

**Special Meeting of the Town Council
Castle Valley Community Center
April 19, 2006**

Members Present: Ranna, Jim, Damian, Jerry, Bob

Others Present: Judy Sims, Amy Davis, John Buchanan, Geoff Freethey, Pam Hackley, Jack Campbell, Scott Brackett, and several others who did not sign in.

Clerk/Recorder: Rebecca Martin

Meeting began at 4:00 PM.

Judy Sims and Amy Davis, from the University of Utah, gave a presentation on a septic drainfield study requested (2005) by Catherine Howells and funded by a grant written by Judy. A lysimeter study was proposed in Castle Valley to determine how soils are treating the (septic drainfield) waste.

Castle Valley uses conventional septic tank systems. Castle Valley septic drainfields are “deep wall trenches” as opposed to “shallow field”. Judy indicated that shallow fields are recommended but, for some reason, in southern Utah the health departments have long pushed deep wall trenches.

Alternative systems were described. These have been designed and used when there is not enough suitable soil for a conventional septic system, when groundwater is close to the surface, or where space is a problem. These include: Mound, At-Grade, Earth-Fill, and Packed Bed systems. These are options in Utah if the health department in question participates in the program.

All higher tech systems require maintenance every 6 months by a trained (certified) maintenance expert. Maintenance for these types of systems may not be done by the landowner. There is an EPA handbook on how to set up a management program. Costs are associated with the required maintenance program.

Amy Davis presented specifics of the study itself.

Five volunteer lots are needed, whose owners will allow the placement of lysimeters and monitoring visits every month for 18 months. The proposed project includes the installation of lysimeters at three sites per lot. Two lysimeters would be placed near the drainfield, and one away from the septic to serve as a control test. Heavy equipment will probably be needed to help with lysimeter installation due to rocky soils and the fact that drainfields are deep. They would like to include some big families, and homes with continuous use, especially in the Lower Valley area. They will be testing for two solid pollutants and four liquids. Sampling is done by applying a vacuum for 24 to 48 hours until it collects some water.

At the current population it is unclear how much Castle Valley needs to worry about septic contamination. An average of .6 nitrates per liter has been found in CV. **A survey is also proposed to be carried out as widely as possible.** This would be a confidential form to how people use their system, e.g., what goes down the drain, volume, etc.

A small storage area for monitoring equipment would also be needed.

Discussion ensued about the varieties of soil in Castle Valley and the differences in groundwater levels. Reference was made to the fact that CV has had a soil survey done and has drainage study maps.

Discussion ensued about what will realistically come out of such a study. In reality, it may be difficult to generalize from these results. This study was requested, but an effort large enough to reach strong conclusions would “necessitate a million dollars”. This study may point to other things that would have to be studied.

The most effective placement of the lysimeter(s) may be beneath a drainfield, which means a new drainfield installation would be optimal. Perhaps a motorized auger at an angle would get the lysimeter under the drainfield.

No studies have yet been done on deep drainfields and whether the oxygen is enough to process the waste.

Castle Valley is interested in getting information to guide public policy. Discussion ensued about whether it would be possible to use this study to compare the two systems (shallow and deep trench). Since a lot is known about how septic systems work, inferences can be made.

Judy will check with the records to see if any shallow fields exist in CV.

Septic density is a policy question. The aquifer study of several years ago suggested that the bulk of CV was determined to be appropriate for a 15 acre septic density for part of the valley and a 5 acre density for other parts. John Buchanan strongly questioned the methodology of this study. Pam noted that the CV Subdivision Ordinance refers to a 15 acre lot size.

Judy and Amy suggested that the meeting had raised a number of questions about the study that they themselves had. They would go back and think about a redesign.

. Pam Hackley is the point person in Castle Valley on this at the moment.

Discussion continued on how the local health department could be influenced to allow systems other than deep walled trench systems. Using the effluent for drip systems is something Adamson said he wouldn't discuss or consider. You can put in an experimental system and the state has to pass it. State rules may force changes eventually.

Jim moved to close the meeting. Ranna seconded. Meeting closed at 5:34 PM.

ATTEST:

Rebecca Martin

Date