



Solano County
Board of Supervisors

Minute Order

May 06, 2014

File Reference No. 14-0218

RE: Authorize the Director of Resource Management to execute a letter of commitment to the Central Valley Regional Water Quality Control Board and execute all subsequent letters, applications, reports or other related documents required for the County of Solano to apply for and implement a Local Agency Management Program related to onsite wastewater treatment systems

Approved

OWTS that comply with the statewide prescriptive standards will be required to have larger leach fields compared to current County code requirements, resulting in additional construction costs. Solano County Code requirements allows various gravity and engineered OWTS design options to mitigate local site specific conditions for the safe disposal of liquid waste and are equally protective of public health and the environment as the more restrictive statewide prescriptive standards.

The Central Valley Regional Water Quality Control Board, as the state designated lead agency to review and approve the County's LAMP, requests a letter of commitment by May 13, 2014 to confirm that the County intends to submit a LAMP. This is the first step in a process that will require formal submission of reports, correspondence and other documents to various state agencies to apply for a LAMP and report on its implementation once approved. Authorizing the director to execute these documents for the County of Solano will affirm the Board's direction to retain local requirements in the County's OWTS program and provide the most efficient method to accomplish this.

FINANCIAL IMPACT:

The costs associated with a LAMP are part of the ongoing operational cost of the Department of Resource Management - Environmental Health Services Division. These costs include activity to obtain LAMP approval, such as the preparation and submission of the LAMP and its supporting documents to the Central Valley Regional Water Quality Control. Ongoing implementation costs once the LAMP is approved include the preparation and submission of annual reports on permitting activity and at least once every five years an evaluation of water quality impacts, if any, resulting from implementation of the local requirements along with program changes to address any identified impacts to the Central Valley and San Francisco Bay Regional Water Quality Control Boards.

The Department recovers its costs for the OWTS program through one-time fees for permits for construction and repairs to OWTS, and annual fees for operation permits for engineered OWTS, sewage pumping vehicles and chemical toilet companies. Any changes in fees or staffing must first be approved by the Board of Supervisors.

DISCUSSION:

The OWTS policy adopted by the State Water Resources Control Board creates a series of management tiers based on the risk posed by the operation of OWTS and their proximity to a water body likely to be, or already, impacted by OWTS effluent. Attachment A describes the various management tiers contained in the policy. The policy became effective on May 13, 2013 and is available at the following link:

http://www.waterboards.ca.gov/water_issues/programs/owts/docs/owts_policy.pdf

Since May 13, 2013, both the Central Valley and San Francisco Bay Regional Water Quality Control Boards have been modifying their Basin Plans to incorporate the state's OWTS policy.

A fundamental feature of the state's OWTS policy is that it recognizes responsible local agencies provide the most effective means to manage OWTS on a routine basis. Specific to the County of Solano, the policy provides the option to implement one of two management tiers for new and replacement OWTS. Both management tiers provide equivalent protection to public health and the environment.

Management Tier 1 option : Use the statewide prescriptive standards for the siting, design and construction of OWTS contained in the Tier 1 portion of the OWTS policy to issue construction permits. Use of Tier 1 does not require any reporting by the County to the state regarding its OWTS program implementation or the program's impacts on water quality since these are state standards and are assumed to be protective by the state. However, the standards are more restrictive than current Solano County code requirements. The state's Tier 1 standards have increased setbacks from surface water, ground water and other surface features, limit OWTS design to use of trench systems only, and require larger leach fields for some OWTS compared to Solano County code requirements. This will prevent the County from issuing permits on some OWTS that can be

permitted using current code requirements. These property owners will have to obtain permits to install and operate their OWTS directly from the regional Water Quality Control Boards via a Waste Discharge Report. A separate County construction permit once approval is obtained from the regional board will also be required. Attachment B contains a summary of key differences between the state's OWTS policy's prescriptive standards and Solano County Code requirements.

Tier 1 standards become effective May 13, 2018 unless the County implements a LAMP as discussed in the Management Tier 2 option below.

Management Tier 2 option : Retain Solano County code requirements for the County's OWTS program by incorporating them into a LAMP. It is anticipated that the LAMP will include:

- Chapter 6.4, which predominantly encompasses the County's regulation of OWTS;
- sections of Chapter 25 (chemical toilets, sewage pumping trucks, domestic septage land application and biosolids land application) relating to the permitting of OWTS pumping vehicles;
- sections from Chapters 6.3 (building standards) and 13.10 (well standards) relating to water quality sampling at new construction and water well setbacks; and
- sections from Chapter 26 (subdivisions) to the extent they establish minimum lot size for lots served by OWTS and are cross-referenced in Chapter 6.4.

The LAMP will also include any department policy and procedures to implement these codes. Any amendments to Solano County Code necessary to conform to OWTS policy requirements for a LAMP will be brought separately to the Board of Supervisors for approval. Once the LAMP is approved, any amendment to the LAMP, including amendments to County codes included in the LAMP, must be approved by both the Central Valley and San Francisco Bay Regional Water Quality Control Boards before implementation.

Once approved, the LAMP will supersede the state's Tier 1 prescriptive standards.

ALTERNATIVES:

The Board can choose not to authorize the director to submit a letter of commitment to the Central Valley Regional Water Quality Control Board or execute other documents necessary to apply for and implement a LAMP. This is not recommended since it will result in Solano County losing authorization to implement its existing local OWTS requirements beginning May 13, 2018 and having authority only to implement prescriptive statewide standards.

OTHER AGENCY INVOLVEMENT:

City building officials were contacted by the Central Valley Region regarding the Policy and requirements for a LAMP. Currently, the department provides OWTS oversight in the incorporated cities on a case-by-case basis upon request from local building officials. This practice will be incorporated into a Solano County LAMP.

CAO RECOMMENDATION:

APPROVE DEPARTMENTAL RECOMMENDATION

The State Water Resources Control Board's Policy for Design, Operation, and Maintenance of Onsite Wastewater Treatment Systems (Policy) creates a series of management tiers based on the risk posed by the operation of onsite wastewater treatment systems (OWTS), or septic systems, and their proximity to a water body likely to be, or already, impacted by OWTS effluent. These Tiers are listed below:

Areas Not Adjacent To Surface Water Impaired by OWTS Effluent:

- *Existing Systems*
 - **Tier 0** applies to existing OWTS that meet all of the following conditions:
 - are not failing (failing OWTS move to Tier 4 below)
 - are not contributing to an impairment of surface water (OWTS causing impairment to surface water are in Tier 3 below)
 - discharge less than 10,000 gallons per day (discharges of 10,000 gallon per day or more require a Waste Discharge Report from the regional water quality control board)
 - discharge domestic wastewater from residential or commercial buildings, or high-strength wastewater from commercial food service buildings that have a properly sized and functioning oil/grease interceptor (any other discharge requires a Report of Waste Discharge from the regional water Quality Control Board).

The vast majority of existing OWTS in Solano County are in Tier 0. Owners maintain their systems in good working order and in compliance with permit requirements. Tier 0 conditions for existing OWTS are specified in Section 6 of the Policy.

- *New or Replacement Systems*

Either Tier 1 or Tier 2 is chosen as the management method for new and replacement OWTS. These tiers provide different methods to achieve the same public health and water quality protection.

- **Tier 1** is the management tier containing minimum statewide standards required for jurisdictions that do not have an approved Local Agency Management Program. The state adopted criteria in Tier 1 are intentionally restrictive to ensure that use of such systems, without specific monitoring by Solano County, will not result in water quality impairment. Tier 1 conditions are specified in Sections 7 and 8 of the Policy.
- **Tier 2** is the management tier that will authorize Solano County to continue with its protective local OWTS permitting program in an approved LAMP. With an approved LAMP, the local criteria will supersede the state's Tier 1 criteria. Tier 2 requirements for a LAMP are described in Section 9 of the Policy.

Areas Adjacent to Surface Water Impaired by OWTS Effluent:

- **Tier 3** provides special conditions for OWTS located near impaired waters listed in Attachment 2 of the Policy. Within Solano County only the Napa River is listed in Attachment 2 of the Policy and there are no known OWTS adjacent to this portion of the

Napa River. The OWTS impairment of the Napa River is due to upstream impact outside of Solano County.

Failures:

- **Tier 4** specifies corrective actions for failing OWTS. After completion of corrective action and repair, the OWTS then returns to Tier 1, Tier 2, or Tier 3 (whichever is appropriate in the specific circumstances). Tier 4 criteria for OWTS requiring corrective action are specified in Section 11 of the Policy. This is no different than current practice in that OWTS found to be failing are required to be repaired and upgraded to greatest extent practical per Solano County Code.

Table 1: Key Difference between Tier 1 and Proposed LAMP (County Code) Requirements

Issue	State Policy- Tier 1	County Code
Setback to flowing surface water and streams.	100' unless demonstrated site conditions prevent migration of wastewater.	Typically requires 100' setback, but does allow 50' setback to streams that only flow a portion of the year in response to wet weather.
Setback to non-flowing surface water bodies, such as ponds, lakes, and vernal pools.	State Policy requires 200' setback to ponds, lakes and vernal pools.	Requires 100' setback to ponds and lakes; does not include specific mention of vernal pools, but does preclude installation in concave areas.
Depth to high groundwater	Requires 5' to 20' depending on percolation rate. (Note: Majority of systems in Solano County will be required to have 5' to 8' separation to groundwater using Policy criteria, which may result in many locations not meeting state policy and having to be permitted directly by Regional Water Quality Control Board).	Requires 2' to 20' based on percolation rate and OWTS design. (Note: Majority of systems in Solano County are required to have 2' to 5' separation to groundwater. Engineered systems are required for less than 5' separation to groundwater or other limiting condition, such as rock or impermeable soils).
Dispersal system design and sizing	Provides limited design criteria for sizing dispersal field for effluent. A 4 bedroom house will require from 125' to 1500' feet of leach field depending on percolation rate or soil texture. Requires a leach field to be installed as the dispersal method.	Provides graduated design and sizing criteria. A 4 bedroom house currently required to have from 175' to 1000' of leach line depending on percolation rate or soil texture. Alternative system required in slower percolating soils (percolating slower than 1" per hour, or 60 minutes per inch). Allows dispersal systems other than a leach field, such as mounds and drip dispersal.

Table 2: Potential County Code Amendments for Inclusion into the LAMP		
Issue	State Policy- Tier 1	County Code
Setback to a public water well	Requires 150' setback.	100' setback for any type of well. Chapter 6.4 and Chapter 13.10 will need to be amended to reflect current state standards requiring 150' setback to a public water well.
Notification to public water system if OWTS within certain distance to surface water intake	Variety of requirements to provide notification if OWTS located within a certain proximity to a surface water intake or its catchment basin and likely to cause contamination.	No notification requirements provided. This is also required under section 9 of the policy for a LAMP; Chapter 6.4 will need to be amended to reflect notification requirements, or internal policies will need to be developed for inclusion into the LAMP.
Setback from unstable land mass	Requires 100' setback	Code prohibits placement in unstable soil, but no setback distance specified.
Determination of percentage of rock	Estimated using visual methods	Measured using sieves and analytical methods. Modification to allow visual field methods may be necessary to improve efficiencies in field.
Effluent filter screen requirements on septic tanks	Requires a 3/16" minimum screen on effluent filters.	No minimum screen size specified, but does require all filters be certified by an independent third party listing agency such as NSF. Adjusting to match Tier 1 screen size recommended.