



Citizen Advisory Committee Meeting #8

Location: Rabbit Creek Community Church Auditorium

Date: June 20, 2007 6:00 pm to 9:00 pm

MEETING NOTES

Attendees:

Committee

- David Lappi
- Carol Fries
- John Reese
- Lori Davey
- Niel Thomas
- John Weddleton
- Chris Hamre
- Connie Yoshimura - absent
- Dee High - absent
- Victor Mollozzi - absent
- Fred Jenkins
- David Beveridge - absent
- Wayne Westberg

Community member(s)

- Rachel Morse/Bird TLC
- Gary Bullock/Bird TL

Staff

- Dan Roth – MOA On-site
- Chris Beck – Agnew::Beck
- Dave Coolidge – Larsen Consulting Group
- Glenn Foust – Larsen Consulting Group
- Bob Wright – Church Onsite Water Consultants

John Reese called the meeting to order. Introductions were made around the table of those attending. Handouts of white papers and on-site 101 references were provided.

Dave Coolidge introduced the three white paper topics and noted per a prior (5/15/07) meeting with CAC reps (Lori, Wayne & John W) that CAC had requested both on-site & well information to help with general concept understanding.

Bob Wright began by presenting the handout entitled '*Onsite Systems Information*' that provides a brief overview of the onsite Scope of Work. He described the system components and the function of Onsite Wastewater Systems (OWS) to treat wastewater; also the effects of drainage, siting and dispersal elements (drainfields).

The handout outlined 1) Basic System 2) Advanced Systems 3) Overview of the Nitrate cycle in nature & nitrification process in OWS. Questions were asked about nitrification & nitrates.

Dan noted that MOA tests systems for nitrates and found some that don't provide significant nitrate reduction. However he noted the Advantex System (Orenco) has shown a consistent 75% reduction of Nitrogen and has proven to be a reliable Class III Nitrogen reducing system in the MOA.

Bob presented the *Advanced WW Treatment Systems (AWWTS)* white paper. He introduced the types of systems available and what has been approved for use in the MOA (Advantex, ISF, Biocycle). Dan noted Quantex system by Zabel would be approved as a Class III AWWTS, once winter data test results can be confirmed.

Bob stressed the importance of monitoring and maintenance (M&M) for all systems, regardless of technology. Noted 3 types of AWWTS—Packed Bed, Suspended Growth, Attached Growth.

Bob clarified BOD & TSS, per question posed by CAC

Wayne noted the discussion of the effect of air temperature in the White Paper may be too negative. The question was asked about drainfield credit for AWWTS and how land may be used more effectively. Drainfield size credits up to 75% are possible with AWWTS which means they can be placed in small footprints, allowing more siting options.

Cost example for the Advantex AX-20 system above conventional septic systems: \$9.5K w/o the STEP tank; \$12.5K w/a 1500-gallon STEP tank. Approximately \$25K is the total installed net cost observed on prior systems.

Glenn Foust gave an overview of the White Paper '*Factors Affecting OWS Impacts on Groundwater Quality*'.

Glenn presented: summary of hydrogeologic overview for Hillside; problems with GW quality assessment (lack of a systematic, area-wide monitoring program for in-situ aquifer water quality); treatment capabilities for a variety of subsurface materials, permeabilities and conditions. Heterogeneous hydrogeology complicates monitoring and evaluation.

Typical effluent characteristics discussed: household discharge BOD5 & TSS in the 200 to 300 mg/l range; septic tank effluent typically is 130-175 mg/l range BOD and 47-62 mg/l TSS; advanced treatment systems < 30 mg/l.

Flow pathways and subsurface treatment mechanisms were discussed.

Wayne noted that confined aquifers, because of hydrostatic-pressure, will push water level in well up to near surface. This occurs over much of the Hillside.

Wayne added that changes in well casing grouting methods in 2002 have addressed the surface seepage issues that caused some wells to have elevated nitrates.

The question was raised about Anchorage Bowl capacity to produce sufficient water. Per the USGS water budget, the amount of recharge still exceeds water use demand.

It was suggested we add information on 'wells with low productivity' to the white paper.

Final white paper was '*On-Site Regulations and Approval Process*' by Dave Coolidge.

Dave outlined the current process for design (in accordance with 18 AAC 72 and 18 AAC 80). Bob noted that MOA's COSA process (for Title changes) is one of the only programs in place (most States do not have a similar program). There was a brief discussion re: whether the COSA process is enough of a safety program for the Hillside. It's difficult to implement additional mandates on private property if house is not being sold.

The importance of obtaining data (nitrate readings, well production) was noted. Data obtained in COSA is used to populate the MOA's on-site database.