

Project No.
3586.002.022

October 13, 2022

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

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 2022**

Dear Chair Burgis and Boardmembers:

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 September 23, 2022. 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

ASSESSOR'S PARCEL NUMBER	DESCRIPTION
208-780-033-6	Parcel M
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 spring 2021 monitoring that on Parcel "S," along the storm drain riprap apron within the channel, the sidewalls were in an oversteepened condition with erosion exposing scarps up to 3 feet on each side (Site Condition A.1, Appendix A, Figure 1). During this monitoring event, we noted that the condition remained unchanged since our last site visit and the slope was vegetated and stable. We also observed an oversteepened condition with erosion exposing portions of creek channel side wall on Parcel "P" (Site Condition A.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 between Elworthy Ranch Circle and Elworthy Ranch Lane. Aside from some vegetation, the road 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. We observed that on the MSE retaining wall next to the trash rack between Elworthy Ranch Circle and Elworthy Ranch Lane, some of the cap and wall blocks were broken/distressed or displaced since our fall 2020 monitoring. During this monitoring event, we observed that the displaced caps had been reinstalled, and the broken/distressed blocks (Site Condition B, Appendix A, Figure 1) remained unchanged. The GHAD will continue to monitor and, if needed, will repair or replace the blocks to maintain the integrity of the wall. During our fall 2021 monitoring, we observed that erosion along the MSE retaining wall that supports the concrete-lined drainage ditch towards the southern end of Elworthy Ranch circle had worsened and created larger voids behind the MSE wall and below the concrete-lined drainage ditch (Site Condition C, Appendix A, Figure 1). During this monitoring, we noted that the erosion and voids remained the same. We will continue to monitor the condition of the slope and the stability of the wall during future monitoring. In addition, we first noted in our spring 2021 monitoring that animal burrows had undermined portions the MSE retaining wall along Elworthy Ranch Circle. During this monitoring event, we observed that the burrows had been backfilled.

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**

Site Condition: A.1
Observation Date: 09/23/2022
Description: Scarp and exposed soil adjacent to rip rap apron and storm drain outfall.
Recommendation: Continue to monitor.
Field Representative: GH



Site Condition: A.2
Observation Date: 09/23/2022
Description: Existing creek channel slope erosion.
Recommendation: Continue to monitor.
Field Representative: GH



Site Condition: B
Observation Date: 09/23/2022
Description: Distressed MSE retaining wall block.
Recommendation: Continue to monitor.
Field Representative: GH



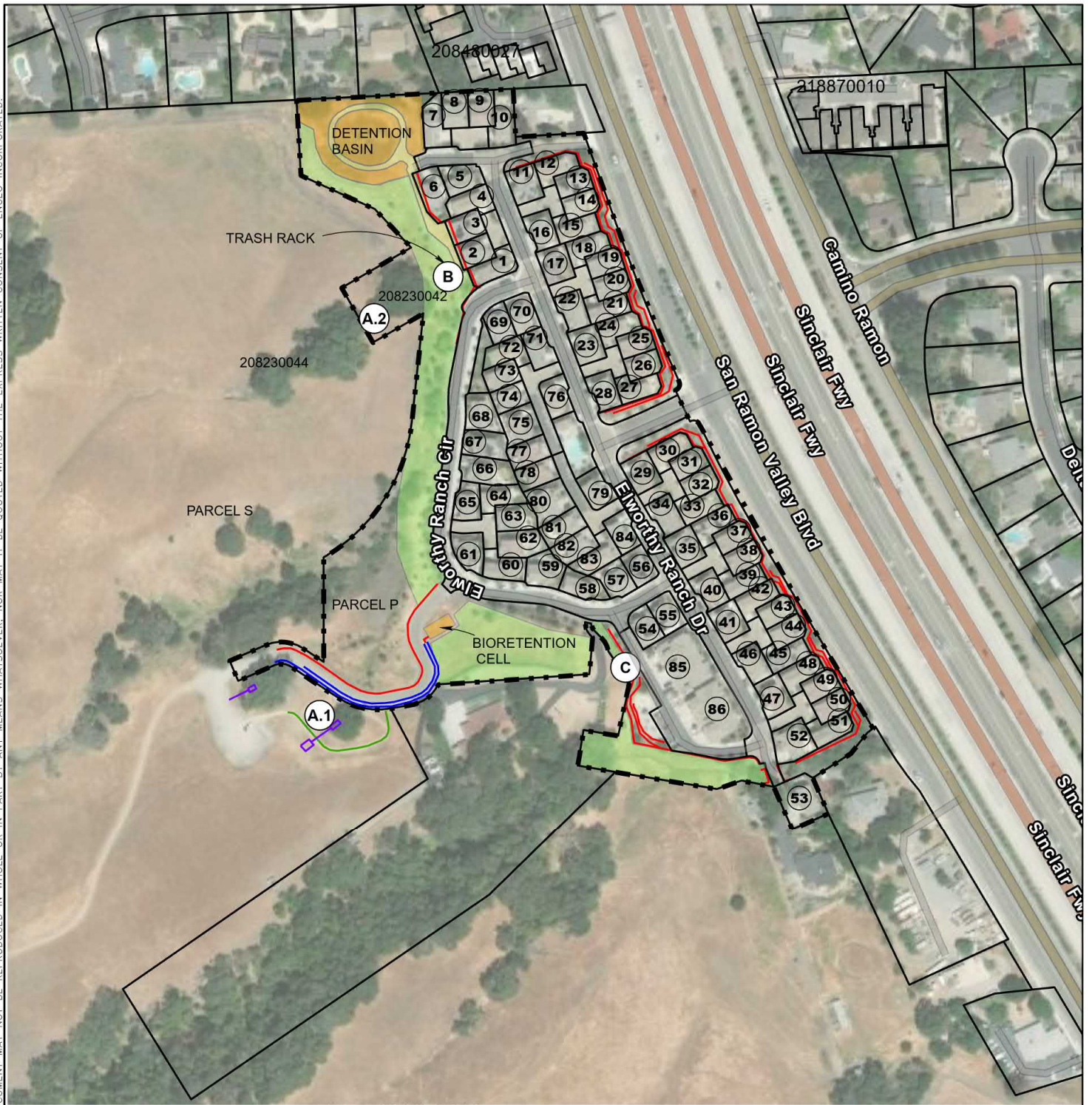
Site Condition: C
Observation Date: 09/23/2022
Description: Erosion behind MSE wall and below concrete-lined drainage ditch.
Recommendation: Continue to monitor.
Field Representative: GH



FIGURE

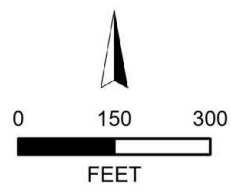
Figure 1 – Site Plan

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EXPLANATION

ALL LOCATIONS ARE APPROXIMATE



- SITE CONDITION (FALL 2022)
- Ⓢ LOT NUMBERS
- - - GHAD BOUNDARY
- ▭ PARCELS APRIL 2022
- 208230044 ASSESSOR'S PARCEL NUMBER
- RETAINING WALL
- CONCRETE LINED DRAINAGE DITCH
- STORM DRAIN AND RIPRAP
- EARTHEN LINED DRAINAGE DITCH
- FUEL TRANSITION ZONE
- GRAVEL SURFACED MAINTENANCE ROAD
- DETENTION BASIN AND BIORETENTION CELL

BASEMAP SOURCE: GOOGLE EARTH MAPPING SERVICE 2021 AND CONTRA COSTA ASSESSOR'S OFFICE 2022



SITE PLAN
WIEDEMANN RANCH GHAD - ELWORTHY RANCH
DANVILLE, CALIFORNIA

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

FIGURE NO.
1

MONITORING REPORT

Elworthy Ranch
Danville, CA

DETENTION BASIN OPERATIONS AND MAINTENANCE SITE MONITORING AND MAINTENANCE REPORT FORM

Inspector: Greg Hudson

Date: September 23, 2022

Weather Conditions: Sunny

Days since last rainfall: 1

Dry season? X

Wet season?

Basin Water Level: Dry

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			

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		Vegetation and willows at bottom of basin greater than 5 feet in height.
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.