

# Sunol On-site Wastewater Treatment System Septic Systems Project

## Q&A/FAQ – Web Links – Meeting dates

(Updated 4/20/16)

### Terms

- **OWTS** = Onsite Wastewater Treatment System
- **LAMP** = Local Agency Management Program
- **SCAC** = Sunol Citizens Advisory Council
- **EIR** = Environmental Impact Report
- **Feasibility Study** = Investigation of alternatives to individual OWTS. Can include evaluation of existing OWTS.
- **Decentralized or hybrid system** = Tanks for solids held onsite, liquids piped away and treated
- **Public system full sewage treatment** = Full household output piped away and treated
- **Non-discharging wastewater holding unit** = pump w/dedicated truck, permit etc
- **Gray water system** = System to manage untreated household wastewater generated from hand washing, laundry and bathing, output is diverted from septic tank to other locations
- **Composting toilets** = a type of dry toilet that uses a predominantly aerobic processing system to treat human excreta.
- **Cluster system** = Small groupings of OWTS compared to a “municipal” wide system. This can be needed due to lot topography, for example.
- **Maximum Extent Practicable** = implemented when existing lots cannot meet code requirements or were not installed by permit or are failing
- **Failing system** = Allowing untreated effluent into a home, to daylight, to ground- or surface-water. The County definition includes component failure that may not be visible, such as undersized tanks, and poor soil conditions that contribute to less treated effluent entering the environment.
- **Surface waterways** = Can be ephemeral (flows in response to a rain event), seasonal/intermittent (flows in the rainy season) or perennial (flows year-round)
- **O&M** = 3<sup>rd</sup> party Operations and Maintenance service. Engineered & Community Systems will need periodic maintenance. The County will require that the owner(s) of these systems have contracts with O&M. Creating a Sewage District is also a way to deal with the maintenance required.
- **STEP** = Septic Tank Effluent Pumping. Septic tank only system with no leach field and no effluent leaching into ground. Tank must be pumped and owner must have a contract with pumping service.

## Frequently Asked Questions

1. **Q:** Why is the County holding these meetings about OWTS (septic) systems in Sunol?  
**A:** The County is required by the State of California to enforce OWTS (septic) systems regulations. The State is requiring each County to submit a LAMP document by May 2016 that defines the County regulations to manage OWTS, among other regulations. This is a certification process by the State to allow local agencies to continue to be the lead oversight agency for OWTS in the County. The LAMP is intended to keep ground water, surface waters and public health protected. The County will be required to provide annual assessment reports on the impacts to water quality to the Regional Water Quality Control Board.  
**A:** Instead of each homeowner tackling OWTS compliance to regulations individually, the County is encouraging public support in assessing alternative solutions to for sewage disposal in Sunol (residential & commercial). The County is reaching out to all communities with septic tanks.
2. **Q:** What are some of the alternative solutions?  
**A:** Alternative solutions can be a combination of management programs like code compliant standard and alternative OWTS, composting toilets, gray-water systems, community systems, cluster systems, Operations and Maintenance management programs (outside service providers or community oversight community systems).
3. **Q:** What are some of the septic regulations that some Sunol systems may not conform with?  
**A:** Most septic requirements have been in effect since the 1950s.  
Physical requirements:
  - 100 foot set back from surface waterways (horizontal measurement only, height of system does not make a difference)
  - Soil type/characteristics for the leach field (sand to clay ratio)
  - Slope of land in leach area (above 30% slope will need a geotechnical report due to potential to cause instability of slope)
  - No structures on the leach field.Documentation requirements:
  - Biennial (2-year) functional report for standard systems
  - Annual functional report for engineered systems, including contract O&M service providers
  - Report when property is sold.
  - Approved sewage disposal systems for all building permits and site development.
4. **Q:** Can the 100-foot setback requirement be reduced in any situation?  
**A:** This is very unlikely that the 100-foot setback from seasonal or perennial waterways would be reduced, given the consistency of this regulation across all management areas. Alameda County is proposing a 50-foot setback to ephemeral waterways and this is subject to State approval.

5. **Q:** What is the biennial functional report? Who can submit the report? Does it require an inspection by a professional? Can a homeowner just send in a note saying the system works?
- A:** Initial reports for standard systems will require a qualified engineer to document the system, after the first report, subsequent reporting can be done by the homeowner. The cost of the initial report varies from \$0, if the system can't be repaired or if done as part of the Feasibility Study, to thousands of dollars.
6. **Q:** How do I know if I have a documented system?
- A:** Contact Alameda County Environmental Health. County files for permitted systems should include a design that is stamped "approved."
7. **Q:** What if I have permitted system but the County does not have my records?
- A:** The homeowner will need to supply the design document of that system to the County.
8. **Q:** Who owns the process of obtaining a Feasibility Study of a community system, selection of a proposed system, fund raising (grants, other monies), management of system installation?
- A:** The community, not the County. The County is providing support and guidance through the process. The County enforces (will enforce) the regulations. The County recognizes through experience that the non-compliant areas benefit from a community systems compared to each property owner obtaining compliance individually in difficult areas. But it is the community (non-incorporated) that owns pulling together to solve issue as a whole.
- A:** The County is looking for funding to contribute and planning to dedicate staff to shepherd and guide the community. They are presently using the assistance from: Karen Mc Bride (non-profit Rural Community Assistance Corp), assisting for funding. Norm Hantzche from Questa (consultant for County) is helping with his experience on Feasibility Studies. The County, not the community, signs the contracts with the consultants.
9. **Q:** Is there an example of a Feasibility Study?
- A:** Yes. On the Alameda Co. Environmental Health web site see the Woodacre report in the link section below.

10. **Q:** What if Sunol residents do nothing? (no Feasibility Study, no changes, no community system)
- A:** Per the LAMP to the State, the County will enforce the OWTS regulations. The regulations require a documented system and functional reporting. If the homeowner refuses, the County is forced by the State to enforce the approved regulations and escalate where applicable by Law. The steps, depending on the severity of the noncompliance include:
- Notice of Violation
  - Cease and desist – Stop discharging to ground, install and use a holding tank
  - Penalties/liens
  - Turn off water/red tag/ eviction
11. **Q:** What is the advantage of a community system?
- A:** Depending on the type of system (full sewage or hybrid), fewer limits on home improvements, increased home values and, most importantly, reduced risk of water and land contamination.
12. **Q:** How long does it take to complete a Feasibility Study, obtain funding, and construct a system?
- A:** A good estimate given other projects is 7-10 years. The Feasibility Study may take 1-2 years, obtaining funding can take 5-6 years, and constructing a Community system may take 1-2 years.
13. **Q:** How much does a Feasibility Study cost?
- A:** A similar type study can run about \$150,000 (estimate based on Woodacre study). The community can produce some amount of “seed” money and the rest is from County and other funds. For Sunol, this is being worked through the SCAC. County will refine cost based on the request for proposals, bids.
14. **Q:** How much does a community system cost?
- A:** A similar type system of existing projects cost about \$6-10 million. Potential funding sources come from Bonds, State, County and other funds like property tax assessments.
15. **Q:** What is involved in the Feasibility Study?
- A:** a third party contractor has done other feasibility studies. The Third party contractor is selected, anonymous house-to-house septic system evaluations are completed (no addresses recorded, only enough data to identify size of the problem), and potential options, including community system, are proposed with costs, comparisons and trade-offs. See the Woodacre Feasibility Study on the Alameda Co. EH site.
16. **Q:** If a community system is chosen to be installed, do all property owners need to connect?
- A:** No. Each property owner can opt-out but then is subject to the standard County regulations.

17. **Q:** Is there existing data or known creek or other contamination showing a current Sunol septic problem?

**A:** Samples have been collected at the outflow of Sinbad Creek to Arroyo de Laguna. The samples have been analyzed for turbidity (cloudiness) and nitrogen. This type of data does not indicate whether or not there is a problem with septic tanks. Demonstrating creek water quality is not sufficient to demonstrate a compliant system. In some cases, demonstrating water quality prevents the imposition of requirements above the minimum. The State and County are using well-known understanding of OWTS operation from years of experience and data from all over the US to create the regulations. These regulations are designed to prevent failures.

18. **Q:** What is the difference between a standard and engineered system?

**A:** A standard system consists of a gravity fed holding tank of 1250 gallons or greater depending on the number of bedrooms with a dividing baffle that only allows liquids to move from the inlet side to the outlet side. This functions for solids to liquids settling. The inlet side allows the solids to break down over time (digested) to then flow into the outlet side. Usually there is further solids separation, such as special piping to prevent leach line plugging. The outlet leads to leach lines (perforated pipes) that spread the outlet water to be distributed across a wide area that allows leaching into the ground to be recycled naturally through soil percolation to ground water. The leach lines are in a bed of gravel to help further filter and prevent root intrusion. The properly functioning septic tank provides 60% of the process to reduce contaminates concentrations prior to dispersal to leach field trench for final treatment.

**A:** An Engineered System controls the rate of dosing of effluent to the dispersal field, (mound, 8-inches below grade drip), provides more separation by more baffles and media to help break down the solids more efficiently. Sometimes pumping is used (uphill) to then allow for a wider leach field due to constrained property size, buildings or proximity to water bodies. The leach lines may be shallower compared to a standard system to allow for plants to aid in the filtering of the outlet water. This allows for more time before reaching ground water. More complex systems such as an Aerobic System contains aerobic treatment unit, chlorinator and pumping station to spray heads. These engineered systems are more complex and more costly to install and maintain.

19. **Q:** How much do individual Engineered systems cost?

**A:** Existing installed systems have ranged from \$50,000 to \$80,000, depending on the site.

20. **Q:** If the LAMP is due May 2016, what must Sunol do to maintain compliance with State or County requirements? What are the timelines to worry about or to manage to?
- A:** The County must submit the LAMP in May 2016 (expect State approval by May 2017 and full implementation by May 2018) and the County would then start requiring functional testing. Sunol residents present at the January and the February 2016 meetings agreed to do the Feasibility Study, and this intent will be included in the LAMP. (The County Board of Supervisors will still need to vote on the contract and funding allocation for the Feasibility Study.) The community will need to meet agreed-to milestones with the County to stay in compliance. It must show progress in the Feasibility Study, funding, EIR, proposal selection, construction etc. If the community falters the standard regulations will then be enforced.
21. **Q:** What happens if there are individual septic system problems during the Feasibility Study or construction time line? A lot can happen in 10 years.
- A:** The County will look for interim solutions on a case-by-case basis to correct any issues in a less than current regulation compliance. For example, allowing homeowners to install a new tank that meets present needs and that can be tied into a future system.
22. **Q:** Will removing a septic system affect tree growth?
- A:** Not likely. The amount of water output from a household is small in comparison to normal rainfall even in our semi-arid environment. (But tree growth does affect OWTS)
23. **Q:** Won't a community sewer system encourage growth in Sunol?
- A:** Keeping a noncompliant systems is not a good way to restrict growth. The County planning department has other restrictions to prevent growth in Sunol and residents will need to work with the County to create a Plan to limit growth. (Such as lot size limitations.)
24. **Q:** What is the process for Sunol residents to approve a community system?
- A:** Part of the next steps in a Feasibility Study could include potential funding mechanisms. Alameda County Registrar of Voters and County Counsel would need to be consulted about specific requirements to place matters on the ballot and the voter threshold for approval. Non-tax measures placed on the ballot require a majority vote of the electorate (50% +1). A tax or bond measure could require up to 66.67% of the affirmative vote for approval.
25. **Q:** Has Sunol ever done anything like this before?
- A:** Sunol approved a school bond measure in 2001 and a bond measure to bring in water from the city of Pleasanton in the 1960s.

**-End of FAQ-**

## Web Site Links

- Alameda County Environment Health Land Use Program
  - <http://www.acgov.org/aceh/landuse/>
- ACEH Organizational Chart
  - [http://www.acgov.org/aceh/landuse/documents/Land\\_Use\\_Staff\\_Org-Chart.pdf](http://www.acgov.org/aceh/landuse/documents/Land_Use_Staff_Org-Chart.pdf)
- Woodacre Feasibility Study Report
  - [http://www.acgov.org/aceh/landuse/documents/Questa\\_WoodAcres\\_Marin\\_FeasibilityRpt.pdf](http://www.acgov.org/aceh/landuse/documents/Questa_WoodAcres_Marin_FeasibilityRpt.pdf)

## Meeting Dates

### Sunol Citizen's Advisory Committee (SCAC) Septic-OWTS

- 2<sup>nd</sup> Tuesday each month
  - ~~April 12, 2016~~
  - ~~May 10, 2016~~ May 4, 2016 @ Little Brown Church
  - June 14, 2016
  - July 12, 2016
- 6-8 PM, Sunol Glenn School Cafeteria
- Under the Brown Law; Agenda and minutes are posted

### Sunol Citizen's Advisory Committee (SCAC)

- 3rd Wednesday each month
  - ~~April 20, 2016~~
  - May 18, 2016
  - June 15, 2016
  - July 20, 2016
- 6:30-8 PM, Sunol Glenn School Cafeteria
- Under the Brown Law; Agenda and minutes are posted

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### 4/20/16 update

- Added STEP definition
- Changed the May 10 SCAC Septic-OWTS meeting to May 4 at the Little Brown Church to review the LAMP document