

Project No.
3586.002.022

May 4, 2023

Wiedemann Ranch GHAD Board of Directors
Chair Candace Andersen
Vice Chair Federal D. Glover
Board Member John M. Gioia
Board Member Diane Burgis
Board Member 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
SPRING 2023**

Dear Chair Andersen and Board Members:

ENGEO is pleased to submit this monitoring report for the Elworthy Ranch development and an easement on a portion of Parcel "S" in Danville, California. The site-monitoring event occurred on April 5, 2023. As described in the Wiedemann Ranch Plan of Control (Reference 1), the purpose of this monitoring is to observe and report on the open space and associated improvements within the Elworthy Ranch development and adjacent easement. The Wiedemann Ranch GHAD has acquired monitoring and maintenance responsibilities for all the parcels within the Elworthy Ranch development (Subdivision 9009). These parcels are listed in Table 1 (Reference 3).

TABLE 1: Wiedemann Ranch GHAD Accepted Parcels – Elworthy Ranch

ASSESSOR'S PARCEL NUMBER	DESCRIPTION
208-760-029-8	Parcel A
208-760-030-6	Parcel B
208-760-031-4	Parcel C
208-760-032-2	Parcel D
208-760-033-0	Parcel E
208-770-030-4	Parcel F
208-770-031-2	Parcel G
208-770-032-0	Parcel H
208-770-033-8	Parcel I
208-780-030-2	Parcel J
208-780-031-0	Parcel K
208-780-032-8	Parcel L
208-780-033-6	Parcel M

ASSESSOR'S PARCEL NUMBER	DESCRIPTION
208-760-034-8	Parcel N
208-770-034-6	Parcel O
208-230-042-1	Parcel P
208-780-034-4	Parcel Q
208-780-035-1	Parcel R
208-230-043-1	Parcel T
Residential Lots 1 through 86	

In addition, the GHAD's monitoring and maintenance responsibilities also include selected improvements on the adjacent Parcel "S" (Assessor's Parcel Number 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
- Access roadways
- Concrete-lined surface drainage ditches
- Mechanically stabilized earth (MSE) retaining walls
- Storm drain inlets
- Detention 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, mudflows, erosion, diverted drainage, or standing water. In general, we observed the open space and slopes to be in a satisfactory condition. We noted in our fall 2022 monitoring an oversteepened condition with erosion exposing portions of creek channel side wall on Parcel P (Site Condition A.1, Appendix A, Figure 1). During this monitoring event, we observed that the condition remained relatively unchanged since our last site visit. We also observed significant erosion exposing creek channel side walls at other locations within Parcel P (Site Conditions A.2 through A.4, Appendix A, Figure 1) and shallow landslide/mudflows along slopes adjacent to 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.

ACCESS 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.

CONCRETE-LINED DRAINAGE DITCHES

The concrete drainage ditches were checked for accumulation of debris/sediment and for obvious distress such as cracking or shifting of the concrete. The concrete-lined ditches need clearing of soil and vegetation and 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.

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 C, 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. Since our fall 2021 monitoring, we have observed that erosion between the MSE retaining wall and the concrete-lined drainage ditch at the southern end of Elworthy Ranch Circle created voids behind the wall and below the drainage ditch. During this monitoring, we noted that the erosion and voids remained the same since our last monitoring (Site Condition D, Appendix A, Figure 1). We will continue to monitor the condition of the slope and the stability of the wall and ditch during future monitoring.

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.

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 water quality/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.

FENCING, LOCKS AND SIGNAGE

The perimeter of the GHAD was checked for proper fencing, signage, and locks. At the time of our monitoring, we did not note any gaps, breaks, or damage to the fencing, and signage and locks appeared to be 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/jaa/ca


Jeffrey A. Adams, PhD, PE



Attachments: List of Selected References
Appendix A
Figure 1 – Site Plan
Detention Basin Site Monitoring and Maintenance Form

SELECTED REFERENCES

1. 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.
2. ENGEO. 2020. Geologic Hazard Abatement District (GHAD) Plan of Control Transfer Monitoring Update, Wiedemann Ranch Geologic Hazard Abatement District, Elworthy Ranch Development, Danville, California. January 23, 2020. Project No. 3586.002.019.
3. ENGEO. 2020. Geologic Hazard Abatement District (GHAD) Plan of Control Transfer Acceptance of Selected Parcels, Elworthy Ranch, Danville, California. January 23, 2020. Project No. 3586.002.019.
4. ENGEO. 2020. Geologic Hazard Abatement District (GHAD) Plan of Control Transfer Acceptance of Selected Parcels, Elworthy Ranch, Danville, California. July 27, 2020. Project No. 3586.002.020.

APPENDIX A

Elworthy Ranch Site Condition Summary with Photographs

Appendix A
Site Condition Summary with Photographs
Elworthy Ranch

Site Condition: A.1
Observation Date: 04/05/2023
Description: Creek channel erosion.
Recommendation: Continue to monitor.
Field Representative: GH



Site Condition: A.2
Observation Date: 04/05/2023
Description: Creek channel erosion.
Recommendation: Continue to monitor.
Field Representative: GH



Site Condition: A.3
Observation Date: 04/05/2023
Description: Creek channel erosion.
Recommendation: Continue to monitor.
Field Representative: GH



Site Condition: A.4
Observation Date: 04/05/2023
Description: Creek channel erosion.
Recommendation: Continue to monitor.
Field Representative: GH



Site Condition: B.1
Observation Date: 04/05/2023
Description: Shallow landslide/mudflow.
Recommendation: Continue to monitor.
Field Representative: GH



Site Condition: B.2
Observation Date: 04/05/2023
Description: Shallow landslide/mudflow.
Recommendation: Continue to monitor.
Field Representative: GH



Site Condition: C
Observation Date: 04/05/2023
Description: Distressed MSE retaining wall block.
Recommendation: Continue to monitor.
Field Representative: GH

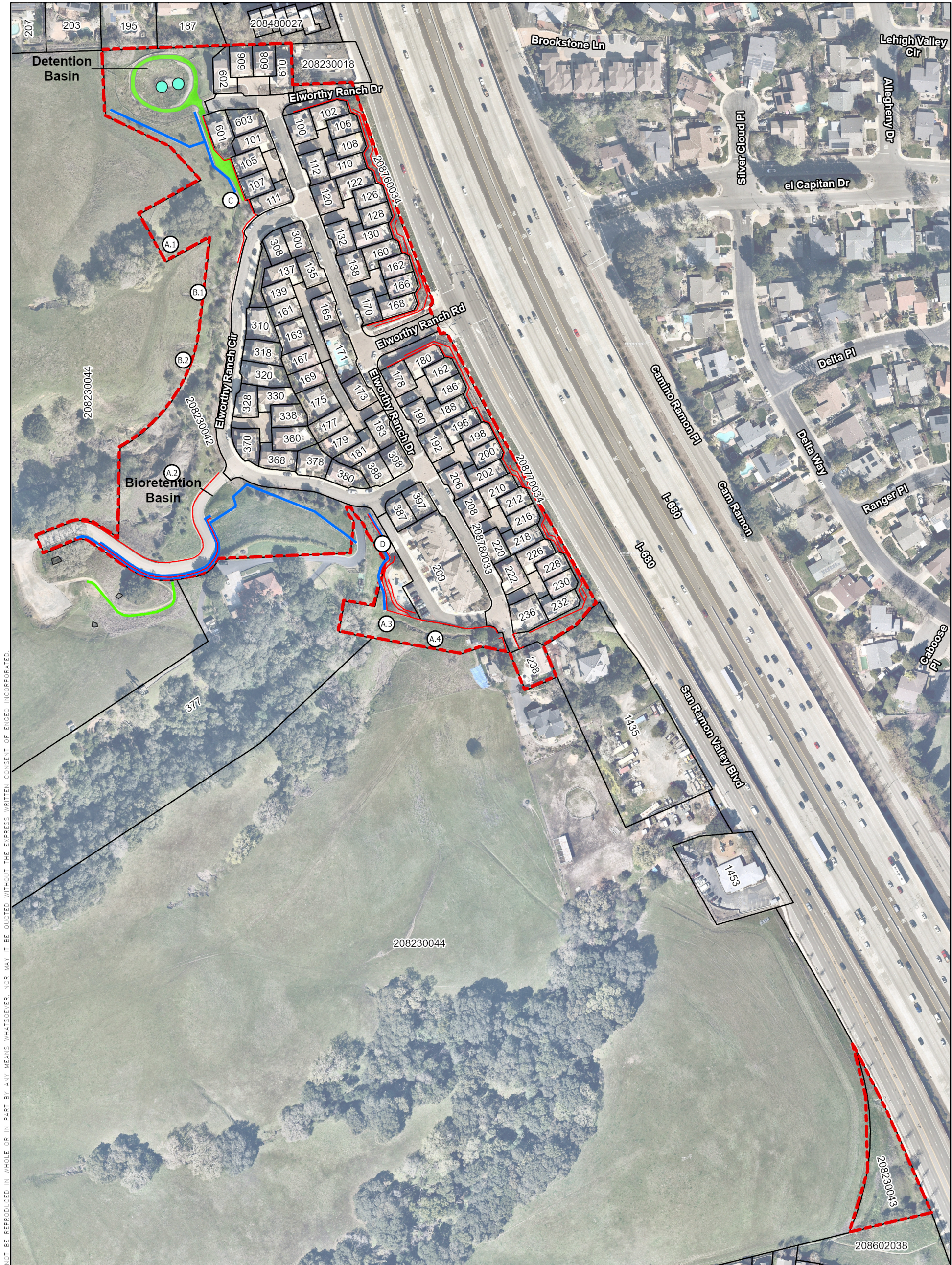


Site Condition: D
Observation Date: 04/05/2023
Description: Erosion behind MSE wall and below concrete-lined drainage ditch.
Recommendation: Continue to monitor.
Field Representative: GH



FIGURE

Figure 1 – Site Plan

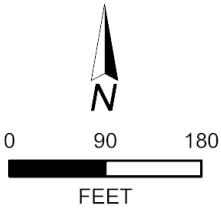


EXPLANATION

ALL LOCATIONS ARE APPROXIMATE

- SITE CONDITION (SPRING 2023)
- BASIN INLET/OUTLET
- RETAINING WALL
- DEBRIS CATCHMENT
- EARTHEN-LINED DRAINAGE DITCH

- CONCRETE-LINED DRAINAGE DITCH
- GHAD BOUNDARY
- RIP-RAP
- EMERGENCY VEHICLE ACCESS/ MAINTENANCE ROAD
- GRAVEL SURFACE



BASEMAP SOURCE: NEARMAP MAPPING SERVICE 2023



SITE PLAN
WIEDEMANN RANCH GHAD - ELWORTHY RANCH
DANVILLE, CALIFORNIA

320 ADDRESS
208230044 ASSESSOR'S
PARCEL NUMBER

PROJECT NO. : 3586.002.022
SCALE: AS SHOWN
DRAWN BY: MAT CHECKED BY: HR

FIGURE NO.
1

MONITORING REPORT

Elworthy Ranch Development
Danville, CA

DETENTION BASIN OPERATIONS AND MAINTENANCE SITE MONITORING AND MAINTENANCE REPORT FORM

Inspector: Greg Hudson

Date: April 5, 2023

Weather Conditions: Sunny

Days since last rainfall: 7

Dry season?

Wet season? X

Basin Water Level: 0 to 6 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			Weed abatement needed on access road
3. Is all perimeter fencing in good condition without breaks, gaps, or damage?	X			
4. Is the emergency outlet grate free of debris and is it in good condition?	X			

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MONITORED CONTROL	YES	NO	N/A	COMMENTS/ SUGGESTED MAINTENANCE
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		
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	

MONITORED CONTROL	YES	NO	N/A	COMMENTS/ SUGGESTED MAINTENANCE
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	
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		

MONITORED CONTROL	YES	NO	N/A	COMMENTS/ SUGGESTED MAINTENANCE
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.