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September 18, 2007

Ms. Magalie R. Salas
Federal Energy Regulatory Commission
888 – 1st Street, N.E.
Washington, DC 20426-0001

RE: Request that Studies be Required Immediately to Assess Environmental Effects of Decommissioning of Project 606 Kilarc- Cow Creek Proposed by PG&E

Dear Secretary Salas:

I attended meetings convened by PG&E between March and May 2007 and again on September 13, 2007. At the Scoping Meeting on May 16, 2007, a request was made that PG&E conduct a hydrology study to determine the potential effect on neighboring springs and wells of the proposed draining and filling of Kilarc reservoir.

The attached article was published a few months ago in the East Valley Times, and reflects that the Eastern Shasta County Ground Water Study of 1984 was a two year study of the ground water hydrology, availability and development potential in selected areas of eastern Shasta County conducted by DWR that included Whitmore, and no follow up studies have occurred since. In the Eastern Shasta County Groundwater Study some recommendations were made to:

- Retain when possible for new developments, rainwater on site in rainwater basins to aid in groundwater recharge.
- Preserve natural drainage such as swales etc. (verses filling them in) to encourage in groundwater recharge.

According to the 1984 study another recommendation was to require developers to conduct a comprehensive hydrological study and groundwater supply evaluation for all proposed developments in the study area. The study lists a number of parameters to be included in such a study. The whole Cow Creek watershed may be affected by this move by PG & E.

Clearly, PG&E's proposal to eliminate Kilarc reservoir would have the opposite effect of implementing the DWR recommendations, eliminating a rainwater basin to aid in groundwater recharge and disrupting existing drainage by filling it in. I understand that at the September 12 meeting, PG&E's project manager, Steve Nevares said that PG&E

did not consider it necessary to study any further the potential effects of not having Kilarc reservoir; (these being environmental, historical, safety, water supply to Whitmore residents, educational and recreational).

At the September 12th and 13th meetings. Steve Nevares stated that PG & E was not in the recreation business. He is wrong. The picnic area, bathroom facilities and wheelchair accessible fishing are part of the service in situ. They are part of history and family tradition of recreational family fishing for many generations. The facilities are FERC mandated! Another "burning" issue (pardon the pun) is the availability of water for rapid fire suppression of forest fires that would threaten the Whitmore Community and environs!

In addition there are many environmental concerns, flora and fauna, Osprey, amphibians and Eagles. Many of the wild flowers are rare if not **even yet documented**. The decommissioning is purported to be to save fish and improve the environment. What fish and where are they? There are NO studies done as yet.

We, community stakeholders in this process, are angry that PG&E chooses to ignore public requests and delay for 18 months or more, until after submission of its proposed decommission plan in March 2009, undertaking studies that clearly are necessary to evaluate the effects of their proposed plan versus viable alternatives.

Please, order PG&E to immediately undertake appropriate environmental studies to identify the effects of the proposed draining and filling of Kilarc reservoir on groundwater recharge and the viability our wells and springs that feed local ponds.

Respectfully,

M Trevelyan B.A., R.N.

Maggie Trevelyan,
Concerned Stakeholder
Treasurer, Friends of Cow Creek Preserve
Member, Whitmore Volunteer Fire Company Inc.

cc:
Director, Office of Hydropower Licensing
Federal Energy Regulatory Commission
888 – 1st Street, N.E.
Washington, DC 20426-0001

Takeshi Yamashita, Regional Director
Federal Energy Regulatory Commission
901 Market Street, Room 350
San Francisco, CA 94103

Steve Nevares, Senior Project Manager
san3@pge.com

P-606 Service List

CERTIFICATE OF SERVICE

I hereby certify that I have on this day served this letter by first class mail postage prepaid or email upon each person designated on the official service list compiled by the Secretary of the Commission in this proceeding.

Dated at Whitmore, CA this 18th day of September 2007.

Maggie Trevelyan
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Locals learn about groundwater in fractured rock systems

By Kelly Miller, Bear Creek Watershed Coordinator

Folks in and around the town of Shingletown are now more knowledgeable about their groundwater supply, thanks to the Bear Creek Watershed Group and guest speakers from the California Department of Water Resources and Ground Water Watch. Over 45 residents, local decision-makers and agency personnel made the drive out to the Van Stellman Center at the Shingletown Volunteer Fire Department to learn more about ground water supply in our local area at a community meeting hosted by the Bear Creek Watershed Group on June 7, 2007.

Stephen Baker, hydrogeologist and founder of Ground Water Watch, began the conversation with facts about past California droughts and projected increases in foothill populations. It is because Baker has a well on his ten acres in Nevada County and has studied fractured rock groundwater aquifers that he is concerned about his future domestic water supply and supplies across California. “Our communities will be experiencing drought. Will we be ready? Most well users don’t have an alternative water source, therefore impacts to groundwater have huge effects on the life-styles of our communities.”

The purpose of the Ground Water Watch program is to provide individual property owners with knowledge of their own water supply and a process for addressing issues before they cause hardship. In the event water conflicts occur, Baker’s program has devised an approach to reconcile and solve the conflict.

Baker went on to stress the need to have an early warning of a well going dry and the importance of real data for getting the attention of county and state agencies. He discussed the need for time and money to remedy these issues. “The most valuable part of rural residential communities is their self-reliant nature, spirit of collaboration and cumulative expertise. These attributes unite a community and create a strong force for protecting and solving groundwater supply problems” said Baker.

Glen Pearson, District Chief of the Department of Water Resources (DWR), Northern District, followed by introducing the Eastern Shasta County Ground Water Study of 1984. This was a two year study of the ground water hydrology, availability and development potential in selected areas of eastern Shasta County conducted by DWR. The intention of the report was to help Shasta County make land use decisions for it’s general plan that reflect the land’s ability to provide reliable sources of water for its inhabitants. It provides estimates of ground water availability and the development potential for each of the areas investigated based on data available at that time. Various units were studied, including the Bear Creek Foothills, Big Eddy, Cassel, Eastern Klamath Mountains, Hat Creek, Inwood, Manton, Oak Run, Old Station, Salt Creek, Shingletown, Viola and Whitmore. All of these specific areas overlie fractured rock water systems not a ground water basin. According to Pearson, the study took a look at the water-yielding capabilities of different soils in the Inwood and other areas, the direction of groundwater flow and the water levels at differing elevations at that time. Pearson said this study was a “first step and was not intended to be an end all study”. However, no follow up studies have occurred since.

In the Eastern Shasta County Groundwater Study some recommendations were made to:

- Require all new development to incorporate proven water-conservation technology including low-flush toilets, flow-control inserts on showers and water-efficient appliances.
- Encourage the installation of efficient irrigation systems that minimize runoff and evaporation and maximize the amount of water reaching the plant roots.
- Encourage cluster housing where feasible to conserve the amount of land being converted to urban use.
- Retain when possible for new developments, rainwater on site in rainwater basins to aid in groundwater recharge.

- Preserve natural drainage such as swales etc. (verses filling them in) to encourage in groundwater recharge.

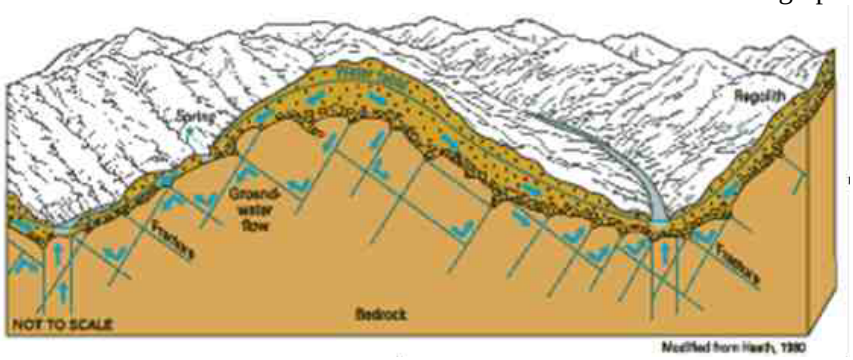
According to the 1984 study another recommendation was to require developers to conduct a comprehensive hydrological study and groundwater supply evaluation for all proposed developments in the study area. The study lists a number of parameters to be included in such a study.

Finally the study recommends initiating a long term ground water level monitoring program to "evaluate the effect of climatic variation on water levels, to provide a database for future investigations, to provide data that may be used to anticipate local groundwater shortages and to evaluate the impact of future development. (DWR 1984)"

In 1984 the areas around Inwood were designated as one home per five-acre parcel if the parcel was within one mile of a road; otherwise the designation was one home per 10 acre parcel. In 1984 it was found that based on data from the study there were only adequate water supplies for the existing and planned development in 1984 during average and above average water years in the Inwood area.

As Pearson mentioned, this study was not intended to be a stand alone study, but rather was intended to be the first step in an effort to pursue other studies to gain a broader understanding of the groundwater in the fractured rock systems of eastern Shasta County. Residents attending the presentation seemed to agree that a renewed effort to study groundwater in the Bear Creek Watershed and throughout eastern Shasta County is needed and wanted.

Don McManus, Senior Engineering Geologist for Department of Water Resources Northern District, was the final speaker for the evening's presentation and started by giving locals information about what a fractured rock system is and how it differs from a water basin (aquifer). Most people probably can easily imagine an underground water basin when they try to imagine where groundwater is stored. As McManus pointed out, a fractured rock system is very different, in that water is stored in the cracks or fractures of the bedrock as seen in the graphic below.



Over 60% of California is composed of hard rock such as granite or basalt. This rock can have cracks or fractures from seismic activity (earthquakes) or stress over time. These fractures can be large or small and can run up and down or sideways and most are found in the upper few hundred feet of rock. The amount of water stored in these fractures depends on a number of things, including the size, density and location of fractures and their interconnection.

Fractures for the most part are the only way groundwater can be stored in hard rocks and they can yield water to wells that intersect the fractures. A well drilled down through bedrock may or may not happen to intersect one of these fractures holding water. Wells drilled close together in hard rock may not have similar yields.

As you can see in the graphic below, Well #1 does intersect a fracture, yet this fracture is not supplying any water to the well. As mentioned before, the amount of water passing through fractured rock varies greatly depending on the connections between fractures.

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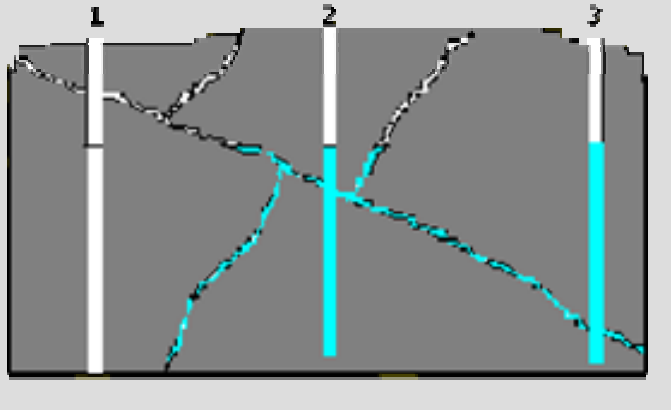

Well #2 and #3 in the graphic above are both supplied by a source of water, although the fracture that Well #2 intersects is connected to more fractures than Well #3. Imagine another well drilled in between Well #2 and Well #3. It may have a greater effect on the water supply of Well #2 than Well #3 if the new well causes water levels to drop below the intersection of Well #2 and the fracture holding water (assuming water is flowing downwards through the fracture toward Well #3).

It is obviously a very complicated system, especially when considering that we know very little about where these underground fractures are or how they are connected. McManus did a good job of explaining the techniques we do have at our fingertips to try and gain a broader picture and understanding of our water supply in a fractured rock system on a broader level. He said that measuring well water levels over time will give us baseline data to compare future water levels against so that we may start looking at trends over time. Also, knowing the direction in which the underground water flows will be beneficial to us in the future as well.

McManus showed maps to the group that on first look appeared to be very similar to topography maps (those with lines connecting similar elevations). On closer inspection, these maps did show lines connecting similar elevations, only they were well water level elevations vs. land surface elevations. They provide a good look at the distance it takes a well to reach water underground on a regional level which could provide some insight into how the fractures in an area are interconnected. McManus also mentioned that to get a better idea of well water levels throughout an area one must also measure the elevation of the well itself.

All of the speakers of the evening received a hearty round of applause and there were a number of questions from the audience after the speakers had concluded their presentations. Most folks stayed for close to an hour after the formal talks were over to take part in discussions. Questions arose relating to the need for monitoring, how monitoring could be conducted and costs associated with monitoring. Carl Weidert mentioned that the Bear Creek Watershed Group has recently formed a Groundwater Subcommittee to focus on these issues and address monitoring in the Bear Creek Watershed. He invited any resident interested in groundwater to attend the Bear Creek Watershed Group monthly meetings and to also join the Bear Creek Watershed Group Groundwater Subcommittee to further their efforts and provide input.

At the end of the day local landowners concerned about groundwater supplies learned more about the groundwater in their neighborhood and how to work towards protecting it. Although there have not been any studies conducted on groundwater in the Bear Creek Watershed since 1984, it was apparent that landowners would like to continue those efforts and the Bear Creek Watershed Group is now researching options on how to get that accomplished. For more information about Groundwater or the Bear Creek Watershed Group please contact Kelly Miller, Watershed Coordinator – Western Shasta Resource Conservation District @ (530) 365-7332 X 205 or Kelly@westernshastarcd.org

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