

# CARMEL AREA WASTEWATER DISTRICT

SPECIAL BOARD OF DIRECTORS MEETING  
JUNE 15, 2023

CARMEL MEADOWS GRAVITY SEWER REPLACEMENT PROJECT



# CARMEL MEADOWS SUBDIVISION

CARMEL RIVER LAGOON



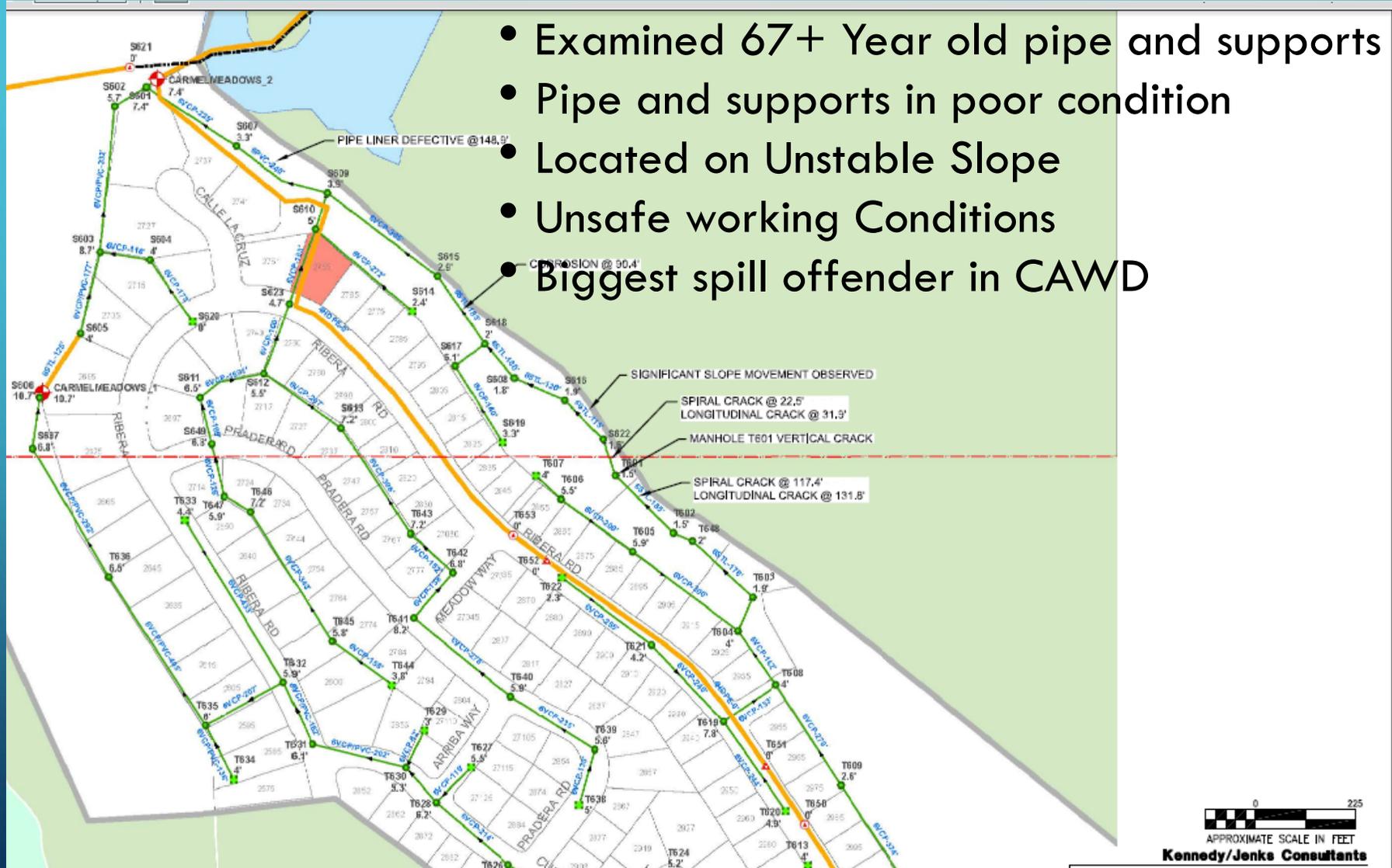
# VIDEO OF CURRENT PIPELINE ALIGNMENT



# REASON FOR THE PROJECT

PIPE AND SUPPORTS IN POOR CONDITION  
2013 – KENNEDY JENKS

- Examined 67+ Year old pipe and supports
- Pipe and supports in poor condition
- Located on Unstable Slope
- Unsafe working Conditions
- Biggest spill offender in CAWD



# REASON FOR THE PROJECT

PIPE AND SUPPORTS IN POOR CONDITION  
UNSTABLE HILLSIDE



# REASON FOR THE PROJECT

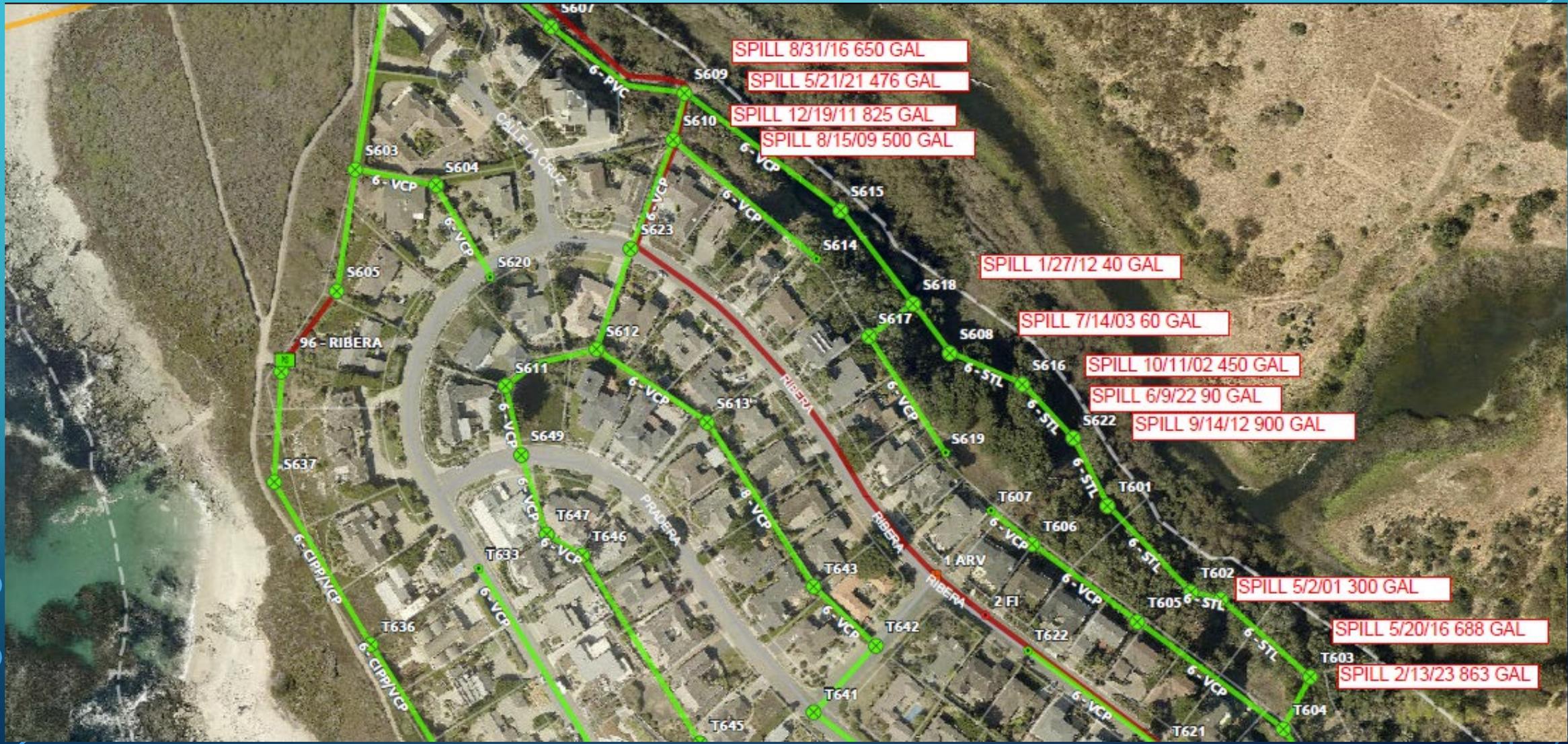
HILLSIDE STABILITY RAPIDLY DETERIORATING



# CURRENT ALIGNMENT PRESENTS HAZARDOUS WORKING CONDITIONS FOR EMPLOYEES AND CONTRACTORS



# SEWAGE SPILLS FROM THIS AREA HAVE TOTALED OVER 5,800 GALLONS



# 2013 ANALYSIS OF ALTERNATIVES



CAWD District Engineer did not consider Environmental impacts of these project options

**Kennedy/Jenks Consultants**

CARMEL AREA WASTEWATER DISTRICT  
CARMEL MEADOWS GRAVITY SEWER

**ALTERNATIVE ALIGNMENTS  
JULY 2013**

(FWY) 1399011\FIG-02

**FIGURE 2**

# OCTOBER 26, 2017 PRINCIPAL ENGINEER STAFF REPORT

Principal Engineer, Drew Lander, recommended not completing environmental review of the Carmel Meadows sewer line in 2017, stating “After completing the biological assessment.....Johnson Marigot Consulting (JMC) reviewed the impacted resources with the needs of the permitting agencies and other responsible agencies. Due to some **significant environmental constraints identified**...the Carmel Meadows sewer line includes several environmental obstacles ....”

**KENNEDY/JENKS 2023 letter substantiates this.** “As CAWD started the permitting process, it became apparent that permitting heavy construction in the sensitive lagoon area was extremely challenging....time limitations and monitoring requirements in particular **made the work difficult if not unfeasible within the boundaries of the permitting process.**”



NO FURTHER WORK WAS COMPLETED ON THE  
CARMEL MEADOWS PROJECT UNTIL 2019

# 2019 RIVERWATCH AGREEMENT



2019 Riverwatch Agreement requires “repair or replace all gravity sewer lines found to be Significantly Defective...” within 200 feet of water body.

## Mains

- CAWD
- PBCSD
- PRIVATE

## Forced Mains

- FORCED MAIN

# REPLACE IN KIND ALTERNATIVE WAS DISQUALIFIED IN 2019

## 2013 Kennedy Jenks Design Proposal

### **Not least Environmentally impactful Option**

Difficult construction & access to aerial pipes

Requires medium to large Equipment Access

Environmentally sensitive

Requires slope stabilization, grading and retaining walls outside of CAWD Easement

The recommended alternative includes removing the entire section of pipe from manhole T603 to manhole S615 where the pipe transitions from aerial to buried. The pipe would be replaced with new restrained joint pipe and engineered foundation supports within the current alignment. The work would include the following items:

1. Removal and replacement of pipe: Removal and replacement of approximately 1,300 LF of ductile iron pipe. Replace with restrained joint ductile iron pipe between MH T603 and MH S615.
2. Replacement of Manholes: Assume all eight manholes in the section between MH T603 and MH S615 would be replaced with precast manholes, approximately three feet in depth.
3. Replacement of Pipe supports: Replace all existing aerial pipe supports. Assume 20 pipe supports with footings, incorporating four rock bolts to anchor each.
4. Removal of trees: Assume 15 oak trees would be removed and require mitigation.
5. Slope stabilization: Stabilize side slopes with plate piles; assume 200 LF of slope, 20-feet in width. If easements can be acquired, a wider area of slope stabilization is recommended.

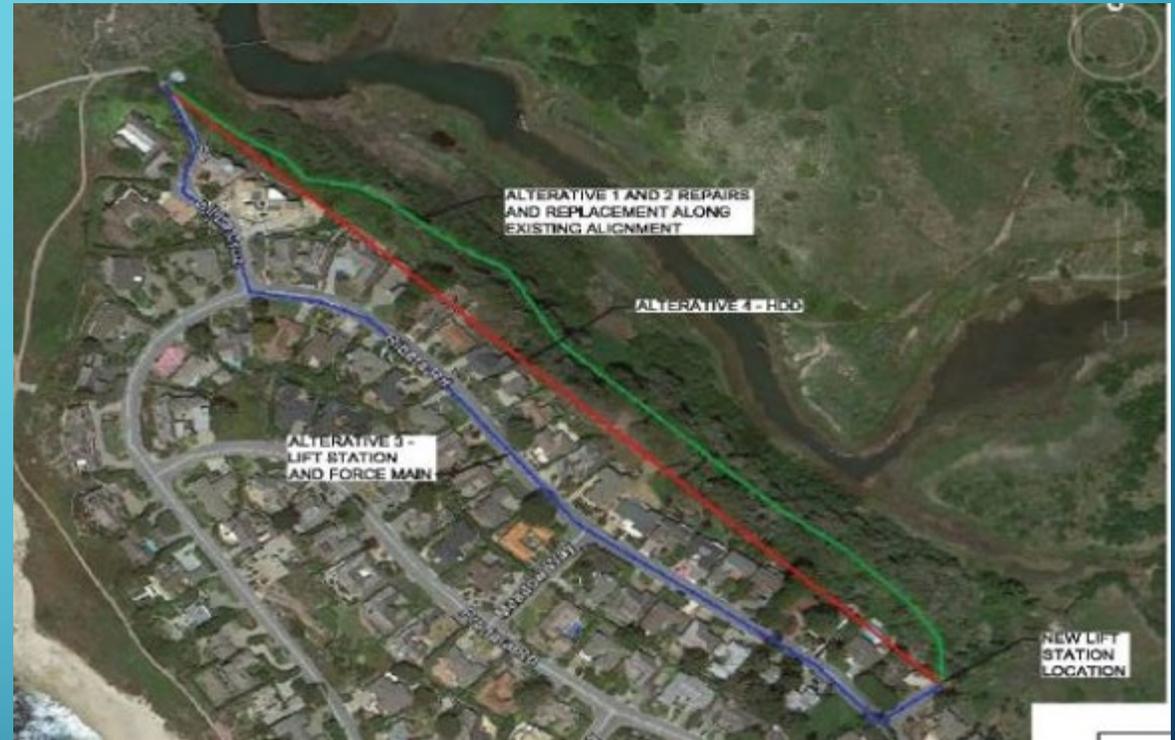
# KENNEDY JENKS OPTIONS 3 & 4 WERE DISQUALIFIED IN 2019

## Alternative 3 would require:

- Construction of force main pipeline in Ribera Road from Mariposa to Calle La Cruz Pump Station
- 18-19 homes to be converted to ejector pump systems

## Alternative 4 would require:

- Difficult HDD Conditions in bedrock
- Deep lateral installations behind up to 19 homes, in bedrock



# IN 2019 HIRED SRT TO PROVIDE AN OPTION THAT IS NOT ONE OF KJ'S OPTIONS



# THE APPROVED PROJECT COMPLIES WITH STATE REGULATIONS

## Regional Water Quality Control Board 2022/23 Regulations

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.

# THE APPROVED PROJECT IS SUPPORTED BY COASTAL COMMISSION STAFF- 6/5/2023 LETTER

As proposed, the project would abate these hazards by abandoning and partially removing the deteriorating sewer line, and utilizing a combination of existing sewer lines, replaced sewer lines, new sewer lines, and new pumps to both improve the physical integrity of the sewer infrastructure in this area, and pull sewer infrastructure back farther away from the highly sensitive lagoon. Coastal Commission staff is highly supportive of the project's goals as well as the decision to site sewer infrastructure farther away from the lagoon, which we believe best meets Local Coastal Program (LCP) objectives to protect sensitive coastal resources.

# THE APPROVED PROJECT BENEFITS

- Moves significant effluent flow away from a water body
- No slope stability issues
- Access is not treacherous
- Minor impact on sensitive habitats and cultural resources- mainly due to removal of existing structures
- Complies with State Regulations/Requirements

# RECENT GEOLOGIC REPORT VERIFIES HILLSIDE STABILITY RAPIDLY DETERIORATING

JUNE 8, 2023 ENGEO REPORT STATES:

- Existing Pipeline Crosses a Number of Active Landslides
- Evidence of Distress where Active Landslides are Present
- Pipeline is Highly Susceptible to Earthquake Induced Landslides



# KENNEDY JENKS RE-EXAMINED 2013 FINAL TECH MEMORANDUM RE: CURRENT REGULATORY ENVIRONMENT

In addition, considering recent Central Coast Regional Water Quality Control Board policy changes and feedback, it is expected that the approach of a lagoon alignment would be even more challenging under current regulatory requirements. To restate and summarize, due to the impact and implications of subsequently available information and in consideration our current understanding of the project and applicable regulatory requirements, we do not recommend that the Carmel Meadows Gravity Sewer replacement be pursued on the basis of KJ's 2013 Final Technical Memorandum or previous design documents for the project.

Very truly yours,

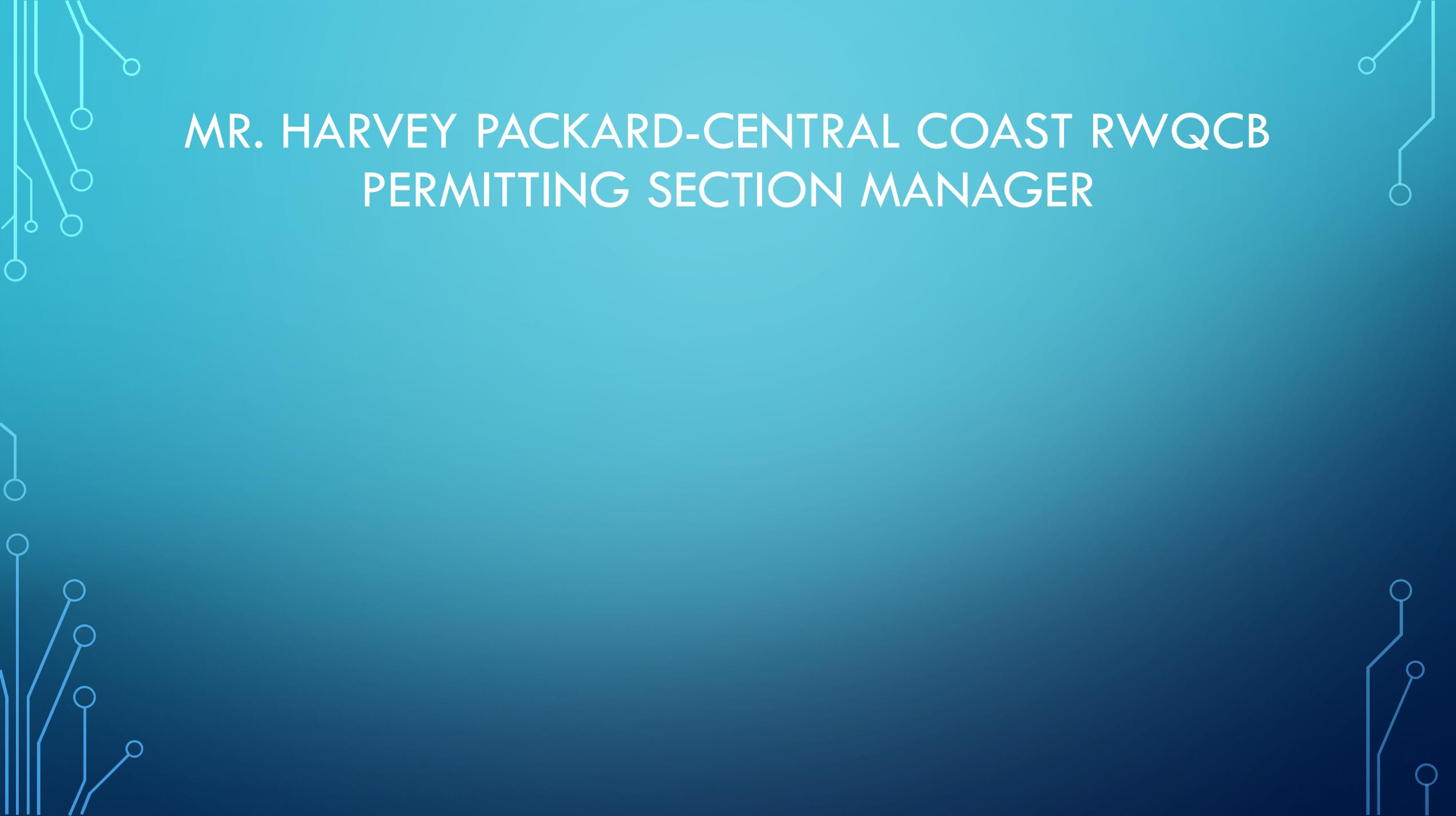
Kennedy/Jenks Consultants, Inc.



James Bowland P.E.  
Principal

# SUMMARY : RESPONSE TO RECENT QUESTIONS RECEIVED

- Reason District Abandoned KJ alternatives- see 2023 KJ Letter
- Regional Board Issues- Harvey Packard
- Withdraw Planning Commission Application for Coastal Permit? Not recommended
- Is construction of development on 30% slopes OK? Not relevant. See ENGE0 2023 Letter. Portion of Project located on landslide.
- Why CAWD added Ejector pumps explained previously in presentation.
- Alternatives for Lift Station at Mariposa Court- explained in staff report.
- CAWD retain Coastal Jurisdiction? Not feasible. Needs CC approval.
- Would CAWD proceed with replace in kind if it were permissible- not permissible.

The background is a solid teal color with a subtle gradient. In the four corners, there are decorative white line-art elements resembling circuit traces or a network diagram, with small circles at the end of the lines.

# MR. HARVEY PACKARD-CENTRAL COAST RWQCB PERMITTING SECTION MANAGER

# OTHER ITEMS OF INTEREST

- Ejector Pump Installed at District Office
- Planning Commission Hearing Moved to July 12, 2023