

# Santiago Geologic Hazard Abatement District

## Draft Engineer's Report Discussion

Date: June 23, 2022

Presented by: Jeff Adams, ENGEO Representative

# Background

- Santiago GHAD formed on March 16, 1999 with the adoption of Resolution 99R-50 by the City of Anaheim
- Five Property Owners serve as the elected GHAD Board of Directors
- The Plan of Control allows for the GHAD to permanently monitor and maintain the Santiago landslide
- The GHAD was funded with through a settlement with the City of Anaheim for approximately \$3,500,000
- The Fiscal Year 2022/23 estimates that the GHAD will have an account balance of approximately \$180,000 on June 30, 2023

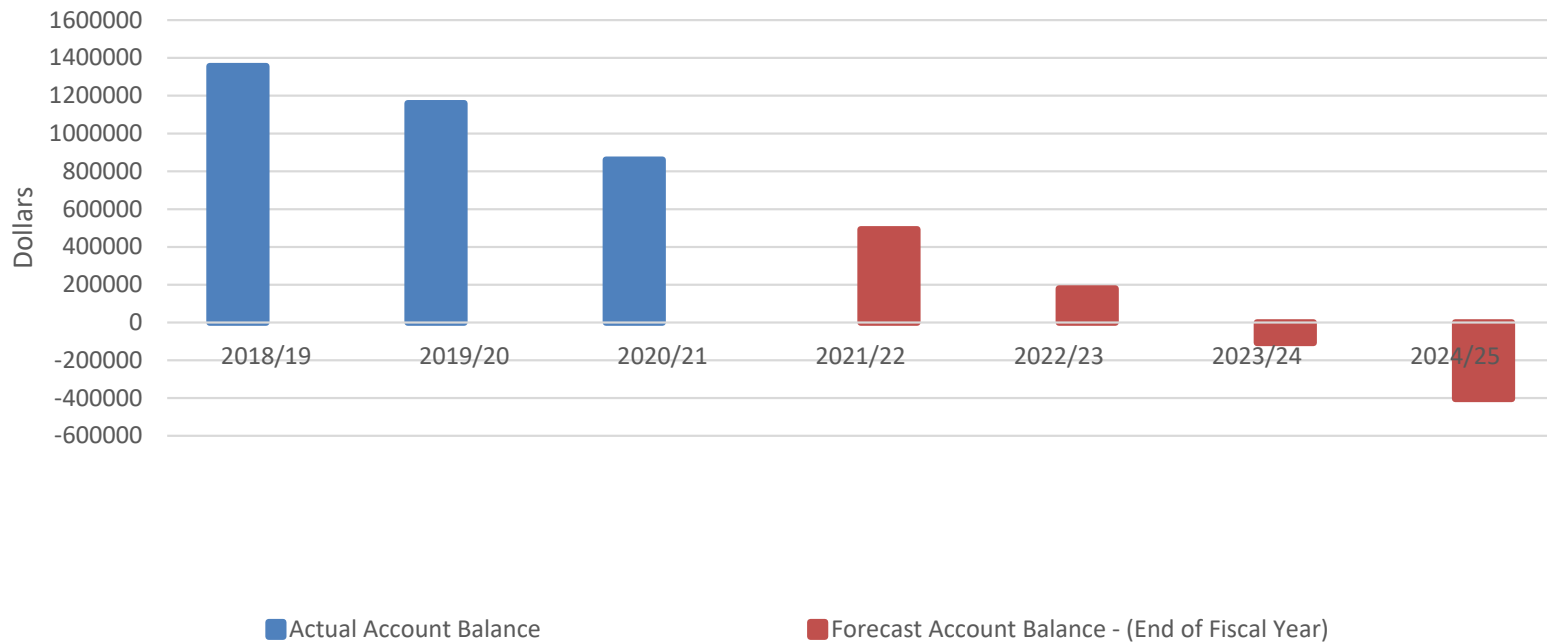
# Fund Balance Summary

The proposed budget for the fiscal year 2022-2023 anticipates revenue of **\$26,000** with an estimated reduction of **\$313,566** to the account balance.

- Estimated Fund Balance (July 1, 2022)..... \$492,613
- FY 2022-2023 Estimated Revenue.....\$26,000
- FY 2022-2023 Estimated Expenditures.....(\$339,566)
- Estimated Fund Balance (June 30, 2023).....\$179,047

# Account Balance – Four Year Forecast

Santiago GHAD - Estimated Account Balance



# Deferred Maintenance Summary

Improvement	Unit	Quantity	Unit Price	Total Costs	Maintenance, Repair, or Replacement Interval (years)	Annual Total
Vertical Dewatering Wells (37)						
· Maintenance or Repair	lineal foot	4,950	\$ 100	\$ 495,000	15	\$33,000
· Replacement	lineal foot	4,950	\$ 650	\$ 3,217,500	40	\$80,438
Monitoring Wells and Piezometers (48) (maintenance only)	lineal foot	6,500	\$ 75	\$ 487,500	30	\$16,250
GHAD-maintained Connector Pipes to Public Storm Drain System	lump sum	1	\$ 40,000	\$ 50,000	2	\$25,000
Horizontal Drains (86)	lineal foot	27789	\$ 15	\$ 416,835	30	\$13,895
Inclinometers	lineal foot	2004	\$ 50	\$ 100,200	40	\$2,505
Pedestals	each	39	\$ 7,500	\$ 292,500	30	\$9,750
						<b>\$180,837</b>

# Selected References Reviewed

- Eberhart & Stone; Santiago Landslide, 1996
- Santiago Geologic Hazard Abatement District, Plan of Control, 1999
- Banner Lawsuit, 1994
- Delmonico Settlement Agreement, 1999
- Landslide Committee Meeting Notes, 1998



# Engineer's Report (Draft E)

- Provides overview and basis of assessment for following activities:
  - Oversight of GHAD operations, including reporting to the GHAD Board of Directors
  - Setting the annual levying of assessments on the property tax rolls
  - Engagement of technical professionals to perform monitoring duties described in POC
  - Performance of GHAD maintenance activities
  - Preparation of annual GHAD budgets and other documents for GHAD Board of Directors



# Special Benefit and Proportionality

- The improvements maintained by the GHAD (vertical production and observation wells, horizontal drains, and inclinometers) will confer some or all of the following special benefits
  - Protection from landsliding and ground deformation
  - Protection from loss of street/transportation access
  - Protection from loss of utilities and associated services
  - Groundwater seepage management, providing protection for properties and improvements
  - Consequential protection of properties and improvements from diminution of value

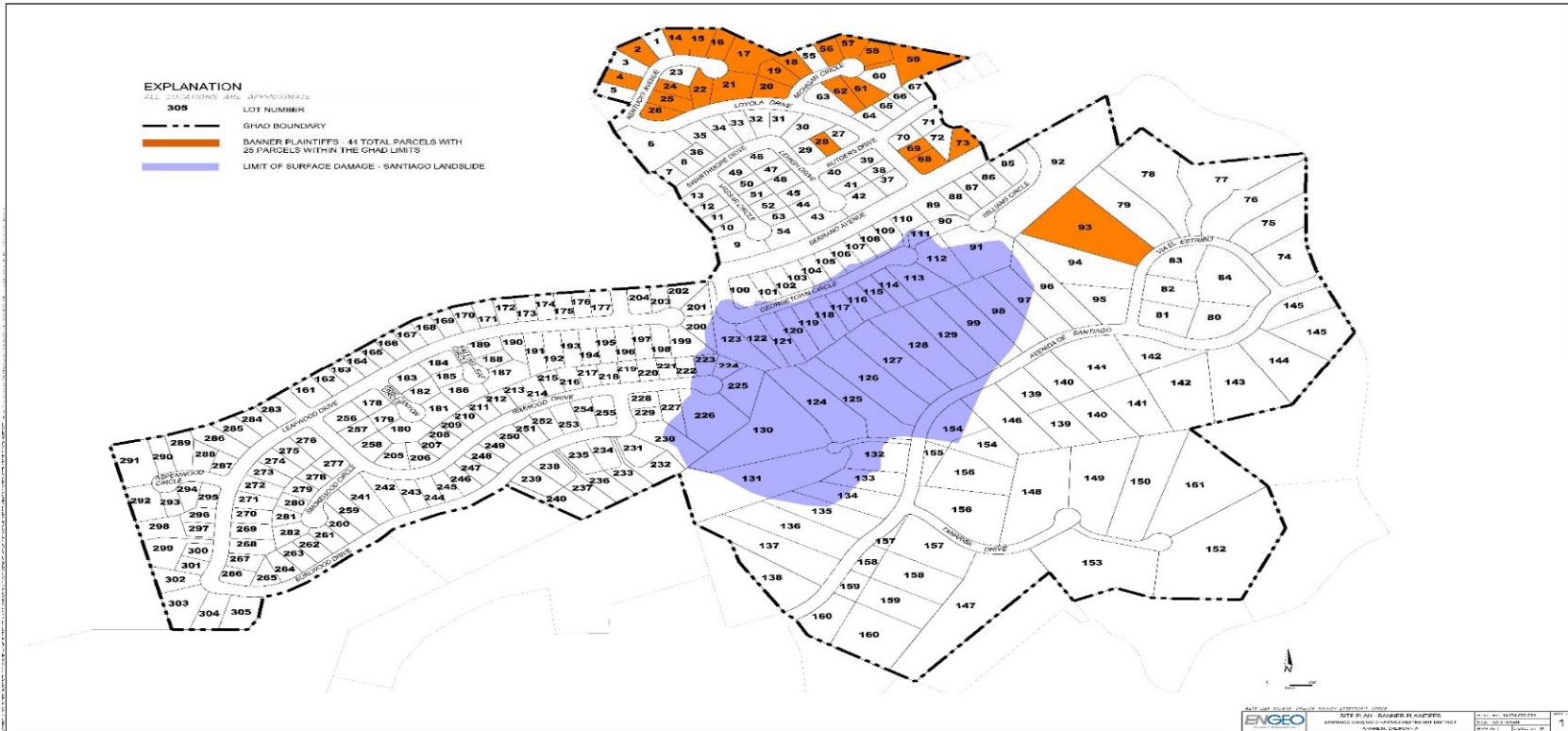
# Assessment Allocation

- Parcel area-based assessment:
- Properties within GHAD assigned 1 of 3 categories
  - Lots on landslide/at risk of deformation (65 percent)
  - Lots in groundwater recharge area (20 percent)
  - Lots receiving groundwater seepage control (15 percent)
- Lots receive a percentage allocation based on their fraction of area in the respective category
- Benefits of mitigation of stigma, transportation access, and amenities are captured in these categories

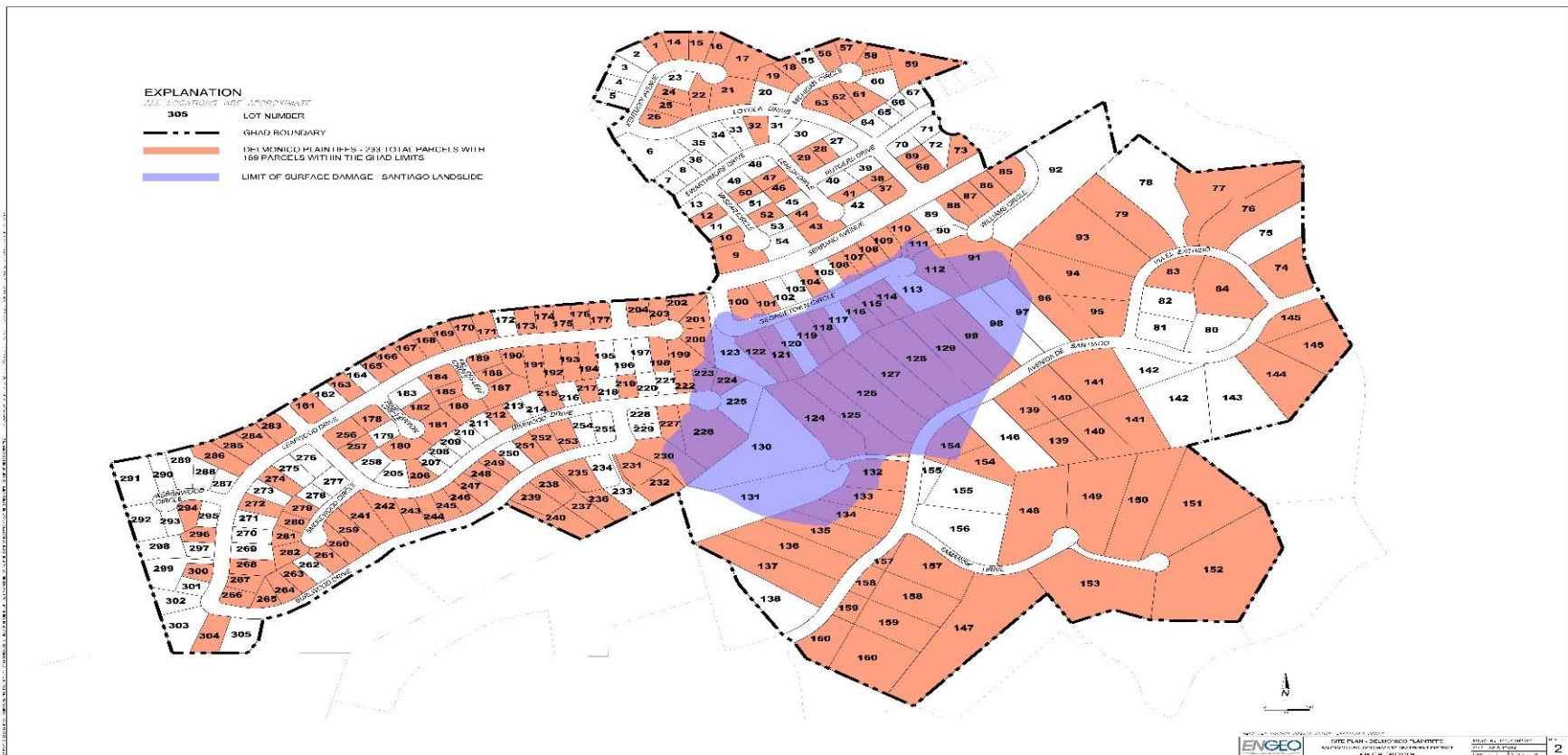
# Questions?

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# Banner Plaintiffs



# Delmonico Plaintiffs



# Background (Landslide Committee Meeting Notes March 5, 1998)

## Landslide Committee Meeting Notes

March 5, 1998

Those attending: Mike Clayton, Mary Ann Adams, Al Murphy, Ed Muratori, Jerry Steiner, Pat Panik, Bill Stoner, and Sid Kanazawa from PM & S.

Bill Stoner said that as of last week there had been no re-activation of a deep slide. He said there are 2 possibilities for this:

1. The defective pipe has been removed
2. Dewatering is working

This is despite the fact that we have had more rain this year than in 1993. The attorneys have had no calls reporting damage from any residents, except in The Covey. It has not yet been determined whether the current problem on Pegasus is the result of a deep or surface slide. The man putting in the pumps called the City to tell them they had a problem in that area and they told him that Pegasus is a private street.

A bulge in the street on Swarthmore has been reported to Ed Muratori, but he has not yet had a chance to investigate this.

At the last status meeting, a trial date was set for Sept. 23, 1998, but this is only for the inverse condemnation part of the case. This will involve all homeowners, but will not be tried before a jury. Pillsbury had wanted to try the full case but with selected homeowners such as the DeMonicos. However, the judge thought that would be too complex and feels he can try the entire inverse condemnation part of the case in 5 days. After that is decided, he thinks the rest of the parts of the case will fall into place. The next meeting with the judge is scheduled for March 23rd.

The judge said that if he can determine the size of the slide, then it might be able to be settled. The independent geologist will testify at the trial and his findings will carry a good deal of weight. Rutan and Tucker says the slide only involves 36 houses; PM&S believes it is much larger. So far, the judge has not allowed the independent geologist to say anything, but our attorneys don't believe he will say it is as large as Dennis Evans says it is.

A map prepared by Eberhart and Stone depicting what they believe to be the landslide was shown. Bill Stoner said Eberhart and Stone have been very careful to label this map "limits of surface damage" rather than "landslide boundaries".

Rutan and Tucker say the slide does not go north of Serrano. Bill thinks our best chance to enlarge the size of the slide will be to the east and possibly to the Dentons on the other side. The attorneys

# Background (Landslide Committee Meeting Notes March 5, 1998)

are happy with the independent geologist ; he is known to be very honest and exact.

As far as loss of property values, this will be less of a factor as time goes on. If a geological hazard abatement district (GHAD) is set up, funded, and there is no land movement, there will probably be no stigma.

Bill says a big part of the City's motivation to settle is to keep Jerry Steiner quiet because of the impact his website has had.

The attorneys feel the City now realizes they are in a lose-lose situation if the case goes to trial. If they are proven to be at fault, they will have to pay the plaintiffs as well as fund the pumps. If they win the case, they will still have to set up the GHAD.

A maximum of \$300,000 per year would be needed to pay for the pumps and maintenance. Of the \$185,000 per year it currently costs, about \$105,000 has been paid to Eberhart and Stone. So it should be possible to reduce that yearly figure if someone other than E&S were to administer it.

There is an alternative to pumping: a tunnel, but as clearance is required, the cost ( \$3.5-7 million dollars) is prohibitive. Additionally, risking liability to other property owners is the biggest problem.

It has been noted that pumps are a band-aid. Engineers said some houses could be stabilized with vertical caissons which would go into bedrock. The caissons would be concrete and steel, 5 feet in diameter and 60 feet deep. They would be < 10 feet on center. While it is possible to do this, the cost for one house that was studied was estimated to be in excess of 2 million dollars.

The attorneys said the case is now at a critical juncture since people do not get serious until a trial date is set. With a trial date 6 months away the City now realizes the trial result will not solve the problem, it will simply mean that people will win or lose money. In negotiating, the City focused on the 36 houses they claim are the only ones involved and would settle for full value. The attorneys noted that it would be hard to get a hazard abatement district set up if only 36 houses are involved. If, however, all 240 houses are involved, then the cost could be spread out, since 10 % of residents must sign a petition to set up this district and 51% of the property value has to vote on it. The City has floated the idea of buying properties where the repair cost exceeds the value.

The tax implications of settlement amounts are different than a few years ago; it is harder to structure it as tax-free.



# Background (Landslide Committee Meeting Notes March 5, 1998)

As of now, the City has not offered any settlement money for pain and suffering.

The inverse condemnation part of the case is against the City only and does not involve any of the other defendants.

The City has offered 11-12 million dollars to settle which seems to be fairly solid and would come from developers, SOPAC, pipe manufacturers, insurance companies and the City. This was supposed to go to 25 million, but the City now feels the judge would not rule against them. The City would like the GHAD to be funded at 8 million dollars; our attorneys feel it could be adequately funded at about 3.5 million. They would prefer that more of the settlement money go into our pockets than be in a hazard abatement district, where a future surplus might then be used by the City for other purposes. Our attorneys have run the numbers and say that \$3.5 million would pay for pumping, repairs, replacement and maintenance for many decades. THE ATTORNEYS WOULD LIKE INPUT FROM COMMITTEE MEMBERS REGARDING THE GHAD AMOUNT. IF YOU HAVE ANY THOUGHTS ON THIS, PLEASE CONTACT THEM.

The attorneys see 2 issues at stake:

1. Size of the landslide
2. Cause of the landslide

Of course, size is not important if the cause cannot be proven.

6 possible causes:

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|----------------------|-----------------------|
| 1. MWD               | 4. irrigation         |
| 2. utility trenches  | 5. plastic pipes      |
| 3. rain meters, etc. | 6. service leaks from |

The last two are now seen as most likely. Investigation is continuing.

Dennis Evans is still looking at water balance: measuring the amount of water that comes in and the amount that goes out, while accounting for evaporation, transpiration, etc.

Our attorneys think it is possible the judge would decide that this is indeed a small slide as the City contends, but would agree with us that the City is responsible for causing it, which would allow us to collect.



# General Benefit

- General benefit to owners of properties outside of the GHAD and to other members of the general public
  - The availability to use through streets that may be impacted by the effects of landsliding
    - Off-site property owners whose primary access via Avenida de Santiago (City will be assessed a 30 percent premium on landslide areas)
  - Use of Serrano Avenue (assessment to City)