project approvals&lt;br&gt;- Authorize disbursements</td>
<td>- Educators&lt;br&gt;- Water quality agencies&lt;br&gt;- Community groups&lt;br&gt;- Regional orgs</td>
</tr>
</tbody>
</table>
Support for outreach and marketing.

Tools for Contractors and Partners
• Brochures
• Copy, imagery for websites, ads, print collateral, videos
• Social media content
• Newsletter content

Get featured by Craft3
• Photography available
• Share testimonials/quotes
• Craft3 & partner stories
Supported by many public and private partners.

- Bill & Melinda Gates Foundation
- The Boeing Company Charitable Trust
- Clallam County
- Clark County
- Grays Harbor County
- Greater Tacoma Community Foundation
- Hood Canal Coordinating Council
- Island County
- Jefferson County
- King County
- Kitsap County
- Kitsap Public Health District
- Laird Norton Family Foundation
- Mason County
- National Fish & Wildlife Foundation
- Pacific Coast Shellfish Growers Association
- Pacific County
- Pierce County
- Participating OSS Professionals
- Port Gamble S'Klallam Tribe
- Public Health Seattle & King County
- Puget Sound Partnership
- Skokomish Tribe
- Snohomish County
- Tacoma-Pierce County Health Dept.
- The Russell Family Foundation
- Thurston County
- U.S. Environmental Protection Agency
- University of Washington Sea Grant
- Washington Onsite Sewage Assoc.
- WA State Department of Ecology
- WA State Department of Health
- WA State Legislature
- Washington State University Extension
- Wahkiakum County
- Wells Fargo
- Whatcom County
- Titcomb Foundation
Learn more about the Clean Water Loan.

Jena Ross
VP, Clean Water Program Manager
jross@craft3.org
888-231-2170 ext. 171

www.Craft3.org/CleanWater
Thank you-Any Questions
2. Work with contractor to design system, receive permits and finalize project cost.
4. Begin project. Customer makes sure work is completed to their satisfaction.
5. Authorize final payment to the contractor once project gets final approval from local officials.
6. Loan payments, if required, will be automatically withdrawn from customer’s bank account.
Clean Water Loan eligibility.

Income:
- No income restrictions

Property Types:
- Residential and commercial properties
- Owner- or non-owner occupied, includes 2nd homes, rentals

Geography
- OR: State-wide
- WA: Clallam, Grays Harbor, Jefferson, King, Kitsap, Mason, Pacific, Pierce, Island, Snohomish, Thurston, Wahkiakum, and Whatcom Counties

One of the following must apply:
- Septic system is at least 25 years old
- Septic system is failing
- Owner contacted by health officials
- Owner under orders to fix system
The Clean Water Loan reserve account.

$2,000 reserve included in every loan for 10 years
• No interest until funds are drawn.
• Customer can talk with Craft3 if increased amounts are needed – can be built into loan amount.

Funds can be used for items such as inspections and repairs

How Payments Work
• Borrower sends invoice to Craft3 for reimbursement OR
• Borrower authorizes Craft3 to pay provider directly
Ineligible projects.

- Temporary projects (e.g. jetting, terra lifting)
- Expansions beyond 1-bedroom
- New construction
- Non-permitted projects
- Repairs to existing sewer connections (e.g. side sewer)
- Non-permanent structures/residences*
- DIY projects not completed by agency-approved contractors

Exceptions can be considered on a case-by-case basis, upon consultation with the local
Commercial projects are eligible to apply

- Project guidelines same as residential
- Loan interest rates vary by project, all have monthly payments
- Application/underwriting tailored to business and ownership structure
- Some historic examples: Restaurant, convenience store, mobile home park, hotel, affordable housing building, homeowners association, recreation/event center, light manufacturing
## Roles in Oregon.

<table>
<thead>
<tr>
<th>State Agencies, Legislature</th>
<th>Craft3</th>
<th>Health Agency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Capital</td>
<td>Matching capital</td>
<td>Design approval</td>
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<tr>
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<td>Outreach/Marketing</td>
<td>Regulation/enforcement</td>
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<td>Pick and manage contractor</td>
<td>Educators</td>
</tr>
<tr>
<td>Recommend best options to client</td>
<td>Obtain permits, project approvals</td>
<td>Water quality agencies</td>
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<tr>
<td>Complete design &amp; installations</td>
<td>Authorize disbursements</td>
<td>Community groups</td>
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<td>Regional orgs</td>
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Proposed Revisions to Chapter 2 On-Site Sewage Code

2018 O&M Workshop
George Waun & Gary Porter
February 2018
Proposed Chapter 2 Code Changes

• Changes discussed today are proposed.
  – Not in play until adopted by our Board of Health.

• Brief summary.
  – Doesn’t include all changes, just those that may affect what you do.
Section 3-New and Revised Definitions

- **Supervision**: To provide oversight and direct certified technicians in the execution of a task project or activity. Supervisors/specialists are to be held responsible for the work and actions of certified technicians.

- **Repair**: To restore a broken or malfunctioning OSS or component to a sound or healthy condition by fixing or replacement in the same area or configuration of the broken component. Repair shall only include relocation or replacement of *any component* or an entire OSS through the design and permitting process described in this chapter.

- **Accessory Dwelling Unit**: Now same as Chapter 3 (Water Code)
- **Failure (revised)**.
Section 8-Responsibilities of OSS Owner

New proposed additions:

4. Pay “pass-through” fee collected by Certified Septic firms per Health Department fee schedule (Reports are only valid if fee is paid in full).

5. Upon notice by the health officer, shall allow certified OSS professionals to expose portions of the OSS to confirm that all work performed is within the scope of this section.
Section 9-Responsibilities of Participants in the OSS Development Process

Added language for installers and O&M professionals re: ‘pass-through fees’.

• Act as an agent of the Department to collect pass-through fees from customers for reports required by this chapter.
C. If an OSS shows appreciable signs of failure that resolve without OSS permitted repair, then the property owner shall employ a certified O&M specialist or installer to evaluate the system and certify its proper function. Thereafter a recurrence of any sign of failure shall require implementation of one of the repair options contained in this section. This cannot be used to mitigate seasonal failures.
Section 33-Extended Maintenance and Minor Repair

B. Updated the activities considered and reported as an EMMR:

- Any mechanical method to reduce clogging of the infiltrative surface of an OSS dispersal component, such as air injection into the ground. *This method is limited to a one time event (See Section 13-C)*

- Cleaning or replacement of any non-perforated pipe, a **distribution box, or step-down** following the septic tank or pump tank
Section 33-Continued

• Repair of a septic tank or pump tank without replacement. **This method is limited to a maximum of two times prior to tank replacement.**

• Correction of deficiencies in the distribution of effluent to OSS treatment or dispersal components; Relocate or replace non-perforated pipe, or replace up to 10 feet of perforated distribution pipe with non-perforated pipe. **This method is limited to a one time event.**

• Any other activities outside the scope of practice for an O&M technician. (same)
Section 33 D-Continued

Not an EMMR: (D. 3. only one replaced)

D. 3. Correction of failure with surfacing sewage where the surfacing will not be resolved on the date of the activity; Addition of cover material to an OSS treatment or disposal component to contain or abate surfacing sewage;
Section 33 E-Continued

E. The O&M specialist, installer or firm reporting responsibilities:

1. Health Department will no longer require a call in or e-mail notification before you perform EMMR work.
2. Reporting of EMMR work changing from ten (10) to thirty (30) days.
Section 47-Certification Renewal

Inclusion of incomplete applications are subject to the late fee if not completed by the February 15th due date.
Section 48-Scope of Practice

B. Timely reporting.

3. Reporting of routine activities, such as inspection, pumping, or extended maintenance and minor repair activities shall be completed within 30 days of the activity.

4. O&M and Installation firms are ‘pass-through’ agents for collecting Board of Health approved fees associated with required on-site sewage system reporting. (This language is noted under installation and O&M firms separately).
Section 50-Enforcement Procedures for Certified Professionals

B. Enforcement options.

• In review process.

• Will work with IAG stakeholder group on any updates/revisions.
Questions?

Reminder
These are proposed changes and not yet in place.

Contact:
George Waun at (253) 798-6485.
Gary Porter at (253) 798-6569.
Section 33, B, 1 Revision

1. Any mechanical method to reduce clogging of the infiltrative surface of an OSS dispersal component, such as air injection into the ground. This method is limited to a one time event (See Section 13-C);
Section 13 - OSS Failures Revision

C. If an OSS shows appreciable signs of failure that resolve without OSS permitted repair, then the property owner shall employ a certified O&M specialist or installer to evaluate the system and certify its proper function. Thereafter, any recurrence of any material sign of failure shall require implementation of one of the repair options contained in this section. This cannot be used to mitigate seasonal failures.
Section 33, B, 4 Revision

4. Repair of a septic tank or pump tank without replacement. This method is limited to a maximum of two times prior to tank replacement.
Questions?

Leigh McIntire

lmcintire@tpchd.org
On-Site Program Interactive Q&A

2018 O&M Workshop
Renée Avelino
February 2018
Clicker Warm Up Question

Including today, how many Health Department O&M workshops have you attended?

a) One.
b) Two.
c) Three.
d) Four.
Certification

To avoid a $125 late fee per firm and $30 per individual; all annual recertification application documents are due in our office no later than this date?

a) Jan. 15.
b) Feb. 15.
c) March 15.
d) April 15.
e) None of the above.
Certification

Which category listed below requires initial certification documentation?

a) Technician to specialist.
b) Additional firms (O&M/Installation).
c) Certifications inactive for one year.
d) First certification year.
e) All of the above.
Certification

Tacoma-Pierce County Health Department accepts pump truck inspection reports from the following agencies except?

a) King County Public Health.
b) Tacoma-Pierce County Health Department.
c) Thurston County Health District.
d) WOSSA.
e) No exception, all agencies above are accepted.
Certification

Which sewage storage trucks or tanks requires an annual Professional Engineers water-tightness certification?

a) Above-ground storage tanks (AST).
b) Underground storage tanks (UST).
c) Pump trucks.
d) Portable toilet trucks.
O&M

All certified professionals are required to report surfacing sewage when…

a) Immediately.
b) Within 24 hours.
c) If they can’t repair surfacing issue.
d) All of the above.
An O&M specialist shall direct and supervise an O&M technician when performing and reporting which OSS activities?

a) Inspect proprietary components.
b) Extended maintenance and minor repair.
c) Inspect community, commercial and multifamily systems.
d) All of the above.
O&M

Which statement is NOT considered a valid onsite regulation?

a) All certified individuals shall be on probation during their first year of certification.

b) Only skilled, certified professionals and licensed plumbers shall install, monitor, maintain, modify repair or pump OSS in PC.

c) Certified firms and certified individuals, may be subject to disciplinary action for violating Chapter 2 On-Site Sewage regulations.

d) A certified individual shall conduct his or her work in the employ of the firm appropriate to work performed.

e) All of the statements are valid.
Installation

HD Field staff has this many business days (excluding the day of notice) to inspect an installed system before cover is allowed?

a) One.
b) Three.
c) Five.
d) Seven.
e) None of the above.
Installation

Onsite regulations require installers to have the following prior to installing a septic system or tank except?

a) Approved design.
b) Installation permit.
c) Customer contract.
d) Posted permit on site.
e) No exceptions, all are required.
Report of System Status (RSS) Mobile Home Parks

Only one RSS application is required for a mobile home park with multiple onsite sewage systems.

a) True.
b) False.
Proposed Tank Repair Changes

Under our new septic and pump tank proposal, tank replacement will be required after maximum two tank repairs.

a) True.

b) False.
Tank Replacement

Per Health Department policy, a designer is NOT required when conducting a “like for like” permitted tank replacement.

a) True.
b) False.
Reporting

As of 2018, which report doesn’t cost $40?

a) Routine.
b) Extended maintenance and minor repair (EMMR).
c) Late.
d) Pumping.
e) Property sale.
Proposed Chapter 2 Code Revisions

All new proposed onsite code changes discussed today take effect immediately.

a) True.
b) False.
New Health Department Website

Which category heading will you find the most onsite septic information under?

a) Healthy Places.

b) Healthy Homes.

c) Healthy People.

d) I want to…
Questions?

• Thank you for your participation.
• Please return your clickers and complete the evaluation form before you go!