

Central Coast Regional Water Quality Control Board

February 8, 2023

Rachél Lather, MS, PE
Principal Engineer
Carmel Area Wastewater District
3945 Rio Road, Carmel CA 93922
Lather@cawd.org

Via electronic mail

Dear Rachél Lather:

CARMEL AREA WASTEWATER DISTRICT, CARMEL MEADOWS SEWER MAIN PROJECT

Thank you for your inquiry regarding a review of the Carmel Area Wastewater District’s (CAWD) Carmel Meadows Sewer Main project. It is Central Coast Regional Water Quality Control Board (Central Coast Water Board) staff’s understanding that the existing cast iron pipe sewer line is about 60 years old and in poor condition. The pipeline is on aerial supports in an unstable and steeply sloped area that follows an alignment above a sensitive habitat (Carmel Lagoon) that flows to the ocean. This stretch of pipeline transports sewage flows from 52 residences in the Carmel Subdivision along Ribera Road. Pipeline access for maintenance, operation, repairs, and emergency response is poor.

As documented in mandatory reporting to the Central Coast Water Board, there have been 13 spills in the past 21 years on this stretch of pipeline (see Table 1 below). The latest spill was in June of this year with debris, structural problems and roots being the recurring issue. The Central Coast Water Board considers replacement of this sewer main adjacent to Carmel Lagoon a high priority.

Table1. Sewage spills from existing sewer line above Carmel Lagoon in Carmel Meadows Subdivision

Date	Manhole Location of Spill	Volume of Spill (gallons)	Cause of Spill
6/9/22	2885 Ribera Road MH S622	90	Debris, Grease, Structural Problems
5/21/21	2755 Ribera Road MH S610-S609	476	Roots

8/31/2016	2755 Ribera Road MH S610-S609	650	Roots
5/20/2016	2925 Ribera Road MH T603-T648	688	Grease and Debris
9/14/2012	S622-S616	900	Grease and Debris
1/27/2012	2805 Ribera Road S617-S618	40	Roots
12/19/2011	Ribera Road Easement S610-S609	825	Root Intrusion
8/15/2009	Ribera Road Easement S610- s609	500	Root Intrusion
4/8/2005	Ribera Road Easement S609- S607	180	Grease and Debris
7/14/2003	Ribera Road Easement S616- S608	60	Debris, Grease, Pipe Structural Problem
10/11/2002	Ribera Road Easement S616- S608	450	Debris, Grease, Pipe Structural Problem
4/21/2002	Ribera Road Easement S609- s607	50	Root Intrusion
5/2/2001	2695 Ribera Road S603-S602	300	Root Intrusion

Central Coast Water Board staff has reviewed three reports regarding the pipeline: 2019 Feasibility Study by SRT Consultants, 2013 Final Technical Memorandum by Kennedy/Jenks Consultants, and 2003 Carmel Meadows Sewer Evaluation by HDR Engineering. All three studies agreed that the pipeline is deteriorating and needs to be replaced.

There were many options to fix the unacceptable situation discussed in these reports, but it is Central Coast Water Board staff's understanding that the Carmel Highlands Land Use Advisory Committee has asked to consider the option of replacing the pipeline in the existing location abutting Carmel Lagoon (Alternative 2).

Alternative 5, on the other hand, would change an existing pipeline alignment to flow to a pump station located at an existing manhole on Mariposa Court. From there sewage would be pumped into an existing force mainline on Ribera Road that flows to the Calle La Cruz Pump Station. More detailed information regarding these two alternatives is described below.

Alternative 2 – Replace pipeline and manholes in existing location

This option would keep the pipeline location above Carmel Lagoon and includes the replacement of the entire sewer with new ductile iron pipe. This option will require the construction of a 20-foot-wide access road along the existing alignment, the removal of 15 oak trees, the construction of slope protection and stabilization, replacement of existing metal aerial supports and footings, and installation of four pin piles at each footing. The construction of a new access road would require the placement of fill and retaining walls along the downhill side of the easement and eleven manholes would be replaced with watertight polymer concrete manholes.

The existing laterals would remain connected to a backyard pipeline that flows into the existing pipeline, and root intrusion through laterals would continue to be an issue. The aerial-supported visible pipeline would continue to be vulnerable to slope instability, falling trees, sea level rise, and other impacts from climate change.

Alternative 5 – Relocate sewer to flow to Mariposa Court where sewage is pumped to existing force main in Ribera Road

The alternative project proposed by CAWD would utilize an existing pipeline in the backyards of 19 homes to direct sewage to either the Calle La Cruz Pump Station or a new pump station located in an existing manhole in Mariposa Court. This project would require four homes to connect to a new sewer line with ejector (i.e., grinder) pump systems, and existing laterals would connect to the collection pipeline. This option also includes pipe bursting of portions of the existing collection line, where feasible. This alternative project would improve access to the sewer lines, and the potential for sewage spills to the Carmel Lagoon would be greatly reduced. Additionally, minor work needed on the private property to install the ejector pumps would have de minimis effects on the environment, and the small submersible pump station at the end of Mariposa Court would only have a control panel visible to the public.

This alternative project would eliminate water quality issues associated with old leaky laterals, root infiltration into the sewer system, and grease and debris blockages that caused spills shown on Table 1. Water quality benefits of the street option and the reduced environmental impact of this project have been the basis for CAWD to consider this as the best option.

The Central Coast Water Board now includes requirements in National Pollutant Discharge Elimination System (NPDES) permits that require wastewater agencies to address threats from climate change. These requirements for the wastewater treatment

facility NPDES permits also include other infrastructure aspects such as collection systems.

The Central Coast Water Board also wants to make sure you are aware of the sanitary sewer system permit adopted on December 6, 2022, by the State Water Resources Control Board:

https://www.waterboards.ca.gov/water_issues/programs/sso/

Attachment D, sections 8.1 through 8.4, of the sanitary sewer system permit requires wastewater agencies to prioritize condition assessments for portions of their systems located in steep terrain, environmental areas more vulnerable to system failures, and components of the system more vulnerable to climate change impacts. Agencies must develop and plan to address those portions of the systems identified that need improvement. CAWD's assessment of Alternative 5 as the preferred alternative is consistent with the proposed sewer system permit as well as NPDES permit climate change requirements.

Conclusion

The Central Coast Water Board's mission is developing and enforcing water quality objectives and implementing plans that will best protect the area's waters. The plan to move the aging sewer line away from Carmel Lagoon will protect the environment and reduce or eliminate sewage spills to this water body that drains to the Monterey Bay National Marine Sanctuary at Carmel River State Beach.

The Central Coast Water Board does not support Alternative 2, because this would likely result in continued sewage spills to Carmel Lagoon and would be less protective to water quality. In Alternative 2, future spills would likely continue and a new pipe on the existing steep slope would be vulnerable to issues such as increased erosion resulting from storms strengthened by climate change. The Central Coast Water Board supports Alternative 5 as it would benefit water quality as well as CAWD and property owners by reducing liability for such future illicit discharges.

If you have any questions regarding this topic, please contact Dr. Peter von Langen at peter.vonlangen@waterboards.ca.gov or (805) 549-3688.

Sincerely,



Harvey C. Packard
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Water Boards

for Matthew T. Keeling
Executive Officer

cc:

Peter von Langen, Central Coast Water Board
Leah Lemoine, Central Coast Water Board
Harvey Packard, Central Coast Water Board

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