ON-SITE SYSTEMS
TECHNICAL REVIEW BOARD
SUMMARY OF ACTION

September, 2003

Members Present:	Sharon Minsch, Chair, David Beveridge, PE, Mark Musial, PE, Chris Allard, PE, Wes Turner, MD, Joel Neimeyer, PE, Carol Nesben,
Advisory Members:	Earl Dotten, AWWA
Staff Present:	Jim Cross, PE, Steve Morris, PE, Jeff Urbanus, DHHS, Hallie Stewart, AWWU, Sheila Jones.
Guests:	Dan Young, Jeff Garness, PE, Kevin Kleweno, PE, Terrasat

Old Business:
Jim: Jeff Garness represents a landowner in Eagle River who wants to subdivide a parcel of land that is 20 acres served by a well & septic. The property will not support onsite septic systems on the individual lots. The way the code reads now since 1986 – if you were going to subdivide land and create individual lots, those lots need to support an onsite septic system on each lot; however, if you complete the subdivision, you were then free to put in a community septic system if you chose. The code section states subdivision standards for lots have to be served by onsite disposal systems, and has to be 40,000 square feet.

Jeff G: One client has a 7-acre parcel lot that has nice, tight soil. There was intent initially to prohibit community septic systems when the ordinance was written. The 8 or 9 lots share one septic system on one lot and D.E.C. approved septic systems to serve all 8-9 of these lots. The property is already subdivided. In this particular case, the client wants to subdivide his land. We can put in a septic system that meets all state standards and have a homeowner's association to set up a fee structure to maintain this septic system.

Jim: The State of Alaska has no subdivision requirements to insure maintenance on the system. If the system fails, you've created lots where homeowners have to find a way to do the maintenance themselves.

Jeff G: Another subdivision we're involved with has lots that are already subdivided. The lots are non developable and were approved long ago. We are putting in a community sewer main and sub drain field and we are requiring each homeowner to put in a class III septic system approved by the municipality. The homeowners will have to get a sewer permit and sign a maintenance agreement with the municipality, but they will be discharging into a central drain field that is oversized adequately, and the drain field will never be an issue as long as it's maintained.

Jim: There has to be some mechanism that insures that these homes will have the funding to maintain and upgrade the system when needed to prevent the need for holding tanks later.
For subdivisions with single-family wastewater disposal fields: for a single family dwelling you need a primary and 2 replacement sites. Wastewater systems must be operated, maintained, and established by a homeowners association. The homeowners would be required to sign a maintenance agreement to maintain their system. Ideally, these class III systems would be maintained properly.

Joel: Is there intent for the land to be subdivided for community systems or would the community systems would be built first and then divided?

Jeff: the plan would be to subdivide it and then drill a community system.

Joel: Is it city policy to try to push more for community systems compared to individual systems?

Jim: We don't actively push for community systems because we can't regulate them; they are already regulated by the state of Alaska. We only regulate single-family dwellings.

Jim: If a well fails, the homeowner's still has the option to drill their own well; especially in a new subdivision.

Jeff: The challenge is not putting in a septic system that can comply with state standards and ensure public health; the problem is having something in place and the ability to enforce the maintenance and repairs.

Carol: Recorded documents state you have to keep establishments for reserves for all tanks. Most agreements state the septic systems need to be maintained. Maintain means the owner is required to keep an adequate reserve readily available. Developers should realize that they may have to fund that reserve and then the homeowners would keep funding that reserve as they use it.

Jim: Are there any existing requirements for public utilities that would be considered a public utility? How many lots for this proposal?
Public utility is 10 or more service connections – they would have to go to a public hearing to get started through the regulatory commission.

Jeff: This is the first association where the utility bills were out in public, lined out, and separated because it was a class A water public utility.

Jim: have you done test holes on all the lots?
Jeff: yes
Jim: how many would you consider them non developable?
Jeff: 9, the northern ones. The soil is tight enough if anything runs over the top of the soil; it will be trapped in the hole. It is located on the hillside.

Joel: Couldn't the developer retain ownership of the entire parcel and lease the lots?
Jim: yes, the developer is responsible for maintaining & owning the utility in these lots.

Jim: The health department came up with funding to do sampling, but the municipality does not have any funds to match it due to the big budget cuts this year.

Jim: In regards to the well code: We are still working on the design requirements for well codes concerning 2 major areas: bedrock & pulling artisans. We want to determine the level of pollutants found in the existing shallow bedrock wells. It was asked if we could look at historical data that we already have. For example, Upper Fire Lake has shallow bedrock and problems with the algae. D.E.C. took a lot of water samples from the lake and homeowners possibly took their own water samples too. The municipality could obtain some of that data to do research.

Jeff: we did an investigation of the gravel pit on Lake Otis between O'Malley and Huffman and found an area that had shallow wells not found in bedrock. Almost all of them had elevated nitrate levels in areas that had deeper wells with low nitrate levels. An investigation was done on Peters Creek in Chugiak where nitrates exist in that area too. Nitrates are an indicator that the septic affluent is moving through the soil.

Jim: In conclusion: We can take the existing data and studies that are out there and compile the date. There have been comparisons of new septic systems versus old septic systems. Unless you have an innovative system that has some internal mechanism reducing the nitrate levels (that the affluent is coming out of and coming out of the leach field and into the soils), new systems do not reduce the nitrate levels at all. Once that affluent gets into the soil matrix, any gentrification that's going to take place will take place. If you have an older septic system and have the same affluent going in, you should have the same affluent going into it.