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Title: Local Agency Management Program and Onsite Wastewater Treatment System Regulations and Technical Standards Revisions

Sponsors: Permit and Resource Management

Indexes:

Attachments: 1. Summary Report.pdf, 2. Attachment A-Local Agency Management Program (LAMP version 5.0).pdf, 3. Attachment B-OWTS Cover and TOC.pdf, 4. Attachment B-OWTS Section 01 General.pdf, 5. Attachment B-OWTS Section 02 Sewer Connection Required.pdf, 6. Attachment B-OWTS Section 03 Acronyms and Definitions.pdf, 7. Attachment B-OWTS Section 04 Criteria for All OWTS.pdf, 8. Attachment B-OWTS Section 05 Abatements, Abandonments and Repairs of Failing Systems.pdf, 9. Attachment B-OWTS Section 06 Requirements for Approval of Building Permits.pdf, 10. Attachment B-OWTS Section 07 Site Evaluation Methods and Investigation Requirements.pdf, 11. Attachment B-OWTS Section 08 Criteria for OWTS Components.pdf, 12. Attachment B-OWTS Section 09 Criteria for Standard OWTS.pdf, 13. Attachment B-OWTS Section 10 Criteria for Water Reuse.pdf, 14. Attachment B-OWTS Section 11 Criteria for Commercial, Industrial, and Institutional OWTS.pdf, 15. Attachment B-OWTS Section 12 Non-Standard Experimental and Alternative OWTS.pdf, 16. Attachment B-OWTS Section 13 Non-Standard Experimental and Alternative OWTS Standards.pdf, 17. Attachment B-OWTS Section 14 Non-Standard and or Commercial OWTS Operational Permit and Monitoring.pdf, 18. Attachment B-OWTS Section 15 Vesting Certificates.pdf, 19. Attachment B-OWTS Section 16 Subdivisions and Lot Line Adjustment Requirements.pdf, 20. Attachment B-OWTS Section 17 Variance Requirements.pdf, 21. Attachment B-OWTS Section 18 Variance Prohibitions and Special Standards Areas.pdf, 22. Attachment B-OWTS Section 19 Dispute Resolution.pdf, 23. Attachment B-OWTS Section 20 Tier 3 Treatment, Monitoring, Inspection and Sampling for Supplemental Treatment Units.pdf, 24. Attachment B-OWTS Section 21 Waterless Toilets.pdf, 25. Attachment B-OWTS WLS-042 Appendix A.pdf, 26. Attachment C-Summary of OWTS Manual Revisions.pdf, 27. On File-SWRCB OWTS Policy.pdf, 28. On File-Sonoma Creek TMDL Implementation Plan.pdf

Date	Ver.	Action By	Action	Result
6/11/2019	1	Board of Supervisors	Approved as recommended	Pass

To: Sonoma County Board of Supervisors

Department or Agency Name(s): Permit and Resource Management

Staff Name and Phone Number: Nathan Quarles, 565-1146

Vote Requirement: Informational Only

Supervisory District(s): Countywide

Title:

Local Agency Management Program and Onsite Wastewater Treatment System Regulations and Technical Standards Revisions

Recommended Action:

Authorize submittal of a revised Sonoma County Local Agency Management Program and supporting documents to the North Coast Regional Water Quality Control Board

Executive Summary:

State law mandates the State Water Resources Control Board (State Water Board) adopt standards for regulation of onsite waste treatment systems (OWTS) commonly known as septic systems. The State Water Board, through its OWTS Policy, has required local jurisdictions to submit OWTS programs to the appropriate Regional Water Board for review and approval.

In May 2016 Permit and Resource Management Staff (Permit Sonoma) presented the first iteration of the OWTS program to the Board of Supervisors seeking direction to submit the program to the local Regional Water Board (RWB). The Board directed the submittal of the Local Area Management Program (LAMP) and the OWTS Manual which was completed in June 2016. Subsequently, the RWB reviewed the initial submittal and required revisions. While completing the second version, the 2017 Complex Fire occurred and delayed the OWTS program revisions.

On May 22, 2018, staff presented the Board with the second iteration of an application and technical manual for submittal to the RWB. The Board provided direction to continue with engagement; to balance new state regulation with local policy creating a local program that protects resources and public health; and to craft a program that encourages permitting in comparison to strict policies that discourage permitting.

On May 21, 2019, staff presented the Board with the third iteration of an application and technical manual for submittal to the RWB. The Board provided direction to:

- Edit several provisions of the OWTS Manual;
- Bring the LAMP and OWTS Manual to the Board on consent calendar;
- Work with other county departments with the goal of providing a source of state funding for upgrading septic systems;
- Work with other county departments to establish a pilot project for composting toilets;
- Evaluate the viability of stock plans; and
- Return to the Board with an informational item one year after implementation of the new septic policies.

On June 4, 2019 the Board provided direction to eliminate the requirement to evaluate reserve areas for building projects that do not increase wastewater flow. These projects include bedroom swaps.

The specified provisions have been revised and the attached LAMP and OWTS Manual represent the fourth iteration of the application and technical manual. The additional Board direction is being implemented and this summary report responds to the Board's May and June 2019 direction.

Discussion:

In 2000, the California Legislature passed Assembly Bill 885 amending Water Code Section 13290 requiring the State Water Board to adopt regulations or standards for the permitting and operation of OWTS, commonly known as septic systems.

On June 19, 2012, the State Water Board adopted Resolution No. 2012-0032, adopting the Water Quality

Control Policy for Siting, Design, Operation, and Maintenance of Onsite Wastewater Treatment Systems (OWTS Policy). The OWTS Policy establishes a statewide, risk-based, tiered approach for the regulation and management of OWTS to protect water quality and public health through the consistent regulation of OWTS. Regional Water Quality Control Boards (RWBs) are responsible to implement the OWTS Policy. The OWTS Policy requires local jurisdictions to submit a LAMP to the appropriate RWB. The LAMP should demonstrate how the local septic program meets the objectives of the State's OWTS Policy.

The OWTS Policy establishes five risk-based tiers from Tier Zero to Tier Four. Tier Zero is for existing and properly functioning systems. Tier One establishes statewide standards for new and replacement systems. Tier Two allows local agencies to establish different standards than Tier One, provided they create comparable protections. Tier Three establishes standards for impaired water bodies and provides three options. Tier Four sets standards for systems in need of corrective actions.

Tier One standards are rigid and do not take local conditions such as geology or depth of groundwater into account. Tier Two allows for local standards provided the local standards meet the objectives of the OWTS Policy. Tier Three applies to impaired areas which are listed in the OWTS Policy. Tier Three requires additional and more protective standards within the listed impaired areas, but provides three options: 1) uniform standards within Tier Three; 2) compliance with an approved Total Maximum Daily Load (TMDL) Implementation Plan, if one exists for the impaired water body; or 3) a tailored approach documented in an Advanced Protection Management Program (APMP).

In May 2016, the Board of Supervisors authorized the submittal of a LAMP and associated documents to the RWBs. Based on feedback from the RWBs and the affected community, staff prepared a revised LAMP and associated documents for consideration at a May 2018 Board of Supervisors meeting.

At the May 2018 meeting, the Board of Supervisors directed staff to request a six-month extension from the RWB and to revise the OWTS Manual based on their feedback from the May 2018 meeting, while also including the future community feedback. The Board of Supervisors directed staff to bring a revised manual back for their consideration within six months.

On May 21, 2019, the Board of Supervisors directed Permit Sonoma staff to make revisions to several provisions of the OWTS Manual and bring back the item on consent calendar; to work with other county departments with goals of providing a source of state funding for upgrading septic systems and to establish a pilot project for composting toilets; to evaluate the viability of stock plans and to return to the Board with an informational item one year after implementation to evaluate the program.

Unfortunately, the requested time extension from the RWB, mentioned above, was not acted upon by the State, and staff is informed that other similar requests were considered and rejected. The State's OWTS Policy (Sections 3.1 and 3.2) provided a deadline of May 13, 2018 to obtain approval of local LAMPs. After that deadline, unless and until a LAMP (under Tier Two of the OWTS Policy) has been approved by the RWB, Tier One of the OWTS Policy applies if it is more restrictive than local standards. Specifically, the OWTS Policy states: "In the absence of a Tier 2 Local Agency Management Program, to the extent that there is a direct

conflict between the applicable minimum standards and the local codes or ordinances (such that it is impossible to comply with both the applicable minimum standards and the local ordinances or codes), the more restrictive standards shall govern.” As noted above, Tier One is more stringent, and does not take into account local conditions such as geology and depth of groundwater. The County therefore has an interest in moving quickly towards adoption of the LAMP.

Overview of Sonoma County Response to OWTS Policy

The Permit and Resource Management Department (Permit Sonoma) has created a Tier Two LAMP for review and approval by the RWB. Permit Sonoma has presented this item to the Board in several meetings. In past meetings, the Board provided specific direction which Permit Sonoma implemented. The direction and implementation led to robust public involvement, hundreds of comments and edits to numerous provisions of the OWTS Manual. Permit Sonoma presented the third formal version to the Board on May 21, 2019. Despite the public input, several issues remained between the public and Permit Sonoma. On May 21, 2019, staff identified these issues in their report to the Board. The Board provided specific direction on each of the topics as discussed below.

Replacement Systems / Voluntary Repairs

Several Replacement System (RS) options were presented for the Board’s consideration. These included the following:

Option RS-1:

- Replacement of pipe or material in an existing trench with a repair permit;
- Construction of up to 25% of new dispersal system with a repair permit;
- Construction of over 25% of new dispersal system with a replacement permit; and
- Percent is percentage of the existing dispersal system.

Option RS-2:

- Replacement of pipe or material in an existing trench with a repair permit;
- Construction of up to 33% of new dispersal system with a repair permit;
- Construction of over 33% of new dispersal system with a replacement permit; and
- Percent is percentage of the existing dispersal system.

Option RS-3:

- Replacement of pipe or material in existing dispersal system with a replacement permit; and
- Any amount of new dispersal is with a replacement permit.

The Board provided direction to revise the OWTS Manual section 4.8.D.3 to include language so that a replacement or repair of up to 50% of the existing dispersal system would be administered as a repair permit. Edits to the OWTS Manual have been made consistent with this direction.

Qualified Consultant

Several Qualified Consultant (QC) options were presented for the Board’s consideration as detailed below.

Option QC-1:

- Registered environmental health specialists to conduct full design;

- Licensed civil engineers to conduct full design;
- Soil scientists to conduct soils evaluations; and
- Geologists to conduct soil evaluations.

Option QC-2:

- Option QC1; and,
- C-42 contractors (a sanitation system contractor) to conduct full designs of standard systems; and,
- Land owners to conduct full designs for standard systems.

Option QC-3:

- Option QC1; and,
- Properly licensed/registered public employees.

The Board provided direction to implement Option QC-1. No edits to the OWTS Manual are needed to implement this option.

Building Permit Thresholds

Several Building Permit Threshold (B) options were presented for the Board's consideration.

Option B-1:

- New dwellings require a code compliant system and reserve area(s).
- An increase in bedrooms/wastewater flow requires a code compliant system and reserve area(s).
- New structures with no increase in wastewater require a review for physical impacts to current and reserve dispersal areas based on land encumbrance:
 - 50% or less land encumbrance requires an evaluation of the reserve area; and
 - More than 50% land encumbrance requires a reserve area.
- Structural improvements that increase the building footprint with no increase in wastewater flow requires a non-conforming system with reserve area(s).
- Structural improvements that have no increase in building footprint with no increase in flow requires a non-conforming system (i.e., not a cesspool). An evaluation of reserve area is not required.

Option B-2:

- Building permits to be categorized as either remodels or rebuilds and minor or major additions.
- The lower thresholds (remodels and minor additions) require a minimum of a class III system (tank and leach field) but never a cesspool.
- The upper thresholds (rebuilds and major additions) require a code compliant or a class I system.
- The criteria for remodels and rebuilds is 50% of the linear footage of exterior load bearing walls that are affected by the proposed project.
- The criteria for minor and major additions is 640 square feet.

The Board provided direction to implement Option B-1. The Board also provided direction to clarify section 6.5 as to which building improvements necessitate the evaluation of land encumbrance. Further, the Board provided direction to clarify section 6.6.A which identifies when land encumbrance will be evaluated.

On June 4, 2019, the Board provided direction to eliminate the requirement to evaluate reserve areas for building projects that do not increase wastewater flow. These projects include bedroom swaps.

Waterless Toilets

Several Waterless Toilet (WT) options were presented for the Board's consideration:

Option WT-1:

- Implement the draft waterless toilet section as written; and
- Encourage other waterless toilet pilot projects.

Option WT-2:

- Implement WT-1; and
- Proceed with the necessary steps to revise Sonoma County Code to allow non-flush toilets with the constraints of no on-site disposal of the composted bio solids.

Option WT-3:

- Implement WT-1; and
- Revise the OWTS Manual and Sonoma County Code in accordance with the results of any future data from waterless toilet pilot projects and/or literature research.

Option WT-4:

- Pursue code changes to allow for incinerator toilets as a non-flush toilet, independent of options WT-1, WT-2, and WT-3

The Board provided direction to implement Option WT-1. The Board also provided direction to pursue a composting toilet pilot project with Regional Parks. Permit Sonoma staff have reached out to Regional Parks to pursue a composting toilet pilot project.

Additional Board Direction

The public raised several key points that resulted in Board direction. The first was a discussion of funding and the State's OWTS Policy directing local jurisdictions to encourage funding of septic upgrades. The Board directed Permit Sonoma staff to meet with other county departments with the goal to establish a funding mechanism providing assistance to residents with upgrading their septic systems. These discussions are underway, and indeed began in the context of discussions with the RWB over the proposed Russian River Pathogen TMDL. Although the Board could delay the LAMP's effective date until the funding mechanisms are established, this is not recommended because it could further delay the LAMP, which would delay the approval actions necessary to retain local control over OWTS.

The Board directed staff to present an informational item within one year of implementation of the OWTS Manual. The informational item is intended to provide a summary of how the proposed regulations are working, not working and what adjustments might be made given one year's worth of experience with the new set of regulations. A future meeting will be scheduled through the County Administrator's Office.

Evaluation of Stock Plans

Various speakers encouraged the use of stock plans to assist in the design of septic systems. As a result, the Board directed staff to evaluate the use of stock plans in this regard.

The design of septic systems requires the knowledge of soil where the system is being proposed. The soil and bacteria within the soil provide the treatment of the domestic waste. Understanding the underlying soil is

paramount to having successful treatment. In addition to the soil characteristics, the depth of groundwater is also essential to siting an effective septic system. If groundwater exists too high in the soil profile, the effluent then comeslingles with the groundwater prior to adequate treatment.

Sonoma County is highly variable with respect to geology and groundwater depths.

The USDA Soil Survey for Sonoma County has been discussed as a tool to assist in septic system design. The soil survey itself cautions against the use of the soil survey for site specific designs.

“A map showing soil associations is useful to people who want a general idea of the soils in a county, who want to compare different parts of a county, or who want to know the location of large tracts that are suitable for a certain kind of land use. Such a map is a useful general guide in managing a watershed, a wooded tract, or a wildlife area, or in planning engineering works, recreational facilities, and community developments. It is not a suitable map for planning the management of a farm or field, or for selecting the exact location of a road, building, or similar structure, because the soils in any one association ordinarily differ in slope, depth, stoniness, drainage, and other characteristics that affect their management.” Soil Survey, Sonoma County California, United States Department of Agriculture, May 1972, Page 3

The use of stock plans is appropriate in areas of known geology and known groundwater elevations. Unfortunately the soil type (geology) and groundwater elevations vary too greatly in Sonoma County to rely on stock plans to assist in the design of site-specific septic systems.

Revisions in Response to Public Input

Various speakers raised concerns about specific provisions. Upon review of the concerns and the specific provisions, staff recommends making the following edits.

- Revise section 4.4.A.5 to coincide with Table 4.4
- Deletion of provision 4.11.L
- Revise section 6.5.B.2 to clarify that additions which increase the building’s footprint shall be evaluated for land encumbrance as compared to a second floor or enclosing of a porch that by definition is an addition
- Revise section 6.9.D.3.b to require a tier 1 findings report

Process

In parallel to the submittal to the RWB, staff propose to have the Director of Permit Sonoma initiate the approval and public review process detailed in Sonoma County Code section 24-31.5. This provision delegates authority to the Director of Permit Sonoma to adopt standards for on-site septic systems. This will allow the OWTS Manual to be effective while the RWB reviews and approves the LAMP and OWTS Manual.

The RWB may request modifications to the LAMP and/or OWTS Manual as part of their approval process. The breadth of any RWB comments will dictate the process to revise the LAMP and/or OWTS Manual. Minor

changes might be subject to the approval by the Director of Permit Sonoma, while extensive changes might be subject to review and authorization by the Board of Supervisors.

It is expected that the OWTS Manual will be reviewed and updated periodically to address new issues, policies, procedures, and technologies affecting the use and management of OWTS.

CEQA

The proposed adoption of the OWTS Manual and submission of the LAMP to RWQCB are actions that are categorically exempt from CEQA under CEQA Guidelines 15061(b)(3); 15307, and 15308.

Prior Board Actions:

06/04/2019: Board discussion of LAMP and OWTS Manual; provided direction to eliminate the requirement to evaluate reserve areas for building projects that do not increase wastewater flow.

05/21/2019: Board discussion of LAMP and OWTS Manual; provided direction as to which policy options to implement; provided direction on revisions to specific OWTS Manual provisions; provided direction to initiate a composting toilet pilot project with Regional Parks; provided direction to initiate a funding mechanism for septic system upgrades with assistance from other county departments; provided direction to evaluate “stock plans” as standardized septic designs; provided direction to provide an informational status report within a year of implementation of the OWTS Manual.

05/22/2018: Board discussion of LAMP and OWTS Manual; provided direction to request a six-month extension from the RWB, to conduct additional community outreach and solicit additional feedback from the community, and to then revise the septic policies in response and to return to the Board within the six-month extension time period.

05/10/2016: Board authority to submit LAMP and associated documents to the RWB

1995: Ordinance No. 4906, Section 5(B)

FISCAL SUMMARY

Expenditures	FY 19-20 Adopted	FY20-21 Projected	FY 21-22 Projected
Budgeted Expenses			
Additional Appropriation Requested			
Total Expenditures			
Funding Sources			
General Fund/WA GF			
State/Federal			
Fees/Other			
Use of Fund Balance			

Contingencies			
Total Sources			

Narrative Explanation of Fiscal Impacts:

There will be no known fiscal impacts to the County

Staffing Impacts:			
Position Title (Payroll Classification)	Monthly Salary Range (A-I Step)	Additions (Number)	Deletions (Number)

Narrative Explanation of Staffing Impacts (If Required):

No additional staffing is anticipated at this time

Attachments:

Attachment A-Local Agency Management Program (LAMP version 5.0)

Attachment B-Onsite Wastewater Treatment System Regulations and Technical Standards (OWTS Manual version 6.2)

Attachment C-Summary of OWTS Manual Revisions

Related Items "On File" with the Clerk of the Board:

SWRCB OWTS Policy

Sonoma Creek TMDL Implementation Plan