Project No.
3586.002.022

April 20, 2023

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: Red Hawk Development
Danville, California

GEOLOGIC HAZARD ABATEMENT DISTRICT MONITORING SPRING 2023

Dear Chair Andersen and Boardmembers:

ENGEO is pleased to submit this monitoring report for the Red Hawk development, formerly the Podva Property, in Danville, California. The site-monitoring event occurred on April 4, 2023. As described in the Podva Property Plan of Control (Reference 1), the purpose of this monitoring is to observe and report on the open space and associated improvements within the Red Hawk development. The Wiedemann Ranch Geologic Hazard Abatement District (GHAD) has acquired monitoring and maintenance responsibilities for all the parcels within the Red Hawk development (Reference 2). These parcels are listed in Table 1.

TABLE 1: Wiedemann Ranch GHAD Accepted Parcels – Red Hawk Development

ASSESSOR'S PARCEL NUMBER (APN)	PARCEL LABEL	ADDRESS/Description
208-810-001	Lot 1	302 Wingfield Court
208-810-002	Lot 2	306 Wingfield Court
208-810-003	Lot 3	310 Wingfield Court
208-810-004	Lot 4	316 Wingfield Court
208-810-005	Lot 5	320 Wingfield Court
208-810-006	Lot 6	327 Wingfield Court
208-810-007	Lot 7	323 Wingfield Court
208-810-008	Lot 8	319 Wingfield Court
208-810-009	Lot 9	315 Wingfield Court
208-810-010	Lot 10	309 Wingfield Court
208-810-011	Lot 11	305 Wingfield Court
208-810-012	Lot 12	301 Wingfield Court
208-810-013	Lot 13	11 Red Tail Court
208-810-014	Lot 14	17 Red Tail Court
208-810-015	Lot 15	21 Red Tail Court

ASSESSOR'S PARCEL NUMBER (APN)	PARCEL LABEL	ADDRESS/Description
208-810-016	Lot 16	20 Red Tail Court
208-810-017	Lot 17	18 Red Tail Court
208-810-018	Lot 18	16 Red Tail Court
208-810-019	Lot 19	12 Red Tail Court
208-810-020	Lot 20	10 Red Tail Court
208-810-021	Parcel A	Bioretention
208-810-022	Parcel B	Open Space with Scenic Easement
		Red Tail Court
		Wingfield Court

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
- Maintenance roadways
- Storm drain inlets and trash rack
- Subdrain outlets
- Detention basin
- Bioretention areas
- Fencing, locks, and signage

COMMON AREA, OPEN-SPACE SLOPES, 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. During our fall 2023 monitoring event, we observed unauthorized bike trail construction and minor slope grade disturbances along the southern side of Lots 4 and 5 (316 and 320 Wingfield Court, respectively). During this monitoring event, we observed that the GHAD had backfilled and restored slope grades, and installed erosion control measures in areas of restored slope.

CONCRETE-LINED SURFACE 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 also observed minor cracks and voids in the concrete-lined drainage ditches; however, the minor cracks do not appear to compromise the integrity of the ditches. As part of the routine maintenance, the minor cracks and voids will be resealed, as needed, to maintain ditch integrity.

MECAHNICALLY STABILIZED EARTH (MSE) RETAINING WALLS

Retaining walls were inspected for significant cracking and damage. At the time of our monitoring, the MSE walls were in satisfactory condition and no visible distress was observed.

MAINTENANCE ROADWAYS

We observed the condition of the gravel-surfaced maintenance roads west of Red Tail Court and south of Wingfield Court, and in general, the roads appeared to be in good condition at the time of our monitoring. Vegetation removal is completed during scheduled routine GHAD maintenance. We noted in our spring 2022 monitoring that soil had been disturbed and a soil ramp had been built up at the end of the maintenance road south of Wingfield Court, and during our fall 2022 monitoring event, we observed additional disturbed locations and ramps along the perimeter of the maintenance road easement. During this monitoring event, we observed that the GHAD had removed the ramps and restored disturbed locations to original grades to maintain proper access and function of the maintenance road.

The asphaltic concrete-surface roadway connecting Wingfield Court to the East Bay Regional Park District trailhead west of the development appeared to be in good condition at the time of our monitoring.

STORM DRAIN INLETS AND TRASH RACK

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.

A trash rack is located on the southeastern edge of Parcel B, adjacent to 1065 Westridge Avenue. As summarized in Reference 3, on December 23, 2021, the creek overflowed the trash rack and the GHAD conducted cleanup operations on Parcel B and 1065 Westridge Avenue. The creek also overflowed the trash rack on December 31, 2022, and the GHAD conducted a subsequent cleanup operation in January and February 2023. Cleanup operations only consisted of sediment and debris removal from Parcel B and 1065 Westridge Avenue. At the time of our monitoring, the trash rack was in satisfactory condition and appeared to have adequate capacity.

SUBDRAINS

The following subdrain outlets were observed and monitored during the site visit. Discharge levels flowing from the subdrain outlets are summarized in Table 2.

TABLE 2: Subdrains

LABEL	FLOW (gallons/day)	COMMENTS
S-4	228	Est. Pipe invert at bottom of storm drain inlet box, visible flow.
S-5	1141	Est. Unable to monitor, outlet not visible in storm drain inlet, audible flow.
S-6	23	Est. Unable to access, outlets into storm drain inlet, visible flow.
RW-1	0	Dry

DETENTION BASIN

A detention basin (Figure 1) is located at the end of Red Tail Court. 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 Red Hawk Development 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. We observe significant accumulation of sediment adjacent to the basin outlet structure (Site Condition A, Appendix A, Figure 1). The excess sediment will be removed by the GHAD during routine maintenance.

BIORETENTION FACILITIES

We observed the condition of three bioretention areas adjacent to Midland Way (Figure 1). During our monitoring, the bioretention areas appeared to be free of accumulated standing water or debris and were functioning properly.

FENCING, LOCKS AND SIGNAGE

The perimeter of the GHAD was checked for proper fencing, signage, and locks. During our Fall 2023 monitoring, we noted that a portion of the GHAD property fencing north of Lots 15 and 16 (21 and 20 Red Tail Court, respectively) was leaning and damaged. During this monitoring event, we observed that the fence had been repaired/replaced by the GHAD.

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

Jeffrey A. Adams, PhD, PE

gh/jam/ar

Attachments: Selected References
Figure 1 – Site Plan
Appendix A – Site Condition Summary with Photographs
Monitoring Report

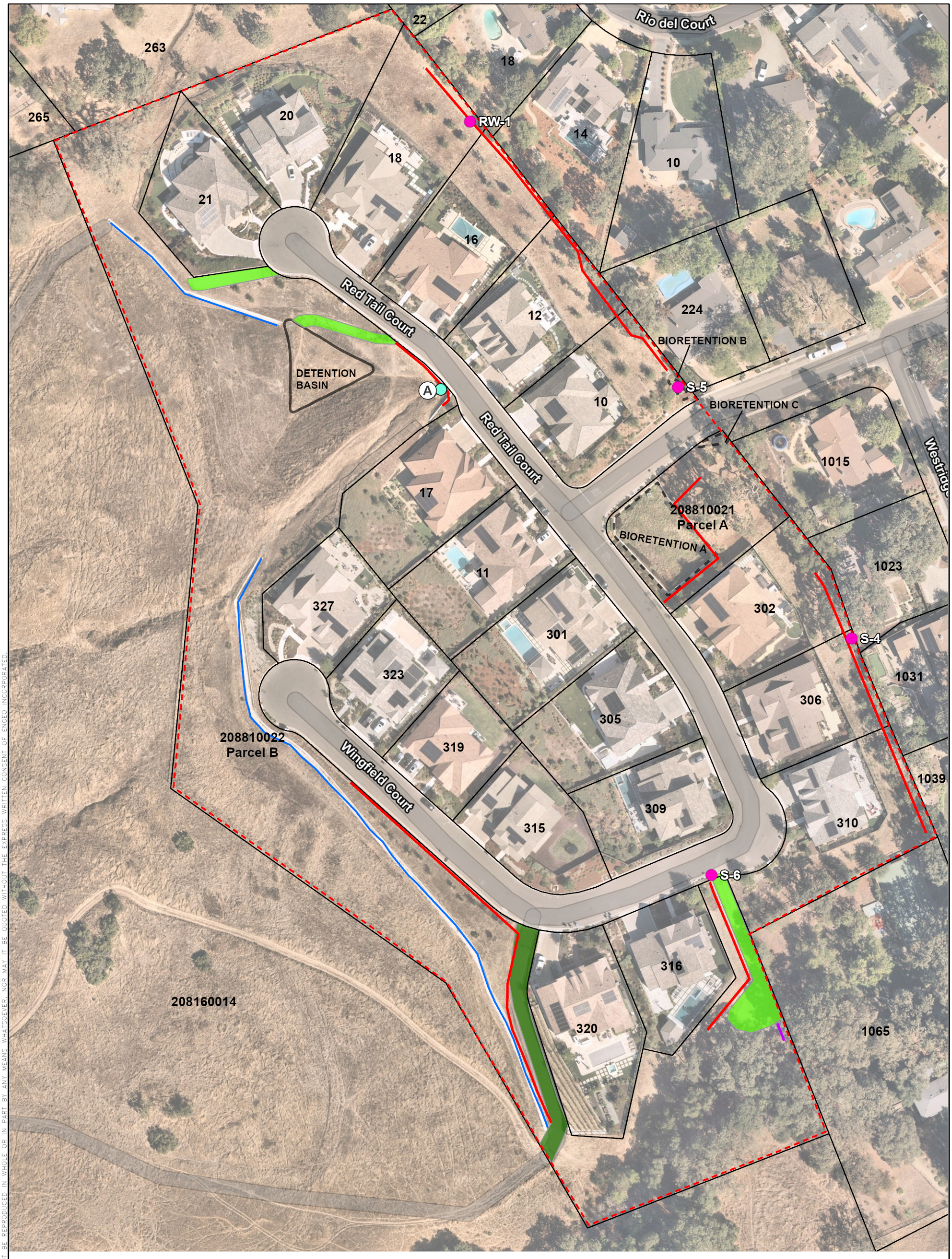
SELECTED REFERENCES

1. ENGEO. 2016. Plan of Control, Podva Property, Danville, California. June 18, 2015, Revised January 7, 2016. Project No. 9160.000.001.

2. ENGEO. 2021. Wiedemann Ranch Geologic Hazard Abatement District Plan of Control Acceptance, Red Hawk (Podva), Subdivision 9309, Danville, California. May 3, 2021. Project No. 9160.000.001.

3. ENGEO. 2022. Observation Services During Creek Debris Emergency Cleanup, Red Hawk Development Parcel “B” and 1065 Westridge Avenue, Danville, California. April 26, 2022. Project No. 3586.002.021.

FIGURE 1 – SITE PLAN



COPYRIGHT © 2023 BY ENGEO INCORPORATED. THIS DOCUMENT MAY NOT BE REPRODUCED IN WHOLE OR IN PART BY ANY MEANS WHATSOEVER, NOR MAY IT BE QUOTED WITHOUT THE EXPRESS WRITTEN CONSENT OF ENGEO INCORPORATED.

EXPLANATION

ALL LOCATIONS ARE APPROXIMATE

- (A) SITE CONDITION (SPRING 2023)
- BASIN INLET/OUTLET
- SUBDRAIN OUTLET
- RETAINING WALL
- TRASH RACK
- CONCRETE-LINED DRAINAGE DITCH
- GHAD BOUNDARY

EMERGENCY VEHICLE ACCESS/MAINTENANCE ROAD

- PAVED SURFACE
- GRAVEL SURFACE

VEGETATION MANAGEMENT ZONE

- BIORETENTION BASIN
- DETENTION BASIN

208160014 ASSESSOR'S PARCEL NUMBER

320 ADDRESS

N

0 60 120

FEET

BASEMAP SOURCE: NEARMAP MAPPING SERVICE, SEPTEMBER 2022

ENGEO Expect Excellence

SITE PLAN

WIEDEMANN RANCH GHAD - RED HAWK DEVELOPMENT

DANVILLE, CALIFORNIA

PROJECT NO. : 03586.002.022

SCALE: AS SHOWN

DRAWN BY: MAT CHECKED BY: HR

FIGURE NO. 1

PATH: G:\DRAFTING\PROJECTS\3586\3586002022\GHAD-WIEDEMANN RANCH-REDHAWK\3586002022-GHAD-WIEDEMANN-REDHAWK-0423.APRX
LAYOUT: SITE PLAN USER: MTORRES

ORIGINAL FIGURE PRINTED IN COLOR

APPENDIX A

Site Condition Summary with Photographs

Appendix A

Site Condition Summary with Photographs

Wiedemann Ranch - Red Hawk

Site Condition:	A
Observation Date:	04/04/2023
Description:	Sediment accumulation adjacent to basin outlet structure.
Recommendation:	Sediment should be removed during routine maintenance.
Field Representative:	GH

MONITORING REPORT

Red Hawk Development
Danville, CA

DETENTION BASIN OPERATIONS AND MAINTENANCE
SITE MONITORING AND MAINTENANCE
REPORT FORM

Inspector: Greg Hudson Date: April 4, 2023
Weather Conditions: Sunny
Days since last rainfall: 6 Dry season? Wet season? X
Basin Water Level: 6-12 inches
Noteworthy Sediment Accumulated since Last Monitoring Event: Yes

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			
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			Sediment accumulation adjacent to basin outlet structure should be removed.
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.