

Project No.  
**3586.002.024**

November 18, 2024

Wiedemann Ranch GHAD Board of Directors  
Chair Candace Andersen  
Vice Chair Federal D. Glover  
Boardmember John M. Gioia  
Boardmember Diane Burgis  
Boardmember Ken Carlson

Wiedemann Ranch Geologic Hazard Abatement District  
651 Pine Street, Room 107  
Martinez, CA 94553-1229

Subject: Elworthy Ranch  
Danville, California

**GEOLOGIC HAZARD ABATEMENT DISTRICT  
MONITORING – FALL 2024**

- References:
1. ENGEO. 2024. Geologic Hazard Abatement District Monitoring – Spring 2024, Elworthy Ranch, Danville, California. May 3, 2024. Project No. 3586.002.023.
  2. ENGEO. 2014. Wiedemann Ranch Geologic Hazard Abatement District (GHAD) Plan of Control, Elworthy Ranch Development Annexation, Danville, California. May 9, 2014. Project No. 4079.000.000.

Dear Chair Andersen and Boardmembers:

ENGEO is pleased to submit this monitoring report for the Elworthy Ranch development and an easement on a portion of Parcel “S” within the Wiedemann Ranch Geologic Hazard Abatement District (GHAD). This letter summarizes our observations made during our site visit on October 25, 2024, within the Elworthy Ranch development in Danville, California. The previous spring 2023 monitoring event was completed in April 2023 (Reference 1). As described in the Wiedemann Ranch Plan of Control (Reference 2), the purpose of this monitoring is to observe and report on the open-space and associated improvements within the development and adjacent easement. The GHAD has monitoring and maintenance responsibilities for the open-space parcels within the Elworthy Ranch development. These parcels are listed in Table 1, below.

**TABLE 1: Wiedemann Ranch GHAD Open-Space Parcels – Elworthy Ranch Development**

ASSESSOR'S PARCEL NUMBER (APN)	DESCRIPTION
208-230-042	Parcel P
208-760-034	Parcel N
208-770-034	Parcel O

In addition, the GHAD's monitoring and maintenance responsibilities also include selected improvements on the adjacent Parcel “S” (APN 208-230-044) owned by the East Bay Regional Park District (EBRPD).

## SCOPE

Site monitoring included observation of the following features.

- Common area and open-space slopes located adjacent to improvements
- Concrete-lined surface drainage ditches
- Mechanically stabilized earth (MSE) retaining walls
- Maintenance roadways
- Storm drain inlets and trash rack
- Subdrain outlets
- Detention basin
- Bioretention basin
- Fencing, locks, and signage

## COMMON AREA AND OPEN-SPACE SLOPES, DEBRIS BENCHES, AND SWALES

The common area and open-space slopes were observed for evidence of slope instability, including landslides, earthflows, erosion, diverted drainage, or standing water. In general, we observed the open space and slopes to be in satisfactory condition. We noted an oversteepened condition with erosion exposing portions of the creek channel side wall on Parcel P in our fall 2022 monitoring. During this monitoring event, we observed that the condition remained relatively unchanged since our last site visit (Site Condition A.1, Appendix A, Figure 1, attached). We also observed significant erosion exposing creek channel side walls at other locations within Parcel P (Site Condition A.2 through A.3, Appendix A, Figure 1) and shallow landslide/earthflows along slopes adjacent to the creek channel (Site Conditions B.1 and B.2, Appendix A, Figure 1). The GHAD will continue to monitor and, if needed, mitigate these conditions to prevent the eroding soil from obstructing drainage at the outfall and creek channel.

## CONCRETE-LINED DRAINAGE DITCHES

The concrete-lined drainage ditches were checked for accumulation of debris/sediment and for obvious distress, such as cracking or shifting of the concrete. During this monitoring event, we observed minor soil and vegetation within the drainage ditches. Soil and vegetation will be cleaned as part of the routine GHAD maintenance. We observed minor cracks and voids in the concrete ditches; however, the minor cracks do not appear to compromise the integrity of the concrete-lined drainage ditches. The GHAD will continue to monitor, and as needed, the minor cracks and voids will be resealed to maintain ditch integrity. Since our fall 2021 monitoring, we have noted that erosion between the MSE retaining wall and the concrete-lined drainage ditch at the southern end of Elworthy Ranch Circle created a void below the drainage ditch. During this monitoring, we observed that the erosion and void remained the same since our last monitoring (Site Condition C, Appendix A, Figure 1). We will continue to monitor the condition of the void and the stability of the ditch during future monitoring.

## **MSE RETAINING WALLS**

Retaining walls were inspected for significant cracking and damage. Since our fall 2020 monitoring, we have observed broken/distressed blocks on the MSE retaining wall next to the trash rack between Elworthy Ranch Circle and Elworthy Ranch Lane. During this monitoring event, we observed that the broken/distressed blocks remained unchanged since our last monitoring (Site Condition D, Appendix A, Figure 1). The GHAD will continue to monitor and, if needed, will repair or replace the blocks to maintain the integrity of the wall.

## **MAINTENANCE ROADWAYS**

We observed the condition of the gravel-surfaced access roadway around the perimeter of the detention basin and between Elworthy Ranch Circle and Elworthy Ranch Lane. Aside from some vegetation, the roadway appeared to be in good condition at the time of our monitoring. Vegetation removal is completed during scheduled routine GHAD maintenance.

## **STORM DRAIN INLETS**

A number of storm drain inlets within the open-space area of the GHAD appear to be in relatively good condition. Some storm drain inlets have accumulated sediment and have overgrown vegetation in and around the inlets. As part of routine GHAD maintenance, the storm drain inlets will be cleared of vegetation.

## **SUBDRAIN OUTLETS**

Subdrain outlet locations were observed and monitored during the site visit. Discharge levels flowing from the subdrain outlets are shown in Table A (attached).

## **DETENTION BASIN**

A detention basin (Figure 1) is located at the end of Elworthy Ranch Lane. Monitoring of the detention basin was conducted as part of the open-space monitoring. The observed conditions for the detention basin are described in the attached Elworthy Ranch Detention Basin Site Monitoring and Maintenance Form. Contracted ongoing routine maintenance within the detention basin currently includes roadway maintenance, weed abatement, and woody vegetation removal. At the time of our visit, the detention basin appeared to be functioning properly and was in good condition.

## **BIORETENTION BASIN**

We observed the condition of one bioretention basin adjacent to Elworthy Ranch Circle (Figure 1). During our monitoring, the bioretention basin appeared to be free of accumulated standing water or debris and was functioning properly.

## **FENCING, LOCKS, AND SIGNAGE**

The perimeter of the GHAD was checked for proper fencing, signage, and locks. At the time of our monitoring, the fencing, locks, and signage were in satisfactory condition.

We look forward to continuing our services on this monitoring program. If you have any questions concerning the observations made during this reconnaissance, please do not hesitate to contact us.

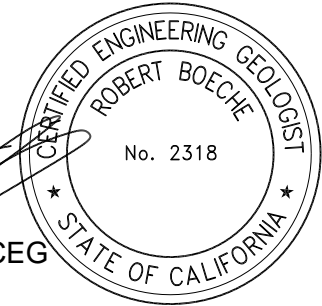

Sincerely,

ENGEO Incorporated



Greg Hudson

gh/rhb/ar



Robert H. Boeche, CEG

Attachments: Table A – Subdrains  
Monitoring Report – Detention Basin Site Monitoring and Maintenance Form  
Appendix A – Site Condition Summary with Photographs  
Figure 1 – Site Plan

**TABLE A**  
**Subdrains**

TABLE A: Subdrains

SUBDRAIN LABEL	FLOW (GALLONS/DAY)	COMMENTS
RW-1	0	Dry
RW-2	0	Dry
RW-3	0	Dry
S-1	0	Dry

LEGEND  
EST - Estimate  
UTM - Unable to monitor  
UTL - Unable to locate  
UTA - Unable to access

## MONITORING REPORT

Detention Basin  
 Elworthy Ranch Development  
 Danville, CA

### DETENTION BASIN OPERATIONS AND MAINTENANCE SITE MONITORING AND MAINTENANCE REPORT FORM

Inspector: Greg Hudson

Date: October 25, 2024

Weather Conditions: Partly Cloudy

Days Since Last Rainfall: 173

Dry/Wet Season: Dry

Basin Water Level: 0 inches

Noteworthy Sediment Accumulated Since Last Monitoring Event: No

MONITORED CONTROL	YES	NO	N/A	COMMENTS/ SUGGESTED MAINTENANCE
1. Are inlet and outlet structures functioning properly, allowing the basin to drain and are they in satisfactory condition?	X			
2. Are access roads in satisfactory condition?	X			
3. Is all perimeter fencing in good condition without breaks, gaps, or damage?	X			

MONITORED CONTROL	YES	NO	N/A	COMMENTS/ SUGGESTED MAINTENANCE
4. Is the emergency outlet grate free of debris and is it in good condition?	X			
5. Is the embankment surrounding the basin in good condition without rills or failures?	X			Minor animal burrows.
6. Is emerging woody vegetation less than 5 feet in height?	X			
7. Are embankment slopes protected with mulch or vegetation?	X			
8. Has water removal been undertaken in the last 3 months? If so, describe procedure.		X		



MONITORED CONTROL	YES	NO	N/A	COMMENTS/ SUGGESTED MAINTENANCE
9. Has sediment removal been undertaken in the last 3 months?		X		
10. If so, has it been tested as required in the Maintenance Manual?			X	
11. Is there evidence of chemical sheen or odor, contaminated runoff, litter or blowing debris in or near the basin?		X		
12. Do any pond devices require maintenance to provide more effective function?		X		
13. Are there signs of leaking irrigation systems?		X		

MONITORED CONTROL	YES	NO	N/A	COMMENTS/ SUGGESTED MAINTENANCE
14. Are there any signs of vandalism?		X		
15. Are mosquitoes evident?		X		
16. Has mosquito abatement been undertaken since the last monitoring event?		X		
17. Are there other remedial/repair tasks that should be undertaken in the near future?		X		
18. Is there any evidence or information received in the last 3 months to indicate a lengthy drain time?		X		

“No” answers to Items 1-7 or “Yes” answers to Items 8-18 may require a corrective action.

**APPENDIX A**

**Site Condition Summary with Photographs**

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Site Condition: A.1  
Observation Date: 10/25/2024  
Description: Creek channel erosion.  
Recommendation: Continue to monitor.  
Field Representative: GH



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Site Condition: A.2  
Observation Date: 10/25/2024  
Description: Creek channel erosion.  
Recommendation: Continue to monitor.  
Field Representative: GH



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Site Condition: A.3  
Observation Date: 10/25/2024  
Description: Creek channel erosion.  
Recommendation: Continue to monitor.  
Field Representative: GH



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Site Condition: B.1  
Observation Date: 10/25/2024  
Description: Shallow landslide/earthflow.  
Recommendation: Continue to monitor.  
Field Representative: GH



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Site Condition: B.2  
Observation Date: 10/25/2024  
Description: Shallow landslide/earthflow.  
  
Recommendation: Continue to monitor.  
  
Field Representative: GH



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Site Condition: C  
Observation Date: 10/25/2024  
Description: Erosion below concrete-lined drainage ditch.  
  
Recommendation: Continue to monitor.  
  
Field Representative: GH

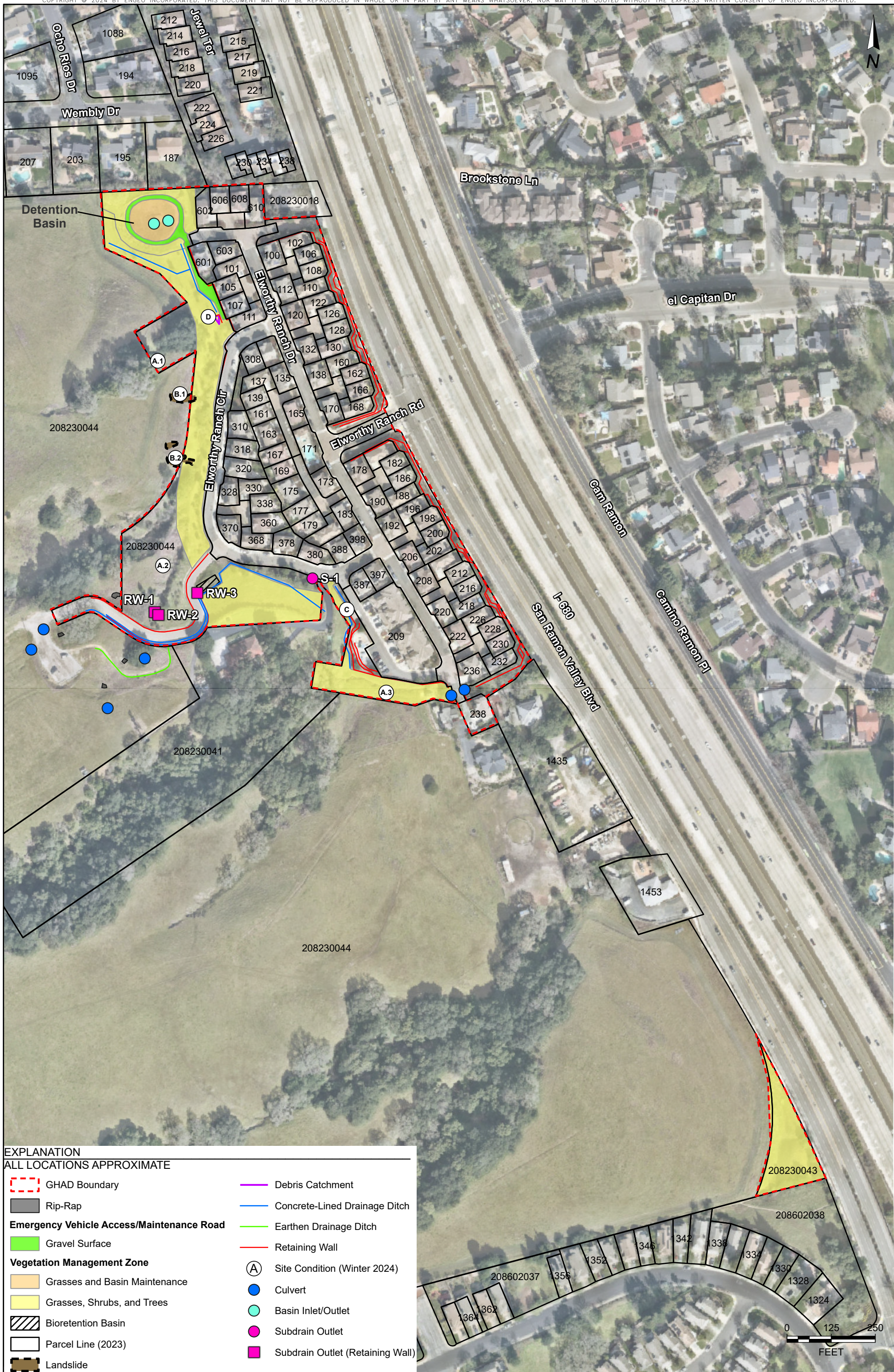


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Site Condition: D  
Observation Date: 10/25/2024  
Description: Distressed MSE retaining wall block.  
  
Recommendation: Continue to monitor.  
  
Field Representative: GH



**FIGURE 1**  
**Site Plan**



**EXPLANATION**  
ALL LOCATIONS APPROXIMATE

GHAD Boundary	Debris Catchment
Rip-Rap	Concrete-Lined Drainage Ditch
<b>Emergency Vehicle Access/Maintenance Road</b>	Earthen Drainage Ditch
Gravel Surface	Retaining Wall
<b>Vegetation Management Zone</b>	Site Condition (Winter 2024)
Grasses and Basin Maintenance	Culvert
Grasses, Shrubs, and Trees	Basin Inlet/Outlet
Bioretention Basin	Subdrain Outlet
Parcel Line (2023)	Subdrain Outlet (Retaining Wall)
Landslide	



**SITE PLAN - ELWORTHY RANCH**  
WIEDEMANN RANCH GHAD  
DANVILLE, CALIFORNIA

PROJECT NO. : 3586.002.024  
SCALE: AS SHOWN  
DRAWN BY: NWC CHECKED BY: RHB

FIGURE NO.  
**1**