CARMEL AREA WASTEWATER DISTRICT

Special Board Meeting

3945 Rio Road, Carmel, CA 93923

November 16,
2023 Thursday
9:00AM

Public Comment Received - Sent via email from Carmel Meadows Residents-David Scopp.

From:	David Scopp
To:	Ken White; Robert Siegfried; cole@cawd.org; Michael Rachel; Kevan Urquhart; Barbara Buikema
Cc:	Domine Barringer
Subject:	CAWD Board Meeting on November 16, 2023
Date:	Monday, November 13, 2023 9:54:41 AM
Attachments:	LTR to CAWD re 11.16.23 Board Meeting.pdf

Good Morning Board President White, Members of the Board, and General Manager Buikema:

Please find attached a letter for the upcoming November 16, 2023 Board Meeting.

Regards,
Dave Scopp

David W. Scopp
2955 Ribera Road
Carmel, CA 93923
TELEPHONE: (415) 425-8531
E-Mail: *dwscopp@gmail.com*

November 13, 2023

Ken White, Board President
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Barbara Buikema, General Manager
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RE: ***Carmel Meadows Sewer Replacement Project***
Board Meeting on November 16, 2023

Dear Board President White, Members of the Board, and General Manager Buikema:

I maintain the hope that we can work together to achieve a mutually acceptable solution for the Carmel Meadows Sewer Replacement Project. Nevertheless, I am writing to express my concerns regarding the objectivity of the recent engineering peer review.

On July 12, 2023, the Planning Commission did not approve the Carmel Area Wastewater District's ("CAWD") permit request for the Carmel Meadows Lift Station & Sewer Replacement Project and "continued the item to a date uncertain *for the investigation of alternatives for action based on concerns expressed at the hearing*." (Italics added.) The minutes reflect that Commissioner Diehl "would like further analysis to be completed which includes an EIR." During the CAWD Special Board Meeting on August 1, 2023, CAWD passed a resolution to spend up to $150,000 to contract with Carollo Engineers, Inc. to conduct an "[e]ngineering [p]eer [r]eview" and an additional $100,000 to hire an "[e]ngineering [c]onsultant" to "[a]ssist the [g]eneral [m]anager in [m]anaging the [e]ngineering [p]eer [r]eview."

During the CAWD Special Board Meeting on August 1, 2023, I thanked the Board Members for taking action to look at alternatives and requested that Carmel Meadows residents be

allowed to participate in working with the consultants in order to ensure an objective and impartial process. The General Manager told me that residents would not be allowed to participate until after the process was complete.

The identity of the "Engineering Consultant" that CAWD hired to assist the general manager—Harris & Associates—was not revealed to me until I specifically asked the General Manager on October 2, 2023 and, to my knowledge, was not revealed publicly until the Harris and Associates draft report was circulated on October 6, 2023.[1]

During the Board Meeting on September 28, 2023—*prior to the Harris & Associates draft memo*—CAWD passed a resolution to hire a public relations firm—TBC Communications—in an amount up to $20,000 for the purpose of persuading the public to accept ejector pumps. During the discussion on the resolution, a Board Member indicated that CAWD planned to deploy ejector pumps in Carmel Meadows, Pescadero, Corona Road, and "other places." He continued, "We've heard scary things about ejector pumps. *It would be helpful to start changing that perception and de-demonize sewage ejector pumps with [the PR company's help]*." (Italics added.) After another Board Member advocated for a "transparent" and "honest" process, rather than a "sales job from us right now," the Chair shut him down, stating, "Direct action is better," and then abruptly changed the subject. Finally, the General Manager stated that she wanted the PR firm to "make language that is acceptable to the public." My hope, however, is that CAWD will instead work cooperatively with residents to make a *plan* that is acceptable to the public.

While Harris & Associates did contact Drew Lander on or about October 5, 2023—the eve of producing the draft memo—Harris & Associates appeared to have had their minds made up prior to that conversation.

In addition, the respective roles of Harris & Associates and Carollo Engineers, Inc. are unclear. The minutes from the August 1, 2023 meeting suggest that CAWD passed a resolution to hire Carollo Engineers, Inc. to conduct an independent peer review and that Harris & Associates would assist the General Manager in managing that process. Nevertheless, the "Constgructability Review Memo" is authored by Harris & Associates, and it does not mention Carollo Engineers, Inc. Please clarify the respective roles of Harris & Associates and Carollo Engineers, Inc.

CAWD's focus on convincing the public to accept ejector pumps and plan to deploy them throughout Carmel *prior* to getting the results of the peer review as well as its ambiguous use of Harris & Associates brings into question whether the peer review has not in fact been objective and impartial.

Sincerely,

David Scopp

David W. Scopp

[1] The draft memo is dated October 2, 2023. Nevertheless, the email circulating it to the public did not go out until October 6, 2023.

Staff Report

To: Board of Directors

From: Barbara Buikema, General Manager

Subject: Carmel Meadows Sewer Replacement Project

Date: November 16, 2023

RECOMMENDATION

It is recommended that the Board accept the following reports:

- Engineering Review of Carmel Meadows Sewer Replacement Project Design Options, November 10, 2003, Carollo Engineers
- Carmel Meadows Sewer Replacement Project Constructability Review Memo, October 17, 2023, Harris & Associates

DISCUSSION

After the July 12, 2023 Monterey County Planning Commission, the District decided that the most efficient way to respond to their request for further analysis was to engage a separate engineering consultant to perform a project review. We had two primary criteria in making the selection: first, that the District had no current or recent engagements with the firm, and second, the firm had to be large enough to have the expertise on staff. Staff determined that Carollo Engineers met those two criteria and had an excellent reputation in pipeline projects.

Because of community mistrust of the District Principal Engineer the project was given to the General Manager. The General Manager is not a licensed engineer, so she requested a separate engineering firm to act as her liaison to Carollo and screen for reasonableness. Harris & Associates was engaged because their Principal Engineer/Engineering is a recognized leader in pipeline and pumpstation projects.

The instructions given to Carollo were short, namely:

- Review the option "Replace-in-Kind"
- Review the project as presented by SRT Consultants
- If there is another option or idea, please bring it forward.

The tech letters submitted to the District meet the goals as presented. The District also made a decision early on that neither District staff nor the residents should have any interaction with the consultants. Both parties would have the opportunity to question the consultants at the conclusion of their review at the public meeting on November 16,2023, but as much as possible we wanted their review to be unbiased.

Both Carollo Engineers and Harris & Associates were given the complete record of the project. They were sent digital copies of all engineering reports, environmental, permitting, and geotechnical work. Additionally, they received all the staff reports that were presented to the board over the past two years related to this project. Finally, all public comment was also provided.

At this time staff are asking the Board to formally accept the reports. Because the current Principal Engineer is retiring at the end of this calendar year we are transitioning the project to Patrick Treanor, Plant Engineer. We will return to the Board when staff is ready to take the next step.

Carmel Meadows Sewer Replacement Project

November 13, 2023

What were the instructions?

- The Planning Commission asked that the District provide further analysis

- The Planning Commission also asked for an EIR – however, at the meeting both County Counsel and District Counsel stated that the request for an EIR was outside of the Planning Commission's authority

What CAWD did: Hired Carollo Engineers

- The District hired Carollo Engineering to provide a review of
  - Replace-in-Kind
  - The Proposed Project (or the SRT design)
  - If Carollo had a different or better idea we asked them to bring it forward

  The District kept its proposal simple. We wanted a review of the project with minimal input from either the District or the residents. We wanted the consultant to have the freedom to pursue review in manner they saw fit.

  Carollo Engineering was given the full record – all engineering reports, geotechnical reports, environmental work, the Planning Commission packet and all letters from the public,

Hired Harris & Associates

- The District removed Rachel Lather, Principal Engineer from the project since the public has indicated their discomfort with her work
- The General Manger took on management of the project during the review process but asked for assistance in interpreting the project engineering
- Harris & Associates was hired to assist the General Manager during this review process
- Harris & Associates provided a Constructability Memo as a part of the process
- Harris & Associates was given the full record – all engineering reports, geotechnical reports, environmental work, the Planning Commission packet and all letters from the public,

Why were residents excluded from the process?

- This project was an engineering review and not appropriate for the resident's forum
- The best way to get an unbiased report was to remove both sides from the review process
- A District employee to accompanied both Harris & Associates and Carollo Engineering on a site visit. Primary reason was for safety
- Other than that, the District has been very "hands off"; to promote an unbiased reporting effort from the consultants
- The District posted the constructability report from Harris & Associates when received simply because it was received early.
- The Carollo report was received and posted on 11-13-23

Public Meeting 11-16-23

- The District planned and notified the neighborhood, 72 hours in advance as required, of a public meeting on 11-16-23 where they would have an opportunity to speak directly with Carollo Engineers and/or Harris & Associates
- The meeting packet was posted to the District web site on 11-13-23
- Availability of the meeting packet was noticed on the Carmel Meadows Portal on 11-13-23

TBC Communications

- On September 28, 2023 the Board authorized engaging a public relations firm in an amount up to $20,000
- The purpose was to assist the District in providing transparency in its messaging, and is also attending our meetings for accuracy information
- TBC Communications designed and finalized the meeting notice that was distributed to the neighborhood on 11-07-23 for the special meeting.
- As of this date, I believe that is the only document prepared.

Brief Timeline of Carmel Meadows Project - #1 of 3

- 07-16-13 • Kennedy Jenks Condition Assessment
- 03-01-14 • GeoTechnical Consultants report issued
- 02-01-22 • SRT Design
- 03-31-22 • Approved Notice of Intent
- 04-20-22 • Public Outreach Meeting – 9 attendees
- 06-30-22 • Board approved Project & adopted IS/MND
- 10-17-22 • Land Use Advisory Committee (LUAC) Meeting #1
- 10-26-22 • LUAC Site Tour

Brief Timeline of Carmel Meadows Project - #2 of 3

• 11-07-22	• LUAC Meeting #2
• 12-08-22	• CAWD Board mtg – 10 residents spoke
• 01-06-23	• Meeting CAWD staff & Mary Adams
• 01-26-23	• CAWD Board meeting – 4 residents spoke
• 02-23-23	• CAWD Board meeting – 15 residents spoke
• 03-30-23	• CAWD Board meeting – 10 residents spoke
• 05-25-23	• CAWD Board meeting – 20 residents spoke
• 06-15-23	• Special CAWD Board meeting – 23 residents

Brief Timeline of Carmel Meadows Project - #3 of 3

- 06-29-23 — CAWD Board mtg – 3 residents
- 07-06-23 — Meeting w/ Scopp & Porter at CAWD
- 07-12-23 — Monterey County Planning Commission – request tabled, asked for more information
- 09-28-23 — CAWD Board mtg – 1 resident
- 11-16-23 — Special CAWD Board mtg

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P 925-932-1710
carollo.com

November 10, 2023

Barbara Buikema
Carmel Area Wastewater District

Engineering Review of Carmel Meadows Sewer Replacement Project Design Options

Dear Ms. Buikema:

At the request of the Carmel Area Wastewater District (District), Carollo has completed an evaluation of the two existing design packages for the Carmel Meadows Sewer Replacement Project (Project). Kennedy Jenks' (KJ) design replaces the existing sewer in its existing alignment while SRT's design is a pumping option that conveys flows from Mariposa Drive. In addition to this review, Carollo has also reviewed all the available information to determine if additional alignment alternatives would be more beneficial to the community.

When considering project alternatives, Carollo evaluates three main categories: constructability, operations and maintenance, and lifecycle. While both projects are technically constructable they differ greatly in the last two categories.

Constructability

Carollo attended a site visit on September 18th, 2023, with the District and Harris & Associates (Harris). A constructability memo was produced by Harris after this visit.

KJ Project

The replace in place project (KJ Project) is located behind homes in a narrow easement with minimal to no access and steep slopes. While most of the pipeline is buried with limited cover the topography requires that the pipeline be exposed in some locations and supported up to 16 feet above grade in others. A picture of the exposed pipe due to minimal cover and the width of the access is provided as Figure 1 and a picture of the pipe supports as Figure 2.

The existing support foundations have been compromised due to ground movement and slides. Replacing the pipe supports, removing rock and downed trees, and constructing a pipe replacement will require large equipment to be mobilized. Considering much of the pipeline is not accessible by vehicles, significant vegetation clearing and grading will be required during construction. This is typically done by either cutting into the hill above the alignment or by creating access below and using cranes to move material and equipment. Since the hill side already has slope stability challenges, cutting into the hillside to create a wider bench for access is not recommended.

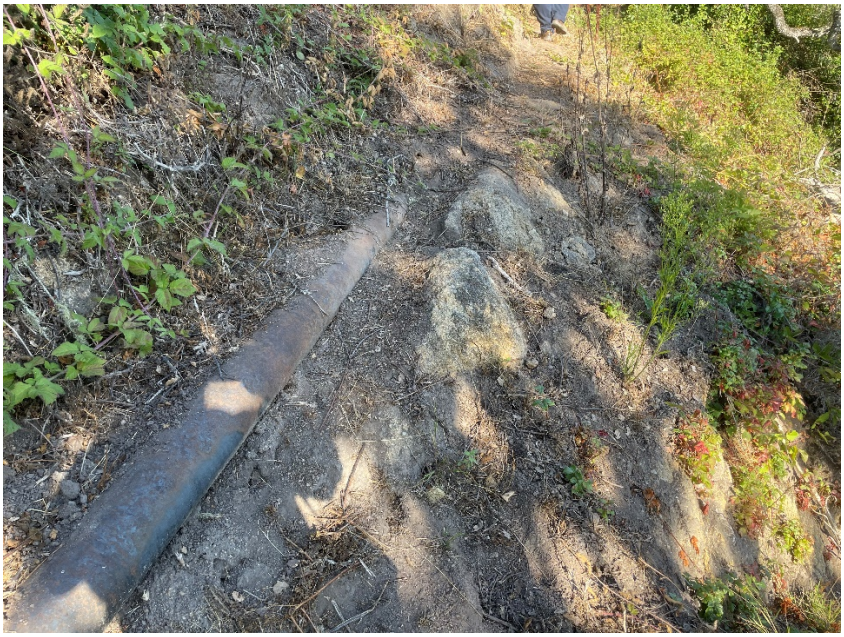

Figure 1: Limited cover, narrow access, steep slopes

Figure 2: Pipe on Supports

While the project is technically constructable, the permits for the temporary construction easements, significant amount of vegetation removal, environmental disturbance required to gain access, long term bypass pumping for the duration of the project, and project cost create considerable challenges for this alternative.

SRT Project

The pumping option (SRT Project) installs a new pump station at Mariposa Dr. and four small ejector pump stations for the four homes where flows cannot be conveyed by gravity to the primary pumpstation. Flows would be conveyed to the pumpstation at Mariposa Dr. and pumped into an existing force main in Ribera Rd. The pump stations would be installed below grade with the pump station at Mariposa Dr. would require an above ground electrical control panel.

Removing the existing pipeline and pipe supports will be challenging. Based on the alignment and site visit, we believe that most of the pipeline and supports after proper cleaning can be broken down into smaller pieces and removed by a cable and winch system. Since this is just a removal there is no consequence to damaging the pipe or support materials during their removal. Only a small amount of bypass pumping will be required for this project.

Operation & Maintenance

KJ Project

Access to the existing pipeline alignment is very challenging now with an inherent safety risk to maintenance staff. During the site visit a rope, tied to a tree, was necessary to descend steep terrain. This condition would not improve if the project was replaced in its existing easement. For most projects, Carollo recommends that the pipeline owner be allowed to maintain a 20-foot drivable easement when not installed in the public right-of-way. If this type of an easement isn't feasible, it is then recommended that the owner have drivable access to each manhole. Due to the inability to use the alignment's easement to access the manholes with equipment, the temporary construction easement would need to be maintained for future access, if this recommendation is to be met. It is highly unlikely that this will be allowed due to the significant environmental impacts and land ownership. Future maintenance and repair of the alignment may be limited or require additional permitting, clearing, and regrading to perform repairs in the future, potentially slowing the District's ability to perform needed repairs.

SRT Project

Even though pump stations require more regular maintenance than a well-designed gravity sewer that has proper cover and slope, this project will be easier to maintain due to its location. Redundant pumps, backup power, and remote monitoring increase pump station reliability.

It is understood that the District has agreed to take ownership and maintenance responsibilities for the ejector pump stations. As such, the design team and District could investigate the possibility of combining the stations in one or two locations. This could help to move these systems closer to the main access point. However, with redundant pumps, pumps may be removed and swapped out to perform maintenance at another location if a small vehicle is unable to drive to one of the stations in the future. Additional options to maximize access are provided in the conclusions.

Lifecycle

Most pipeline projects are designed with a 50 to 100-year lifecycle whenever possible. The existing pipeline has been in service for approximately 70 years.

KJ Project

The replacement project will have an unpredictable lifecycle. While the pipeline could be designed to meet these requirements, the slope stability challenges and large trees that overhang the existing supports will always present risk. Engineers can design pipe supports that will survive sliding and movement but only to a point. While the supports may survive a slide or downed tree, if either of them make contact with the pipeline, the pipeline will likely fail. This could lead to an extended interruption in service. A similar concern was identified in the geotechnical letter produced by Engeo June 10th 2023.

As stated previously, with no access for heavy equipment to do repairs should movement continue, or a failure occur, significant permitting would be required again. Ground improvements will likely help to prevent future slides, but this would require more workspace. Removing the trees would remove the chance of a tree damaging the pipeline. However, this may also promote future slides. The root system is likely helping to slow or prevent sliding. Removal of the tree would cause this root system to die and increase the risk of slides.

SRT Project

The pumping option will be able to meet the District's lifecycle goals as long as maintenance activities are met. This is true with all assets, not just pump stations. The challenges with the KJ Project are with those variables that the District cannot control.

Conclusion

It is Carollo's opinion that the SRT Project provides the most reliable system for the residents and should move forward. However, the District should reevaluate the four ejector pumpstation locations now that circumstances have changed. The current design assumes that each homeowner will eventually take ownership of their pump station. If the District is going to provide all future maintenance, it makes sense to combine these four stations into one or two, and locate them closer to the main access point. Additionally, there may be an opportunity to run conduit and connect the ejector systems to backup power, adding more reliability. This may be accomplished by connecting to the proposed pump station in Mariposa Dr. or an existing facility.

Sincerely,
CAROLLO ENGINEERS, INC.

Brian Avon, P.E.
Vice President

db

Harris & Associates

MEMORANDUM

To: Vern Philips, PE, Principal Engineer, Harris & Associates
From: Jeff Krebs, PE, Construction Engineer, Harris & Associates
RE: Carmel Area Wastewater District – Carmel Meadows Sewer Replacement Project Constructability Review Memo
Date: 10/17/2023

Introduction

At the request of you and the District, a field visit was made by me and staff from Graniterock Construction on September 18, 2023, to assess the constructability of the Carmel Meadows sewer replacement in the existing alignment, based on plans by Kennedy Jenks done in 2016.

We also review plans by SRT, done in February 2022, which replaces the sewer in a new alignment.

Environmental constraints to construction are unknown and not considered in this memo. However, from experience, projects near riparian habitats will have constraints that would affect the constructability of any replacement option.

Access for future maintenance of the sewer was only generally considered in this memo since we do not know the specific maintenance activities the District employs. However, again from experience, access to manholes with maintenance equipment carried by vehicles is critically important.

Discussion of the options

1. **Construction issues to remove / replace the sewer utilizing hand tools and small equipment in the existing alignment and easement.**
    a. Bypass pumping will be required for existing flows from existing manholes to new downstream sections of replaced sewer main pipe or manholes. The pumps would be required during installation of replacement pipe, then the existing system reconnected for afterhours utilization. Pumps and equipment can be mobilized in areas accessible for vehicles.
    b. The existing pipe is mostly buried in shallow cover, but there is approximately 130 feet of pipe supported by an aerial structure up to 16 feet above grade with very difficult access. Demo of old and removal / install for new pipe in the buried portions of the existing alignment could possibly be done with hand tools and manual labor, but not in the area of the aerial supported pipeline.
    c. The existing aerial supports for the sewer have significantly moved out of alignment and the aerial support foundations have been compromised, due to slope slippage. Reconstructing the aerial support structure will require stable foundation anchored to rock. The slope would need to be stabilized. It is unclear as to the extent of work required to stabilize the existing slope but this typically requires large equipment and access for it, and we don't know how this can be done with just hand tools and small equipment.

d. Dealing with rock with hand equipment. In walking the path of the existing sewer, there are several rock out cropping. Without significant equipment requiring an access road, it will be very difficult to alter any of the rock slope areas, if they need to be altered, for reconstruction of the sewer main.
e. Several trees have fallen due to slope slippage. There are existing trees above slope of the exposed sewer main that should be removed. This will be a large job to remove the trees and debris by hand, removing everything out to the roadway for reduction of fire fuel.
f. Several tree trunks have grown around the exposed sewer main, which would need to be removed, to allow proper sewer main alignment both horizontally and vertically.

2. **Construction issues to remove / replace the sewer utilizing conventional construction equipment in the existing alignment and obtaining construction easements outside of the existing 20' easement.**
    a. Building vehicle/equipment access road for construction. This will be difficult due to the terrain and adjacent environmental wet land areas. To shore up the alignment, in the slide out areas will incur significant construction. A construction access road would need to be constructed at the toe of slope, key in rip rap rock material, then bench/fill up to the sewer alignment
    b. Getting equipment and materials to inaccessible areas. The only access currently is from the narrow ac road to the pump station. This will limit the size of equipment to bring in material for stabilization and fill. A temporary construction road could possibly be made to bring in material from the toe of the slope but this again would be difficult.
    c. The existing aerial supports areas could be utilized, providing their foundation supports are secure. Also we would want to reduce any significant tree hazards that could break the exposed sewer main. Reconstructing the aerial support structure will require stable foundation supports and the slope would need to be stabilized. It is unclear as to the extent of work required to stabilize the existing slope or existing foundation but heavy equipment would be required.
    d. Securing the sliding hillside with drilled anchors, benching into the hillside or similar stabilization. Typically in past projects dealing with hillside slip outs, we have started at the bottom of the slope, keyed in a stable bench, then compacted and filled in the hillside up the access bench for the sewer main. Utilization of drilled in anchors will require larger equipment and benched platforms for the equipment to use.
    e. Once the sewer alignment is benched in and the slopes stabilized, then maintenance of the sewer main can be maintained with vehicles and equipment.

3. **Construction issues to remove sewer in existing alignment and replace the sewer in an alternative alignment, adjacent to the residences in the back yards at the top of slope.**
    a. Will require pumping for the last four residences, to a new gravity main picking up the remainder residences, and then a pump station at Mariposa Dr. The Mariposa pump station would pump up to the existing force main in Ribera Rd.
    b. Access to construct the sewer main will allow construction equipment to excavate or pipe burst the pipe, move materials, and place the new sewer main and structures. In this new alignment it will be easier to access for maintenance.
    c. Provides use of the existing system, until able to connect to the new system, therefore will not require much, if any, bypass pumping of sewage during construction. This removes a significant risk of sewage spills into the nearby lagoon.
    d. The relocated alignment will not be as susceptible to falling trees or land slippage on the slope of the hillside, like it currently is.

Conclusion

1. Reconstruction of a new sewer main in the existing alignment, utilizing hand tools and small equipment carried to the difficult to access areas around the aerial structure, would be extremely challenging and

unrealistic. It would not address the continued slope slippage issues to the alignment or stable support needed. It also would not provide vehicle access for maintenance and would take the longest construction time to complete.

2. The construction for replacing the sewer main in the current alignment, could be viable using conventional equipment and vehicle access roads. However, this would require temporary construction easements outside of the sewer easement to stabilize the sewer alignment in a benched path within the construction easement. Stabilizing the slopes, utilizing the current access or other temporary construction access roads capable of allowing vehicular equipment would need to be constructed. This could provide a benched area along the sewer alignment, and access for maintenance. However, environmental constraints would probably severely limit disturbance of habitat in the area to do this construction.

3. The construction of a sewer and pump stations in a new alignment, similar to that proposed in the SRT plans, would have the least constructability challenges and would provide the best access for construction and maintenance. This alternative would also have the least impact on the environment surrounding the existing and new sewer alignments and be constructed in the least amount of time.

Adjournment