

**Village District of Eidelweiss
Water Advisory Board
Minutes of 3/22/2010 Meeting**

The Water Advisory Board met March 22, 2010 in the District Office. In attendance were Board Members Mike Smith, Ralph Lutjen, CP Smith, Peter Craugh, and Art Tucker. Also attending was Dave Bernier and Commissioner Gloria Aspinall. . The Board of Commissioners were also in session. The meeting was taped by videographer Emily Riss.

At 5:00 pm Chairman Mike Smith called the meeting to order.

Agenda

Art Tucker makes a motion to accept the agenda as distributed, CP Smith seconds the motion and the motion passed.

Minutes

The minutes of 1/18/10 were reviewed. **Ralph Lutjen makes a motion to accept the minutes as presented, Art Tucker seconds the motion and the motion passed.**

Old Business

Mike Smith informs the Board that the SCADA system is moving forward. The Jung Frau to Reinach Forced Main Water Project is also moving forward. The 'as built' drawings will begin late this year. Peter Craugh questions if engineer Paul Fluet may have most of the information already mapped. Mike Smith states that he will ask for a quote from Paul.

The Board of Commissioners have voted unanimously to re-appoint the members of the Water Advisory Board for 2010. Upon unanimous vote, Mike Smith will remain Chair.

Ralph Lutjen has spoken to Dave Bernier and he will be attending tonight.

Mike Smith states that Scott Hayes is obtaining the necessary equipment for a June installation of the SCADA. The radio frequency will be obtained. It will be clarified if ICS does this or if the District will need to complete the application. The meters required by the State are also moving forward. The meter at the DPW well will need separate housing. Scott Hayes is looking into pricing.

Mike Smith turns the meeting over to Dave Bernier. Dave discusses pipe bursting as a technique for replacing water lines. The depth of the line would need to be correct as pipe bursting replaces the line in the same location. Directional Drilling, another option, may be of additional assistance to the District. Pipes are placed in a cleared area underground with minimal disturbance to the topsoil. Recently, this technology was

used to put 660' of pipe under the Saco River. Ledge is an issue, as it cannot be drilled through. Ralph Lutjen questions how to determine if this is feasible within the District. Dave Bernier responds that if it is known the pipe is deep enough, pipe bursting could be used. If a pipe needs to go under pavement, directional drilling could be used. Dave also explains that when a rock is hit, the operator of the directional drill is alerted and the drill can be moved slightly left, right, up or down. The two companies in the area that he has experience with who are actively drilling in this manner are Henniker Directional Drilling(HDD) and Enterprise Trench Technology(ETTI). Cost is averaging \$25 per linear foot. Debris is removed in slurry form via a vacuum system. Lines can be extended to 2000 feet. The company doing the drilling does all the fusing of the pipe connections. CP Smith questions the time frame to perform this type of work. Dave Bernier informs the Board that it took 2 days to lay the line under the Saco River. Ralph Lutjen asks if directional drilling could be used to run lines directly below current lines. Dave responds that they could follow the lines. He adds that steep terrain will cause shorter line runs. Ralph Lutjen questions if this could be done at the same time as road work. Dave Bernier states that it would dependent upon the condition of the road bed. If it is in good shape, it could be done concurrently. However, if the road bed is also being redone, then the cheaper option would be standard open trench replacement. Peter Craugh questions why two different companies have been used and Dave Bernier explains that HDD was hired by another contractor. He continues by stating that they experienced good interactions with both companies. For this technology, high impact, sandy soil works best. Soil with marble size rocks can be more difficult. Mike Smith questions if test pits along the route to determine soil condition are recommended and is informed that it is a good idea to do that so a profile of the soil can be made. Dave outlines the procedure for directional drilling. A pilot hole is drilled and the maximum retrieval point is calculated. A 3 head reamer is used to pull the pipe through the hole while it clears the path. Art Tucker questions if this technology would be applicable for water hook ups. Dave Bernier explains that smaller jobs are manageable with this technology as well. Dave outlines the alternate method of pipe bursting. This will replace a pipe in the same location by sending a cable through the line from a winch above ground. Pressure is used to 'burst' the pipe and a new pipe is pulled through the old location. Pipes can be increased in size moderately using this technology. Peter Craugh states that when it comes time to replace the current 2" pipes with 4", this technology could be used. Mike Smith adds that many lines go on angles and questions if this would be an issue. Dave Bernier states that the existing lines could be followed. Peter Craugh questions if current lines could be seen to be followed with directional drilling and is informed that the machine operator can only see directly in front of the drill in a straight line. It can see if a rock is in the way, but cannot just 'see' the area. Ductile iron pipe is recommended using these technologies. Ledge blasting would still be needed for the Jung Frau to Reinach line and at the summit. Not cutting up pavement to replace a pipe is a huge benefit to these options. Mike Smith questions "T" joints. Saddle clamps could be used or a hole can be dug to fuse the "T" joint. All joints are fused as it makes a stronger bond. Directional Drilling can be good with HDPE pipe as well. HDPE is a cheaper option than ductile iron pipes. The question of breakage with HDPE is raised and Dave states that it is not an issue. With no breaks, no corrosion, no build up inside the pipe it

becomes an ideal option for water lines. He states that in Conway, they are currently having issues with ductile iron pipes that are 10 to 15 years old as they are being eaten away by salt, corrosives in the soil and anaerobic bacteria. The pipes are half the original wall size. In response, Conway is 'wrapping' their DIP's with HDPE. Lead time for any project is questioned and Dave Bernier states that the contractor would have to be contacted for that information. He reiterates that either company was good to work with and that both companies will work with you when an issue, such as hitting ledge, comes to light. The equipment used only about 5' wide, so it can be brought to smaller areas, however a 10 wheeler would need access to haul the slurry away. Mr. Bernier is thanked for coming in for this discussion and exits the meeting.

Mike Smith questions if someone wants to contact the two companies and set up a meeting. Peter Craugh questions if there are any applicable projects at this time or if this would be for information only. The meeting would be discussion only at this time. CP Smith suggests contacting the companies to get them here to see the area and possibly get pricing estimates. Ralph Lutjen suggests formulating a plan for a project prior to bringing anyone in for discussion. He states that at the annual meeting, Oak Ridge was stated to not be a priority. Mike Smith responds that he believes one big project a year is best approach. Pump house upgrades and the Reinach Tank followed by Lower and Upper Oak Ridge. Ralph Lutjen would like to see the focus on the project to be done, not on an informational exercise. He feels there is plenty to do without exploring technology that will not realistically be used for another 4 or 5 years. He would like to focus on the next proposal to the voters; the pump houses and Reinach. Peter Craugh adds that a priority list was developed a few years back and that the replacement of lines was low on the list. Ralph Lutjen responds that the line replacements were moved up secondary to the road project proposed. Doing both at the same time makes sense. CP Smith adds that he would like to know more about this technology now. It doesn't cost anything to explore and should a leak develop, the technology could help now. During the exploration, he would also like to gather information about emergency responses if a leak were to be detected.

Mike Smith states that the Reinach Tank project is ready to go to bid. Ralph Lutjen questions that status stating that the bid package needs to be produced. Mike responds that all information for the bid package is done and agrees that it would most likely be 4 or 5 years before this type of technology would be used in the District. Pump houses and Reinach Tank are current priorities. Art Tucker questions if other tanks also need to be replaced and is informed that the other tanks are still in good shape, but the last inspection showed the walls of the Reinach Tank to be too thin. The upgrades to the pump houses are technology driven to ready SCADA installation. Mike Smith would like to look at swapping the pump house heating systems to propane from the current electric system. Analysis will be done on the overall cost of the electric heat. Peter Craugh adds that most of the pump houses have some areas that are exposed; gauges, etc. need heat. It is questioned if it would be possible to combine the pump house upgrades and Reinach Tank into one project. The overall price would be a factor, and funding options will also be a factor. Peter Craugh states that the 50/50 split of taxes and water fees got the Jung Frau project passed, but funding will continue to

be an issue. Mike Smith adds that the pump house upgrades must be done prior to the tank installation and that the pump houses will cost \$90 to \$100,000. Mike asks if the Board would like to pursue swapping the heat in the pump houses via an energy audit. Each pump house would need to be reviewed individually for needs. If blown insulation is added to each house, Scott Hayes has requested something that contains rodent control. Gloria Aspinall questions if all the stations are to be reviewed and Mike Smith responds that Muddy Beach and Jung Frau will be worked on first. Reinach could be done with the tank. The numbers will need to be checked to see if a swap over is feasible. Ralph Lutjen suggests pursuing multiple source options for an energy audit in lieu of just the engineering estimate. The power company, or Our Town Energy Alliance which the District recently joined could be questioned.

Mike questions if the pipe bursting and directional drilling technology should be looked at now or later: Art Tucker and CP Smith vote yes, Ralph Lutjen and Peter Craugh vote no. Peter Craugh adds that he would not want to excite a vendor and then not have a project to bid. Ralph Lutjen agrees, and offers the option of outlining a feasible project and informing the vendor up front the project is a few years out. If it is to be an educational exercise, he would like the vendors informed of that up front as well. He believes the focus should remain on activities, not just education. Mike Smith adds that the vendors could be contacted and information used to estimate budgets for upcoming projects.

Ralph Lutjen discusses that approximately one week ago there was noticeable debris in the water lines. Scott Hayes was contacted and the lines were flushed. Peter Craugh also had debris in his lines. CP Smith asks if any adjustments were done and is informed no.

The next meeting will be Monday April 12th at 5pm in the District Office. The Reinach Tank project will be reviewed.

At 6:50pm Peter Craugh makes a motion to adjourn, Ralph Lutjen seconds the motion and the motion passed unanimously.

Respectfully submitted,

Nancy E. Cole