



Public Health Department

Environmental Health

202 Mira Loma Drive
Oroville, California 95965

Cathy A. Raevsky, Director
Mark A. Lundberg, M.D., M.P.H., Health

T: 530.538.7281
F: 530.538.5339

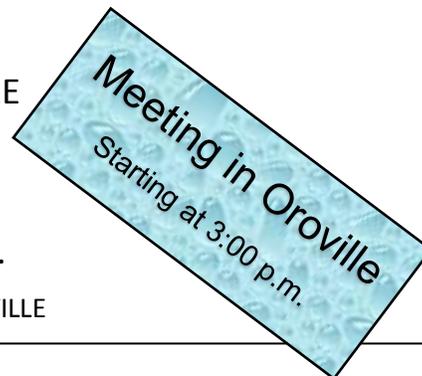
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WASTEWATER ADVISORY COMMITTEE

AGENDA

OCTOBER 18, 2016 ❖ 3:00 P.M.-5:00 P.M.

TAHOE ROOM ❖ 202 MIRA LOMA DRIVE, OROVILLE



I. Preliminary Items

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

II. 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. Modified Design Criteria for Sizing Reductions for Pressure Distribution and Supplemental Treatment Systems (See Agenda Attachment "D")
Discuss and make recommendations
- D. Criteria for Approval of Exceptions for Sewer Connection Based on Cost (See Agenda Attachment "E")
Discuss and make recommendations

III. Informational Non-Action Items

IV. Agenda Preparation for Next Meeting

V. Adjourn



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Wastewater Advisory Committee

Minutes

August 9, 2016

Chico Association of Realtors ** 1160 E. 1st Avenue, Chico

Attachment "A"

I. Preliminary Items

A. Call to Order

Nick called the meeting to order at 3:02 p.m.

B. Role Call and Determination of Quorum

Nick Weigel, Wes Gilbert, Jan Hill, Lauralyn Lambert, Buddy Nottingham, Will Arnold, and DC Jones were present. Priscilla Rawlings (alternate for Lauralyn) was also present.

Rick McCauly was absent.

A quorum was established.

Nicole Campbell, Patrice Sorenson, "Clint Maderos, Frank Rios, John H9offman, Gary Wert, Jenifer Kovacs, Casey Hatcher, Matt Thompson, Dave Flournoy, Robert Parker, and Robert Perkins 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 meeting notes from May 17, 2016 meeting were reviewed. Lauralyn made a motion to accept the minutes as written. Jan seconded the motion and the motion passed unanimously.

D. Agenda Review

Nick moved consideration of criteria for approval of exceptions for sewer connection based on cost to the beginning of the agenda in consideration of Matt's (City of Chico) and Casey's (Butte County Administration) time in attending the meeting for that topic.

E. Public Comments and Input

There was no public comment.



II. Action Items

A. Criteria for Approval of Exceptions for Sewer Connection Based on Cost

1. Brad reviewed Section 19-8 of Chapter 19, Onsite Wastewater Systems Ordinance, as it relates to required sewer connection when the sewer main is not adjacent to the parcel but is no farther than 250 feet from the residence. Brad described the difficulty in determining when an exception should be allowed based on cost and provided a handout for consideration.
2. Committee members discussed a number of other criteria for considering an exception, including:
 - a. Is a financial impact of requiring connection a significant hardship on the property owner?
 - b. Is the property owner eligible for a grant to cover the cost of connection?
 - c. Is the property in the Nitrate Compliance Area?
 - d. What is the cost of connection in comparison with the increased value of the property after connection to the sewer?
 - e. What is the difference between the cost of repairing the system and the cost of connecting to the sewer?
3. Casey offered contact information for the county's consultant on housing rehabilitation that could be of assistance.
4. Matt suggested that it is feasible for the city to develop a matrix that could be used to determine the cost of sewer connection without requiring bids from contractors.
5. Matt also advised that, from an administrative viewpoint, the most workable criteria for granting an exemption would be if the cost of connection exceeded a certain percentage of the value of the property and perhaps the Board of Supervisors could make a determination of the appropriate percentage.
6. Lauralyn pointed out that property value should be based on an appraisal completed within the last 6 months or if the property is listed for sale, on the price listed for sale.
7. [No specific direction was provided by the Committee on this matter but a wealth of information and considerations were discussed that will be extremely helpful to the EH Director.](#)



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III. Informational Non-Action Items

A. Informational Handout for Financial Assistance

Brad distributed a handout for financial assistance available to low income individuals based on the presentation by Heather MacDonald, Management Analyst for Butte County Administration. (Flyer included with the meeting's agenda)

B. Jan and Gary presented information about Geomatrix GeoMat Flat and SoilAir drainfield aerator for rejuvenating drainfields clogged by biomat.

C. Wes shared some frustration with some EH processes and requirements. Brad promised that the issues raised would be discussed with staff to see if some process improvements can be implemented.

IV. Agenda Preparation for Next Meeting

The next meeting will be scheduled for October 18, 2016 in the Tahoe Room in Oroville at 202 Mira Loma Drive.

V. Adjourn

The meeting adjourned at 4:55 p.m.



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WASTEWATER ADVISORY COMMITTEE Aug 9, 2016		
<u>Name</u>	<u>Initial</u>	<u>Emergency</u>
Brad Banner	<i>[Signature]</i>	bbanner@buttecounty.net
Nicole Campbell	<i>[Signature]</i>	
Patrice Sorenson	<i>[Signature]</i>	
Will ARNOLD	WA	
CEINT MADEROS	<i>[Signature]</i>	
Frank Rios	<i>[Signature]</i>	
John Hoffman	<i>[Signature]</i>	jhoffman@ckhoe.com
Wes Gilbert	WGB	wes@gilbertengineering.com
GARY WERT	<i>[Signature]</i>	gary.wert@comcast.net
Jan Hill	<i>[Signature]</i>	jan.hill@comcast.net
LAURALYN A. LAMBERT	<i>[Signature]</i>	lauralynalambert.com
NICK WEIGEL	<i>[Signature]</i>	NWEIGEL@NORTHSTAR-ENG.COM
Jenifer Kovacs	K	
Casey Hatcher	CH	chatcher@buttecounty.net
PAUL WARD	PC	patward@buttecounty.net
Prinilla Kaulings	PK	prinilla.kaulings@gmail.com
KRISTEN MCKILLOP	<i>[Signature]</i>	kmckillop@buttecounty.net
DAVE FLOURNOY	DF	DFlournoy72020@6mail.com
DC JONES	<i>[Signature]</i>	DCWAHABE@OUTLOOK.COM
Robert Parker	<i>[Signature]</i>	rfparkeriii@msn.com
ROBERT PERKINS	RP	Robert@domesticseptic.com
Buddy Nottingham	<i>[Signature]</i>	Buddy@chico.com

Composting Toilet Guidelines

Update October 18, 2016

Attachment "B"

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.

(a) **Applicability**

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

(b) **Requirement**

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

(1) **General**

- (A) 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.
- (B) 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.
- (C) No material is placed in a composting toilet other than the material for which it has been designed.
- (D) 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).

(2) **Selection of Composting Toilet**

- (A) 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.
- (B) Any manufactured toilet needs to be certified and currently listed by the

National Sanitation Foundation (NSF) under NSF/ANSI Standard 41.

- (C) Any toilet constructed must follow 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.
- (D) 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.
- (E) The model of 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:

The number of occupants of each dwelling unit shall be calculated as follows:

 - i.) First Bedroom ----- 2 occupants
 - ii.) Each additional bedroom ----- 1 additional occupant
 - b. Calculation by Anticipated Actual Number of Users:

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.

(3) **Management of Finished Compost and Liquid By-Products**

- (A) All composting toilets need to have an Operation and Maintenance (O&M) Manual.
- (B) 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.
- (C) 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
- (D) 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:

- (i) Transportation needs to be by a licensed septic tank pumper to an approved solid waste disposal facility capable of accepting human waste; or
- (ii) 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.

(4) LEA Notification and Plan Review

- (A) Construction and installation of a composting toilet requires LEA Notification and Plan Review rather than an Onsite Wastewater System Construction permit.
- (B) 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, construction plans need to be submitted by a qualified composting toilet 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 structure, ancillary to a residential dwelling, such as shop or garage, provided 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 structure, ancillary to a residential dwelling, such as a shop or garage, must be a minimum of 100 gpd provided a deed restriction is recorded by the property owner stating that the ancillary structure will not be used for residential accommodation.](#)

Draft Changes to the Onsite Wastewater Manual

Manual Part 3, Chapter 1, H

The LEA may allow up to a 25% reduction in drainfield sizing based on inclusion of a portion of the trench sidewall area for determining absorptive area when pressurized distribution is utilized. ~~The percent of reduction would be based on the formula used in the Manual of Septic Tank Practice.~~ An additional 25% reduction in drainfield sizing may be allowed when supplemental treatment is utilized. The combined reduction shall be no more than 50%. The base from which the reduction would be made is the size of the system calculated from trench bottom only utilizing the application rates associated with soil classifications in Table One of this Chapter.

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

Here is the pertinent section from BCC Chapter 15

19-8 Connection to Public Sewer System

- A. Other than where an exception is granted by the Environmental Health Director pursuant to Subsection B of this Section, connection to a public sewer system shall be required by the LEA whenever the sewer main is no more than two hundred fifty (250) feet from the existing or proposed dwelling and all of the following circumstances apply:
 1. Application has been made for new development or a failing on-site wastewater system has been identified by the LEA; and
 2. The public sewer system has adequate capacity for the connection; and
 3. Connection to the public sewer is permitted by the sewer utility.
- B. Exceptions may be granted by the Environmental Health Director to Subsection A of this Section where the sewer main is not adjacent to the property line. Factors that may be considered prior to making a decision to grant or deny an exception include, but are not limited to, the following:
 1. **Feasibility and cost of connection;** and
 2. Reasonable expectation for future expansion plans of the sewer utility; and
 3. Willingness of the applicant to commit to connect to the public sewer in the future; and
 4. Suitability of the parcel for siting an on-site wastewater system.

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.

A number of factors are listed that could assist the Environmental Health Director in determining when an exception should be granted.

One of the factors listed was "feasibility and cost of connection." This factor was discussed at length by the Wastewater Advisory Committee at the August 8, 2016 meeting.

Feedback from the committee is now requested concerning the following criteria for determining "feasibility and cost":

1. The mandated sewer connection is triggered by the requirement of Onsite Wastewater System Construction Permit for either a new, expanding, or repair onsite wastewater system.
2. No exemption will be made for sewer connection without review and written authorization by the Environmental Health Director.
3. Property value will be based on an appraisal that has been conducted within the past 6 months.
4. When a structure that is required to be connected to the sewer is on a parcel located within the Chico Nitrate Compliance Area or on a parcel outside of the Chico Nitrate Compliance Area where failure to connect could result in contamination of groundwater, the following considerations will apply:
 - A. The cost of sewer connection may be determined by either of the following two methods (typically landscaping will not be included in the cost estimate):

1. Submission of two written estimates.
 2. For parcels within the Chico Nitrate Compliance Area, use by staff of the cost calculation spreadsheet provided by City of Chico engineering, provided the completed spreadsheet is reviewed by the City of Chico engineer.
- B. The benchmark for considering an exception based on the cost of connection will be a connection fee of at least 20% of the property value.
- C. Consideration can be made to defer connection to the sewer until the time of property transfer when all of the following conditions are met:
1. The sewer main is not adjacent to the property line.
 2. The residence is owner occupied.
 3. The property owner is ineligible for financial assistance through the CDBG program managed by the county.
 4. Evidence is provided indicating that the cost of connection would be a financial hardship for the property owner.
5. When a structure that is required to be connected to the sewer is not located within the Chico Nitrate Compliance Area and where there is no indication that failure to connect would result in contamination of groundwater, the following considerations will apply:
- A. The cost of sewer connection may be determined by submission of two written estimates (typically landscaping will not be included in the cost estimate.)
 - B. LEA staff will consult with the sewer utility to determine whether failure to connect would have an adverse impact on the planned expansion of the sewer.
 - C. The benchmark for considering an exception based on the cost of connection will be a connection fee of at least 2.5 times.
 - D. Consideration can be made to defer connection to the sewer as described in 4.C., above.