

Supervisors ask for more water facts

Santa Cruz County Supervisors this morning asked for more study by the U.S. Geological Survey of water availability and salt water intrusion in the Mid-County and postponed until this afternoon a decision on a proposed well-drilling moratorium.

Although no vote was taken, there was some indication this morning that some kind of limits on well-drilling will be implemented. Supervisors Robley Levy, Gary Patton and Joe Cucchiara voted down a proposal from Supervisor Dan Forbus that no moratorium decision be made until the additional study is completed in early June. Forbus was supported only by Pajaro Valley Supervisor E. Wayne

Moore.

Supervisors and officials of the Soquel Creek Water District have been hearing the USGS office which pre-reports of salt water intrusion in parts of the district, mainly in the Opal Cliffs area. A USGS report said the area faces an overdraft problem.

The effects of that intrusion and estimates of how much water can "safely" be drawn out of the ground have been debated. Even experts from the USGS have offered differing views.

Richard Boyd, head of the USGS office which prepared the report, told the board there isn't enough information to determine whether more well-drilling will cause a problem.

He suggested a two-pronged study: Creation of a water level map, which will show where the water is, and testing of wells in different parts of mid-county. The board readily agreed to the study, which Boyd said should be ready by June 2.

After the Soquel Creek Water District imposed a connection ban in January, it asked the county to impose a well-drilling moratorium to prevent people from drilling wells to get around the connection ban. (Only the county can impose the well-drilling moratorium.)

The proposed moratorium would include not only the water district (excluding La Selva Beach) but virtually all the area from 41st

Avenue to Aptos, from the ocean to the summit.)

The county Planning Department recommended a limited moratorium, in which new wells or expansion of existing wells would be allowed only if the property owner has obtained a county building permit allocation. (The county has limits on the number of permits allocated each year.)

This measure would allow some building, but would stop construction of wells by speculators who hope to get a building permit, said Planning Director Kris Schenk.

Moore, in speaking against the moratorium, said, "I'm not convinced there's an emergency."

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Water board stays with ban on new connections

By BOB SMITH

Soquel Creek water directors stood by their water connection moratorium Monday night and decided not to speak against a well drilling ban proposed for most of mid-Santa Cruz County.

The water directors presided over a three-way discussion between Richard Boyd, district chief of the U.S. Geological Survey, David Landino of the Associated Well Drilling Contractors of California, and Lawrence Frommhagen, a Soquel Valley resident.

The water board rejected requests from Landino that the district go on record with the Santa Cruz County Board of Supervisors as not favoring the county's plan to declare a water well drilling ban throughout the Purisima formation, which underlies most of mid Santa Cruz county and portions of the Pajaro Valley.

The water directors have asked the supervisors for a well drilling ban inside the water district boundaries and told the audience that county records should show that the district has not asked for the formation-wide drilling ban.

(Supervisors were expected to consider the well drilling issue Tuesday morning.)

The water district declared its water connection moratorium after USGS geologist Ken Muir wrote a report telling the district that Purisima formation was being tapped for approximately 5,500 acre feet of water each year and the conservative safe annual yield was only 4,400 acre feet a year.

Muir's report has been under heavy attack ever since the water district said it might use it as a basis for a water connection ban.

Boyd repeated the USGS position of last week that the Muir report is accurate, and tried to explain to the water district why a 1968 report indicated the availability of 10,000 acre feet of water in the Purisima formation, then the Muir document suddenly cut that back to 4,400 acre feet.

The USGS official said he finds it strange that no one is attacking the 1968 report commonly known as the

Hickey report.

"In all honesty, if I was going to attack something," Boyd told the water directors, "I would attack the 10,000 acre feet."

"If anyone wants to question it, they can question it because there are an awful lot of assumptions.

"Hickey assumes a hypothetical flow of ground water through the Purisima formation. He said there was 10,000 acre feet moving through the formation," Boyd said.

"Muir looked at it in a different way. He said that inflow minus outflow is equal to storage."

Boyd then described the way Muir calculated the various values that he plugged into the equation that gave him the 4,400 safe annual yield figure.

"He made assumptions that there was no change in storage. He stated that if you pump 4,400 acre feet, you will still have enough water (moving through the Purisima formation) to maintain the seawater wedge (off the coast)."

Boyd told water board president Ken Izant that the Muir report "is a good one."

Boyd said the district might be able to solve some of its water supply problems by relocating its very large coastal wells inland.

"Some people say you can move up hill (inland) and get a lot more water," Boyd said, referring specifically to a claim made by Frommhagen at earlier water district meetings.

"That may or may not be true," he said.

Boyd likened the underground water formation to a series of very large storage tanks, connected with pipes of varying sizes.

If you have 100,000 acre feet of water in a reservoir and only a two-inch pipe, the amount of water you can get from the pipe is limited.

"If the transmissibility (of the underground formations) is limited, you can only get so much water at the coast.

"You may want to consider moving your wells back," Boyd said.

That would be nearly impossible financially and geographically, Izant said.

Landino argued that the

district didn't really understand the geological structure of the Purisima formation, and was unfairly penalizing water users throughout the area because of its problems.

Landino made several points that Boyd seemed to agree with during the 1½ hour discussion.

The district's salt water intrusion problems are confined to the Capitola coastal region, particularly the Opal Cliffs area where it has two large, but shallow, wells in production and a third, deeper well that will be going into production in the near future.

Those wells, like many private wells in the Capitola-Live Oak area, tap the shallow Zone C of the Purisima Formation. Underlying that area are Zones B and A, which are not being overdrafted or affected by salt water intrusion.

(Zone B, in the Capitola-Soquel area is approximately 800 feet below the surface, but slopes towards the surface further inland.)

Landino argued that it was unfair for the water district and the county supervisors to halt well drilling and, in effect, condemn, all of the Purisima water in Zones B and A because the district has problems in Zone C.

He also argued that the zones are not continuous under the mid county, as visualized by Hickey, but could be like pockets or lenticular lenses with water stored in one area of each zone not readily available to a pumping well somewhere else in the mid county.

"You could condemn all the water and it still will not be available to you," Landino told the water directors.

Landino also argued that the Zone C formation being tapped by the water district in the Opal Cliffs area is recharged from the surface directly above, and not from the Rodeo Gulch area as previously believed by the USGS and the water district.

Landino said one reason salt water is showing up in the Opal Cliffs wells is because the ground above is steadily paved over by streets, homes and other buildings, reducing the

amount of rainfall that recharges the groundwater basin.

Landino conceded that his organization, which represents most of the water well drillers in Santa Cruz county, doesn't argue with the water connection moratorium and even water well drilling ban in the district.

But he argued: "there is no valid reason to ban drilling of wells in the outlying areas because you have a problem at the coast.

"You may be overdrafting (at the coast) by a factor of 2 and there is no reason for banning drilling in Buzzard Lagoon or Trout Gulch.

"It is not fair to penalize someone not connected with your problem," Landino said.

"In principle," Boyd said, supporting Landino, "I have to agree. No one can question that you have a problem in this area, but up the hill, who knows?"

"No matter what you do," Landino concluded, "you can't make the water available to the district. Yet you are condemning all of the water."

Frommhagen found himself rebuffed by the water board in his attempts to get continual access to the district's water quality testing program he is undertaking.

Frommhagen protested to the water board that District general manager Bob Johnson had refused to allow him to unseal the newly drilled Opal Cliffs #2 well and take water samples.

The directors refused to order Johnson to allow Frommhagen access to the well, which does not yet have a pump installed, or the other wells, after director Dan Kriege, Larry Bargetto and board attorney Robert Bosso objected.

Kriege, a Santa Clara Valley District official, and Bargetto said they were skeptical of private monitoring programs.

Bosso reminded the board that Frommhagen had threatened several times to sue the district and directors might find themselves attacked by the information they allowed Frommhagen to gather.