



Go With The Flow



Nonstandard Systems Monitoring Program
Permit & Resource Management Dept.

WINTER/SPRING 2008

Annual Homeowner's Class

SATURDAY, MARCH 29 , 2008

Conference Room
2550 Ventura Avenue, Santa Rosa CA

Speakers from the Permit & Resource Management Department and the private sector will discuss monitoring techniques, routine maintenance and landscape ideas for your system. There will be a question and answer period. Handouts will be available. Emphasis will be on maintenance and a separate discussion will be held from 12 to 12:30 for owners of alarm boxes with timers serving equipment such as Advantex units. An Advantex unit will be available for observation and to address questions.

NEW: "Greg the Gopher Guy"
How to deal with your gopher population!

Make your reservations early as space is limited!! Please contact Rebecca Mateja at (707) 565-6120 between the hours of 9 a.m. and 5 p.m. Monday through Thursday to make your reservation. You may also leave a voice mail message at this number.

REFRESHMENTS & DOOR PRIZES!!!

Do you know your septic system?

What do you have?; what/where is the expansion area?; how do you maintain it?; how can problems be prevented? This newsletter touches on these issues. Knowledge and preventative measures will help prolong the life of your system and help protect ground and surface water resources.

OUT OF SIGHT - OUT OF MIND?

EXPANSION /RESERVE AREA

As the owner of a 'non-standard septic system', the *septic area* on your property consists of 'both' a *primary system area* and an *expansion or reserve area*. The primary area is that portion of your property in which the system serving the home/business is installed. The expansion or reserve area is designated for new installation if/when the primary system has major problems or fails - the soils investigation and testing performed on your property included both areas so as to identify the most suitable soils and conditions for onsite sewage disposal - present and future.

The amount of reserve area required (100% or 200%) is based on the type of system as well as the date the lot was created. Some systems, installed as repair systems, have no designated expansion. Reserve areas can be designed with the same type of system or a different system; they can be adjacent to the primary system or in a completely different area. We want to emphasize the importance of protecting and preserving the expansion area(s); disturbance and/or impact to the soils can render it unsuitable for future use. You might consider erecting a fence around the primary and expansion; the enclosure should include the particular setbacks that apply to your system.

Please note that the setbacks for the primary system also apply to the expansion area.

For setback information, please see Policy Number 9-2-8 "Regulations for Design, Construction, Repair, and Operation of Non-standard Sewage Disposal Systems Pursuant to Sonoma County Code Chapters 7 and 24 on our website:

www.sonoma-county.org/prmd/docs/policies/9-2-8.pdf

COMMON PROBLEMS OBSERVED IN EXPANSION AREAS

- Horse corrals
- Riding arenas
- Landscaping and farming activities that involve removal (grading); addition (fill placement); and/or compaction of native soils
- Pavement or gravel base parking and/or driving areas
- Motocross courses
- Basketball, bocce ball, tennis courts
- Golf practice areas
- Sheds or other structures (cement slab)
- Animal pen (large/heavy animals)
- Artificial ponds
- Drainage features
- Patios and decks

WHAT HAPPENS?

If upon inspection the area has been determined to have been altered or compromised, the owner is faced with: 1) a change in the classification of the system (i.e. Class I now a Class II or Class III due to reduction in primary or expansion area) which affects the potential for addition or remodeling to the home/structure served by the system; 2) the need to hire a consultant to find a suitable replacement area; 3) removal of the features if a suitable replacement area cannot be found; hopefully the feature(s) can be removed without further compromising the underlying soils; and/or 4) reduced potential for a Reduced Fee Permit.

WHERE TO FIND THE INFORMATION

Information regarding the expansion/reserve areas on your property can be obtained from the septic plans for your property, particularly the 'as built' version of the plans if one exists. If you do not have the plans, please check our records here at the County. We cannot make hard copies of the plans however you can request copies from the consultant.

LANDSCAPING - MORE THAN VEGETATION?

As homeowners you may want to landscape the septic system and adjacent areas. Document WLS-017 (see below) provides guidelines for the types of vegetative cover appropriate for systems such as yours. However, when plans for landscaping include more than vegetative management, problems may arise.

DRAINAGE FEATURES - ATTRACTIVE 'PROBLEMS'?

Landscape plans for new and existing homes may include water features such as rock-lined swales or other types of surface drainages. Based on observations and discussions with owners, these are installed for aesthetic value and/or to correct water accumulation problems on the property or near the septic system. If landscaping activities do not require permits, we are not able to advise the owner that a 50-foot setback needs to be maintained between the primary/expansion areas and such water features. The reasons for this setback are: to prevent sewage from entering a surface feature and flowing offsite, creating a public health problem and to protect the system area from water inundation. During County inspections we will note observed drainage features within this setback and require in writing that they be removed. If the area is considered compromised, the same options listed above (What Happens?) apply.

DO THESE CONDITIONS FIT YOUR SYSTEM OR MONITORING HISTORY?

- Self monitoring reports not being submitted (2/year)
- Alarm box damaged or inoperative
- Wells and/or valve boxes are damaged/missing
- Pretreatment unit turned off or damaged/ inoperable
- Monitor well register high groundwater readings during the dry months.
- System is hydraulically overloaded or being used in excess of peak design flow capacity (dose readings)
- Evidence of water intrusion during the winter
- System has never been purged/balanced (per owner)
- Tanks never/rarely being pumped (per records)
- Failure appears imminent; malfunction is likely
- Surfacing effluent (system failure)
- Erosion due to insufficient plant cover

These are examples of some significant issues problems identified during our inspections and records review. If not addressed or corrected they can become more serious problems that can affect your system function and compliance with permit requirements. See Recommended Maintenance below.

Recommended Maintenance:

- *Clean sump filter annually.*
- *Pump tanks every 3-5 years depending on use.*
- *Purge and balance system annually by a C42 or experienced Engineering Contractor*
- *Switch diversion valve (if you have one) annually, or as specified on septic plans**
- *Pre-treatment units requiring sampling for analysis, see #7 on Supplemental Agreement.*
- *Keep expansion areas unencumbered.*
- *Keep interceptor drain outfall clear (if present)*
- *Keep monitor wells and all valve boxes visible*

Diversions Valve (definition)

Diversions valves switch the effluent flow between two or more separate functioning systems (usually the same type). Periodic switching allows the leach fields to dry out prolonging their longevity. Often the system higher in elevation or above ground is utilized during the winter months in order to achieve a greater separation to ground water. It's important to identify the field being used (and frequency of switching) on the Self Monitoring forms.

BULLETINS

We currently have six Bulletins we can send to you upon request. All but WLS-016 are available on our website

<http://www.sonoma-county.org/prmd/docs/handouts/ws.htm>

- WLS-012 Maintenance of Non-Standard Systems
- WLS-013 Maintenance Guidelines for Toilets
- WLS-014 How to Monitor a Non Standard System
- WLS-015 Purging and Balancing
- WLS-016 Reduced Annual Operational Permit Fee
- WLS-017 Plant selection

CONTRACTOR CORNER

Several septic contractors in Sonoma County provided the following feedback (i.e. comments, observations, ideas) regarding monitoring and maintenance of nonstandard systems:

- Many homeowners believe that completing the self monitoring form is all that's required to comply. They don't realize the importance of routine maintenance in preventing costly repairs
- Often times the contractor is hired only after the system is functioning marginally or in failure
- Pump the tank and clean the effluent filter per County guidelines
- Install risers on older tanks
- Large animals can impact the system area
- Finding the system components can be difficult with overgrown vegetation and lack of records; it's important that the owner know what they have
- Reserve areas are being compromised
- Interceptor drains are not being maintained

System Maintenance Contractors:

We have a preliminary list of contractors that perform monitoring/maintenance on nonstandard systems. For the list, contact Carrie Muller at (707) 565-2658 or Rebecca at 565-6120.

INFORMATION RESOURCES:

For septic system/self monitoring questions contact:

Wiles Edison, REHS Monitoring Program Coordinator
(707) 565-1691

Gabe Benyak, REHS Monitoring Program Specialist
(707) 565-2308

For billing questions, address, name or ownership changes, or Bulletin requests contact: **Carrie Muller**, Monitoring Program Administrator (707) 565-2658