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WASTEWATER ADVISORY COMMITTEE

AGENDA

Meeting in Chico

FEBRUARY 17, 2015 ❖ 3:00 P.M.-5:00 P.M.
CHICO ASSOCIATION OF REALTORS ❖ 1160 EAST 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
E. Agenda Review
F. Public Comments and Input

II. Action Items

A. Election of Officers
Select a Chair and Vice-Chair for the Committee

B. Consideration of Changes to the Parts 1-4 of the Onsite Manual
Review changes and make recommendations

1. Part 2 (Materials), Chapter 2, Section A. (See Attachment A)
2. Part 2 (Materials), Chapter 8, Section D. (See Attachment B)
3. Part 2 (Materials), Chapter 11, Section A. (See Attachment C)
4. Part 3 (System Requirements), Chapter 6, Section F. (See Attachment D)

C. Consideration of Change to Butte County Onsite Wastewater Systems Ordinance Butte County Code Chapter 19 (See Attachment E)
Review changes and make recommendations

III. Informational Non-Action Items

A. OM&M Report Form Update
Report from Subcommittee (Buddy, Brad, Kristen)

B. Notice to Submit Form 700
Submission deadline: April 1, 2015

IV. Agenda Preparation for Next Meeting

V. Adjourn

Attachment A

Part Two: Materials

Chapter 1. Building Sewer

The building sewer must be constructed with materials in conformance to building sewer standards identified in the Uniform Plumbing Code. The building sewer pipe must have a minimum diameter of three (3) inches.

Chapter 2. Septic Tank

A. General criteria: Septic tanks must:

1. Be constructed of precast reinforced concrete or other material approved by the LEA. Wood and metal tanks are prohibited. Cast-in-place, and fiberglass may be considered on a case-by-case basis provided there is adequate engineering justification and provided they meet the requirements outlined in this Manual. ~~and p~~Polyethylene and polypropylene tanks ~~may be considered on a case-by-case basis provided there is adequate engineering justification and provided they meet the requirements outlined in this Manual.~~ that meet the International Association of Plumbing and Mechanical Officials (IAPMO) standard IAPMO/ANSI Z1000 (standard for design, material, performance testing, and marking) are approved by the LEA, unless otherwise noted.
2. Have the manufacturer's name and tank capacity in gallons permanently displayed on the uppermost portion of the tank. If the tank is constructed of fiberglass, ~~or~~ polyethylene, or polypropylene then the model number must also be displayed.
3. Be protected against flotation under high ground water conditions.
4. Be approved by the International Association of Plumbing and Mechanical Officials (IAPMO) or meet IAPMO minimum standards as demonstrated to the LEA by a certification program equivalent to that provided by IAPMO with the following program elements:
   a. Evaluation and certification by an engineering firm, approved by the LEA, with expertise and experience related to septic tank design and construction, to verify substantial equivalency with IAPMO standards and compliance with the requirements of this Manual as pertaining to:
      (1) Structural design of the tank;
      (2) Quality of materials used in construction of the tank;
      (3) Acceptable construction methods and practices;
      (4) Quality control and quality assurance plan proposed by the manufacturer;

Attachment B

The electrical box for the pump and alarm system must not be located in an environment that may damage the components.

F. Wiring must be of proper construction and gauge and permanently fixed to a supporting structure under permit from the local Administrative Authority.

G. The pump and alarm must be connected to separate circuits.

H. There must be a non-resettable digital pump cycle counter in the electrical box.

I. There must be a manual override switch in the electrical box to facilitate dosing control during inspections.

Chapter 8. Pipe

A. All pipe throughout the wastewater system must be clearly labeled and installed so that the labeling can be readily identified by LEA inspectors. Labeling, consisting of durable ink, must cover at least 50% of the length of the pipe. Labeling may consist of a solid line, letters, or a combination of the two. Intervals between markings must not exceed 12 inches.

B. Schedule 40 ABS must be used from the house to the septic tank

C. Schedule 40 ABS or SDR 35 (ASTM D 3034) must be used as follows:

1. From the septic tank to the distribution box (if applicable)
2. From the distribution box outlet for a minimum of 5 feet
3. From the septic tank to the pump chamber (if applicable)

D. Gravity Distribution (leachline) Dispersal

1. One of the following grades of 4-inch perforated pipe must be used:
   a. SDR 35 (ASTM D 3034) 4-inch diameter
   b. Triple Wall ASTM F810
2. ~~Alternatives to piping, such as~~ Ggravelless chambers, may be used provided the products meet IAPMO standard PS-63 ~~when approved by the LEA~~.
3. The pipe described ~~above~~ in subsection D.1. of this section must have 2 rows of holes spaced 120 degrees apart and 60 degrees on either side of a centerline. The holes of each row must not be more than 5 inches on-center and must have a minimum diameter of one-half inch.

E. Pressure transport pipe, pressure distribution manifolds, and pressure distribution laterals (piping and fittings), must meet the most current requirements for schedule 40 PVC pressure pipe as identified in ASTM Specifications D-1785, or other material approved by the LEA. All pressure distribution laterals and all pressure transport and manifold piping must be adequately sized for the design flow.

F. Curtain drain pipe must meet the requirements specified in the Manual for gravity drainfield pipe. Other types of pipe may be approved by the LEA,

Attachment C

provided it can be demonstrated that the selected pipe has the structural strength for the application proposed.

Chapter 9. Drainrock

A. Gravel used for drainrock must be ¾ inch to 2½ inches in diameter. Uniformly graded material is recommended to maximize pore space. Drainrock must be clean, washed, non-deteriorating gravel, with the percent by weight passing the U.S. No. 200 sieve no greater than 0.5%. Alternatives to drainrock, as described in this Chapter, may be accepted on a case-by-case basis.

B. Gravelless systems are allowed provided the requirements for such systems as described in Part Three of this Manual are followed.

Chapter 10. Barrier Material

A. Untreated building paper or two inches of compacted straw may be used for standard gravity systems.

B. Filter fabric must be used for non-standard systems and must meet or exceed the specifications described in the following table:

Property	Requirement	Test Method
Grab Strength	80 lbs.	ASTM D4632
Puncture Strength	25 lbs.	ASTM D4833
Trapezoid Tear	25 lbs.	ASTM D4533
Apparent Opening	AOS < 0.297 mm, or > #50 US Standard Sieve	ASTM D4751
Size	> #50 US Standard Sieve	
Permeability	0.4 cm/sec for Soil Types 1,2 0.004 cm/sec for Soil Types >2	ASTM D4491

[1] Examples of filter fabrics meeting this specification include: Mirafi 140 N3L.

Chapter 11. Bundled EPS Synthetic Aggregate

A. As substitute for pipe, drainrock, and barrier material, Bundled Expanded Polystyrene (EPS) Synthetic aggregate meeting IAPMO standard IGC 276 may be used for wastewater dispersal. Units are cylindrically shaped; having a seamless external permeable netting that contains EPS synthetic aggregate. A geotextile is pre-inserted between the EPS synthetic aggregate and netting as a barrier material to overlying soil. At least one bundled EPS synthetic aggregate unit in the configuration shall include an internal 4-inch pipe. The internal pipe shall comply with ASTM F405.

B. Bundled EPS synthetic aggregate shall be H-10 rated. Units may contain a plastic pipe for longitudinal conveyance of water.

C. EPS synthetic aggregate participles shall be relatively uniform in shape and size. The aggregate particle size may range form 0.5 inches to 2.0 inches along any exis. EPS synthetic aggregate must provide a minimum porosity of 30%.

Attachment D

a. A pump basin with pump may be utilized when any toilet being serviced, in the case of residential application, is not the sole toilet utilized by the residence.

b. A solids handling pump, rather than a grinder pump, must be used and must pump directly into the septic tank with a 4 inch penetration 10 ft from the tank inlet.

F. Gravelless Chamber and Bundled Expanded Polystyrene (EPS) Synthetic Aggregate Systems ~~(Exclusive of Subsurface Drip Irrigation Systems)~~

1. With 100% of the area required for a gravel-filled drainfield established and dedicated (for initial and replacement fields) reduced-size gravelless chamber bundled EPS synthetic aggregate drainfields may be designed and installed.

2. System design, layout, and installation must be done in a manner easily facilitating the installation of additional gravelless chamber or bundled EPS synthetic aggregate drainfield if future conditions necessitate such action.

3. Except for those serving seasonal dwellings, the drainfield size using gravelless chambers or bundled EPS synthetic aggregate products may be reduced by 30%, provided no additional sizing reductions (such as would otherwise be allowed for use of pressurized distribution or supplemental treatment) are utilized in the design of the drainfield system.

~~1.~~4. Wastewater from residential sources must receive pre-treatment at least equal to that provided in a conventional two-compartment septic tank, before discharge to a gravelless drainfield.

~~2.~~5. Drainfields using gravelless distribution products must be installed according to the manufacturer's instructions, in a manner that is consistent with these standards and with state and local rules.

~~Chapter 6.~~Chapter 7. Deep Trench Systems

When the drainfield trench is excavated deeper than 36 inches into the finished grade, the following additional requirements will apply:

A. The trench will be filled with an approved medium to course sand to within 24 inches of the finished grade so that wastewater from the pipe and gravel dispersal system will discharge over the sand bedding in the deep trench.

B. The system will be sized based on the texture and/or percolation rate of the receiving soil at the bottom of the trench.

C. If the trench is deeper than 48 inches beneath the finished grade, pressurized distribution over the sand will be required.

Attachment E

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Registered Civil Engineer; RCE # 69021

PROJECT:
BY: DATE:
JOB:

For: Monte Johnson

CALCULATION SHEET

Proposed Continued education to be done online by April 1st 2015
I spoke with Brad Banner on the issues of Civil Engineers Not being required to do Continued education as part of our license through the State License Board. I would like the wastewater Committee to look at removing this requirement. A registered environmental heath license requires continued educaten But the California board wants to see Butte Counties requirement.

ENVIRONMENTAL HEALTH
JAN 26 2015
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