

No Easy Way for the Kentfield Force Main

by Sam Wilson

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If you've ever taken a stroll along the north shore of the Corte Madera Creek estuary from the end of the channelized stretch of the creek to Bon Air Road, then you have walked in close proximity to the Kentfield force main, a pressurized 36-inch-diameter sewer line that is buried beneath the multi-use pathway. The collected sewage, drained from Fairfax and the other communities en route to Kentfield, is pressurized at a pump station located near the point where the estuary begins to fan out from the end of the concrete channel. The pipeline continues along the berm to and beyond Bon Air Road, and a series of pump stations and mains ultimately takes the flow over the hill to the wastewater treatment plant at the end of Anderson Drive in San Rafael.

Installed in 1972, the force main was made of a material composed of fiberglass, polyester resin and sand, brand-named Techite, which according to a Ross Valley Sanitary District (RVSD) memorandum has proven to be "extremely fragile under any external and internal stresses. Techite pipelines are known to fail catastrophically." The memorandum also cited a need to increase the pipe's diameter to ensure adequate future capacity.

The need to replace the pipeline is generally accepted by stakeholders concerned with the situation, but settling on where to put it, in an area that is both environmentally sensitive and heavily trafficked, has proven to be no easy task. Several alternative pipeline routes— "alignments" in the language of civil engineering—have been debated for a number of years. Currently three are under serious consideration.

The alignment preferred by Friends, which was also the "selected alignment" in a 2008 joint report by RVSD and its consultant, the environmental engineering firm Brown and Caldwell, would avoid sensitive habitat by routing the pipeline along the west-bound lanes of Sir Francis Drake Boulevard. Of course, as anyone who has spent much time in traffic on this stretch of road knows, it is often a tough slog even without roadwork. And this is a relatively pricey alignment too, by several million dollars.

Such concerns came into play when the sanitary district decided to change its preference to a second option that would route the pipeline beneath both the College of Marin's Ecology Study Area and the county's Creekside Park, an area including wetland habitat that falls under the County Parks and Open Space Department. In these sensitive areas, directional borings—at a depth of around 25 feet—rather than trenches, would be made for the pipe. But staging areas would be required at the surface, with likely environmental impacts.



The current main sewer line for the Ross Valley runs under the multi-use path leading from Stadium Way to Marin General Hospital, on the further side of the Corte Madera Creek in this photograph. Friends' woodland habitat restoration project in the Ecology Study Area is also visible, adjacent to the path. Photo by Charles Kennard

This alignment, so named because it includes McAllister Avenue in between the Ecology Study Area and Creekside Park, has been the subject of two contentious public meetings, and both Friends and Parks and Open Space have taken positions opposing it.

The third option, which would involve replacement of the existing force main in the berm, was initially rejected because, according to Brown and Caldwell engineer, Charlie Joyce, “We had taken a position that we didn’t want to be in the berm—with global warming and a potential for liquefaction [during seismic events] we wanted to be in an upland area. But costs and other impacts are making us take another look at the berm and ask, What can we do to make it stable?”

One might imagine the replacement option would necessitate construction of a temporary bypass. But a backup network of sewers between Corte Madera Creek and Sir Francis Drake already exists, including a 30-inch main through Creekside Park, which would allow the Kentfield force main to be shut down in the dry season, when the system isn’t subject to stormwater infiltration as it is in the winter.

Each option has advantages and disadvantages, but in terms of environmental impacts, the Sir Francis Drake route appears to be the most benign, and the McAllister Avenue option ranks lowest. According to Nancy Peake of Parks and Open Space, “We would prefer the alignment along the berm to the one through the park.”

As of this writing, according to RVSD general manager Brett Richards, “All options are back on the table.” He cites as reasons the environmental contentiousness and his relative newness to his current position (previous jobs included managing waste water districts in Madera County and the City of Fresno). Richards also observes that “what I’m hearing is that construction costs are 30 to 35 percent lower, especially on large projects like this,” which in itself might be a worthwhile reason to take a step back to reassess the alternatives.

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