

ON-SITE WASTEWATER SURVEY

Jurisdiction:	Sutter County
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I. Permit Process and Design Requirements

A. Permits required for:

1. New Construction on Existing Parcels

a. Permit process

- Are there separate site evaluation and system construction applications?

Yes – both site and permit to construct on same permit ap.

- What are the steps through the process?

Soil mantle permit ap taken out by applicant (\$300). Applicant coordinates time for backhoe and department rep (myself or another) to meet on the subject property to log soil profile pits (minimum 2 pits) and review site. On occasion, we will need to review many soil pits to find an area – MUSDA (minimum Usable Sewage Disposal Area) – suitable for the installation of an on-site system.

- How long are site evaluations valid?

Soils and site evals good for three years unless major modification (soil removal or movement) has been done to the site.

- How long are construction permits valid?

One year with one year free renewal.

b. Design Flow

- What is used as the daily design flow per bedroom for single family residences?

150 gallons per day.

- How are design flows determined for other types of development?

Uniform Plumbing Code and or water use figures acquired for similar use facilities.

c. Septic Tank Sizing

- What are your septic tank sizing requirements per bedroom for single family residences?

≤2 Bdrm	1,000 Gallons
≤3-4 Bdrm	1,500 Gallons
≤5-6 Bdrm	2,000 Gallons
<u>Each additional Bdrm</u>	+250 per Bdrm

- How is septic tank sizing determined for other types of development?

Three times the daily flow rate with a minimum size of 1,000 gallons.

- Are septic tanks inspected or certified for water tightness? Yes

d. Minimum Lot Size?

- Governed by General Plan and Zoning?

Yes, but parcel size may be increased due to site and soils evaluation.

- Wastewater Ordinance? Yes

e. Slope

- Is there a maximum slope? What is it? 30%

f. Soil

- What is the range of allowable soil textures?

Soil Type 1: Coarse and Medium Sands; Perc Rates 1- 3 mpi; Ap Rate 1.2gal/sqft/day.

Soil Type 2: Fine and Loamy Sands; Perc Rate 4-10pi; Ap Rate 0.8 gal/sqft/day.

Soil Type 3: Sandy Loams and Loams; Perc Rates 11-20mpi and 21-30mpi; Ap Rates 0.7 and 0.6gal/sqft/day.

Soil Type 4: Slit Loams – porous and well developed structure; Perc Rates 31-60mpi; Ap Rate 0.5gal/sqft/day.

Soil Type 5: Other Silt Loams (weak), Sandy Clay Loams, Silty Clay Loams; Perc Rates 61-120mpi; Ap Rate 0.3gal/sqft/day.

Soil Type 6: Sandy clays & Clays of low clay content (<45%) with moderate or strong structure; Perc Rates 121-240mpj; Ap Rate 0.2gas/sqft/day.

Note: Class 5 & 6 soils are subject to further soils evaluation requirements (Particle Size Distribution Analysis via Hydrometer methodology – not sieve analysis – and/or Percolation Tests.

➤ What is the range of allowable percolation rates?

See Above.

➤ Do you rely on textural classification, perc tests, or both?

Hand textural analysis, soil profiling, PSDA and if we want – percolation testing.

➤ Are perc tests optional or mandatory?

Both depending on the hand tex analysis.

g. Vertical Separation or Total Effective Soil Depth

➤ Are your system design requirements based on soil maps, vertical separation, depth of effective soil, or a combination?

Soil maps are very seldom referred to because of their inherent lack of specificity to specific site evaluation. We might look at them to get a general feel for the soils or flood potential in a general area when working on a proposed subdivision but this is not a common course we follow.

The emphasis in our county is on vertical separation and effective soils depth.

➤ What are your vertical separation and/or effective soil requirements for gravity systems?

Five feet of effective soil below the bottom of proposed leach field. That is five feet of soils above any groundwater indicators (Redoximorphic Characteristics), groundwater or impermeable strata.

➤ For alternative systems?

Two feet of effective soils separation from bottom of the dispersal system to GW, GW indicators or impermeable material.

➤ Do you distinguish between perched, seasonal water table in measuring vertical separation?

No.

h. Groundwater

➤ Do you rely on evaluation of the soil profile or winter monitoring to determine presence of groundwater?

Usually we rely on soils profiling to determine this, but if there is any question we will then require wet weather monitoring January through April.

i. System Design

- Who determines Type of System, county staff, a consultant, both?

BOTH with emphasis on the county. We dictate the sizing requirements (gallons/sqft/day).

2. Creating New Parcels through Subdivision Process

- Is minimum lot sized determined by wastewater requirements or by the General Plan and Zoning?

Both. We are given the flexibility to increase parcel size if the proposed parcel soils and site constraints are such that we feel we need additional land for the dispersal of effluent.

- Does your sewage regulation have minimum lot sizes? If so, how are they determined and what are they?

If so, how are they determined and what are they? Yes. Private well and soils dictate the size of the parcels proposed. See the attached.

- Does your regulation have requirements for minimum useable drainfield areas? Yes

- Are there more stringent requirements for subdivisions than for existing parcels in the following areas:

- Allowable soil texture? No
- Allowable percolation rate? No
- Required vertical separation or total effective soil depth? No
- Maximum slope? No
- Use of supplemental treatment to allow creation of new parcels? No
- Required setbacks? No

- Are determinations of nitrogen or phosphorous loading required? No

3. Repair

- Are system repairs brought up to code to the maximum extent allowed by the site? Yes

- Are there differences in site evaluation procedures? No

- Are there less stringent requirements for repairs than for existing parcels in the following areas:

- Allowable soil texture? No
- Allowable percolation rate? No
- Required vertical separation or total effective soil depth?
Yes. The vertical separation may be waived to allow repair utilizing pretreatment and if determined disinfection.
- Maximum slope? No
- Use of supplemental treatment to allow creation of new parcels? Yes

➤ Are there differences in who may design a repair system?

If it is a gravity repair then the owner, contractor and/or an approved consultant can design the repair. If however, the site evaluation requires a design system for the repair then it has to be prepared by a Registered Environmental Health Specialist, Civil/Professional engineer, Registered Geologist or a qualified (experienced in the design of On-Site sewage disposal systems) Soils Scientist. And said system is required to be installed by an approved licensed contractor.

II. Designer Certification

➤ Who can design standard, gravity systems?

- Certified Engineering Geologist? Yes
- Certified Professional Soil Scientist? Yes
- Registered Civil Engineer? Yes
- Registered Environmental Health Specialist? Yes
- Registered Geologist? Yes
- Other Consultant Certified by Environmental Health? Yes
- Contractor? Yes
- Homeowner? Yes
- County REHS staff? No, the county would then assume the liability.

➤ Who can design supplemental treatment systems?

- Certified Engineering Geologist? No
- Certified Professional Soil Scientist? Yes
- Registered Civil Engineer? Yes
- Registered Environmental Health Specialist? Yes
- Registered Geologist? Yes
- Other Consultant Certified by Environmental Health?

No! The California Health and Safety Code does not allow for this.

On-Site Wastewater Survey

- Contractor? No
- Homeowner? No
- County REHS staff? No
- How does County assure that someone submitting a design is qualified to design a specific type of system?

They have to meet the above registrations or certifications first, then we review the plans and if they are not adequate or in some way deficient we send it back to them until they get it right.

- Will the County require certification of system construction by designer? Yes
- Will the County require inspection of system construction by designer? Yes

III. Installation Requirements

A. Installers

- Who may install standard and alternative systems?

Persons holding a valid California Contactor's license of type A, C-36, C-42 or a B (with qualification).

- Is the homeowner allowed to install either or both of these types of systems?

Gravity systems only.

- Do you certify installers? No

B. Inspections

- Does County staff inspect all components of an installation? Yes

- Does County staff meet with the installer on the site or consult with the installer prior to initiation of the installation?

No, we leave that up to the designer unless we are called out to answer specific questions.

- How many installation inspections by staff for installation of a standard, gravity system?

Final inspection only.

- How many installation inspections by staff for installation of a sand filter?

Usually two.

C. As-Built Requirements

- Does the installer provide an as-built drawing?

Yes, on both gravity and design systems. Drawing has to be to scale.

- Who provides the as-built drawing for a supplemental treatment system?

Installer and/or consultant.

D. Certification of Completion

- How does the county provide final approval of the system and its installation?

Pre-Final inspection of the system-squirt test, alarms/audio and visual. Final inspection of the covering and grading of the system. Receipt of the AS-Built scaled drawing and the letter of certification from the design consultant constitutes meeting the final requirements leading to the full sign off of the designed and installed system.

- Is the designer required to inspect and certify the installation as meeting the requirements of the design? Yes
- Does the installer certify the completion of the system per the design?

Yes with an AS-Built.

IV. Renewable Operating Permits

- Are ROPs required for the following?

We have NO requirements in this regard.

- Existing systems?
- Standard gravity trench
- Pump to gravity
- Pressure dosed
- Supplemental treatment

V. Operation and Maintenance Program

- Does your county have an O&M program? No
- Who performs the O&M inspections?

Private industry or the owner of record.

- Service providers certified by the county? No
- Services provides certified by the proprietary manufacturer? Yes
- Septic tank pumpers?

Yes by county.

- Home owners?

Primary responsibility for insuring the proper operation and maintenance of the system servicing their property.

- Professional engineers? No
- Consultants other than engineers? No

On-Site Wastewater Survey

- County staff primarily? No

➤ What types of systems receive O&M inspections?

None, other than those that are contracted with a proprietary system provider such as Orenco. The actual O&M is taken care of by the representative of the proprietary provider.

- Existing systems?
- Standard gravity trench
- Pump to gravity
- Pressure dosed
- Supplemental treatment

VI. Appeal/Variance Process

➤ What are the major steps in your appeal/variance process?

See 700-270

➤ Who makes the final decision?

See 700-270