Project No. **4063.002.024**

January 17, 2025

Wendt 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

Wendt Ranch Geologic Hazard Abatement District
651 Pine Street, Room 107
Martinez, CA 94553

Subject: Wendt Ranch, Monterosso, and Mustang Soccer Fields
Wendt Ranch Geologic Hazard Abatement District
Contra Costa County, California

GEOLOGIC HAZARD ABATEMENT DISTRICT MONITORING FALL 2024

Dear Chair Anderson and Board Members:

We are pleased to submit this monitoring report for the Wendt Ranch Geologic Hazard Abatement District (GHAD). As described in the Wendt Ranch Plan of Control (Reference 1), the purpose of this monitoring is to observe and report the conditions of the GHAD-accepted parcels and associated improvements as listed in Table 1. The site-monitoring event for GHAD-accepted parcels was conducted on October 24 and 25, 2024.

TABLE 1: Parcels

ASSESSOR'S PARCEL NUMBER (APN)	PARCEL, TRACT	DESCRIPTION
Monterosso (Intervening Properties)		
206-020-094	I	Western Water Quality Basin
206-020-095	K	Western Open Space
206-580-036	B	Open Space North of Casablanca Bridge
206-020-093	C	Eastern Open Space
206-580-038	J	Northeast Bioretention Cell
206-630-054	E	Southeast Bioretention Cell and Driveway
Wendt Ranch		
206-030-037	A, 8698	Wendt Ranch Southern Open Space
206-650-011	B, 8847	Wendt Ranch Western Open Space, North of Casablanca
206-030-038	B, 8698	Wendt Ranch Western Open Space, South of Casablanca
206-030-034	D, 8002	Wendt Ranch Detention Basin
Alamo Creek		
206-030-058	F, 8381	Alamo Creek Mustang Soccer Fields
206-030-077	A, 8943	Creekside Elementary School Slope

With the exception of the Mustang Soccer Field (APN 206-030-058) and the slope next to Creekside Elementary School (a portion of APN 206-030-077), the parcels listed above are owned by the Wendt Ranch GHAD. Toll Brothers, Inc. remains responsible for monitoring, maintenance, and repair of GHAD-maintained improvements and the open-space parcels within the Alamo Creek development not listed in Table 1.

SCOPE

The site monitoring included the following tasks.

- Geologic reconnaissance of the site slopes for indications of erosion or slope failure
- An inspection of surface drainage ditches
- Observation of subdrain outlets and measurement of the flow volume where possible
- Monitoring of the settlement instrument
- Inspection of designated trails
- A reconnaissance of creek channels and corridors for indications of slope instability that could impact site improvements
- Observation of the detention basins
- Observation of the bioretention facilities
- Observation of fencing, locks, and signage

OPEN-SPACE SLOPES

During the winter of 2016/2017, an existing landslide was reactivated on the slope below Genoa Court (Figure 1). At the time, the landslide was measured approximately 50 feet in width and 165 feet in length, terminating near the creek. The head scarp was measured approximately 7 feet in height and exposed engineered fill. Based on our 2017 field observations, it appeared that this landslide may be approximately 10 to 15 feet in depth. From a review of the as-built geotechnical corrective grading plan, it appeared that the landslide is located immediately below the graded portion of the slope, and in 2017, it did not have the potential to impact site improvements. During the fall 2021 monitoring event, additional movement of this slide was noted with similar dimensions that we observed in 2017. During heavy rainfall monitoring in January 2023, additional movement of the landslide was noted. The landslide scarp extended approximately 10 feet upslope and approximately 10 feet laterally. The movement did not appear to be of any immediate concern, and the GHAD continued monitoring the landslide and would consider repairs if significant additional movement were identified during future monitoring events. During the fall 2023 monitoring event, we observed that the failed area appeared to be revegetating well and had not experienced significant additional movement. This remained to be the case during our most recent monitoring.

During heavy rainfall monitoring in January 2023, mobilization of multiple surficial landslides was observed on the slope east of Genoa Court (Figure 1, Site Condition A.1). At the time, there were two landslides: one that measured approximately 80 feet in width, 65 feet in length, and head scarp approximately 2 feet in height, which is now revegetated; and landslide A.1, which measured approximately 40 feet in width, 65 feet in length, and head scarp of approximately 3 feet

in height. During the fall 2024 monitoring event, we observed that landslide A.1 appeared to be revegetating but continues to creep exposing a slowly widening head scarp. We will continue to monitor this area.

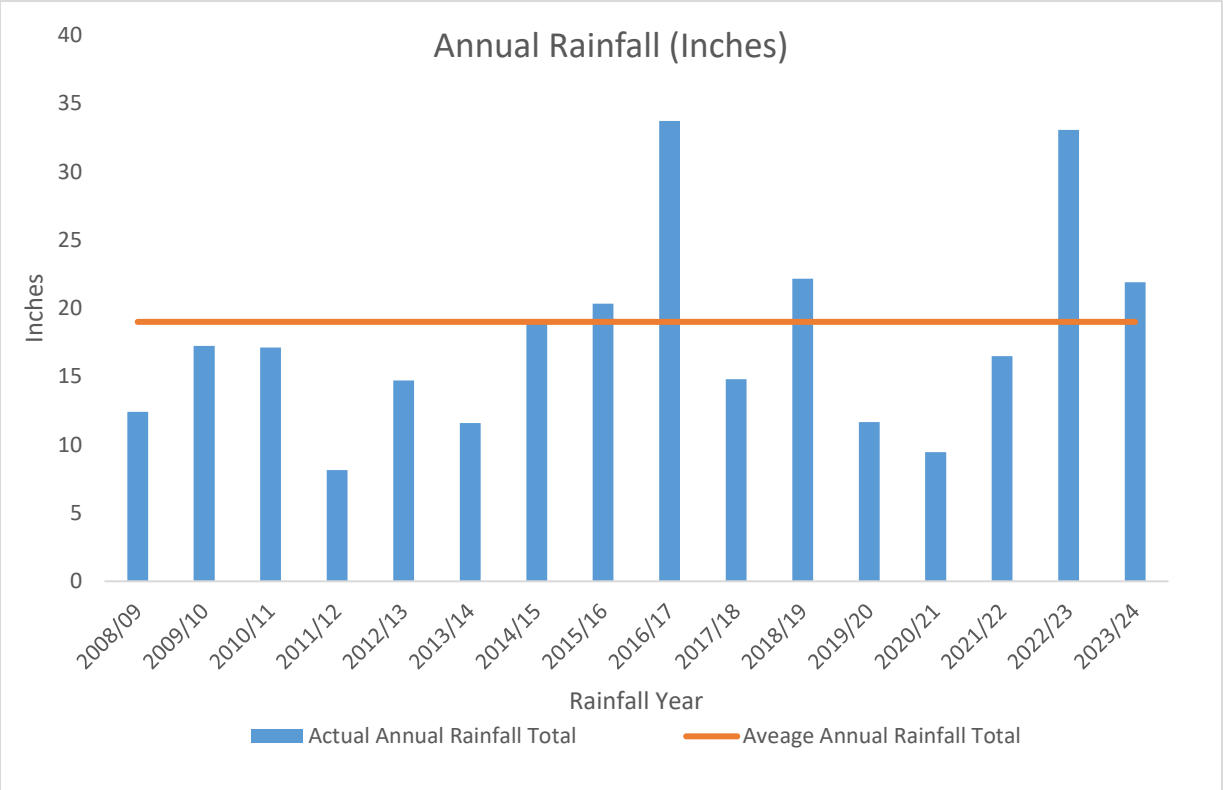
During heavy rainfall monitoring in January 2023, mobilization of a surficial landslide was observed on the slope between Casablanca Street and Rioja Court. At the time, the landslide measured approximately 90 feet in width, 45 feet in length, and head scarp approximately 2 feet in height. During the spring 2023 monitoring event, we observed that the failed area had experienced additional movement and measured approximately 120 feet in width, 65 feet in length, and head scarp approximately 4 feet in height. The toe of the slope was encroaching on the fence line at the bottom of the slope. A landslide repair was performed in June 2023 to rebuild the slope and install subdrainage. During our most recent monitoring event, the landslide repair appeared to be performing well.

We noted during our fall 2024 monitoring that a shallow landslide was located on the slope between Bengali Court and Enderby Street and above an access trail (Figure 2, Site Condition A.2). The failure does not appear to be impacting nearby improvements at this time and we will continue to monitor the slope.

There are a number of unrepaired landslides within ungraded portions of the GHAD-owned parcels. Some of these landslides will likely move again in the future when wet conditions occur. During our fall 2023 monitoring, the landslides within the ungraded portion of the site appeared to be in a similar condition to that described during development of the site. No new movement was observed during this monitoring event.

Annual rainfall data for the Danville area is shown in Exhibit 1. We have included rainfall data since 2009/2010 when the Wendt Ranch GHAD accepted transfer monitoring and maintenance responsibilities for selected parcels within the GHAD. The readings are from measurements taken at the East Bay Municipal Utilities District water tank on Tassajara Road with the exception of the 2009 to 2010 and 2010 to 2011 rainfall years (July 1 to June 30), which were reported from other nearby monitoring stations.

EXHIBIT 1: Annual Rainfall 2008/09 to 2023/24



Throughout the open space within the GHAD, there are numerous areas of concentrated animal burrows. Excessive animal burrows pose a risk to shallow slope stability in the event of heavy rains. During the most recent monitoring event, we observed areas of concentrated animal burrows; however, none were of immediate concern or a threat to GHAD-maintained improvements. These areas will continue to be monitored in the future.

During the fall 2021 monitoring event, exposed geogrid and separation fabric were noted at a previously repaired landslide (Figure 2, Slide A), located north of Griffon Court. The engineered slope appeared to be slowly eroding, though underlying native soil remains stable. This erosion is likely due to the angle of the engineered fill overlying the separation fabric. The soil erosion did not appear to be of immediate concern and the GHAD will continue monitoring this condition in the future, once annexed into the GHAD boundary.

We continued to note a crack up to ¼ inch in width that was observed extending from the top of the wall to the bottom of the wall at a 3-foot-high masonry wall behind 1560 Colchester Street (Figure 1, Site Condition C.4). The crack was observed located adjacent to an expansion joint. It appeared that the crack was caused by additional loading of the masonry wall from planters and a fountain constructed on the uphill side of the wall. The GHAD notified the homeowner of this condition in February 2020 and requested that the planter and fountain be relocated. During our most recent monitoring event, we noted that this condition remained unchanged. We will continue to monitor the masonry wall condition during scheduled monitoring events, although the conditions causing the crack appeared to be localized.

We noted during our spring 2021 monitoring that there is distress and offset along the 3-foot-high masonry wall behind 1608 Colchester Street (Figure 1, Site Condition C.5). In addition, it appeared that the wall embedment was exposed and the crushed rock leveling pad of the wall was displayed, which were probably due to animal burrowing. During our most recent monitoring event, we noted this condition had not changed. The GHAD will continue to monitor the distress and consider placing engineered fill to provide design wall embedment.

We previously noted a 1-inch vertical gap between the upper and lower blocks and between the adjacent blocks in the western portion of the rear retaining wall at 217 Monterosso Court (Figure 1, Site Condition C.2). It appeared that localized loading from the upper concrete masonry unit (CMU) block retaining wall caused displacement of portions of the lower mechanically stabilized earth retaining wall. In addition, water staining was found on the CMU wall and water might have been seeping through the CMU wall. It appeared that drainage of the upper CMU wall may not be sufficient to capture stormwater runoff and/or irrigation water. Saturated backfill soil may further impact the lower wall. During our most recent monitoring event, we noted this condition had not changed. The GHAD will continue to monitor the CMU block wall during scheduled monitoring events although the conditions causing the crack appear to be localized.

We noted during our spring 2021 monitoring that there is distress cracking of the sidewalk located on Charbray Street near Bengali Street. The cracking is localized and does not compromise the integrity of the sidewalk, although presents a trip hazard for pedestrians. During the fall 2022 monitoring event, we observed additional cracking in the sidewalk approximately 10 feet downslope of the original cracking. The GHAD will continue to monitor this condition in future events.

We noted during our fall 2023 monitoring event that the soil between the concrete-lined drainage ditch and the block retaining wall on the southeastern corner of the Mustang Soccer fields was eroded, and created voids and settlement of the upper blocks of the retaining wall (Figure 1, Site Condition C.1). We recommend backfilling the voids and repairing the displaced wall blocks to prevent distress to the wall and nearby ditch.

During our spring 2024 monitoring event, we noted distress to the block retaining wall at the base of the slope along the western perimeter of the site (Figure 1, Site Condition C.3).

LINED SURFACE DRAINAGE DITCHES

The drainage ditches were checked for accumulation of debris/sediment and for obvious distress, such as cracking or shifting of the concrete. As shown in Figures 1 through 3, there are approximately 3,600 linear feet of drainage ditches currently maintained by the GHAD. As part of the scheduled routine site maintenance, the GHAD removes vegetation and other unwanted material from the concrete-lined ditches. We continued to note cracking and distress around the manhole next to the concrete-lined drainage ditch along the access road adjacent to the southeastern bioretention cell (Figure 1, Site Condition B.1). Ditches also contained soil debris as a result of burrowing animals. This condition was also observed in the ditches adjacent to the Mustang Soccer Field, and the western perimeter ditch near Colchester Street. Soil removal from the earthen-lined ditches is part of the GHAD's scheduled maintenance. In addition, we observed minor cracking in various segments of the concrete ditches. These minor cracks do not appear to compromise the integrity of the concrete-lined drainage ditches; however, if more or larger cracks appear, the GHAD should repair them.

SUBDRAIN OUTLETS

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

TABLE 2: Subdrains

NO.	LABEL	FLOW (gallons/day)	NOTES
1	K-1	0	Dry
2	K-1E	0	Dry
3	K-3BN	0	Area damp
4	K-3BS	0	Area damp
5	K-6	--	Unable to locate; overgrown vegetation
6	K-8AN	--	Outfall buried, area damp
7	K-8AS	0	Dry
8	K-8BN	0	Dry
9	K-8BS	0	Area overgrown, damp around outfall, no flow
10	K-9	0	Area wet
11	K-10	0	Area wet and saturated, standing water
12	K-11	0	Dry
13	K-13	0	Dry
14	RW-111N	--	Buried, unable to measure
15	Slide M	69	
16	RW-111S	--	Buried, unable to measure
17	R46	--	Not currently annexed into GHAD
18	S1	--	Not currently annexed into GHAD
19	S2	--	Not currently annexed into GHAD
20	Slide A	--	Not currently annexed into GHAD
21	Slide C	--	Not currently annexed into GHAD
22	K1	--	Not currently annexed into GHAD
23	K2	--	Not currently annexed into GHAD
24	K5	--	Not currently annexed into GHAD
25	K10	--	Not currently annexed into GHAD
26	K11	--	Not currently annexed into GHAD
27	K12	--	Not currently annexed into GHAD
28	K13	--	Not currently annexed into GHAD
29	K14A	--	Not currently annexed into GHAD
30	K34	--	Not currently annexed into GHAD
31	K35	--	Not currently annexed into GHAD
32	K36	--	Not currently annexed into GHAD
33	Slope Repair	0	Dry

Some of the subdrain outlets were buried, submerged, or unable to be located due to overgrown vegetation. The GHAD will remove overgrown vegetation and soil for future subdrain monitoring. As necessary, the GHAD will locate and mark the subdrain outfalls.

SETTLEMENT INSTRUMENT

In October 2005, a magnet extensometer-type settlement casing was installed in a boring drilled in the open space at the top of the fill slope, up to approximately 100 feet in vertical height, off the southern end of Monterosso Court (Figure 1). The monitoring instrument is used to measure vertical movement of materials above the bedrock. As reported in Reference 5, the boring in which the casing was installed was drilled through the engineered fill at approximately 92 feet below the existing surface. The alluvial soil encountered in the boring was approximately 19 feet thick and bedrock was found at a depth of 111 feet. The base of the boring and the installed casing is 127 feet below the ground surface (with 16 feet into bedrock).

Since the time of the last monitoring event on May 28, 2024, no movement was measured. As expected, it appears that the rate of settlement is decreasing and is near completion. Some additional minor movement of the engineered fill may be expected during progressive wetting of the fill material. We expect this wetting is occurring in large part due to rainfall and landscape irrigation. A graph that includes the most recent monitoring event for the settlement monument is provided as an attachment to this report (Figure 4).

Minor movement, as depicted in Figure 4, was observed on the upper 10 feet of the engineered fill since 2009. Lateral fill stretching or lateral fill extension of a compacted fill slope is a phenomenon that is related to lateral movement of the upper zone of expansive compacted soil due to wetting and drying. The shallow depth of the expansive fill located on top of a downhill fill slope will experience swelling/expanding upward and also swelling laterally due to wetting. The magnitude of the lateral fill extension at the top of the downhill slope depends on the expansiveness of the fill materials, fill thickness, fill slope gradient, and the extent of wetting. Based on the site clayey fill material, the slope inclination, and fill thickness, it is our opinion that the minor movement of the upper 10 feet of fill, as shown in Figure 4, is due to lateral extension of the fill slope. The GHAD will continue monitoring the fill extension at this fill slope.

DESIGNATED TRAILS

We viewed the conditions of the designated trails within the Monterosso development and adjacent to the Mustang Soccer Fields. Trail segments located around the perimeter of the Monterosso development are unpaved. The trail immediately east of the Mustang Soccer fields has a concrete surface. We did not observe any signs of instability on the unpaved trails. Scheduled vegetation removal occurs annually in spring on the unpaved trail segment.

ACCESS ROADWAYS

We observed the condition of the gravel-covered access roadways within the Monterosso and Wendt Ranch developments (Figures 1 and 2). The gravel-surfaced roadways appeared to be in fair condition. As part of the ongoing GHAD maintenance activities, vegetation is periodically removed on the maintenance roadways.

During the spring 2021 monitoring event, longitudinal and transverse distress cracking was observed on the access road on APN 206-030-088. Distress cracking of the roadway is due to soil creep movement of the underlying soil. During our most recent monitoring, these minor cracks did not appear to compromise the integrity of the roadway. The GHAD will continue monitoring this condition once the area is annexed.

DRAINAGE COURSE

The Main Branch and Intervening Branch of Alamo Creek cross the GHAD-maintained open space. In general, the creeks have slightly to moderately incised channels with a moderate to dense vegetation cover. The creek banks, which are oversteepened due to previous downcutting, are generally in an unstable condition. We expect that creek bank failures will continue to occur in the future as the creek banks adjust to lowered creek bed levels. As stated in the Plan of Control, the creek channels will be allowed to mature naturally except where this poses a threat to site improvements. We did not observe areas of the creek channel with the potential to impact site improvements.

STORM DRAIN INLETS

Storm drain inlets within the open space area of the GHAD are relatively clear of debris. Storm drain inlets on GHAD-owned parcels are cleared as part of routine scheduled GHAD maintenance.

DETENTION BASINS

Two detention basins are located within the GHAD-maintained open space. The western detention basin is located within the Monterosso development and the Wendt Ranch detention basin is located within the Wendt Ranch development. As noted in our previous reports, vegetation within the detention basins includes willows, grasses, and cattails. Although vegetation aids in the trapping of sediment, the GHAD will continue to maintain the vegetation to allow for proper surface flow through the basins and maintenance of the inlet and outflow structures. A measuring staff located in the Wendt Ranch detention basin shows no significant sediment accumulation in the basin since installation.

Attached are Monitoring Report Forms for each basin within the Wendt Ranch GHAD.

BIORETENTION FACILITIES

There are two bioretention basins within the Wendt Ranch GHAD. The basins are located in the northeastern and southeastern portion of the Monterosso (Intervening Properties) development (Figure 1). At the time of our monitoring, both bioretention basins were in good condition, and the GHAD will continue to monitor and maintain these two bioretention basins.

Attached are the Site Monitoring and Maintenance Report forms for each bioretention basin within the Wendt Ranch GHAD.

FENCING, LOCKS, AND SIGNAGE

We observed the fences for breaches or instability. We also checked that the signage remained properly placed and relatively clean. In general, fencing, locks, and signage appeared in good condition. As part of the ongoing GHAD maintenance activities, we will maintain these improvements as needed.

If you have any questions concerning the observations made during this reconnaissance, please do not hesitate to contact us.

Sincerely,

ENGEO Incorporated

Mary Johnson, PG

Macy Tong, GE

mj/mt/jg

Attachments: Selected References
Appendix A – Site Conditions
Drainage Facilities Maintenance Program Monitoring Report Forms
Bioretention Basin Management Program Site Monitoring and Maintenance Report Forms
Figures 1 through 4

SELECTED REFERENCES

1. ENGEO. 2005. Revision 1 to the Wendt Ranch Geologic Hazard Abatement District (GHAD) Plan of Control, May 10, 2005; Revised May 24, 2005, Project No. 4063.1.050.01.

2. ENGEO. 2009. Geologic Hazard Abatement District (GHAD) Plan of Control Section VII, Item No. 3(B) Monitoring, Monterosso (Intervening Properties), Contra Costa County, California. February 5, 2009, Revised February 10, 2009, Project No. 4063.000.000.

3. ENGEO. 2008. Geologic Hazard Abatement District (GHAD) Plan of Control Section VII, Item No. 3(E) Punchlist Verification, Wendt Ranch and Alamo Creek Developments, Contra Costa County, California. December 10, 2008, Project No. 4063.000.000.

4. ENGEO. 2009. Acceptance for Performing GHAD Activities, Wendt Ranch Development, Contra Costa County, California. May 8, 2009, Project No. 4063.000.000.

5. ENGEO. 2007. Testing and Observation Services during Grading Activities, Intervening Properties, Contra Costa County, California. April 17, 2007, Project No. 4633.1.007.01.

6. ENGEO. 2007. Design Report and Operations and Maintenance Manual for Bioretention Facilities, Intervening Properties, Contra Costa County, California. October 24, 2007, Project No. 4633.1.007.01.

7. ENGEO. 2021. Testing and Observation Services During Slide Repairs, Alamo Creek, Contra Costa County, California. October 4, 2019, Revised January 10, 2021, Project No. 4033.401.000.

APPENDIX A – SITE CONDITIONS

Appendix A

Site Condition Summary with Photographs

Wendt Ranch GHAD

Site Condition:	A.1
Observation Date:	10/24/2024
Description:	Shallow landslide on slope southeast of Genoa Court.
Recommendation:	Continue to monitor.
Field Representative:	MJ

Site Condition:	A.2
Observation Date:	10/24/2024
Description:	Shallow landslide on slope above access trail.
Recommendation:	Continue to monitor.
Field Representative:	MJ

Site Condition:	B.1
Observation Date:	10/24/2024
Description:	Cracking of concrete around manhole.
Recommendation:	Continue to monitor.
Field Representative:	MJ

Site Condition:	C.1
Observation Date:	10/24/2024
Description:	Erosion along concrete-lined drainage ditch behind retaining block wall.
Recommendation:	Backfill eroded area and repair displaced blocks.
Field Representative:	MJ

Appendix A
Site Condition Summary with Photographs
Wendt Ranch GHAD

Site Condition:	C.2
Observation Date:	10/24/2024
Description:	Up to 1-inch gap and cracking in rear mechanically stabilized earth retaining wall at 217 Monterosso Court.
Recommendation:	Continue to monitor.
Field Representative:	MJ

Site Condition:	C.3
Observation Date:	10/24/2024
Description:	Settlement and offset of masonry blocks in retaining wall at base of slope.
Recommendation:	Continue to monitor wall and slope.
Field Representative:	MJ

Site Condition:	C.4
Observation Date:	10/24/2024
Description:	Cracking on block retaining wall.
Recommendation:	Continue to monitor.
Field Representative:	MJ

Site Condition:	C.5
Observation Date:	10/24/2024
Description:	Offset and separation in block retaining wall due to loading by planter bed inside lot.
Recommendation:	Continue to monitor distress and consider placement of engineered backfill to re-establish design wall embedment.
Field Representative:	MJ

DRAINAGE FACILITIES MAINTENANCE PROGRAM
MONITORING REPORT FORMS

4063.002.024
January 17, 2025

MONITORING REPORT FORM (Part I)

GHAD-Maintained Facilities
Contra Costa County, California
DRAINAGE FACILITIES MAINTENANCE PROGRAM

Wendt Ranch Detention Basin

(TO BE COMPLETED SEMI-ANNUALLY IN MAY AND NOVEMBER AND AS NECESSARY DURING HEAVY RAINFALL, AND SUBMITTED IN THE SEMI-ANNUAL HYDRAULIC FUNCTION/WATER QUALITY REPORTS IN JUNE AND DECEMBER)

Inspector: Mary Johnson 10/24/2024

Weather Conditions: Sunny

Days since last rainfall: 116 days Dry Season: X Wet Season:

Approximate Basin/Creek Water Levels: > 1 foot

Noteworthy Sediment Accumulated since last Monitoring Event: None

MONITORED CONTROL	YES	NO	N/A	COMMENTS / SUGGESTED MAINTENANCE
1. Are inlet and outlet structures functioning properly, allowing the facilities to drain and are they in satisfactory condition?	X			Monitor for excessive vegetation growth at outfall and inlet.
2. Are access roads in satisfactory condition?	X			
3. Is all perimeter fencing in good condition without breaks, gaps, or damage?	X			
4. Have any debris racks been cleaned and are they in good condition?	X			
5. Are embankments surrounding the basins in good condition without rills, seepage or failures?	X			
6. Is the woody vegetation less than 5 feet in height in the basins?		X		Willows exceed 5 feet in height. Trim vegetation as a part of routine basin maintenance.
7. Are the beds and banks of Intervening Tributary free from rills and erosion?	X			
8. Are the bed and banks of Upper Main Branch in a stable state free from rills and erosion?	X			
9. Are the spillway and grade control structures in Kawar Valley functional without erosion/structural damage?			X	Area was not accepted by the GHAD at this time.
10. Has sediment or water removal been undertaken from either the		X		

MONITORED CONTROL	YES	NO	N/A	COMMENTS / SUGGESTED MAINTENANCE
Wendt or Intervening basins in the last 3 months?				
11. If so, has it been tested as required?			X	
12. Is there evidence of chemical sheen or odor, contaminated runoff, litter or blowing debris in or near the basins or bioretention sites?		X		
13. Do any basin devices require maintenance to provide more effective function?		X		
14. Are there signs of leaking irrigations systems?			X	
15. Is there standing water in the bioretention facilities?		X		
16. Are mosquitoes evident? If so, please contact the Contra Costa County Vector Control.		X		
17. Is the subsurface geogrid wall near the Wendt Basin exposed?		X		
18. Are there remedial/repair tasks that should be undertaken in the near future?		X		
19. Is there any evidence or information received in the last 6 months to indicate problems with any drainage facility?		X		
20. Any other items of note?		X		

“No” answers to Items 1-9 or “Yes” answers to Items 10-20 may require a corrective action.

MONITORING REPORT FORM (Part II)

GHAD-Maintained Facilities
Contra Costa County, California
DRAINAGE FACILITIES MAINTENANCE PROGRAM

CORRECTIVE ACTIONS UNDERTAKEN (If none required, enter date and "none")

DATE	DEFICIENCY NOTED	CORRECTIVE ACTION
5/27/2021	None	
11/23/2021	None	
5/6/2022	None	
10/11/2022	None	
4/24/2023	None	
11/13/2023	None	
5/28/2024	None	
10/24/24	None	

MONITORING REPORT FORM (Part I)

GHAD Maintained Facilities
Contra Costa County, California
DRAINAGE FACILITIES MAINTENANCE PROGRAM

Western Detention Basin

(TO BE COMPLETED SEMI-ANNUALLY IN MAY AND NOVEMBER AND AS NECESSARY DURING HEAVY RAINFALL, AND SUBMITTED IN THE SEMI-ANNUAL HYDRAULIC FUNCTION/WATER QUALITY REPORTS IN JUNE AND DECEMBER)

Inspector: Mary Johnson 10/24/2024

Weather Conditions: Sunny

Days since last rainfall: 116 days Dry Season: X Wet Season:

Approximate Basin/Creek Water Levels: ~ 6 inches

Noteworthy Sediment Accumulated since last Monitoring Event: None

MONITORED CONTROL	YES	NO	N/A	COMMENTS / SUGGESTED MAINTENANCE
1. Are inlet and outlet structures functioning properly, allowing the facilities 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			
4. Have any debris racks been cleaned and are they in good condition?	X			
5. Are embankments surrounding the basins in good condition without rills, seepage or failures?	X			Minor erosion and bare soil on embankments.
6. Is the woody vegetation less than 5 feet in height in the basins?		X		Trees and willows exceed 5 feet in height. Trim vegetation as a part of routine basin maintenance.
7. Are the beds and banks of Intervening Tributary free from rills and erosion?	X			
8. Are the bed and banks of Upper Main Branch in a stable state free from rills and erosion?	X			
9. Are the spillway and grade control structures in Kawar Valley functional; without erosion/structural damage?	X			

MONITORED CONTROL	YES	NO	N/A	COMMENTS / SUGGESTED MAINTENANCE
10. Has sediment or water removal been undertaken from either the Wendt or Intervening basins in the last 3 months?		X		
11. If so, has it been tested as required?			X	
12. Is there evidence of chemical sheen or odor, contaminated runoff, litter or blowing debris in or near the basins or bioretention sites?		X		
13. Do any basin devices require maintenance to provide more effective function?		X		
14. Are there signs of leaking irrigations systems?		X		
15. Is there standing water in the bioretention facilities?		X		
16. Are mosquitoes evident? If so, please contact the Contra Costa County Vector Control.		X		
17. Is the subsurface geogrid wall near the Wendt Basin exposed?			X	
18. Are there remedial/repair tasks that should be undertaken in the near future?		X		
19. Is there any evidence or information received in the last 6 months to indicate problems with any drainage facility?		X		
20. Any other items of note?		X		

“No” answers to Items 1-9 or “Yes” answers to Items 10-20 may require a corrective action.

MONITORING REPORT FORM (Part II)

GHAD Maintained Facilities
Contra Costa County, California
DRAINAGE FACILITIES MAINTENANCE PROGRAM

CORRECTIVE ACTIONS UNDERTAKEN (If none required, enter date and "none")

DATE	DEFICIENCY NOTED	CORRECTIVE ACTION
5/27/2021	None	
11/23/2021	None	
5/6/2022	None	
10/11/2022	None	
4/24/2023	None	
11/13/2023	None	
5/28/2024	None	
10/24/2024	None	

BIORETENTION BASIN MANAGEMENT PROGRAM
SITE MONITORING AND MAINTENANCE REPORT FORMS

4063.002.024
January 17, 2025

BIORETENTION BASIN MANAGEMENT PROGRAM
SITE MONITORING AND MAINTENANCE REPORT FORM
Monterosso (Intervening Properties)
Contra Costa County, CA

BIORETENTION BASIN B

Inspector: Mary Johnson Date: 10/24/2024
Weather Conditions: Sunny
Days since last rainfall: 17 days Dry season: X Wet season:
Approximate Water Level: Basin 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**			
3. Is all perimeter fencing in good condition without breaks, gaps or damage?	**X**			
4. Is the embankment surrounding the basin in good condition without rills, seepage or failures?	**X**			
5. Are embankment slopes protected with mulch or vegetation?	**X**			
6. Is the woody vegetation less than 5 feet in height in the basin?	**X**			
7. Has sediment or water removal been undertaken in the last 3 months?		**X**		
8. If so, has it been tested as required?			**X**	

MONITORED CONTROL	YES	NO	N/A	COMMENTS/ SUGGESTED MAINTENANCE
9. Is there evidence of chemical sheen or odor, contaminated runoff, litter, or blowing debris in or near the basin?		X		
10. Do any basin devices require maintenance to provide more effective function?		X		
11. Are there signs of leaking irrigation systems?		X		
12. Is there ponding water within the basin?		X		
13. Are there remedial/repair tasks that should be undertaken in the near future?		X		
14. Is there any evidence or information received in the last 6 months to indicate problems with the basin?		X		
15. Any other items of note?		X		

"No" answers to Items 1-6 or "Yes" answers to Items 7-15 may require a corrective action.

BIORETENTION BASIN MANAGEMENT PROGRAM
SITE MONITORING AND MAINTENANCE REPORT FORM
Monterosso (Intervening Properties)
Contra Costa County, CA

BIORETENTION BASIN C

Inspector: Mary Johnson Date: 10/24/2024
Weather Conditions: Sunny
Days since last rainfall: 116 days Dry season: X Wet season:
Approximate Water Level: 6”-1’
Noteworthy Sediment Accumulated since Last Monitoring Event: No

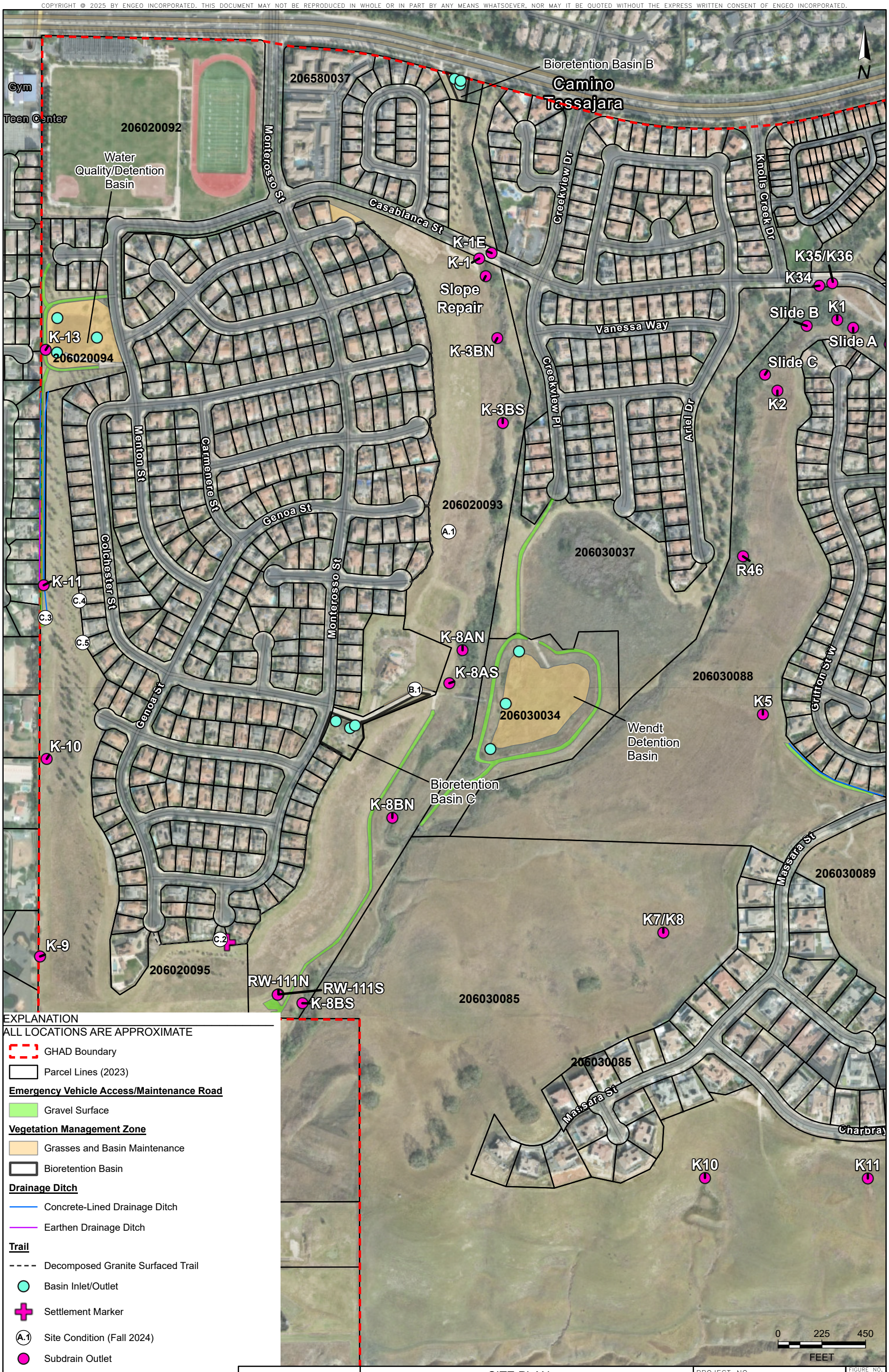
MONITORED CONTROL	YES	NO	N/A	COMMENTS/ SUGGESTED MAINTENANCE
1. Are inlet and outlet structures functioning properly, allowing the basin to drain and are they in satisfactory condition?	**X**			
2. Are access roads in satisfactory condition?			**X**	
3. Is all perimeter fencing in good condition without breaks, gaps or damage?	**X**			
4. Is the embankment surrounding the basin in good condition without rills, seepage, or failures?	**X**			
5. Are embankment slopes protected with mulch or vegetation?	**X**			
6. Is the woody vegetation less than 5 feet in height in the basin?		**X**		Willows exceed 5 feet in height. Trim vegetation as a part of routine basin maintenance.
7. Has sediment or water removal been undertaken in the last 3 months?		**X**		
8. If so, has it been tested as required?			**X**	

MONITORED CONTROL	YES	NO	N/A	COMMENTS/ SUGGESTED MAINTENANCE
9. Is there evidence of chemical sheen or odor, contaminated runoff, litter or blowing debris in or near the basin?		X		
10. Do any basin devices require maintenance to provide more effective function?		X		
11. Are there signs of leaking irrigation systems?			X	
12. Is there ponding water within the basin?		X		
13. Are there remedial/repair tasks that should be undertaken in the near future?		X		
14. Is there any evidence or information received in the last 6 months to indicate problems with the basin?		X		
15. Any other items of note?		X		

"No" answers to Items 1-6 or "Yes" answers to Items 7-15 may require a corrective action.

FIGURES

Figures 1 through 3 – Site Plans
Figure 4 – Settlement Monitoring Graph



EXPLANATION

ALL LOCATIONS ARE APPROXIMATE

- GHAD Boundary
- Parcel Lines (2023)

Emergency Vehicle Access/Maintenance Road

- Gravel Surface

Vegetation Management Zone

- Grasses and Basin Maintenance
- Bioretention Basin

Drainage Ditch

- Concrete-Lined Drainage Ditch
- Earthen Drainage Ditch

Trail

- Decomposed Granite Surfaced Trail
- Basin Inlet/Outlet
- Settlement Marker
- A.1 Site Condition (Fall 2024)
- Subdrain Outlet

BASEMAP SOURCE: NEARMAP MAPPING SERVICE 04/2024

ENGEO Expect Excellence

SITE PLAN

WENDT RANCH GHAD

DANVILLE, CALIFORNIA

PROJECT NO. :	4063.002.024
SCALE:	AS SHOWN
DRAWN BY: NWC	CHECKED BY: MT

FIGURE NO. 1

PATH: G:\DRAFTING\PROJECTS\4063\4063002024\GHAD\4063002024_WENDTRANCHGHAD – OTHER.APRX
LAYOUT: FIG 1 USER: NCLOUGH

ORIGINAL FIGURE PRINTED IN COLOR

EXPLANATION

ALL LOCATIONS ARE APPROXIMATE

- GHAD Boundary
- Parcel Lines (2023)

Emergency Vehicle Access/Maintenance Road

- Gravel Surface

Drainage Ditch

- Concrete-Lined Drainage Ditch

Trail

- Pedestrian Trail
- C.1 Site Condition (Fall 2024)
- Subdrain Outlet

BASEMAP SOURCE: NEARMAP MAPPING SERVICE 04/2024

ENGEO Expect Excellence

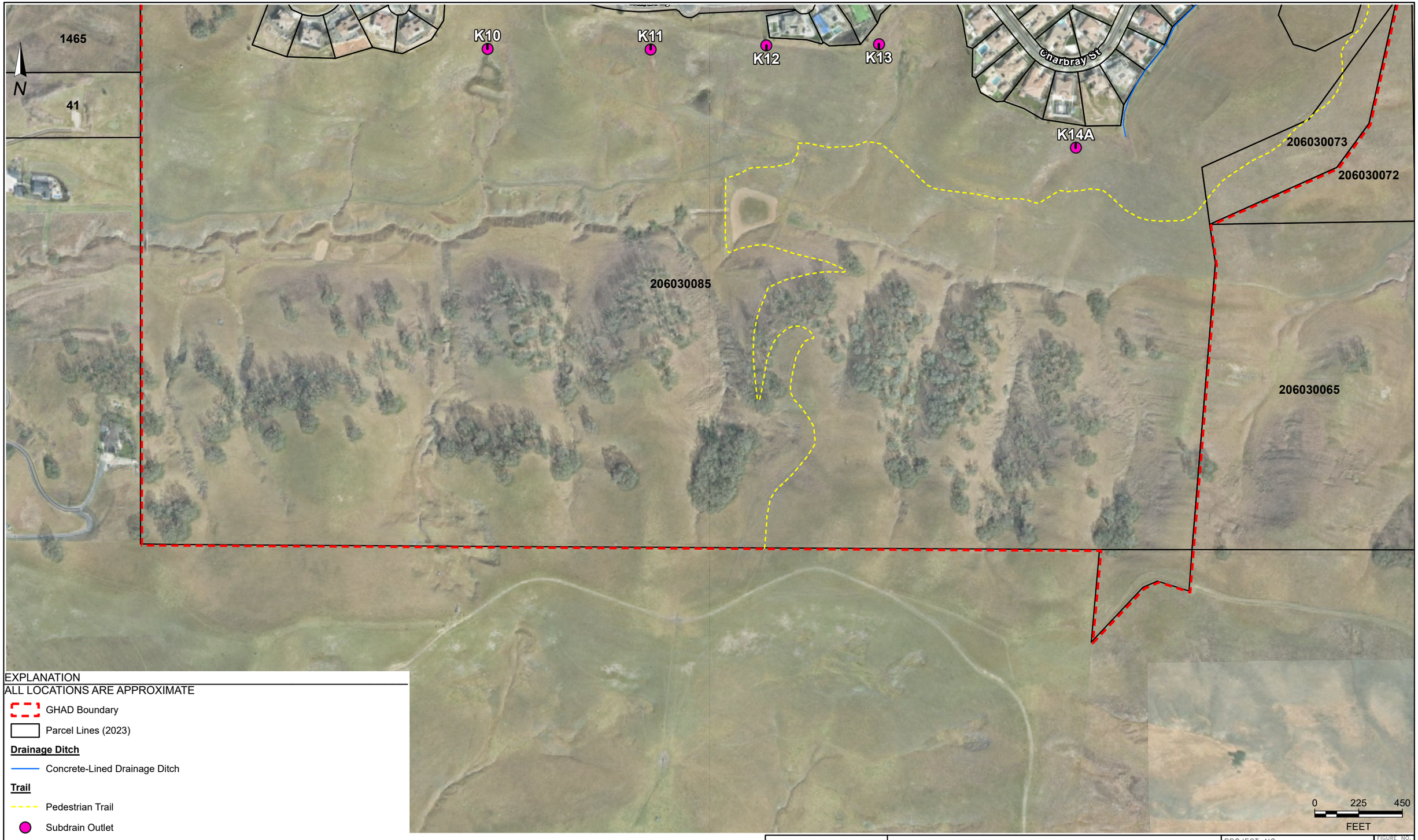
SITE PLAN
WENDT RANCH GHAD
DANVILLE, CALIFORNIA

PROJECT NO. :	4063.002.024
SCALE:	AS SHOWN
DRAWN BY: NWC	CHECKED BY: MT

FIGURE NO. 2

PATH: G:\DRAFTING\PROJECTS\4063\4063002024\GHAD\4063002024_WENDTRANCHGHAD – OTHER.APRX
LAYOUT: FIG 2 USER: NCLOUGH

ORIGINAL FIGURE PRINTED IN COLOR



EXPLANATION

ALL LOCATIONS ARE APPROXIMATE

- GHAD Boundary
- Parcel Lines (2023)

Drainage Ditch

- Concrete-Lined Drainage Ditch

Trail

- Pedestrian Trail
- Subdrain Outlet

BASEMAP SOURCE: NEARMAP MAPPING SERVICE 04/2024

PATH: G:\DRAFTING\PROJECTS\4063\4063002024\GHAD\4063002024_WENDTRANCHGHAD – OTHER.APRX
LAYOUT: FIG 3 USER: NCLOUGH

ENGEO Expect Excellence

SITE PLAN

WENDT RANCH GHAD

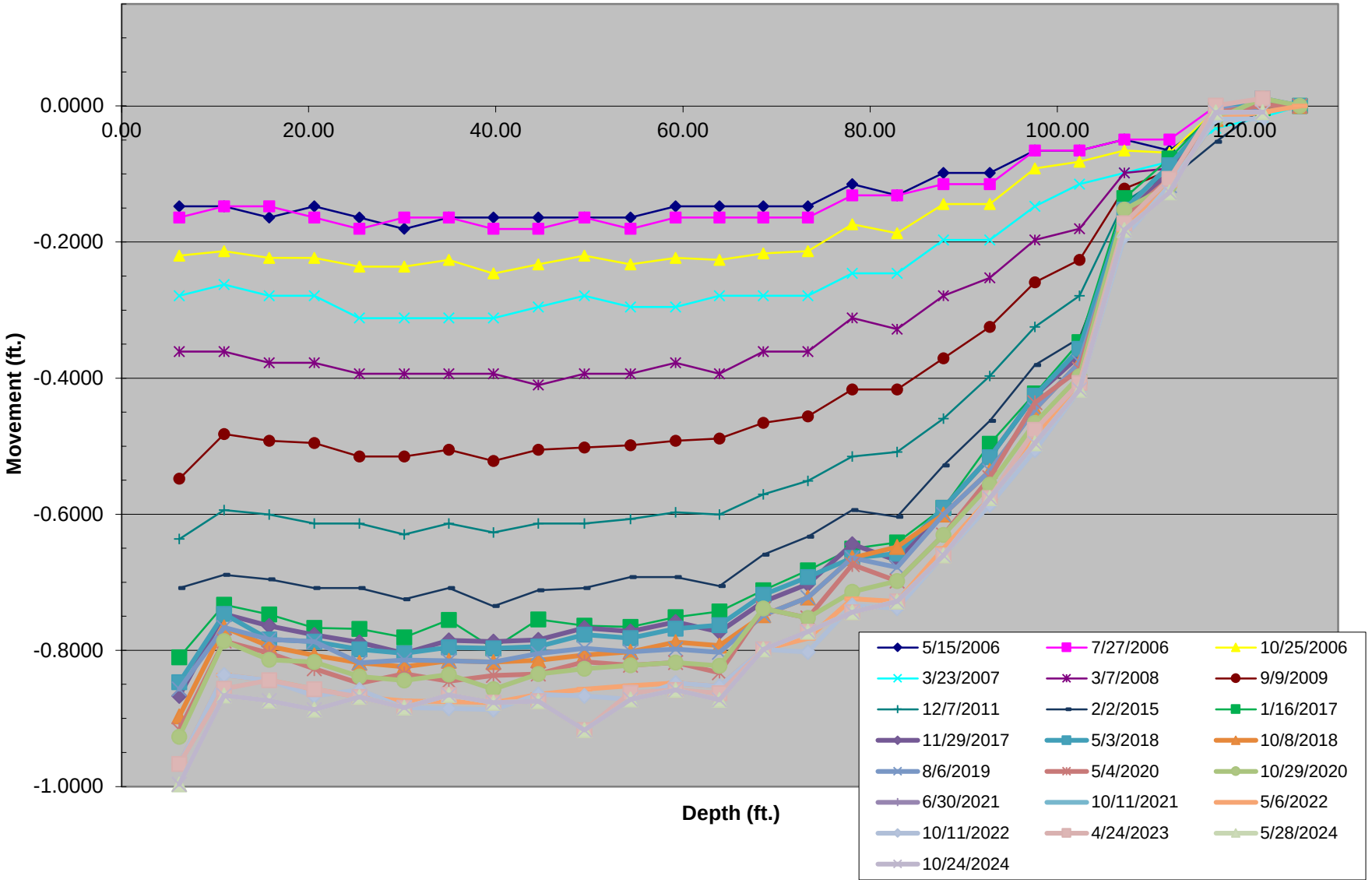
DANVILLE, CALIFORNIA

PROJECT NO. :	4063.002.024
SCALE:	AS SHOWN
DRAWN BY: NWC	CHECKED BY: MT

FIGURE NO. 3

ORIGINAL FIGURE PRINTED IN COLOR

FIGURE 4: Intervening Properties Settlement Monitoring



4063.002.024
Fall 2024

Baseline Date: September 23, 2005

ENGEO
Expect Excellence