



Belted Kingfisher
(*Megasceryle alcyon*)

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Cambria Desal Wells Derailed

by Jack McCurdy

Once again in the issue's nearly 15-year history in Cambria, desalination of seawater for human consumption moved back to the active agenda last month but immediately ran into formidable roadblocks when the California Coastal Commission balked at allowing test wells to be drilled without a full environmental review and a group of astute residents raised a wide range of objections, the most serious being failure to take into account documented highly-toxic mercury in sediment from which drinking water would be pumped by a desal plant.

The Cambria Community Services District (CCSD) board, which was all set to claim exemption of the wells on Santa Rosa State Beach at Shamel County Park from review under the California Environmental Quality Act (CEQA), pulled back at a weakly-publicized special meeting on January 5 after a large majority of the 13 residents in the audience voiced substantive challenges and thinly-veiled disgust over the move- especially after the meeting had been announced publicly only a few days before over the New Year's day weekend when most people are preoccupied with family and friends.

The test wells issue was rescheduled to a regular board meeting on January 21, but that, too, was cancelled because of the weather. It is now expected to be back on the agenda on February 25. The project had been on a fast track with wells planned to be in operation by March. The last time such desal test wells were proposed was in 2007 when a project on San Simeon State Beach was rejected by the Coastal Commission.

The next step is expected to be adoption of a "negative declaration" that no significant environmental impacts will result from the planned seven to 10 wells in the same Santa Rosa Creek area, apparently abandoning the claim that the project qualifies for exemption from environmental review. How much substantive difference there is between the two courses is not clear to some.

But none of the community opposition stopped the Army Corps of Engineers, which would drill the test wells in partnership with the CCSD, from going ahead and informing the Coastal Commission that the project would be consistent with the Coastal Zone Management Program, which the Commission administers. The 17-page "Coastal Act Consistency Determination" claimed that the project would comply with the Coastal Act to the "maximum extent practicable."

The Commission said the Corps letter was received December 30, the last working day before New Years - and before community members had an opportunity to become aware of the planned drilling or to voice their opinions

to their own local CCSD.

What seemed to catch the widest attention was the mercury, based in large part on two main facts. First, that an estimated nearly three million pounds of liquid mercury have been extracted in mining up Santa Rosa Creek over the years with probable spills, residues and mine tailings as sources of mercury entering and flowing down the Creek (with an underground desal intake to possibly be developed at the mouth of that creek). Second, an enterprising resident - Lynne Harkins - had taken it upon herself - with financial help from the Santa Lucia Chapter of the Sierra Club - to arrange for soil tests that found methylmercury right at the mouth of Creek near the proposed test well sites, as well as at four creek locations within a mile of the same beach. Highly-toxic methylmercury was part of the total mercury found, testing positive for three parts per billion, raising serious questions about whether the beach area at the terminus of Santa Rosa Creek is an acceptable site to locate an intake as a source for a drinking water supply.

"Methylmercury found in sediments often indicates the presence of concentrations 10 to 90 times greater in the surrounding biota, due to its high solubility and bio-availability," Harkins said.

Last July, the New Times reported that "potentially dozens of local inactive mines were abandoned with no cleanup measures and are leaking processed mercury into nearby water sources. The State Water Quality Control Board found one such mine, the former Oceanic Mine, was bleeding mercury runoff into the Curti Creek out into the Santa Rosa Creek and possibly into the Pacific Ocean."

The state water board has rules for mercury discharges in relation to protection of water quality, which limit concentrations in fractions of a part per billion. There are no allowable discharge levels for methylmercury, said Dominic Roberts, a member of the Central Coast Regional Water Quality Control Board's staff.

Even Greg Sanders, CCSD board president, felt moved to comment on mercury being found in the soil, sloughing off the threat of mercury contamination of a desal water supply by saying the district "has known about the mercury situation for years," according to a quote in the Cambrian newspaper.

All but a few of the residents at the January 5 meeting lambasted the no-environmental-review project. Jim Webb argued that the CCSD's contention that no environmental review of the project was necessary ignored the complexity of the environment on the beach around the creek terminus, including habitat for numerous aquatic species at a reef there. Mickie Burton charged that the CCSD had misconstrued the grounds for exemption of environmental review under CEQA.

Another resident, Tina Dickason, pointed out that public health threats from diesel pollution and other contaminants generated by the well drilling were overlooked or ignored in the claim that no environmental review was necessary. Despite the documented effects of carcinogens from diesel emissions, the Army Corps asserted that the odors will dissipate and will have no effect on residents in homes near the beach area in question or the Shamel Park playground - all without any evidence, Mary Giacoletti emphasized in a letter to the CCSD.

Thanks to residents quickly sending their concerns about the desal test wells to the Coastal Commission, the Commission staff was just as quick in responding six days after the Jan. 5 board meeting in a letter to the Army Corps about its assurances that the project would be consistent with coastal protections. The Coastal Commission said the requests for more information from the Army Corps was "based in part on comments" from citizens.

The Commission letter left no doubt that the Army Corps and the CCSD have not only some extensive homework to do but some evidentiary challenges in demonstrating that the the "hydrogeologic feasibility investigation study . . . for a proposed desalination facility" at Santa Rosa Creek will protect people, wildlife, natural habitat and the environment. Mercury was prominent on that list of objections.

Obviously referring to Harkins' comments, the Commission staff letter said, "Documents submitted to the CCSD shows mercury contamination in and near Sana Rosa Creek . . . (and) because the project site includes areas that were likely within the Creek's historic channel areas, it may also contain some level of mercury contamination."

The letter asked the Corps to describe what it knows about potential mercury contamination levels within the project site, measures the federal agency will implement to determine the presence and amount of site contaminants and measures it will take to remediate any contamination.

The letter also requested more information or clarification on these points:

- The Corps said the wells will remain in place for up to one year, but information provided at the CCSD hearing indicated it would be up to two years.
- Approvals of California State Parks and the county must be addressed.
- Information is needed regarding the width and clearing area of the route from the parking area to the beach and specification of any vegetation that would have to be cleared.
- The "adverse effects on . . . public access" to the Shamel Park parking spaces due to planned storage of drilling equipment there.
- How the proposed project with "maintain, enhance and, where feasible, restore . . . elements of the marine environment or how it will result in special protection of nearby areas of special biological significance."
- Since the project site is located "immediately adjacent to the . . . Cambria State Marine Conservation Area, which was established in part to protect the biological resources in and near the site," describe whether the project would be consistent with requirements of the Conservation Area.
- The Corps' finding of consistency makes no mention of potential impacts of the south central steelhead, which uses the habitat immediately adjacent to the project site.
- The Corps said the project is not expected to adversely affect sea otters that may be adjacent to the site, "even though use of drilling equipment with decibel levels that may be high enough to affect nearby otters or other marine mammals."
- Since storage of drilling fluids in containers at the site will be necessary "to minimize spill risks," the location, how often the contents will be transferred elsewhere and the expected response time for spill response teams must be provided. And the containers should be kept above the beach area.
- Describe the expected impacts to vegetation and habitat types along the access route to the site and how they are going to be avoided or minimized.

All this information will be needed for a "complete consistency determination," the letter said, and that work on the determination by its staff will not commence until the required information is received.

For many, if not most, residents, awareness of mercury is a new factor in water or soil contamination in the Santa Rosa Creek and beach area, despite the long history of it being mined upstream for many years.

A 2004 Commission report "Seawater Desalination and the California Coastal Act" stated that "facilities should be designed to avoid or minimize the use of hazard chemicals."

The U.S. Environmental Protection Agency on its web site states:

Methylmercury is highly toxic to mammals, including people, and causes a number of adverse effects. Health studies and information showing neurotoxicity, particularly in developing organisms, are most abundant. The brain is the most sensitive organ for which suitable data are available to quantify a dose-response relationship. A recent study by the National Academy of Science concluded that the population at highest risk is the children of women who consume large amounts of fish and seafood during pregnancy, and that the risk to that population is likely to be sufficient to result in an increase in the number of children who have to struggle to keep up in school and who might require remedial classes or special education. (<http://www.epa.gov/waterscience/criteria/methylmercury/factsheet.html>)

In 2004, the Commission adopted a [policy on desalination](#), which did not state opposition or support for desal but made two key findings:

1. The "most significant potential direct adverse environmental impact of seawater desalination is likely to be on marine organisms."
2. Reviews by the Commission of desal plants "will likely need to assess whether the water supply provided by these new facilities comes with assurances that the resulting growth will not exceed the capacity of coastal resources."

After the CCSD's last attempt at developing a desal plant at the mouth of San Simeon Creek, the district started looking at the Santa Rosa Creek site when the aquifer for existing district water wells there had to be abandoned after contamination from a gasoline additive, MTBE, was discovered.

The debate in the community has been over whether Cambria really needs a desal plant to provide residents with water. A local resident who is a retired water systems testing professional responded to a question as to whether desal is really needed, given the availability of large-sized mobile desal units:

"I've been thinking about what you said about us not needing the beach wells for emergency desal. I think you're right. I would like to approach some of the vendors involved in providing portable emergency desal units to see if they in fact would be able to respond during a statewide drought. If they can, I would like to see the District put something in place that would give us all a safety net." ([Logistics for Deploying Mobile Water Desalination Units](#))

Desal has been a hot topic of discussion around the state for a number of years, and its practicality, advisability, efficacy and consistency with environmental preservation have been challenged by virtually all environmental organizations.

One of the leading groups, [Desal Response Group](#), has asked, "Why is ocean desal an acceptable answer" when the quality of drinking water it produces is unknown, untold amounts of marine life are killed in ocean water used by desal plants and it has never worked satisfactorily? The Group argues that viable, more efficient and productive alternatives are conservation, new water reuse technologies and recycling.

Belted Kingfisher image on banner by [Cleve Nash](#)