

Pojoaque Valley Planning Committee Meeting Summary
November 18th, 2004 6:30pm – 8:30pm
PV Administrative Building

The meeting started at 6:40pm. David Dogruel chaired the meeting, with the assistance of Jack Kolkmeier, Planning Director for SF County, and Renee Villarreal, Community Planner. David Ortiz talked about the 503 cleanup that happened on Saturday, November 13th. There was not a huge turn out, but we set out to do what we wanted to do. Twelve people showed up and it took two hours to finish. David O. thanked everybody that helped out and also thanked SF County for providing vests, bags, and gloves.

David O. announced that the 75th anniversary of the founding chapter of the S.P.M.D.T.U. will be having a parade on Saturday, November 20th starting at 10 am at the Headstart and traveling through the community. AT 1:00pm the cultural program will start where there will be music and entertainment and a potluck.

The S.P.M.D.T.U. will also be holding an arts festival on the 27th of November from 9am to 5pm. They will feature at least twelve local artists. This could be a chance to do some early Christmas shopping. This will take place at the S.P.M.D.T.U Hall.

David O. also announced that Aamodt negotiation meetings have been going and will be proceeding. The target for settling is set for March 31, 2005. Depending on the response to the settlement- if there are overwhelming rejections – it will revert back to litigation. If there is an ongoing concern against the settlement, state and federal legislation will be drafted. Details of negotiations remain confidential.

Carl Berney asked if by not having a settlement settled, do the Pueblos have priority call on wells anyway? What happens during this interim period.

David O. said that enforcement is now being done by the watermaster on post-1983 wells. He is making sure that the use of water is not being exceeded.

Mary Lou Williams thanked David for the notes from the PBAWWA / Water Alliance meeting. She said they were very good and thorough.

Jack introduced the guest speaker for the meeting, Stephen Wust, head hydrologist for Santa Fe County.

Stephen started with his background. He received a PhD in Geology at University of Arizona. He's originally from Tennessee, and that's where he got his undergraduate. He has worked in many areas from the Super Fund program to working for the Drinking Water Bureau. Used to be in the oil business as well, which believe it or not, has a connection to hydrology and the work he does now.

The County currently is working on looking at water resources that are available in the area. They have also been participating in the Water Fairs, which is also known as the

Wastewater Study. The County is approaching land use planning by looking at hydro-geologic zones in order to determine minimum lot requirements. The County is also re-writing the Land Use Code. He was tasked with rewriting the water sections. There will be another public session soon on the water section.

Stephen continued saying that as the PVPC goes through the planning process, we need to keep in mind to keep planning based in a real world situation. We need to ask: What are the facts on the ground telling us? From there we have a smart underpinning in which planning can be shaped.

People in the area really want to know the water situation. The way he approaches it is smart resource management. He does not approach it as: no water use vs. unlimited water use. For example if you're in a basin or fringe like Pojoaque Valley is, one needs to demonstrate that the water is available in the area. Where the basin is located is where most development is taking place in SF County now.

He explained the difference in water yield in the basin fringe compared to the mountain area. The basin fringe does not yield as much water. The mountain is made up of fractured rock units and they dry out really fast. The mountain area cannot do much for water generation. Then there are the homestead areas that cover the swath of the southern part of the County. These areas are made up with sand and silt, whose yields are not very good – it's kind of a hit or miss situation.

Pojoaque Valley is in a basin that has a good yield - 50 to 100 feet is the average depth for wells. There is lots of growth in this area because of this.

Stephen referred to a USGS map and showed the committee that there are a lot of faults in the basin, which is a major factor that affects hydrology. Ground water movement mimics drainages. There isn't much recharge going on in the arroyos and channels for this reason. The main source of recharge comes from the mountain front and these fractures. Evapotranspiration occurs and there is not much infiltration especially from rainfall. Groundwater flow goes where the drainage goes. It travels from the east to the west and a little south, into the river. Recharge goes on all the time, but at a very slow pace.

Stephen began talking about the types of water sources there are:

Recharge (also called Input)

Discharge (Output – which are usually things like natural springs)

What's in the aquifer (Storage)

When you drill a well, you affect the storage, but you also affect the output. We are depleting the aquifer in total storage potential. There are also two types of aquifers: Shallow (unconfined) this is open to atmosphere
Deep (confined) – which is capped by shale layers.

Steve Benjamin asked if there were varying levels of water on the Nambe and Pojoaque Rivers. Stephen said that there are reduced surface flows on these rivers because of

the decreased aquifer level. The State Engineer looks very closely how a well will affect other sources of water nearby.

Steve B. asked what was a lifetime amount for the aquifer. Stephen said the County says you will have 100 years of water, considering a block of that is a certain amount of rock and water. The city and county utilities consider an aquifer with a 40-year life, that is if you're getting new sources of water and have conservation efforts in place.

Donald Wilson asked how the County and State apply the life rule. Stephen that this is going to be one of the biggest changes to the land use code. Confined aquifers yield a lot less water. That is one of the biggest questions – will wells yield that water and will it effect or impair its surroundings.

Levi Valdez asked how depth is measured. Stephen said it depends on how thick the saturated well is that you will get water from and what is pulled out. Donald asked if it was possible to drill a well in this area and not have a record of what was pulled out? Stephen said yes, especially on the older wells. Drillers are supposed to keep track of this, but sometimes do not. Donald asked if you do not have a record from the well, can you get it done after the fact? Stephen said yes, but that it cost some money to redo the record.

Stephen continued about faults. They can interrupt the path of water to the river. They can block and divert the water or create a conduit.

Steve B. asked if Pojoaque can assume that we are free from materials coming from LANL. Stephen said yes, because there are major hydrologic barriers. The Rio Grande does this – it turns it away from the Pojoaque area and follows the river path. And groundwater does not typically like to go uphill, which is the direction Pojoaque is located from LANL.

Stephen began discussing the wastewater study and the water fairs. He said the first fair that took place in Pojoaque, has been through water analysis and GIS mapping.

The water fairs came about because Pojoaque Pueblo was considering a wastewater system seeing as how they are all on septic tanks like the rest of the Valley. The study was grown out of the feasibility of the Pojoaque Pueblo wastewater study. The study then developed into doing water samples. They got a great turnout for the testing. Stephen showed the group the sample map of what areas they were able to test. LANL then did the testing on all metals and general chemistry, for example sulfate, nitrate, etc.

From the June 5th results, they expected to see lots of nitrate because it is the #1 source of groundwater contamination in New Mexico. It is important to detect because it hurts infants (Blue Baby Syndrome) and children. Nitrate does not affect adults hardly all because we have more red blood cells. Lots of shallow wells near septic tanks is normally where nitrate contamination occurs.

There are two kinds of standards:

- Drinking water standards only apply to community water systems under EPA regulations
- Individual wells in rural areas are “health based”. Look at drinking water contamination over 30 year period.

There is also an “aesthetic standard” for water – the taste, odor, and the look. Manganese usually affects this standard. Sulfate also falls under this category but is not given a standard because past a certain limit it will smell.

Doug Crosby asked if “pH” is a health or aesthetic standard. Stephen said pH is a health standard. He believes the standard is between 6.5 and 8.5.

Stephen showed the committee two maps where they found uranium and nitrate. Uranium is naturally occurring and does not come from septic tanks, humans, or LANL. It is especially high in metamorphic and igneous and volcanic rocks – all which make up the Sangre de Cristo mountain range. Uranium does have health standards because of its effects as a heavy metal. There can be toxic effects on the liver. The standard for uranium is 30 micrograms per liter. Stephen added that anywhere where there is high uranium, you will usually find high radon, is this can be an issue. Radon occurs in homes, not through water, but through the air. It would be wise to get a cheap home test for radon.

In regards to nitrate, 10ppm is the standard. If you get above 5, you are supposed to be warned because of the infant risk. There have been discussions lately about anoxic conditions with nitrate. In septic tanks, there are anoxic conditions that occur that bind up nitrates and you will not see it, because it is a chemical condition. But if you *have* an anoxic condition you would not see some of the things that we did see in the water testing. Therefore it is saying that the amount of water moving through the aquifer is dispersing nitrates and the concentration is going down. It is not, however masking the nitrate like some people believe.

With a wastewater treatment plant, one would want to take care of the problems before they occur and be proactive. Right now the testing says that most of the Valley doesn’t have a problem in the Valley – that’s right now. But with all the growth that is occurring in this area, this could be a future problem. So you need to decide what is your priority.

The uranium standard as Stephen mentioned is 0.30 ppm. The source of uranium in the Valley comes from the rocks to the east of us and heads downhill dispersing the uranium downhill. There are ways to prevent this. You could treat the water on your own or have a water treatment plant with a community water system. The regulations and requirements are higher for a treatment facility. They would not be able to let people drink water if there is any indication of contamination. With a public system one would lose the character of the well and have to pay a fee, but someone is protecting the water quality for you. If you choose to do it on your own, you will have to do a lot of maintenance, which is time consuming, and can be costly.

The committee took a break to enjoy snacks and drinks provided by Doug and Diane. The group reconvened to ask questions of Stephen about his presentation.

Doug asked where the Nambe reservoir is in relation to the mountain front reservoir. Stephen said he was not sure because he hadn't been up there yet.

Narciso asked about the sewage lagoons near the schools. Does the close proximity affect the drinking water quality? Stephen said no because the school is on a community water system. David O. added that the water is treated and then put in the lagoons, which are lined.

Chuck Berger asked how we could protect ourselves from uranium in the interim. Stephen said that you couldn't go wrong with reverse osmosis. This method takes everything out of the water so you do not have to worry about contamination. However this system uses a lot of water. You could also get something that removes metal from the water. Boiling does not do any good –this will only remove bacteria. That's why chloride is used – it also kills bacteria. There are also membrane filters that have micro fine filters. The filter will prevent atoms like uranium in your water.

If you did not get to test your water at the fairs, then you will need to spend money to get your water tested by legitimate labs. Make sure to get a lab company that says they are certified for drinking water *and* lab testing.

Doug asked if the maps and data would be available for the public soon. Stephen stated that once SF County gets all the data in at the end of the year, that they – the consortium (SF County, the New Mexico Environment Department, and LANL) will hold a public meeting. They will send out notices in January or February to advertise. At this meeting they will be able to burn the maps on CD's to give out. The results will include all of the areas tested. They can also have available a spreadsheet that has the data imputed together –but will not give the exact locations for privacy reasons.

David O. asked what the status was on the Pojoaque wastewater task force. Stephen said that Pojoaque Pueblo is moving forward with ASCG Consulting. Right now they are trying to get a firm design of the treatment plant.

Stephen said the County is still looking at the specific areas where high nitrates are showing up. They will be doing a follow up of these areas to see if it is an isolated situation, or if it is affecting other homes or locations in the area. He said that they will prioritize based on the type and level of contamination. He added that as a planning committee you could prioritize in your own community as well.

The next meetings will be on December 2 and 9th. The purpose of these two is to finish up the SWOTs and have an initial meeting with Carl Moore before the year ends. Jack said that Carl has not worked with the Pueblos, but has worked with the Cherokee and Winnebago tribes and with other tribes in the Southwest. This may be a good thing because he is not coming in with baggage and it will be a fresh start.

Donald Wilson volunteered to bring snacks for the next meeting. Thanks Donald! The meeting concluded at 8:45pm.

Notes by R.V.