

ENGINEER'S REPORT

for

**SANTIAGO GEOLOGIC HAZARD ABATEMENT DISTRICT
ANAHEIM, CALIFORNIA**

July 11, 2022

DRAFT F

TABLE OF CONTENTS

CERTIFICATION OF FILING..... 1

I. INTRODUCTION AND BACKGROUND 2

II. GEOLOGIC HAZARD ABATEMENT DISTRICT BOUNDARY..... 2

III. SERVICE LEVELS..... 2

IV. DESCRIPTION OF THE IMPROVEMENTS MAINTAINED BY THE GHAD..... 3

V. ASSESSMENT METHOD AND BENEFIT 3

 A. SPECIAL BENEFIT AND PROPORTIONALITY..... 3

 B. GENERAL BENEFIT 4

 C. ASSESSMENT METHOD..... 5

VI. ASSESSMENT - BUDGET 7

EXHIBIT A – Site Plan to Accompany Assessor’s Parcel Number and Assessment Limit List

EXHIBIT B – Assessor’s Parcel Number and Assessment Limit List

EXHIBIT C – Santiago GHAD Budget

DRAFT

ENGINEER'S REPORT

SANTIAGO
GEOLOGIC HAZARD ABATEMENT DISTRICT
(Pursuant to the Public Resources Code of the State of California, Section 26500 et seq.)

CERTIFICATION OF FILING

The GHAD provides monitoring and maintenance of improvements related to geologic hazard management within the District. The GHAD responsibilities, which are the subject of this report, are defined in the Plan of Control dated February 22, 1999, as any activity necessary, "...to mitigate risk of reactivation of the Santiago landslide, to direct and fund operation of the dewatering system, monitoring of groundwater elevations and landslide movements, and to evaluate landslide stability on a regular basis for the life of those improvements potentially impacted by any renewed landslide movement," and those additional items list in Section IV.

This report consists of six parts, as follows.

- I. INTRODUCTION AND BACKGROUND
- II. GEOLOGIC HAZARD ABATEMENT DISTRICT BOUNDARY
- III. SERVICE LEVELS
- IV. DESCRIPTION OF GHAD-MAINTAINED IMPROVEMENTS
- V. ASSESSMENT METHOD
- VI. ASSESSMENT LIMIT - BUDGET PROJECTION

The undersigned respectfully submits the enclosed Engineer's Report.

Date: July 11, 2022

By: ENGEO Incorporated

_____, GE
Uri Eliahu

ENGINEER'S REPORT

for

SANTIAGO GEOLOGIC HAZARD ABATEMENT DISTRICT ANAHEIM, CALIFORNIA for the ESTABLISHMENT OF AN ASSESSMENT LIMIT

I. INTRODUCTION AND BACKGROUND

The Anaheim City Council formed the Santiago Geologic Hazard Abatement District (GHAD) on March 16, 1999, under the authority of the California Public Resources Code, Division 17, Section 26500 et seq. with the approval of City of Anaheim Resolution 99R-50. Five property owners within the GHAD serve as the Board of Directors of the Santiago GHAD.

The Anaheim City Council approved the Santiago GHAD Plan of Control ("Plan of Control") to allow the Santiago GHAD to permanently monitor and maintain the Santiago landslide. The Santiago GHAD is funded through a settlement with the City of Anaheim ("GHAD Distribution"). The GHAD Distribution cannot be used to fund activities or facilities which do not materially and substantially promote the objective of stabilizing past, present, and future land movement of the Santiago landslide." In 1999, the initial GHAD Distribution was approximately \$3,500,000, and as of April 28, 2022, the fund balance was approximately \$568,297.

II. GEOLOGIC HAZARD ABATEMENT DISTRICT BOUNDARY

The boundary for the Santiago GHAD is shown in the Site Plan to Accompany Assessor's Parcel and Assessment Limit List (Exhibit A). The parcels within the GHAD are identified on the Assessor's Parcel Number and Assessment Limit List (Exhibit B).

III. SERVICE LEVELS

The GHAD's activities are those that promote the objective of stabilizing past, present, and future land movement of the Santiago landslide; and the issuance and servicing of bonds issued to finance any of the foregoing.

The GHAD provides for the administration and review of facilities within the budgeted limits as described in the Plan of Control and includes the following services.

1. Oversight of GHAD operations, including reporting to the GHAD Board of Directors.
2. Setting the annual levying of assessments on the property tax rolls.
3. Engagement of technical professionals to perform the monitoring duties as described in the Plan of Control.
4. Performance of GHAD maintenance activities.
5. Preparation of annual GHAD budgets and other documents and reports for consideration by the GHAD Board of Directors.

IV. DESCRIPTION OF THE IMPROVEMENTS MAINTAINED BY THE GHAD

The GHAD-maintained improvements in general include vertical production and observation wells, horizontal drains, and inclinometers.

V. ASSESSMENT METHOD AND BENEFIT

The improvements and GHAD responsibilities described in Section IV are distributed within the limits of the GHAD or immediately adjacent to the GHAD. The improvements described in this document allow protection from slope instability, a special benefit, to the assessed parcels. As provided in Section 5 of Resolution 99R-50, Approving Formation of the Santiago GHAD, *“The GHAD boundaries are larger than the Santiago landslide. The Plan of Control identifies potential geologic hazards for areas outlying the Santiago landslide other than those defined as existing for the Santiago landslide. Inclusion of the outlying properties in the GHAD is beneficial to those properties in that residents may have concerns regarding geologic hazards due to the proximity to the Santiago landslide, and the GHAD provides a mechanism to address and mitigate such future geologic hazards.”*

The improvements and responsibilities listed in Section IV provide specific benefits to the properties within the GHAD and the improvements are constructed for the benefit of those assessed as well as a minor general benefit to the general public. The subject parcels are only being assessed for the reasonable costs of the proportional specific benefits conferred on the parcels.

A. **Special Benefit and Proportionality**

The improvements described in this document will confer some or all of the following special benefits to the assessed parcels within the Santiago GHAD.

1. Protection from landsliding and ground deformation.
2. Protection from loss of street/transportation access.
3. Protection from loss of utilities and associated services.
4. Groundwater seepage management, providing protection for properties and improvements.
5. Consequential protection of properties and improvements from diminution of value resulting from manifestation of geologic instability.

Certain real properties within the GHAD are located within the limits of the Santiago landslide. These real properties, which would suffer damage from the primary effects of movement, receive a special benefit from the activities of the GHAD, which are intended to arrest movement of the landslide. Several real properties are located near the Santiago landslide and have been determined to be at risk of the secondary effects of landslide movement or ground-surface deformation, and therefore, receive a special benefit whose degree is equal to the benefit of real properties located within the limits of the Santiago landslide. Additionally, other real properties, located in the general vicinity of the Santiago landslide, are within a hydrogeologic zone within which groundwater levels are controlled via a pump and discharge system. These properties receive a proportional special benefit through the control of groundwater levels, which reduces the potential of distress to slopes and the ground, and reduces the potential for distress to structures and both surface and subsurface improvements. The degree of special benefit is lower

than the special benefit to real properties proximate to the Santiago landslide or within the limits of the Santiago landslide. Still other real properties, outside of the limits of these three categories, receive a further diminished degree of special benefit related to the control of groundwater seepage. The control of groundwater seepage is beneficial, as it reduces the potential for distress to structures and both surface and subsurface improvements. The proportion of benefit with respect to each of these categories is presented below in the assessment allocation formula.

The mitigation of the aforementioned geologic and hydrologic issues minimize the potential for lost transportation facility and utility service access. These facilities consist of streets, sidewalks, and public utility conveyance systems (e.g., domestic potable water, wastewater sewerage, electrical conduits, natural gas lines, telecommunications systems). Minimization of the potential for interrupted service through the mitigation of geologic instability provides a special benefit to owners of real property within the district. Minimization of “stigma” associated with potential geologic instability within the GHAD has also been considered in the benefit calculations. Assignment of this special benefit is included with the allocations based on landsliding, ground deformation, groundwater level control, or groundwater seepage control. For each of these categories, real property owners derive special benefit based on proportional parcel area. Therefore, owners with greater parcel area derive greater special benefit than owners with lesser parcel area. The fraction of each respective parcel area has also been included and is presented below in the assessment allocation formula.

Because the real properties are improved with single-family homes and/or are occupied by transportation facilities (e.g., streets and sidewalks), each parcel is considered to use the transportation facilities on an equal basis and is thus assessed on a basis of an equal assessment portion per parcel. As with the special benefit related to transportation access, we have assumed the special benefit related to the preservation of amenities is conveyed to each parcel on an equal basis and is thus assessed on a basis of an equal assessment portion per parcel.

B. General Benefit

The Project does convey general benefit to owners of properties outside of the district and to other members of the general public. The general benefits associated with transportation access have been identified as being conveyed to members of the public who do not own real property within the district. These include the following.

- The availability to use through streets that may be impacted by the effects of landsliding.

There is a general benefit conveyed to the owners of properties outside of the district and to other members of the general public, which consists of uninterrupted transportation access for 13 properties whose transportation access is provided by Avenida de Santiago. This benefit is relatively small compared to the special benefit conveyed to real property owners of the GHAD, and the cost to confer this general benefit will be accounted for by a 30 percent premium escalator on the City of Anaheim’s public right-of-way area-based assessment within the Santiago landslide. The 30 percent is equivalent to the ratio of the number of these outside-of-GHAD properties to the total number of outside-of-GHAD properties and inside-of-GHAD properties whose property access would be affected should the Santiago landslide re-activate. Additionally, other properties outside of the GHAD receive a general benefit by having access to streets within the GHAD boundaries, most notably Serrano Avenue. This general benefit is accounted for by an area-based assessment for streets levied to the City of Anaheim.

C. Assessment Method

To allocate assessment in proportion to special benefit conferred on assessed parcels, a formula has been derived that estimates the special benefit conveyed by the Project. The formula includes several factors, which are weighted based on their relative effect on special benefit. Special benefit is derived considering the following factors, and weighting has been applied to each factor to note its relative importance as compared to other factors. Several factors have been incorporated into the analysis, including a respective parcel's proximity to the delineated landslide, a respective parcel's potential to experience geologic distress in the event of landslide mobilization, a landslide's proximity to the hydrogeologic watershed area that feeds groundwater mitigated by the pump system, and other parcels that benefit from seepage control. Additionally, all residential parcels benefit from the mitigation of geologic hazards to provide continued transportation access, access to amenities, and reduction of the potential property devaluation that could occur in the event of mobilization and manifestation of geologic hazards within the GHAD. We applied our professional judgment to the factor values regarding the relative efficacy of protective devices and projections of the effects of the Project:

$$T_i = ((M_i + B_i)(R))$$

$$M_i = \left(L \left(\frac{A_{Li}}{\sum_{i=1}^n (A_{Li})} \right) \right) + \left(G \left(\frac{A_{Gi}}{\sum_{i=1}^p (A_{Gi})} \right) \right) + \left(S \left(\frac{A_{Si}}{\sum_{i=1}^q (A_{Si})} \right) \right)$$

$$B_i = \left((P + Q) \left(\frac{1}{X} \right) \right)$$

T_i = Assessment at Parcel i

M_i = Geologic Assessment Factor at Parcel i

B_i = Uniform Assessment Factor at Parcel i (does not include City-owned street sections)

R = Total annual assessment-based revenue required to support the GHAD budget

L = Landslide/Surface Damage Factor

G = Groundwater Control Factor

S = Seepage Control Factor

A_{Li} = Area of Landslide/Surface Damage Parcel i

A_{Gi} = Area of Groundwater Control Parcel i

A_{Si} = Area of Seepage Control Parcel i

$\sum_{i=1}^n (A_{Li})$ = Summation Area of Landslide/Surface Damage Parcel i for Parcels i to n

$\sum_{i=1}^p (A_{Gi})$ = Summation Area of Groundwater Control Parcel i for Parcels i to p

$\sum_{i=1}^q (A_{Si})$ = Summation Area of Seepage Control Parcel i for Parcels i to q

P = Transportation Access Factor

Q = Amenities Factor

X = No. of Parcels in GHAD (does not include City-owned street sections)

- Santiago Landslide Siting – Real properties situated within the limits of the Santiago landslide (including City of Anaheim-owned streets), that would suffer damage from the primary effects of movement, receive a special benefit from the activities of the GHAD, which are intended to arrest movement of the landslide. The special benefit derived is in direct proportion to the area

of each parcel. The mitigation activities provide the largest respective portion of special benefit to properties within the limits of the Santiago landslide. These properties have been assigned a weighting factor of 0.63 (measured on a scale of 0 to 1).

- Potential Surface Damage Siting – As discussed, several real properties are located near the Santiago landslide and have been determined to be at risk of the secondary effects of landslide movement or ground surface deformation, and therefore, receive a special benefit whose degree is equal to the benefit of real properties located within the limits of the Santiago landslide. Given this net positive benefit conveyed, these properties (including City of Anaheim-owned streets) have been combined with the Santiago Landslide parcels and assigned a weighting factor of 0.63.
- Groundwater Management Area Siting – Select real properties located in the general vicinity of the Santiago landslide (including City of Anaheim-owned streets) are within a hydrogeologic zone within which groundwater levels are controlled via a pump and discharge system. These properties receive a proportional special benefit through the control of groundwater levels. The degree of special benefit is diminished as compared to the benefit of real properties located near or within the limits of the Santiago landslide. Because of the reduction of the special benefit, these lots have been assigned weighting factor of 0.18.
- Seepage Control Area Siting – The remaining properties within the GHAD (including City of Anaheim-owned streets) receive a further diminished degree of special benefit related to the control of groundwater seepage. The control of groundwater seepage is beneficial, as it reduces the potential for distress to structures and both surface and subsurface improvements. Because of the further reduction of the special benefit, these lots have been assigned weighting factor of 0.13.
- Transportation Factor – As discussed, preservation of access to transportation through mitigation of potential geologic instability within the GHAD is included, and the special benefit is conveyed to each residential parcel on an equal basis. The Transportation factor has been assigned a value of 0.03.
- Amenities Factor – As discussed, preservation of access to amenities through mitigation of potential geologic instability within the GHAD is included, and the special benefit is conveyed to each residential parcel on an equal basis. The Amenities factor has been assigned a value of 0.03.

The weighted values described above have been computed to reflect the relative importance of each factor in the judgment of the GHAD Manager and Assessment Engineer (ENGEO), then the resulting fractional value of the Geologic Assessment Factor is assigned to each parcel on a pro-rata basis based on respective area, A_{Li} , A_{Gi} , or A_{Si} of their respective parcel areas in their assigned categories, Landslide/Surface Damage, Groundwater Control, or Seepage Control. The Transportation Factor and Amenities Factor are assigned on an equal, per-residential-parcel basis. An assessment level is determined for each parcel based on these factors. In overview, a large-area parcel located within the Santiago landslide area will derive the greatest special benefit and, therefore, is assessed the largest amount. A small-area parcel located well outside of the vicinity of the Santiago landslide receives the least special benefit and is therefore assessed the smallest amount. Other parcels will range between these extremes.

A financial analysis was performed to provide a framework for an operating budget for the ongoing abatement, mitigation, prevention, and control of geologic hazards within the GHAD. In preparation of the budget, several factors were considered including:

- Site geology
- Site hydrogeology
- Proximity of geologic hazards to residences and improvements
- Improvements or structures
- Site access considerations
- Elements requiring routine maintenance

VI. ASSESSMENT - BUDGET

The purpose of this Engineer's Report is to establish the assessment level and the apportionment of the assessment within the GHAD. The annual budget in each subsequent fiscal year will apprise the GHAD Board of Directors of the estimated budget for the upcoming year and recommend an appropriate levy to support those activities.

Based on the estimated expenses for ongoing operations, a budget was prepared for the purpose of estimating the revised assessment levels (Exhibit C). Exhibit D shows a 10-year pro-forma budget for the Santiago GHAD.

This Engineer's Report has determined a unique assessment using the formula described above for each parcel. The assessment limits will be adjusted annually to reflect the percentage change in the Los Angeles-Long Beach-Anaheim Consumer Price Index (CPI) for All Urban Consumers. The assessment limit will be adjusted annually using an initial date of June 2022 for the CPI. Each subsequent annual adjustment will be calculated using the 12-month period from June to June. The assessments are to be levied beginning in the first assessment cycle of the fiscal year 2022-2023.

While the assumptions and estimated expenses listed in Exhibit C were used to determine the assessment levels for the GHAD, they do not represent the actual budget for any one year of the GHAD's operation. The Engineer anticipates that the projected expense amounts will be reached over time and that these amounts will be inflation-adjusted in the year that the expenses occur.

EXHIBIT A

**Site Plan to Accompany Assessor's Parcel Number
and Assessment Limit List for
Santiago GHAD**

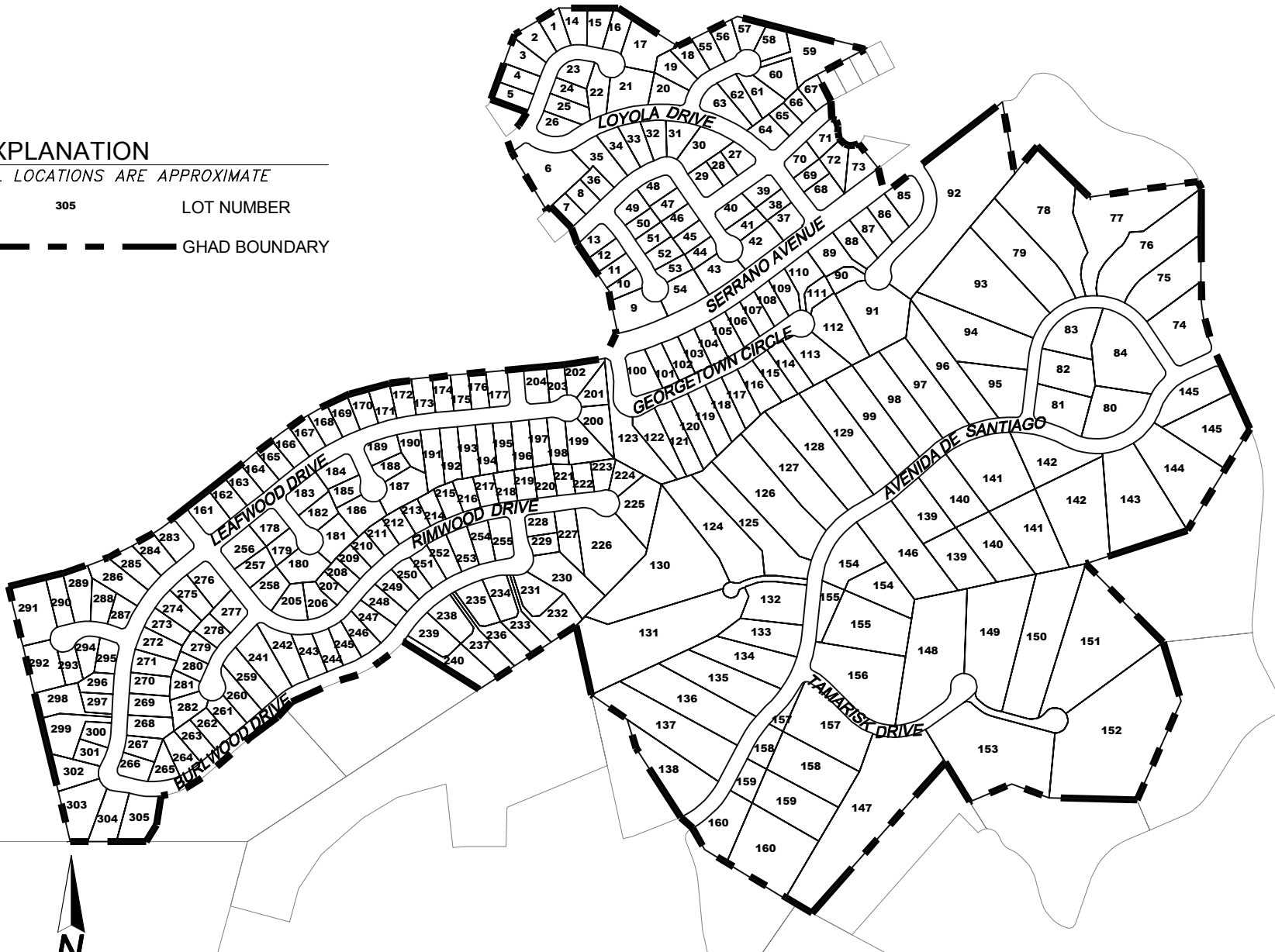
C:\Working\ORCA\IN22\DWG\13000.Plan\14174.000\011519-Santiago_APNs-000\1417400000-01-PLAN_APN-0119.dwg

EXPLANATION

ALL LOCATIONS ARE APPROXIMATE

305 LOT NUMBER

--- GHAD BOUNDARY



BASE MAP SOURCE: ORANGE COUNTY ASSESSOR'S OFFICE



SITE PLAN TO ACCOMPANY ASSESSOR'S PARCEL NUMBER AND ASSESSMENT LIMIT LIST
SANTIAGO GEOLOGIC HAZARD ABATEMENT DISTRICT
ANAHEIM, CALIFORNIA

PROJECT NO.: 14174.000.000	
SCALE: AS SHOWN	
DRAWN BY: GLJ	CHECKED BY: EWH

EXHIBIT
A

EXHIBIT B

**Assessor's Parcel Number and Assessment Limit List
for Santiago GHAD**

			\$ 466,900.40
			ASSESSMENT PER PARCEL
Assessor Parcel Number	Lot No.	Site Address	2023
365-101-01	1	6841 E KENTUCKY AVE	\$ 278.98
365-101-02	2	6831 E KENTUCKY AVE	\$ 317.14
365-101-03	3	6821 E KENTUCKY AVE	\$ 308.47
365-101-04	4	6811 E KENTUCKY AVE	\$ 284.31
365-101-05	5	6801 E KENTUCKY AVE	\$ 282.23
365-102-01	6	6796 E KENTUCKY AVE	\$ 789.81
365-102-20	7	6825 E SWARTHMORE DR	\$ 246.84
365-102-21	8	6835 E SWARTHMORE DR	\$ 245.84
365-103-01	9	993 S VASSAR CIR	\$ 487.26
365-103-02	10	983 S VASSAR CIR	\$ 244.27
365-103-03	11	973 S VASSAR CIR	\$ 257.35
365-103-04	12	963 S VASSAR CIR	\$ 251.96
365-103-05	13	953 S VASSAR CIR	\$ 266.57
365-111-01	14	6851 E KENTUCKY AVE	\$ 306.05
365-111-02	15	6871 E KENTUCKY AVE	\$ 306.63
365-111-03	16	6881 E KENTUCKY AVE	\$ 301.14
365-111-04	17	6891 E KENTUCKY AVE	\$ 526.50
365-111-05	18	6931 E MICHIGAN CIR	\$ 281.31
365-111-06	19	6911 E MICHIGAN CIR	\$ 320.63
365-111-07	20	6901 E MICHIGAN CIR	\$ 318.91
365-111-08	21	6890 E KENTUCKY AVE	\$ 493.77
365-111-09	22	6880 E KENTUCKY AVE	\$ 322.90
365-111-10	23	6850 E KENTUCKY AVE	\$ 280.23
365-111-11	24	6820 E KENTUCKY AVE	\$ 253.95
365-111-12	25	6810 E KENTUCKY AVE	\$ 302.00
365-111-13	26	6800 E KENTUCKY AVE	\$ 268.84
365-112-01	27	6891 E RUTGERS DR	\$ 258.39
365-112-02	28	6881 E RUTGERS DR	\$ 229.60
365-112-03	29	6871 E RUTGERS DR	\$ 267.34
365-112-04	30	934 S LEHIGH DR	\$ 420.23
365-112-05	31	914 S LEHIGH DR	\$ 309.27
365-112-06	32	6885 E SWARTHMORE DR	\$ 284.95
365-112-07	33	6875 E SWARTHMORE DR	\$ 303.61
365-112-08	34	6865 E SWARTHMORE DR	\$ 330.56
365-112-09	35	6855 E SWARTHMORE DR	\$ 413.95
365-112-10	36	6845 E SWARTHMORE DR	\$ 237.12
365-113-01	37	997 S LOYOLA DR	\$ 288.51
365-113-02	38	987 S LOYOLA DR	\$ 226.62
365-113-03	39	977 S LOYOLA DR	\$ 261.71
365-113-04	40	974 S LEHIGH DR	\$ 288.69
365-113-05	41	984 S LEHIGH DR	\$ 247.33
365-113-06	42	994 S LEHIGH DR	\$ 380.52
365-113-07	43	995 S LEHIGH DR	\$ 372.99
365-113-08	44	985 S LEHIGH DR	\$ 231.84
365-113-09	45	975 S LEHIGH DR	\$ 268.27
365-113-10	46	965 S LEHIGH DR	\$ 265.40

			ASSESSMENT PER PARCEL
Assessor Parcel Number	Lot No.	Site Address	2023
365-113-11	47	955 S LEHIGH DR	\$ 256.48
365-113-12	48	945 S LEHIGH DR	\$ 265.60
365-113-13	49	952 S VASSAR CIR	\$ 262.31
365-113-14	50	962 S VASSAR CIR	\$ 230.19
365-113-15	51	972 S VASSAR CIR	\$ 232.79
365-113-16	52	982 S VASSAR CIR	\$ 262.04
365-113-17	53	992 S VASSAR CIR	\$ 229.59
365-113-18	54	998 S VASSAR CIR	\$ 409.30
365-121-01	55	6941 E MICHIGAN CIR	\$ 264.07
365-121-02	56	6961 E MICHIGAN CIR	\$ 283.12
365-121-03	57	6971 E MICHIGAN CIR	\$ 291.47
365-121-04	58	6981 E MICHIGAN CIR	\$ 319.00
365-121-05	59	6990 E MICHIGAN CIR	\$ 720.07
365-121-06	60	6970 E MICHIGAN CIR	\$ 367.19
365-121-07	61	6960 E MICHIGAN CIR	\$ 341.26
365-121-08	62	6930 E MICHIGAN CIR	\$ 323.69
365-121-09	63	6910 E MICHIGAN CIR	\$ 358.90
365-121-10	64	6901 E RUTGERS DR	\$ 291.76
365-121-11	65	6909 E RUTGERS DR	\$ 232.33
365-121-12	66	6915 E RUTGERS DR	\$ 233.21
365-121-13	67	6923 E RUTGERS DR	\$ 252.97
365-122-01	68	990 S LOYOLA DR	\$ 297.95
365-122-02	69	980 S LOYOLA DR	\$ 235.85
365-122-03	70	970 S LOYOLA DR	\$ 258.69
365-122-04	71	971 S SCRIPPS CIR	\$ 282.13
365-122-05	72	981 S SCRIPPS CIR	\$ 304.72
365-122-06	73	991 S SCRIPPS CIR	\$ 321.16
365-201-01	74	6991 E VIA EL ESTRIBO	\$ 1,244.86
365-201-02	75	6985 E VIA EL ESTRIBO	\$ 1,298.92
365-201-03	76	6981 E VIA EL ESTRIBO	\$ 1,941.56
365-201-04	77	6975 E VIA EL ESTRIBO	\$ 2,305.33
365-201-06	78	6971 E VIA EL ESTRIBO	\$ 2,600.93
365-201-07	79	6965 E VIA EL ESTRIBO	\$ 1,825.46
365-202-01	80	6975 E AVENIDA DE SANTIAGO	\$ 1,045.09
365-202-02	81	6950 E VIA EL ESTRIBO	\$ 847.15
365-202-03	82	6960 E VIA EL ESTRIBO	\$ 863.63
365-202-04	83	6970 E VIA EL ESTRIBO	\$ 848.26
365-202-05	84	6990 E VIA EL ESTRIBO	\$ 1,727.34
365-211-01	85	6991 E WILLIAMS CIR	\$ 537.94
365-211-02	86	6971 E WILLIAMS CIR	\$ 458.18
365-211-03	87	6951 E WILLIAMS CIR	\$ 464.02
365-211-04	88	6931 E WILLIAMS CIR	\$ 466.51
365-211-05	89	6921 E WILLIAMS CIR	\$ 2,494.48
365-211-06	90	6911 E WILLIAMS CIR	\$ 1,342.59
365-211-07	91	6901 E WILLIAMS CIR	\$ 7,263.88
365-211-08	92	6950 E WILLIAMS CIR	\$ 3,762.97
365-211-09	93	6961 E VIA EL ESTRIBO	\$ 2,679.28
365-211-10	94	6955 E VIA EL ESTRIBO	\$ 1,878.06
365-211-11	95	6951 E VIA EL ESTRIBO	\$ 1,007.52

			ASSESSMENT PER PARCEL
Assessor Parcel Number	Lot No.	Site Address	2023
365-211-12	96	6949 E AVENIDA DE SANTIAGO	\$ 7,005.05
365-211-13	97	6943 E AVENIDA DE SANTIAGO	\$ 6,571.16
365-211-14	98	6937 E AVENIDA DE SANTIAGO	\$ 6,807.59
365-211-15	99	6931 E AVENIDA DE SANTIAGO	\$ 7,150.70
365-221-01	100	6807 E GEORGETOWN CIR	\$ 2,367.81
365-221-02	101	6815 E GEORGETOWN CIR	\$ 1,633.67
365-221-03	102	6823 E GEORGETOWN CIR	\$ 1,574.20
365-221-04	103	6831 E GEORGETOWN CIR	\$ 370.05
365-221-05	104	6839 E GEORGETOWN CIR	\$ 1,598.93
365-221-06	105	6849 E GEORGETOWN CIR	\$ 1,619.21
365-221-07	106	6857 E GEORGETOWN CIR	\$ 1,579.49
365-221-08	107	6865 E GEORGETOWN CIR	\$ 1,554.63
365-221-09	108	6873 E GEORGETOWN CIR	\$ 1,565.84
365-221-10	109	6881 E GEORGETOWN CIR	\$ 1,669.21
365-221-11	110	6889 E GEORGETOWN CIR	\$ 2,118.47
365-221-12	111	6895 E GEORGETOWN CIR	\$ 1,282.60
365-221-13	112	6890 E GEORGETOWN CIR	\$ 4,437.70
365-221-14	113	6872 E GEORGETOWN CIR	\$ 3,852.37
365-221-15	114	6864 E GEORGETOWN CIR	\$ 2,083.76
365-221-16	115	6856 E GEORGETOWN CIR	\$ 2,005.94
365-221-17	116	6848 E GEORGETOWN CIR	\$ 2,238.58
365-221-18	117	6840 E GEORGETOWN CIR	\$ 2,172.22
365-221-19	118	6832 E GEORGETOWN CIR	\$ 2,288.21
365-221-20	119	6824 E GEORGETOWN CIR	\$ 2,744.47
365-221-21	120	6816 E GEORGETOWN CIR	\$ 2,738.45
365-221-22	121	6808 E GEORGETOWN CIR	\$ 2,872.03
365-221-23	122	6800 E GEORGETOWN CIR	\$ 3,010.59
365-221-24	123	NO ADDRESS	\$ 5,191.64
365-221-25	124	6899 E AVENIDA DE SANTIAGO	\$ 10,097.73
365-221-26	125	6901 E AVENIDA DE SANTIAGO	\$ 9,029.96
365-221-27	126	6907 E AVENIDA DE SANTIAGO	\$ 10,358.63
365-221-28	127	6913 E AVENIDA DE SANTIAGO	\$ 8,474.41
365-221-29	128	6919 E AVENIDA DE SANTIAGO	\$ 8,894.60
365-221-30	129	6925 E AVENIDA DE SANTIAGO	\$ 7,526.36
365-231-01	130	6891 E AVENIDA DE SANTIAGO	\$ 16,496.63
365-231-02	131	6881 E AVENIDA DE SANTIAGO	\$ 18,820.29
365-231-03	132	6871 E AVENIDA DE SANTIAGO	\$ 4,816.69
365-231-04	133	6861 E AVENIDA DE SANTIAGO	\$ 4,132.14
365-231-05	134	6851 E AVENIDA DE SANTIAGO	\$ 5,474.03
365-231-06	135	6841 E AVENIDA DE SANTIAGO	\$ 6,776.24
365-231-07	136	6831 E AVENIDA DE SANTIAGO	\$ 8,555.25
365-231-08	137	6821 E AVENIDA DE SANTIAGO	\$ 1,950.88
365-231-09	138	6811 E AVENIDA DE SANTIAGO	\$ 1,355.93
365-401-03	139	6930 E AVE DE SANTIAGO	\$ 4,731.15
365-401-04	139	6930 E AVE DE SANTIAGO	\$ 4,314.95
365-401-05	140	6940 E AVENIDA DE SANTIAGO	\$ 1,022.76
365-401-06	140	6940 E AVENIDA DE SANTIAGO	\$ 1,104.03
365-401-07	141	6950 E AVE DE SANTIAGO	\$ 1,413.81
365-401-08	141	6950 E AVE DE SANTIAGO	\$ 1,690.70

			ASSESSMENT PER PARCEL
Assessor Parcel Number	Lot No.	Site Address	2023
365-401-09	142	6960 E AVENIDA DE SANTIAGO	\$ 1,042.22
365-401-10	142	NO ADDRESS	\$ 2,136.53
365-401-11	143	6970 E AVE DE SANTIAGO	\$ 2,269.46
365-401-12	144	6980 E AVENIDA DE SANTIAGO	\$ 1,826.41
365-401-13	145	NO ADDRESS	\$ 1,397.02
365-401-14	145	6990 E AVE DE SANTIAGO	\$ 952.22
365-401-16	146	6920 E AVENIDA DE SANTIAGO	\$ 8,619.17
365-431-01	147	1125 S TAMARISK DR	\$ 4,100.78
365-441-01	148	1130 S TAMARISK DR	\$ 2,645.20
365-441-02	149	1150 S TAMARISK DR	\$ 2,532.89
365-441-03	150	1160 S TAMARISK DR	\$ 2,494.93
365-441-04	151	1180 S TAMARISK DR	\$ 3,366.05
365-441-05	152	1190 S TAMARISK DR	\$ 5,056.70
365-441-06	153	1145 S TAMARISK DR	\$ 3,234.30
365-451-01	154	6912 E AVENIDA DE SANTIAGO	\$ 4,189.56
365-451-02	154	6912 E AVENIDA DE SANTIAGO	\$ 4,661.04
365-451-03	155	6906 E AVE DE SANTIAGO	\$ 1,830.29
365-451-04	155	6906 E AVE DE SANTIAGO	\$ 7,693.19
365-451-05	156	1110 S TAMARISK DR	\$ 1,997.10
365-451-06	157	6860 E AVE DE SANTIAGO	\$ 1,614.38
365-451-07	157	6860 E AVE DE SANTIAGO	\$ 238.37
365-451-08	158	6840 E AVE DE SANTIAGO	\$ 405.72
365-451-09	158	6840 E AVE DE SANTIAGO	\$ 1,426.48
365-451-10	159	6820 E AVE DE SANTIAGO	\$ 1,244.82
365-451-11	159	6820 E AVE DE SANTIAGO	\$ 419.72
365-451-12	160	6810 E AVE DE SANTIAGO	\$ 912.79
365-451-13	160	6810 E AVE DE SANTIAGO	\$ 1,926.15
368-021-01	161	6701 E LEAFWOOD DR	\$ 351.06
368-021-02	162	6705 E LEAFWOOD DR	\$ 284.13
368-021-03	163	6709 E LEAFWOOD DR	\$ 285.38
368-021-04	164	6713 E LEAFWOOD DR	\$ 275.96
368-021-05	165	6717 E LEAFWOOD DR	\$ 266.78
368-021-06	166	6721 E LEAFWOOD DR	\$ 283.42
368-021-07	167	6725 E LEAFWOOD DR	\$ 281.77
368-021-08	168	6729 E LEAFWOOD DR	\$ 280.53
368-021-09	169	6733 E LEAFWOOD DR	\$ 282.69
368-021-10	170	6737 E LEAFWOOD DR	\$ 282.71
368-021-11	171	6741 E LEAFWOOD DR	\$ 281.07
368-021-12	172	6745 E LEAFWOOD DR	\$ 284.00
368-021-13	173	6749 E LEAFWOOD DR	\$ 278.90
368-021-14	174	6753 E LEAFWOOD DR	\$ 260.13
368-021-15	175	6757 E LEAFWOOD DR	\$ 257.14
368-021-16	176	6761 E LEAFWOOD DR	\$ 254.88
368-021-17	177	6765 E LEAFWOOD DR	\$ 284.77
368-022-01	178	1041 S PINE CANYON CIR	\$ 302.65
368-022-02	179	1051 S PINE CANYON CIR	\$ 261.13
368-022-03	180	1061 S PINE CANYON CIR	\$ 405.64
368-022-04	181	1060 S PINE CANYON CIR	\$ 378.27
368-022-05	182	1050 S PINE CANYON CIR	\$ 297.58

			ASSESSMENT PER PARCEL
Assessor Parcel Number	Lot No.	Site Address	2023
368-022-06	183	1040 S PINE CANYON CIR	\$ 335.65
368-022-07	184	1041 S FALLING LEAF CIR	\$ 312.99
368-022-08	185	1051 S FALLING LEAF CIR	\$ 250.00
368-022-09	186	1061 S FALLING LEAF CIR	\$ 386.43
368-022-10	187	1060 S FALLING LEAF CIR	\$ 445.43
368-022-11	188	1050 S FALLING LEAF CIR	\$ 242.12
368-022-12	189	1040 S FALLING LEAF CIR	\$ 272.65
368-022-13	190	6746 E LEAFWOOD DR	\$ 287.38
368-022-14	191	6750 E LEAFWOOD DR	\$ 376.01
368-022-15	192	6754 E LEAFWOOD DR	\$ 344.50
368-022-16	193	6758 E LEAFWOOD DR	\$ 328.01
368-022-17	194	6762 E LEAFWOOD DR	\$ 324.37
368-022-18	195	6768 E LEAFWOOD DR	\$ 319.15
368-022-19	196	6774 E LEAFWOOD DR	\$ 312.69
368-022-20	197	6780 E LEAFWOOD DR	\$ 312.30
368-022-21	198	6786 E LEAFWOOD DR	\$ 304.31
368-022-22	199	6792 E LEAFWOOD DR	\$ 2,682.81
368-022-23	200	6798 E LEAFWOOD DR	\$ 2,211.52
368-022-24	201	6799 E LEAFWOOD DR	\$ 401.07
368-022-25	202	6793 E LEAFWOOD DR	\$ 318.03
368-022-26	203	6787 E LEAFWOOD DR	\$ 246.21
368-022-27	204	6781 E LEAFWOOD DR	\$ 305.54
368-031-01	205	1022 S RIMWOOD DR	\$ 329.06
368-031-02	206	1026 S RIMWOOD DR	\$ 287.85
368-031-03	207	1030 S RIMWOOD DR	\$ 225.58
368-031-04	208	1034 S RIMWOOD DR	\$ 237.18
368-031-05	209	1038 S RIMWOOD DR	\$ 235.35
368-031-06	210	1042 S RIMWOOD DR	\$ 241.70
368-031-07	211	1046 S RIMWOOD DR	\$ 256.59
368-031-08	212	1050 S RIMWOOD DR	\$ 252.28
368-031-09	213	1054 S RIMWOOD DR	\$ 235.33
368-031-10	214	1058 S RIMWOOD DR	\$ 233.50
368-031-11	215	1062 S RIMWOOD DR	\$ 254.45
368-031-12	216	1066 S RIMWOOD DR	\$ 254.76
368-031-13	217	1070 S RIMWOOD DR	\$ 246.73
368-031-14	218	1074 S RIMWOOD DR	\$ 248.96
368-031-15	219	1078 S RIMWOOD DR	\$ 248.78
368-031-16	220	1082 S RIMWOOD DR	\$ 254.58
368-031-17	221	1086 S RIMWOOD DR	\$ 1,261.72
368-031-18	222	1090 S RIMWOOD DR	\$ 1,234.23
368-031-19	223	1094 S RIMWOOD DR	\$ 1,335.18
368-031-20	224	1098 S RIMWOOD DR	\$ 1,436.89
368-031-21	225	1099 S RIMWOOD DR	\$ 3,990.53
368-031-22	226	1093 S RIMWOOD DR	\$ 7,833.34
368-031-23	227	1087 S RIMWOOD DR	\$ 2,396.24
368-031-24	228	1099 S BURLWOOD DR	\$ 259.27
368-031-25	229	1097 S BURLWOOD DR	\$ 1,222.68
368-031-26	230	1095 S BURLWOOD DR	\$ 4,699.31
368-031-27	231	1093 S BURLWOOD DR	\$ 2,624.28

			ASSESSMENT PER PARCEL
Assessor Parcel Number	Lot No.	Site Address	2023
368-031-28	232	1091 S BURLWOOD DR	\$ 2,982.24
368-031-29	233	1089 S BURLWOOD DR	\$ 366.23
368-031-30	234	1085 S BURLWOOD DR	\$ 348.99
368-031-31	235	1081 S BURLWOOD DR	\$ 381.59
368-031-32	236	1077 S BURLWOOD DR	\$ 398.96
368-031-33	237	1075 S BURLWOOD DR	\$ 408.36
368-031-34	238	1071 S BURLWOOD DR	\$ 377.49
368-031-35	239	1063 S BURLWOOD DR	\$ 396.40
368-031-36	240	1059 S BURLWOOD DR	\$ 493.73
368-032-01	241	1036 S BURLWOOD DR	\$ 520.03
368-032-02	242	1040 S BURLWOOD DR	\$ 446.84
368-032-03	243	1044 S BURLWOOD DR	\$ 317.99
368-032-04	244	1048 S BURLWOOD DR	\$ 269.10
368-032-05	245	1052 S BURLWOOD DR	\$ 273.24
368-032-06	246	1056 S BURLWOOD DR	\$ 303.78
368-032-07	247	1060 S BURLWOOD DR	\$ 303.89
368-032-08	248	1064 S BURLWOOD DR	\$ 311.91
368-032-09	249	1068 S BURLWOOD DR	\$ 302.41
368-032-10	250	1072 S BURLWOOD DR	\$ 297.89
368-032-11	251	1076 S BURLWOOD DR	\$ 276.76
368-032-12	252	1080 S BURLWOOD DR	\$ 295.91
368-032-13	253	1084 S BURLWOOD DR	\$ 306.89
368-032-14	254	1088 S BURLWOOD DR	\$ 296.29
368-032-15	255	1090 S BURLWOOD DR	\$ 312.36
368-041-01	256	1010 S RIMWOOD DR	\$ 355.75
368-041-02	257	1014 S RIMWOOD DR	\$ 308.41
368-041-03	258	1018 S RIMWOOD DR	\$ 327.55
368-042-01	259	1032 S BURLWOOD DR	\$ 429.84
368-042-02	260	1028 S BURLWOOD DR	\$ 335.86
368-042-03	261	1024 S BURLWOOD DR	\$ 298.77
368-042-04	262	1020 S BURLWOOD DR	\$ 293.89
368-042-05	263	1016 S BURLWOOD DR	\$ 292.83
368-042-06	264	1012 S BURLWOOD DR	\$ 298.00
368-042-07	265	1008 S BURLWOOD DR	\$ 268.69
368-042-08	266	6608 E LEAFWOOD DR	\$ 276.24
368-042-09	267	6616 E LEAFWOOD DR	\$ 276.51
368-042-10	268	6624 E LEAFWOOD DR	\$ 334.50
368-042-11	269	6632 E LEAFWOOD DR	\$ 327.65
368-042-12	270	6640 E LEAFWOOD DR	\$ 300.80
368-042-13	271	6648 E LEAFWOOD DR	\$ 311.75
368-042-14	272	6656 E LEAFWOOD DR	\$ 317.60
368-042-15	273	6664 E LEAFWOOD DR	\$ 298.45
368-042-16	274	6672 E LEAFWOOD DR	\$ 319.52
368-042-17	275	6680 E LEAFWOOD DR	\$ 320.02
368-042-18	276	6690 E LEAFWOOD DR	\$ 354.31
368-042-19	277	6691 E SMOKEWOOD CIR	\$ 315.09
368-042-20	278	6681 E SMOKEWOOD CIR	\$ 255.17
368-042-21	279	6661 E SMOKEWOOD CIR	\$ 258.69
368-042-22	280	6651 E SMOKEWOOD CIR	\$ 242.88

			ASSESSMENT PER PARCEL
Assessor Parcel Number	Lot No.	Site Address	2023
368-042-23	281	6631 E SMOKEWOOD CIR	\$ 245.69
368-042-24	282	6621 E SMOKEWOOD CIR	\$ 307.15
368-043-01	283	6691 E LEAFWOOD DR	\$ 327.63
368-043-02	284	6683 E LEAFWOOD DR	\$ 312.60
368-043-03	285	6675 E LEAFWOOD DR	\$ 357.18
368-043-04	286	6667 E LEAFWOOD DR	\$ 431.85
368-043-05	287	1024 S ASPENWOOD CIR	\$ 250.42
368-043-06	288	1018 S ASPENWOOD CIR	\$ 299.52
368-043-07	289	1012 S ASPENWOOD CIR	\$ 403.54
368-043-08	290	1006 S ASPENWOOD CIR	\$ 326.90
368-043-09	291	1000 S ASPENWOOD CIR	\$ 681.91
368-043-10	292	1001 S ASPENWOOD CIR	\$ 490.21
368-043-11	293	1007 S ASPENWOOD CIR	\$ 245.91
368-043-12	294	1015 S ASPENWOOD CIR	\$ 280.60
368-043-13	295	1021 S ASPENWOOD CIR	\$ 260.60
368-043-14	296	6639 E LEAFWOOD DR	\$ 258.78
368-043-15	297	6631 E LEAFWOOD DR	\$ 243.86
368-043-16	298	6625 E LEAFWOOD DR	\$ 439.53
368-043-17	299	6623 E LEAFWOOD DR	\$ 516.65
368-043-18	300	6619 E LEAFWOOD DR	\$ 248.55
368-043-19	301	6609 E LEAFWOOD DR	\$ 248.80
368-043-20	302	6601 E LEAFWOOD DR	\$ 393.71
368-043-21	303	1001 S BURLWOOD DR	\$ 598.45
368-043-22	304	1003 S BURLWOOD DR	\$ 434.35
368-043-23	305	1005 S BURLWOOD DR	\$ 494.39
		City-owned streets in landslide/surf. def. - (Ave. de Santiago includes Escalator)	\$ 15,493.58
		City-owned streets in GW recharge zone	\$ 8,033.52
		City-owned streets in seepage zone	\$ 14,652.56
			\$ 466,900.40

DRAFT

EXHIBIT C

Santiago GHAD Budget

EXHIBIT C
Santiago Geologic Hazard Abatement District
Santiago Development
 Budget – July 2022

ASSUMPTIONS

Total Number of Assessed Parcels/Street Units	316
Annual Adjustment in Assessment (estimated)	2%
Inflation (estimated)	2%
Investment Earnings (estimated)	1%
Frequency of Large-Scale Well Work (years)	40
Cost of Well Replacement (current \$)	\$3,217,500

ESTIMATED ANNUAL EXPENSES IN FY 2022/23 DOLLARS

Wells – Major Replacement (annualized)	\$80,437
Utilities Electric	\$18,000
Well Maintenance and Monitoring	\$154,500
Geology and Monitoring	\$43,300
Maintenance of Connector Pipes to Public Storm Drain	\$25,000
Site Monitoring Program	\$8,000
Monitoring Well and Piezometer Replacement (Annualized)	\$16,250
Horizontal Drains (Annualized)	\$13,895
Inclinometer and Pedestal Replacement (Annualized)	\$12,255
Administration and Accounting	\$51,537
County Fees	<u>\$1,409</u>
Miscellaneous & Contingency (10%)	<u>\$42,317</u>
Total	<u>\$466,900</u>