



WASTEWATER WORKING GROUP

MINUTES

MAY 9, 2007, 2007

ASSOCIATION OF REALTORS BOARD ROOM, CHICO

3:00 P.M. – 5:00 P.M.

I. Call to Order

Nick called the meeting to order at 3:05 p.m.

II. Preliminary Items

A. Role Call and Determination of Quorum

Tony Kilcollins, DC Jones, Ron Dykstra, Ken Shuey, Phil Decann, and Nick Weigel were present. Stew Oakley, Buddy Nottingham, and Gary Fowler were absent.

A quorum was established.

B. Introduction of Guests

Jan Hill, Mike Elliot, and Jack Biggs were present. In addition, Roger Davies, Tom Loushine, Charlotte Walters, Mike Kerley, Tom Loushine, and Brad Banner attended the meeting on behalf of the Public Health Department.

C. Minutes

A motion was made that the minutes be accepted. The motion was seconded and passed unanimously.

D. Correspondence and Public Comment

None.

E. Agenda Review

Nick asked for a report from Ron and Brad on their recent trip to Amador County to assess Amador's use of engineered fill to develop otherwise unbuildable parcels.

III. Informational Non-Action Item

A. Ron and Brad reported that Amador has experienced difficulties with fill systems used on parcels with shallow watertable and/or shallow hardpan. For fill systems, Amador requires supplemental treatment, followed by pressure distribution into a (recommended) fine sand to loamy sand fill. Fill is compacted in 8-inch lifts

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and regulated by the Public Works Department through grading permits. Once fill is placed on parcels, it is perc tested and winter groundwater monitoring is conducted. It was observed that Amador often spends several years re-contouring and draining a fill site before for the drainfield can be installed. Brad and Ron noted that it appears that the fill itself seems to work, but there may be failures caused by the conditions beneath the fill.

- B. Ron and Brad also described Amador County's use of evaporation systems that consist, for a 3-bedroom home, of a lined sand bed approximately 4,500 sq. ft. in size and with a cost of approximately \$60,000. Sewage going into the evaporation bed is not pre-treated, and the long-term viability of these systems has not been established.
- C. The committee decided to leave their original recommendation concerning the use of fill on existing parcels to stand as written, but suggested that the Amador findings should be related to the Board of Supervisors when the committee recommendations are presented.

IV. Action Items

- A. Determination of Who Should be Authorized to Design Pressure Distribution and Supplemental Treatment Systems
 - 1. Brad presented an analysis of various designer options. See attached.
 - 2. The committee and guests engaged in lively discussion of this topic. Phil strongly advocated for a local certification program that would allow non-engineers/geologists/soil scientists/REHS to design pressure and supplemental treatment systems.
 - 3. DC advocated allowing non-engineers to design these systems, exclusive of homeowners and contractors.
 - 4. Nick raised a point of information concerning the legality of non-engineers designing systems involving hydraulic calculations, such as pressure distribution systems, and suggested that County Counsel be consulted on the matter.
 - 5. Brad asked about the possibility of engineers only signing off on the hydraulic calculations for non-engineer designers. Nick and Ken said that engineers take on a broader liability for the overall system design when they use their stamp, so signing off in this limited manner would not be feasible.
 - 6. Mike Elliot and Jan strongly advocated for REHS be authorized to design systems and to be certified locally to assure competence.
 - 7. The committee made the following series of recommendations:
 - a. DC made a motion to recommend Civil Engineers, Registered Geologists, Registered Environmental Health Specialists, and nationally Certified Soil Scientists be authorized to design pressure

distribution and supplemental treatment systems. Ken seconded the motion and the motion passed 5-1.

Phil voted against the motion because he felt that others beside those listed in the motion could design pressure distribution and supplemental treatment systems, provided there was a sound local certification program to assure competence and accountability.

- b. Ron asked for clarification that the previous motion contained a limitation on maximum design flows for which a non-engineer could design.
- c. DC made a motion to clarify that any system with design flows exceeding that for which Butte County Environmental Health has jurisdiction (currently 2,500 gpd) must be designed by a Civil Engineer. Ken seconded the motion, and the motion passed unanimously.
- d. Ken made a motion that authority to design pressure distribution and supplemental treatment systems be conditioned upon certification at the local level for competence, the specific components of which program (testing, continuing education, etc.) will be decided later. DC seconded the motion and the motion passed unanimously.

B. Determination of Standards for System Repair

- 1. The concept of emergency and long-term repair was discussed.
- 2. Brad described his conversation with Dan Blair, Manager of Program Development for Butte County. There is currently a low-interest loan program available for families earning less than 80% of median income where payments can be deferred for one or more 5-year periods based on ability to pay.
- 3. Tony expressed concern that repair of septic systems not be delayed until point-of-sale, and described such a program as unfair and ineffective. He expressed concern about "Band-Aid" repairs that are not followed up on by environmental health until point-of-sale.
- 4. Jack expressed concern about the number of costly repairs that might be required in the Oroville area of families having too high of an income to qualify for the low-interest loan program, but still not be able to afford a costly repair.
- 5. Ken pointed out that if it is politically infeasible to require a system repair to meet standards, then the upgrade should occur at point-of-sale [ughhh!] to protect water quality.
- 6. Jan described the repair requirements in Sutter County, where failed systems are required to upgrade to code [is it an upgrade to code, or the best

repair possible with existing site conditions?] even though Sutter County has no low income funding alternative.

7. Ken made a motion that: (a) The standards for repair be the same as those for existing parcels to the extent allowed by the site and through the use of best available technology, (b) The repair be required to take place as soon as possible, and (c) Environmental Health pursue a funding mechanism to assist low income families pay for system repairs. Tony seconded the motion and the motion passed unanimously. (Note: Nick left the meeting at 4:15 p.m., so this vote and those subsequent did not include him.)

C. Appeal and Variance Procedure.

1. Tony made a motion that, after such time that the committee is formally appointed by the Board of Supervisors, variances be determined by the Environmental Health Director and appealed to a subcommittee of the Wastewater Working Group selected by the Chair and that this subcommittee be the final point of appeal. Ken seconded the motion and the motion passed unanimously.

V. Agenda Preparation for Next Meeting

A special meeting was scheduled for Thursday, May 24, 2007 to make recommendations on design flows, septic tank sizing, and operation and maintenance.

VI. Adjourn

The meeting adjourned at 5:00 p.m.

ANALYSIS OF SUPPLEMENTAL TREATMENT SYSTEM DESIGNER CATEGORIES

Designer Category	Pros	Cons	Recommended Conditions for Approval as Designer
Civil engineer	Septic system design identified by Health and Safety as within the practice of engineering for civil engineers Educational background for hydraulic calculations and pump sizing Educational background for mathematics Registration at risk for malpractice Identified as qualified professional by AB 885 (as professional engineer)	May not have background in on-site wastewater system design May not have background in soils necessary for selection of appropriate system based on site characteristics	None. EH could maintain a voluntary registry listing any additional certifications by CEs that are relevant to on-site wastewater as a means of providing consumer education..
Certified engineering geologist	Educational background for geology and mathematics Registration at risk for malpractice Identified as qualified professional by AB 885 (as professional geologist)	May not have specific educational background for hydraulic calculations and pump sizing May not have background in on-site wastewater system design May not have background in soils necessary for selection of appropriate system based on site characteristics	Full designer certification required: <ul style="list-style-type: none"> ➤ Certification examination ➤ 8 hrs CEU annually ➤ 2 yrs experience ➤ Subject to certification revocation for malpractice through local designer review board <u>Possible alternative:</u> Require designer to have hydraulic calculations (only) reviewed and stamped by civil engineer
Registered environmental health specialist	Educational background in life sciences, with strong understanding of pathogenic organisms Educational background for basic mathematical skills Broad soils, system siting, and system oversight experience generally available as a regulator Registration at risk for malpractice Identified as qualified professional by AB 885 (as REHS)	May not have specific educational background for hydraulic calculations and pump sizing May not have background in on-site wastewater system design May not have background in soils necessary for selection of appropriate system based on site characteristics	
Certified soil scientist	In-depth knowledge of soils Registration at risk for malpractice (national certification only)	May not have specific educational background for hydraulic calculations and pump sizing May not have background in on-site wastewater system design.	
Registered Geologist	Educational background in geology Registration at risk for malpractice	May not have specific educational background for hydraulic calculations and pump sizing May not have background in on-site wastewater system design May not have background in soils necessary for selection of appropriate system based on site characteristics	
Other designer certified by Environmental Health	Broaden the number of designers and lower costs	May not have specific educational background for hydraulic calculations and pump sizing May not have background in on-site wastewater system design May not have background in soils necessary for selection of appropriate system based on site characteristics	

