

Saltwater intrusion makes its way up county coast

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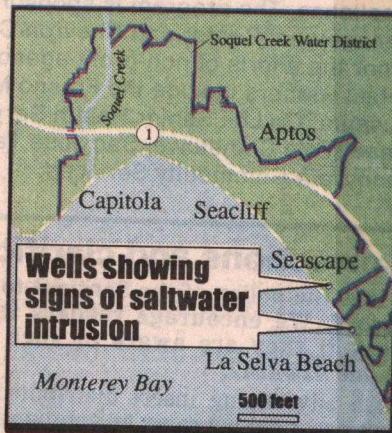
SANTA CRUZ — Saltwater intrusion is no longer a Watsonville-only issue. That was the message in a dense and highly technical report that crossed the desks of county supervisors Tuesday.

The inland march of seawater has been detected in early-warning monitoring wells as far north as La Selva Beach and Seascape, said county water analyst Bruce Laclergue, who regularly updates the board on water issues.

Groundwater levels in the Mid-County area are slipping below sea level, he noted, creating "unfavorable groundwater conditions all around the Monterey Bay region as this may relate to seawater intrusion."

"The report is really ominous," said county Supervisor Mardi Wormhoudt, referring to an August report prepared for the Soquel Creek Water District. The district serves customers as far north as Capitola and Soquel.

Wormhoudt pressed Laclergue



to provide a context for the scientific data. "Is this a crisis or not?" she said.

Laclergue was reluctant to give a definite answer.

Instead, he pointed out that the water districts involved know there's a problem and are taking steps. The Pajaro Valley Water Management Agency is moving rapidly to deal with the problem,

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he said, and the Soquel Creek Water district is just beginning to take those steps.

"I'm quite concerned about it," Laclergue said. "And I know they're quite concerned about it. ... It depends on how successful they are in planning."

A contrary opinion came from the supervisor who represents the Pajaro Valley part of the county.

Yes, there's a problem, but the water agency in his district has been on top of the situation for a long time, said Watsonville-area Supervisor Ray Belgard. The county doesn't need to poke its nose into the affairs of his district's water agencies.

"No matter how much 'Run, Chicken Little, the sky is falling' you get from Mr. Laclergue, the recommendations (in his report) indicated there's not some kind of crisis here," Belgard said.

Seawater contamination and overpumping of freshwater supplies is at the heart of the discussion.

The rule of thumb with seawater intrusion, Laclergue said, is that it takes as long to reverse as it takes to develop. The problem in the nearby Pajaro Valley has taken 50 years to develop, he noted.

"The real problem is that you don't ever want to let it in," he said. "And you have a set of conditions where it can come in."

Laclergue listed the three warning signs of saltwater intrusion, comparing them to the seven

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— Bruce Laclergue, water analyst

warning signs of cancer.

- Groundwater levels falling below sea level;

- A reverse gradient ("That means it's downhill for ocean water to come inland," he said.);

- A hydrologic connection between the two.

"They have every one of those conditions in the Purissima," he said, referring to one of the two underground water formations that supply the Soquel Creek Water District.

The other formation is the Aromas Red Sands, where the early signs of seawater intrusion are evident in monitoring wells. In particular, the chloride levels of a La Selva Beach monitoring well have "dramatically increased" from 250 parts per million in April to 1,580 parts per million in August, according to an August report prepared for the Soquel Creek Water District.

More troubling, however, is that source historically has been fresh water, Laclergue said, with past levels ranging from 20 to 40 parts per million. The standard for

drinking water is 250 parts per million.

The consultant who prepared the Soquel Creek Water District report noted that nearby production wells have shown no change, so drinking water is not yet affected.

Monitoring wells farther inland haven't shown the changes, either. Groundwater levels have slipped below seawater in some areas, but the report notes that if those can be stabilized the problem may not get any worse.

The district should start looking for well sites farther inland, the consultant recommended.

More significantly, however, is the change in direction taken by the flow of subsurface water. In the past, fresh water flowed out to the bay, effectively keeping the seawater at bay.

In the last five years, however, that's reversed. Now the flow is inland — toward the Pajaro Valley.

"The key question regarding the above conditions is whether they are currently stable or progressively degrading," concluded the report.