



## Public Health Department

### Environmental Health

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Orville, California 95965

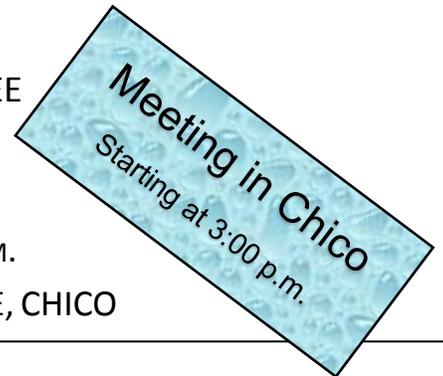
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# WASTEWATER ADVISORY COMMITTEE AGENDA

DECEMBER 13, 2016 ❖ 3:00 P.M.-5:00 P.M.  
ASSOCIATION OF REALTORS ❖ 1160 E. 1ST AVENUE, CHICO



## I. Preliminary Items

- A. Call to Order
- B. Roll Call and Determination of Quorum
- C. Introduction of Guests
- D. Review of Minutes from October 16, 2016 (See Attachment "A")
- E. Agenda Review
- F. Public Comments and Input

## II. Informational Non-Action Items

## III. Action Items

- A. Guidelines for Allowing Composting Toilets for Existing Residences (See Attachment "B")  
*Discuss and make recommendations*
- B. Modified Design Criteria for Ancillary Structures (See Agenda Attachment "C")  
*Discuss and make recommendations*
- C. Criteria for Approval of Exceptions for Sewer Connection Based on Cost (See Agenda Attachment "D")  
*Discuss and make recommendations*

## IV. Agenda Preparation for Next Meeting

## V. Adjourn



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## WASTEWATER ADVISORY COMMITTEE

### MINUTES

OCTOBER 18, 2016

TAHOE ROOM \*\* 202 MIRA LOMA DRIVE, OROVILLE

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#### I. Preliminary Items

##### A. Call to Order

DC called the meeting to order at 3:00 p.m.

##### B. Role Call and Determination of Quorum (See Attachment #1)

Priscilla Rawlings, Jan Hill, Rick McCauley, Gary Wert, Will Arnold, and DC Jones were present.

David Anderson attended as an alternate for Gary. Lauralyn Lambert and Buddy Nottingham came into the meeting after roll call. Nick Weigel and Wes Gilbert were absent.

A quorum was established.

Brian Ludwig-Cooper, John Hoffman, and Robert Parker attended as guests. Brad Banner, Kristen McKillop, Paul Thao, and Charlotte Walters attended the meeting on behalf of the Public Health Department.

##### C. Review of Minutes

The notes from the August 9, 2016 meeting were reviewed. DC made a motion to accept the minutes as written. Lauralyn seconded the motion and the motion passed unanimously.

##### D. Agenda Review

No changes were requested.

##### E. Public Comments and Input

There was no public comment.

#### II. Action Items

##### A. Guidelines for Allowing Composting Toilets

1. Brian presented information about composting toilets, pointing out that there is a relatively small segment of people who will want them, and the toilets can be safe and sanitary. Brian expressed support for the draft composting toilet guidelines attached to the agenda.



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2. Increased setbacks and a requirement for a concrete bottom were recommended additions to the guidelines.
  3. A standardized homemade toilet design for those who do not wish to use a manufactured model was recommended in lieu of requiring a "qualified composting toilet designer," since there is no such category of professionals at this time.
  4. [DC made a motion that indicated support for the composting toilet guidelines but requesting Brad return at the next with a standardized homemade toilet design. Lauralyn seconded the motion and the motion passed unanimously.](#)
- B. Modified Design Criteria for Ancillary Structures
1. The group discussed the two draft revisions to the Manual allowing for: (a) Reduced septic tank capacity requirements for septic systems serving only outbuildings such as shops associated with a person's primary residence; and (b) Reduced design flow calculations that can be used for sizing the drainfield PROVIDED there is a deed restriction prohibiting the outbuilding from being used for residential purposes.
  2. Buddy and Jan discussed the use of grinder pumps and solid handling pumps to convey the wastewater to the home's septic system.
  3. David questioned why the reduction only allowed going down to 100 gpd.
  4. One of the committee members suggested that the revision specify that the reduction be limited to non-commercial outbuildings.
  5. [The committee requested Brad bring the proposed revisions back to the next meeting for further review.](#)
- C. Modified Design Criteria for Sizing Reductions for Pressure Distribution and Supplemental Treatment Systems
1. Brad presented the proposed deletion of the reference to the table in the Manual of Septic Tank Practice (Red Book), explaining that the table found in the Red Book requires deeper trenches, whereas the sizing reduction should actually be based on improved treatment and dispersal, and drainfields should be kept as shallow as possible rather than being encouraged to be installed deeper.
  2. Concern was expressed that the amount of sizing reduction allowed seemed excessive. Brad pointed out that designers do not need to use the sizing reduction if they do not feel it is appropriate.



3. Concern was expressed that deeper drainfield trenches should be allowed and the sidewall utilized for reducing the size of the drainfield.
  4. Brad pointed out that the Ordinance and Manual have now been formally adopted by the Central Valley Regional Water Quality Control Board as the Butte County LAMP. Brad also stressed that it is better to reduce sizing based on improvements in treatment and dispersal rather than basing the reductions on deeper trenches that dispose of sewage beneath the aerobic zone of the soil where optimal treatment is provided by the soil.
  5. **Lauralyn made a motion to approve the Manual revision as proposed. Jan seconded the motion and the motion passed unanimously.**
- D. Criteria for Approval of Exceptions for Sewer Connection Based on Cost
1. The committee reviewed the draft criteria and in the ensuing discussion made a distinction between the requirements for connection in the Chico Nitrate Compliance Area vs. requirements for connection in other areas where water quality degradation has not been shown to be caused by septic systems.
  2. The difficulty in getting two bids was discussed at length with Rob sharing the problems in getting bids that a customer of his has experienced, as a case in point. Staff discussed the Excel spreadsheet that Matt Thompson provided, but noted that the spreadsheet is not self-explanatory and training is needed before it can be used by staff. Brad suggested that Rob's customer contact staff and staff would try to use the new spreadsheet to estimate the cost of sewer connection. Several members requested copies of the spreadsheet, but it is unclear whether Rob wants the spreadsheet to be used by the private sector.
  3. The issue of requiring sewer connection when only a septic needs to be replaced was discussed. There was a general feeling that replacement of a septic tank should not require sewer connection. Brad pointed out that the current trigger for the requirement of sewer connection is when a repair permit is required and stressed that in an area where water quality has been compromised by septic systems, such as the Chico Nitrate Area, there is a public health benefit in requiring connection to the sewer.
  4. Buddy and others discussed the use of STEP systems that could significantly lower the cost of transporting wastewater to the sewer.
  5. The issue of whether or not to allow exemptions for structures that are not owner-occupied residences was discussed with DC favoring the restriction of exemptions to owner-occupied residences and Lauralyn taking the opposition position.



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6. Brad said that before the next meeting he would:
  - a. Discuss with the Regional Board whether connection should be required when only a septic tank needed to be replaced
  - b. Discuss with Matt whether the spreadsheet could be shared with others and request a training on its use by staff when Rob's customer contacts our office.

### III. Agenda Preparation for Next Meeting

The next meeting will be scheduled for November 15, 2016 at the Chico Association of Realtors building.

### IV. Adjourn

The meeting adjourned at 5:05 p.m.

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Minutes provided by Brad Banner, EH Director



Minutes - Wastewater Advisory Committee

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Attachment One



Public Health Department

Cathy A. Raevsky, Director

Mark A. Lundberg, M.D., M.P.H., Health

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Wastewater Advisory Committee

Sign-In Sheet

Date: October 18, 2016 Location: Tahoe Rm, 202 Mira Loma Dr., Oroville

Name	Initials	Email
Jankill	JK	jankill@comcast.net
GARY WERT	GW	gary.wert@comcast.net
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LAURALYN LAMBERT	LL	lauralyn@lauralynlambert.com
John Hoffman	JH	jhoffmanbackhoe@gmail.com
Gary Nottingham	GN	Buddy@chico.com



# Composting Toilet Guidelines

Update October 18, 2016

Composting toilets are not permitted in Butte County for residential or commercial use. However, the Butte County Onsite Wastewater Systems Ordinance (Butte County Code Chapter 19) allows approval of alternative requirements by the Environmental Health Director when the alternatives are equally protective of public health and the environment.

These guidelines provide a potential set of mitigations that would protect public health and the environment when allowing replacement of existing flush toilets with composting toilets or with installation of additional composting toilets serving accessory buildings.

## I. Applicability

Composting toilets should only be considered for owner occupied dwellings on parcels 1 acre in size or larger.

## II. Requirements

No person should install, use, or maintain a composting toilet, except where all of the following requirements are met:

### A. General

1. The parcel is served by a permitted onsite wastewater system sufficiently designed and sized to treat and disperse all wastewater generated by the residence and any accessory buildings with discharging toilets and fixtures.
2. The composting toilet is installed, maintained, or replaced in accordance with the manufacturer's recommendations for NSF certified manufactured units or by the designer's recommendations for toilets constructed onsite.
3. No material is placed in a composting toilet other than the material for which it has been designed.
4. Any composting toilet that incorporates a liquid discharge will have a minimum 50 foot setback from a property line or well.
5. Installation of the toilet has been inspected by the Butte County Building Official, or designee, in consultation with the Public Health Department, Environmental Health Division, hereinafter referred to as the Local Enforcement Agency (LEA).

### B. Selection of Composting Toilet

1. The toilet needs to be specifically designed for holding and processing liquid and solid human waste, generally associated with toilet usage, and employs the process of biological degradation in which organic material is

converted into a compost-like substance.

2. Any manufactured toilet needs to be certified and currently listed by the National Sanitation Foundation (NSF) under NSF/ANSI Standard 41.
3. Any toilet constructed onsite must follow the design and construction detail outlined in the Appendix to these guidelines or must be designed and constructed following a design provided by a qualified designer. Both the designer and the design must be approved by the LEA prior to construction of the toilet.
4. The size of the toilet's composting chamber must be appropriate for the intensity and duration of use as specified in the manufacturer's recommendations, the designer's recommendation, and the LEA's evaluation.
5. The model of manufactured toilet and the size of the composting chamber needs to be appropriate for the number of users. The assumed number of users should be the higher of the numbers calculated by the following methods:
  - a. Calculation by Number of Bedrooms:
    - i.) The number of occupants of each dwelling unit shall be calculated as follows:
      - ii.) First Bedroom ----- 2 occupants
      - iii.) Each additional bedroom ----- 1 additional occupant
  - b. Calculation by Anticipated Actual Number of Users:
    - i.) The applicant indicates the maximum foreseeable number of persons who will be living at the residence and using the composting toilet.
  - c. Examples.
    - i.) If only one person will reside in a three bedroom home, the composting toilet selected shall be a toilet recommended to serve at least 4 residents.
    - ii.) If five people will reside in a one bedroom home, the composting toilet selected shall be toilet recommended to serve at least 5 occupants.

**C. Management of Finished Compost and Liquid By-Products**

1. All composting toilets need to have an Operation and Maintenance (O&M) Manual.
2. The residual liquid waste by-product of the composting toilet needs to be collected, transported, and discharged in a manner as stated in the O&M Manual.

3. The product of composting digestion needs to be handled and disposed of only after the digestion process is complete as specified in the manufacturer's operation and maintenance instructions; and
4. Composting toilets have been shown to be capable of deactivating and/or killing pathogens through the internal processes that take place. Due to external conditions or operational irregularities, the conditions in the unit may not always be optimal for pathogen destruction and improper handling and disposal of the product could adversely impact public health by allowing transmission of a variety of enteric diseases and parasitic illnesses. The product of composting digestion must, therefore, be transported and disposed of in a manner that does not create a public nuisance and is in accordance with the requirements of the operating permit and the owner's operation and maintenance manual, and the following requirements:

**III.** Transportation needs to be by a licensed septic tank pumper to an approved solid waste disposal facility capable of accepting human waste; or

**IV.** Disposition by the homeowner on the property where the toilet is located, needs to meet all the following conditions:

- A. Bury the waste under a minimum of six (6) inches of compacted soil;
- B. The location for burial should be shown on a site plan submitted under the LEA's Site Assessment process;
- C. The waste should not be buried in any present or planned food crop growing areas or dairy pasture; and
- D. The waste should not be buried where there is less than 36 inches of native, undisturbed soil between the bottom of the burial excavation and a seasonal, perched watertable, or in an area subject to seasonal runoff where the discharge could flow into surface or subsurface water.
- E. **LEA Notification and Plan Review**
  1. Construction and installation of a composting toilet requires LEA Notification and Plan Review rather than an Onsite Wastewater System Construction permit.
  2. Plan Reviews will require the following:
    - a. Scaled or dimensional site plan showing site proposed for disposal of the product of composting digestion. Setback requirements for the disposal site should be the same as those in Chapter 19 for septic tank placement.
    - b. Composting toilet design.

- i.) For manufactured composting toilets, sufficient information from the manufacturer needs to be submitted in order to verify that the model selected is sufficiently sized and NSF certified. NSF certified toilets may require an ancillary composting chamber to assure complete digestion prior to disposal of the end product.
  - ii.) For composting toilets constructed onsite must follow the design and construction detail outlined in the Appendix to these guidelines or must be designed and constructed following a design provided by a qualified designer.
- c. An O&M Manual must be provided that includes all of the following information:
  - i.) Potential health risks from improper use or maintenance of the composting toilet;
  - ii.) Manufacturer's name and model number;
  - iii.) Manufacturer's NSF certification;
  - iv.) Manufacturer's recommended operational capacity;
  - v.) Manufacturer's operation and maintenance recommendations;
  - vi.) Trouble-shooting information;
  - vii.) Contact information in case of the need for repair or replacement; and
  - viii.) Method of handling and site for disposal of the product of composting digestion.

## Draft Changes to the Onsite Wastewater Manual

### Manual Part 3, Chapter 1, K

The minimum liquid capacity of any septic tank installed must be 1500 gallons for up to a 4 bedroom residence and an additional 200 gallons for each bedroom thereafter. However, nothing herein is intended to prevent the LEA from approving a smaller than 1500 gallon septic tank for a non-residential, non-commercial structure, ancillary to a residential dwelling, such as shop or garage, provided:

- (a) The LEA determines that connection of the building to the residence's existing onsite wastewater system is not feasible due to site specific factors including, but not limited to, excessive transport distance, sit topography, and landscaping; and
- ~~(a)~~ (b) A deed restriction is recorded by the property owner stating that the ancillary structure will not be used for residential accommodation.

### Manual Part 3, Chapter 1, A

Projected daily sewage flow from single family residences must be calculated at 240 gpd for 2 bedrooms, 360 gpd for 3 bedrooms, and 60 gpd for each additional bedroom. Projected daily sewage flow for sizing a dispersal field serving only a non-residential, non-commercial structure, ancillary to a residential dwelling, such as a shop or garage, must be a minimum of 100 gpd provided:

- (a) The LEA determines that connection of the building to the residence's existing onsite wastewater system is not feasible due to site specific factors including, but not limited to, excessive transport distance, sit topography, and landscaping; and
- (b) A deed restriction is recorded by the property owner stating that the ancillary structure will not be used for residential accommodation.

## Guidance for Considering Requests for Exemption to Sewer Connection Requirement Based on Cost

### A. Background

1. The requirement for mandated connection to a public sewer is specified in Butte County Code (BCC) Section 19-8.
2. Connection to a public sewer is triggered when an Onsite Wastewater System Construction Permit is required for repair or replacement of an existing onsite wastewater system.
3. The Environmental Health Director is authorized to make exceptions to mandated sewer connection when the sewer main is not adjacent to the property line but still within 250 feet of the existing or proposed dwelling.
4. While a number of factors are listed in BCC 19-8 that could assist the Environmental Health Director in determining when an exception should be granted, this policy is intended to provide consistency when determining when "feasibility and cost of connection" are used as the primary justification for a request for an exception.

### B. Authorization

No exemption will be made for sewer connection without review and written authorization by the Environmental Health Director.

### C. Applicability

This policy and procedure will only apply to owner occupied residences with existing onsite wastewater systems requiring repair or replacement where "feasibility and cost of connection" is the primary basis of the request.

### D. Procedure

1. The applicant or the applicant's agent will need to apply for the exemption on the form provided by the Division. <sup>1</sup>
2. Determination of Costs within Water Quality Concern Area<sup>2</sup>
  - a. The applicant will provide an appraisal of the property value that has been conducted within the past 6 months.

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<sup>1</sup> Cross reference: Land Use Policies, EH Director Review and Determination.

<sup>2</sup> This refers to the Chico Nitrate Compliance Area or another area (not currently designated) where there is concern that the continued use of onsite wastewater systems could adversely impact water quality



- a. A request for exception will be considered for approval when the connection fees plus construction costs would be greater than two times the cost of repairing or replacing the onsite wastewater system.
2. In areas where there is a potential risk for water quality impacts due to continued use of onsite wastewater systems, such as within the Chico Nitrate Compliance area:
    - a. When the parcel is in escrow and the connection or repair is being made as part of the process for land transfer or when low interest funding is available for assisting the property owner pay the cost of connection to the sewer, a request for exception will be considered for approval when the connection fees plus the construction costs would be greater than 10% of the value of the property.
    - b. When the parcel is not in escrow and the owner does not meeting the income criteria for receiving low interest funding for assisting the property owner pay the cost of connection to the sewer, a request for exception will be considered for approval when the connection fee plus construction costs would be greater than 5% of the value of the property.