

**DELTA REGION GEOLOGIC HAZARD ABATEMENT DISTRICT
REGULAR MEETING OF THE BOARD OF DIRECTORS
MARCH 29, 2022 MEETING MINUTES**

1. **Call to Order/Roll Call/Pledge of Allegiance:**
Board Members: Eric Pene, Iva Walton, Pam Bulahan, Dean Dockery, and Jean Yokotobi
PRESENT: Board Member's Eric Pene, Iva Walton, Pamela Bulahan, Dean Dockery and Jean Yokotobi.
2. **Confirmation of Agenda Posting/Adoption of Agenda:**
The GHAD Board may take action on any item listed on the agenda.
ACTION: GHAD Website, City Website and posting at DeJack's Country Store, City Hall and United States Post Office.
3. **Public Forum: Members of the Public May Comment (3 minutes per speaker)**
At this time, the public is permitted to address the GHAD Board on non-agendized items. In accordance with State law, no action or discussion may take place on an item not appearing on the posted agenda. The Board may respond to statements made or questions asked, or may request staff to report back at a future meeting concerning the matter.
ACTION: None.
4. **Selection of Board Officers:**
 - A. Administration of Oath of Office
ACTION: Deputy City Clerk administered the Oath of Office to the Board Member's.
 - B. Selection of Chair and Alternate Chair – Resolution 22-01, A resolution of the Board of the Delta Region GHAD selecting a Chairperson and Alternative Chairperson
ACTION: Board Member Iva Walton as Chair and Pamela Bulahan as alternate.
5. **Consent Calendar:**
 - A. Subject: Selection of GHAD Clerk and GHAD Treasurer

Recommendation: Board Members review and approve Resolution 22-02 appointing ENGEO as GHAD Clerk and deferring selection of GHAD Treasurer until such time as initial GHAD funding is secured.
ACTION: Board Member Dean Dockery motion to approve Resolution No. 22-02 approving ENGEO as GHAD Clerk and deferring selection of GHAD Treasurer until such time as initial GHAD funding is secured. Board Member Iva Walton second the motion. AYES: Board Member's Eric Pene, Iva Walton, Pamela Bulahan, Dean Dockery and Jean Yokotobi. NOES: None. ABSTAIN: None. ABSENT: None. PASSED 5-0.
 - B. Subject: Selection of GHAD Manager

Recommendation: Board Members review and approve Resolution 22-03 appointing ENGEO as GHAD Manager.
ACTION: Board Member Jean Yokotobi approved Resolution No. 22-03 approving ENGEO as GHAD Manager. Chair Iva Walton second the motion. AYES: Board Member's Eric Pene, Iva Walton, Pamela Bulahan, Dean Dockery and Jean Yokotobi. NOES: None. ABSTAIN: None. ABSENT: None. PASSED 5-0.
6. **Reports:**
 - A. Brown Act Summary Presentation – ENGEO
ACTION: Jeff Adams read the Brown Act Summary Laws and Rules.
7. **New Business:**
 - A. Subject: Resolution 22-04, A resolution of the Board of the Delta Region GHAD authorizing the Adoption of the Delta Region Geologic Hazard Abatement District Plan of Control.

Recommendation: That the GHAD Board Approve Resolution 22-04, adopting the Delta Region Geologic Hazard Abatement District Plan of Control.
ACTION: Tabled to next meeting by vote. Board Member Pamela Bulahan motion to table Resolution No. 22-04 to next meeting. Board Member Iva Walton second the motion. AYES: Board Member's Eric Pene, Iva Walton, Pamela Bulahan, Dean Dockery and Jean Yokotobi. NOES: None. ABSTAIN: None. ABSENT: None. PASSED 5-0.

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- B. Subject: Resolution 22-05, A resolution of the Board of the Delta Region GHAD making a finding and determination under Assembly Bill 361 for the conducting of virtual meetings and authorizing virtual meetings pursuant to Assembly Bill 361.

Recommendation: That the GHAD Board Approve Resolution 22-05, authorizing conducting of virtual meetings pursuant to Assembly Bill 361.

ACTION: Board Member Pamela Bulahan motion that the GHAD Board approve Resolution No. 22-05, authorizing conducting of virtual meetings pursuant to Assembly Bill 361. Board Member Iva Walton second the motion. **AYES:** Board Member's Eric Pene, Iva Walton, Pamela Bulahan, Dean Dockery and Jean Yokotobi. **NOES:** None. **ABSTAIN:** None. **ABSENT:** None. **PASSED** 5-0.

8. Board Comments and Upcoming Topics of Discussion:

A. Set Date for Stakeholder Outreach Meeting – TBD

B. Set Date for Next Scheduled Board Meeting – May 31, 2022

ACTION: Board Member Dean Dockery motion to schedule the GHAD meetings to the 5th Tuesday of the month. Board Member Pamela Bulahan second the motion. **AYES:** Board Member's Eric Pene, Iva Walton, Pamela Bulahan, Dean Dockery and Jean Yokotobi. **NOES:** None. **ABSTAIN:** None. **ABSENT:** None. **PASSED** 5-0.

9. Adjournment

AYES:

NOES:

ABSTAIN:

ABSENT:

CHAIR, Iva Walton

CLERK, Yvonne Zepeda

**BOARD OF DIRECTORS OF THE
DELTA REGION GEOLOGIC HAZARD ABATEMENT DISTRICT**

RESOLUTION NO. 22-06

**RESOLUTION MAKING THE REQUIRED FINDINGS PURSUANT TO AB 361 TO CONTINUE
TO HOLD TELECONFERENCED PUBLIC MEETINGS DURING THE COVID-19 STATE OF
EMERGENCY.**

WHEREAS, the Brown Act (Government Code section 54950 et seq.) allows for public meetings of a legislative body to occur via teleconferencing subject to certain requirements, particularly that the legislative body notice each teleconference location of each member that will be participating in the public meeting, that each teleconference location be accessible to the public, that members of the public be allowed to address the legislative body at each teleconference location, that the legislative body post an agenda at each teleconference location, and that at least a quorum of the legislative body participate from locations within the boundaries of the local agency's jurisdiction; and

WHEREAS, in response to the COVID-19 state of emergency, the Governor temporarily suspended the rules described above when he issued Executive Order N-29-20 on March 17, 2020, and authorized local legislative bodies to hold virtual public meetings subject to specific public accessibility and noticing requirements; and

WHEREAS, the Governor signed AB 361 prior to the expiration of Order N-29-20; and

WHEREAS, AB 361 amends the Brown Act to allow the legislative body of a state or local agency to hold a teleconferenced meeting during a state of emergency without complying with the normal teleconferencing requirements described above if it meets requirements related to providing notice of the meeting, public access and participation via call-in or internet-based service options, real-time public comments, and conduct of the meeting in a manner that protects statutory and constitutional rights of any parties and the public appearing before the legislative body; and

WHEREAS, AB 361 does not require legislative bodies to take any specific action prior to holding an initial teleconferenced meeting during a state of emergency, however, to hold a subsequent teleconferenced meeting a legislative body must act no later than 30 days after the initial teleconferenced meeting, and every 30 days thereafter, by making findings specified in the statute justifying the continued use of teleconferenced public meetings; and

WHEREAS, within 30 days after passage of this resolution and every 30 days thereafter, the GHAD Clerk will review the findings that the Board has made regarding the circumstances of the state of emergency and at following Board meetings as required, these findings will be presented to the Board to consider and adopt by resolution.

WHEREAS, on March 29, 2022, the Delta Region Geologic Hazard Abatement District previously adopted Resolution No. 22-05 finding that the requisite conditions exist for the Delta Region

Geologic Hazard Abatement District to conduct teleconference meetings under California Government Code section 54953(e); and

WHEREAS, more than 30 days have passed since Resolution 22-05 was adopted and the Delta Region Geologic Hazard Abatement District has not met since Resolution 22-05 has passed; and

WHEREAS, it shall be the policy of the GHAD that the Board, and duly appointed subcommittees, will hold teleconferenced public meetings in compliance with the provisions of AB 361 during the COVID-19 state of emergency; and

WHEREAS, the COVID-19 state of emergency declared by the Governor remains active; and

WHEREAS, public meetings involve many people in shared indoors spaces for hours, when the number of people present does not always allow for social distancing between persons, and close contacts raise the risk of the spread of COVID-19; and

WHEREAS, the California Department of Public Health has issued COVID-19 Prevention Emergency Temporary Standards which generally requires that face coverings be worn by unvaccinated persons in State and local government offices serving the public; and

The Delta Region Board of Directors HEREBY RESOLVES THAT:

1. The Board of Directors of the Delta Region GHAD makes the following findings pursuant to AB 361 to continue holding teleconferenced public meetings during the COVID-19 state of emergency:
 - The GHAD Board has considered the circumstances of the state of emergency.
 - The COVID-19 state of emergency declared by the Governor remains active and continues to directly impact the ability of Board members to meet safely in person.
 - State and local officials continue to recommend or impose measures to promote social distancing.
 - The California Department of Public Health has issued guidance to promote social distancing via isolation and quarantine of individuals infected or likely infected with COVID-19 and individuals with close contact to persons infected with COVID-19.
 - The California Department of Public Health has issued COVID-19 Prevention Emergency Temporary Standards, which generally require that face coverings be worn by unvaccinated individuals or those exposed to COVID-19.
2. BE IT FURTHER RESOLVED that in the interest of public health and safety, based on the findings contained herein, the Board of Directors of the Delta Region Geologic Hazard Abatement District, and duly appointed subcommittees, shall continue to hold teleconferenced public meetings pursuant to AB 361.

3. This Resolution shall become effective immediately upon its passage and adoption.

PASSED AND ADOPTED by the Delta Region GHAD Board of Directors, at the meeting of said Board held on the 31st day of May, 2022.

Ayes: Director(s)

Noes: Director(s)

Absent: Director(s)

Abstain: Director(s)

By:

_____, Chair of the GHAD Board of Directors

ATTEST:

_____, Clerk of the GHAD Board

Date: _____

Project No.
P2012.000.365

May 31, 2022

Ms. Iva Walton
Delta Region GHAD
c/o ENGEO Incorporated
2010 Crow Canyon Place, Suite 250
San Ramon, CA 94583

Subject: Delta Region GHAD
Isleton, Sacramento County, California

RESIGNATION FROM GHAD CLERK POSITION

Dear Ms. Walton:

On March 29, 2022, at a Board meeting of the Delta Region GHAD, ENGEO Incorporated was appointed as the Clerk of the Delta Region GHAD with Resolution 22-02. We hereby resign the position of GHAD Clerk, effective upon appointment of a succeeding Clerk at the next Delta Region GHAD Board meeting, scheduled for May 31, 2022.

Sincerely,

ENGEO Incorporated

Jeffrey A. Adams, PhD, PE
Principal

Josef J. Tootle, GE
Principal

jaa/jjt/WP

**DELTA REGION GEOLOGIC HAZARD ABATEMENT DISTRICT
STAFF REPORT**

TO: Delta Region Geologic Hazard Abatement District (GHAD) Board of Directors

FROM: GHAD Manager

BOARD MEETING DATE: May 31, 2022

SUBJECT: Authorizing the Adoption of the Delta Region Geologic Hazard Abatement District Draft Plan of Control

RECOMMENDATION

That the Board adopt Resolution 22-04, authorizing the adoption of the Delta Region Geologic Hazard Abatement District Draft Plan of Control.

SUMMARY:

The GHAD Board is being asked to consider approval of the draft Plan of Control. A draft Plan of Control has been prepared by ENGEО. Section 26509 of the Public Resources Code requires a Plan of Control, prepared by a State Certified Engineering Geologist, as a prerequisite to formation of a GHAD. Pursuant to Section 26509, the draft Plan of Control was prepared by an Engineering Geologist certified pursuant to Section 7822 of the Business and Professions Code and describes, in detail, the geologic hazards, their location, and the area affected by them. It also provides a plan for the prevention, mitigation, abatement, or control thereof.

As used in the draft Plan of Control, and as provided in Section 26507, "geologic hazard" means an actual or threatened landslide, land subsidence, soil erosion, earthquake, fault movement, or any other natural or unnatural movement of land or earth.

The following geologic hazards were identified and are expected to remain to some extent even after construction of continued levee and flood-risk mitigation improvements.

- Inundation due to embankment failure
- Soil transport as a result of flood water movement
- Potential increases in river water surface elevations

Additionally, the draft Plan of Control describes the criteria for GHAD responsibility, monitoring, maintenance, repair, and/or recovery responsibilities, priority of GHAD expenditures, and a maintenance and monitoring schedule.

FISCAL IMPACT:

The GHAD is funded through assessments levied on properties within the GHAD and potentially other external sources. Therefore, there is no fiscal impact on the City's General Fund. If approved, some or all of the funding for the GHAD activities to prevent, mitigate, abate, and control geologic hazards will be based on the assessment, and such funds will be collected and used in connection with the draft Plan of Control. The proposed assessment will be supported by a detailed Engineer's Report prepared by a registered professional engineer certified by the State of California, and will be considered in accordance with Proposition 218.

Attachment 1: Resolution 22-04

**BOARD OF DIRECTORS OF THE
DELTA REGION GEOLOGIC HAZARD ABATEMENT DISTRICT**

RESOLUTION NO. 22-04

**RESOLUTION AUTHORIZING THE ADOPTION OF THE DELTA REGION GEOLOGIC
HAZARD ABATEMENT DISTRICT DRAFT PLAN OF CONTROL**

WHEREAS, on December 14, 2021, the Isleton City Council adopted Resolution No. 028-21 approving and ordering the formation of the Delta Region Geologic Hazard Abatement District ("Delta Region GHAD or GHAD"); and

WHEREAS, notice of the hearing on the formation of the GHAD was given in accordance with the provisions of Public Resources Code Sections 26558 and 26561-63; and

WHEREAS, the GHAD Board is presented with and reviewed the draft Plan of Control (dated December 10, 2021), which is attached hereto as Attachment A. The draft Plan of Control describes potential geologic hazards within the district and addresses the prevention, mitigation, abatement, and control of such hazards; and

WHEREAS, the draft Plan of Control is exempt from the provisions of the California Environmental Quality Act (Pub. Res. Code §§ 21000 *et. seq.*) in accordance with Public Resources Code sections 21080(b)(4) and 26559.

The Board of Directors of the GHAD HEREBY RESOLVES THAT:

1. This Resolution No. 22-04 is made pursuant to the provisions of Division 17 of the Public Resources Code with particular references to Chapter 1 (commencing with Section 26500), Article 3 (commencing with Section 26550) and Article 4 (commencing with Section 26561).
2. The Delta Region GHAD Board hereby approves and adopts the draft Plan of Control.
3. The recitals are incorporated herein by this reference.

This Resolution shall become effective immediately upon its passage and adoption.

PASSED AND ADOPTED by the Delta Region GHAD Board of Directors, at the meeting of said Board held on the 31st day of May 2022.

Ayes: Director(s)
Noes: Director(s)
Absent: Director(s)
Abstain: Director(s)

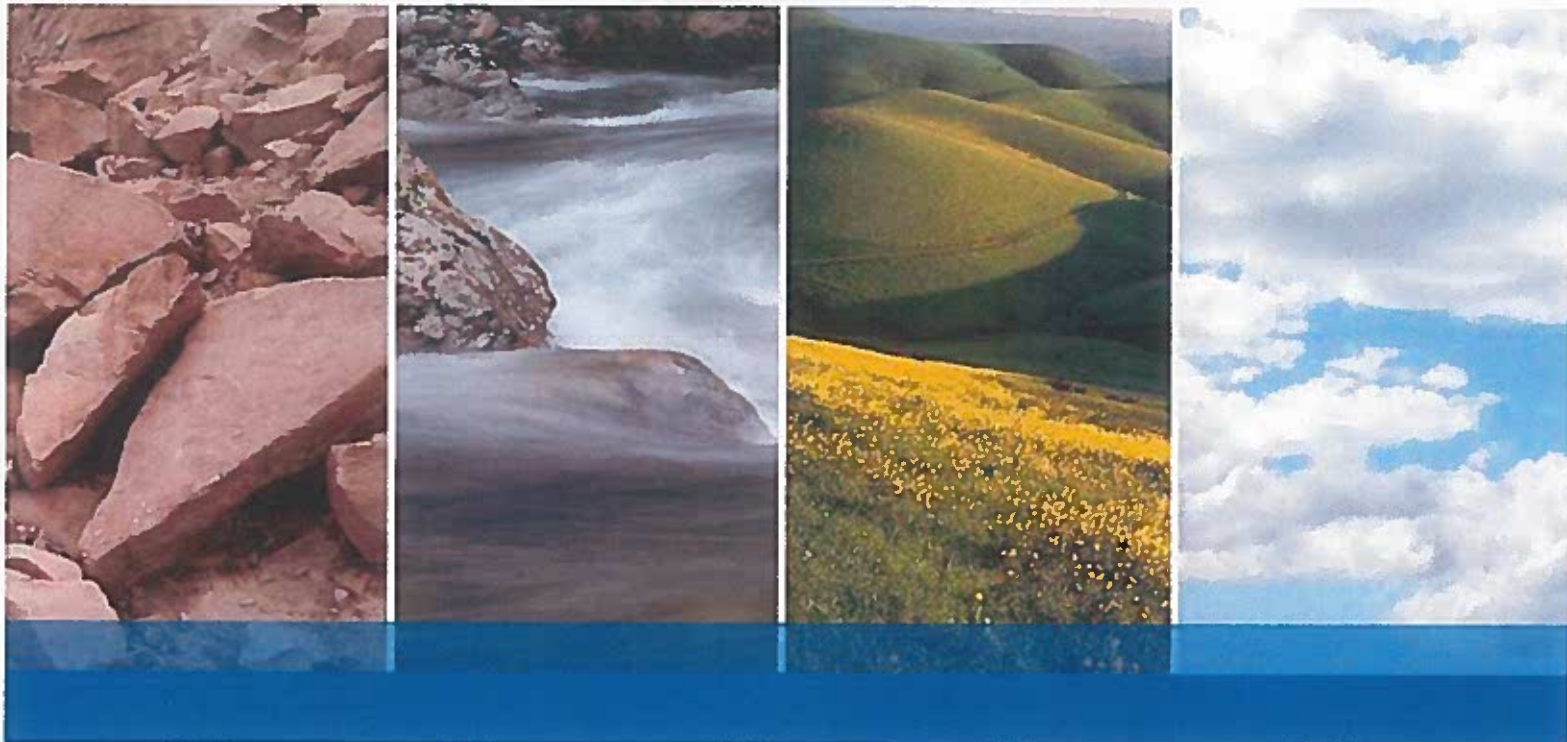
By: _____, Chair of the GHAD Board of Directors

ATTEST:

_____, Clerk of the GHAD Board

Date: _____

Attachment A – Draft Plan of Control



DELTA REGION GEOLOGIC HAZARD ABATEMENT DISTRICT (GHAD)

PLAN OF CONTROL – DRAFT 4

SUBMITTED TO
Ms. Yvonne Zepeda
City Clerk
City of Isleton
101 Second Street
Isleton, CA 95641

PREPARED BY
ENGEO Incorporated

December 10, 2021

PROJECT NO.
P2012.000.365

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SELECTED REFERENCES

APPENDIX A: FIGURE

APPENDIX B: EXHIBIT A – List of APNs within GHAD

1.0 AUTHORITY AND SCOPE

As provided in *Public Resources Code § 26567*, the City of Isleton proposes to form the Delta Region Geologic Hazard Abatement District (“GHAD” or “District”).

State law allows GHADs to be formed to undertake emergency actions necessary or incidental to the prevention, mitigation, abatement, or control of a geologic hazard (*Public Resources Code § 26500, “GHAD Law”*). GHAD Law gives local agencies the authority to form districts that can speedily address “an actual or threatened landslide, land subsidence, soil erosion, earthquake, or any other natural or unnatural movement of land or earth.” (*Public Resources Code § 26507*).

GHAD “improvements” (as defined in GHAD Law) and all GHAD activities undertaken in furtherance of, or in connection therewith, are deemed to be specific actions necessary to prevent or mitigate an emergency within Public Resources Code Section 21080(b)(4) (See, Pub. Res. Code Sections 26601 and 26505). Consistent therewith, all GHAD Activities (as defined in Section 7 below) are exempt from review under the California Environmental Quality Act and are not subject to local permitting requirements.

Section 26509 of the Public Resources Code requires a Plan of Control, prepared by a State-Certified Engineering Geologist, as a prerequisite to formation of a GHAD. Pursuant to Section 26509, this Plan of Control was prepared by an Engineering Geologist certified pursuant to Section 7822 of the Business and Professions Code and describes, in detail, the geologic hazards, their location, and the area affected by them. It also provides a plan for the prevention, mitigation, abatement, or control thereof.

As used in this Plan of Control, and as provided in Section 26507, “geologic hazard” means an actual or threatened landslide, land subsidence, soil erosion, earthquake, fault movement, or any other natural or unnatural movement of land or earth.

1.1 PROPERTY IDENTIFICATION

The GHAD is coincident with the boundary of the City of Isleton, California in December 2021 (“District Area”) as of the date of GHAD formation. The location of the land included within the Delta Region GHAD is included in Appendix B.

2.0 BACKGROUND

The Sacramento-San Joaquin River Delta consists of a 1,000-mile waterway system with four primary rivers, including the Sacramento, San Joaquin, Mokelumne, and Calaveras. The Sacramento-San Joaquin Delta Conservancy Act of 2010 states, “The Delta’s history is rich with a distinct natural, agricultural, and cultural heritage. It is home to the community of Locke, the only town in the United States built primarily by early Chinese immigrants. Other legacy communities include Bethel Island, Clarksburg, Courtland, Freeport, Hood, Isleton, Knightsen, Rio Vista, Ryde, and Walnut Grove.” These towns have each contributed to the historical and agricultural development of the Central Valley and retain an individual culture and community.

Lands within the Sacramento-San Joaquin River Delta are protected by a system of levees, the purpose of which is to hold back river waters. Additionally, those lands are served by a network of drainage channels and ditches which transport seepage and run-off from those properties to pumping stations where the water is removed from the islands.

City of Isleton: The City of Isleton is located on Brannan and Andrus Islands and was founded in 1874 by Josiah Pool, who built a wharf to promote commerce and trade along the Sacramento River. Isleton was incorporated in 1923 and is the smallest city in Sacramento County. The Delta's rich peat soil made Isleton a thriving agricultural and economic center. With the construction of railroads and highways after World War II, the Sacramento River's importance as a transportation route diminished. During this period, agriculture also shifted to large-scale farming, which led to a loss in economic activity and outmigration.

2.1 PROJECT DESCRIPTION

The District Area is coincident with the boundary of the City of Isleton, California (November 2021), and measures approximately 0.49 square mile in area. The District Area is south of the Sacramento River and is primarily surrounded by agricultural land use area on the south, east, and west. The District Area is currently developed with residential, commercial, industrial, municipal, and open-space uses identified with the Assessor's Parcel Numbers (APNs) presented in Appendix B.

The District Area is located within the Brannan-Andrus Levee Maintenance District (BALMD) boundary. BALMD has oversight over the levee system forming its boundary. Within that boundary are three independent reclamation districts which oversee the dewatering (reclamation) activities: Reclamation Districts (RD) 317, 407, and 2067.

2.2 GHAD-MAINTAINED IMPROVEMENTS

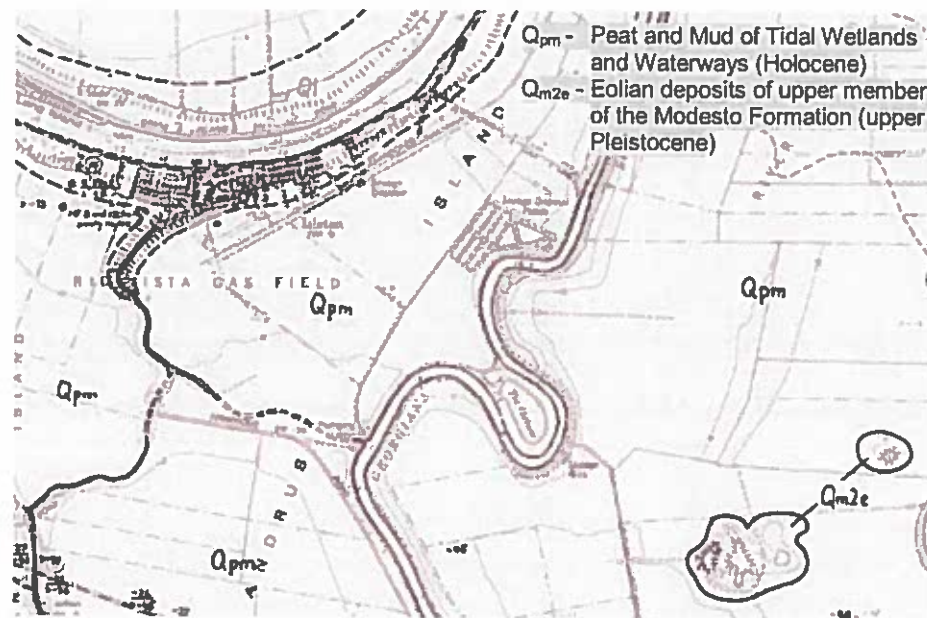
The GHAD is charged with responsibilities that relate to the prevention, mitigation, abatement, or control of geologic hazards, which include the maintenance of flood control facilities and associated improvements as outlined in Section 7.

3.0 SITE GEOLOGY

3.1 GEOLOGIC SETTING

Brannan and Andrus Islands are located in an area of former freshwater marsh traversed by numerous existing and former delta rivers and distributary channels, including the Sacramento and San Joaquin Rivers and Georgiana, Jackson, and Sevenmile Sloughs. Brannan and Andrus Islands are located within the Sacramento-San Joaquin River Delta in the Great Valley Geomorphic Province of California. The Sacramento-San Joaquin Delta lies at the junction of the Sacramento and San Joaquin Rivers, the two major waterways that drain the Central Valley. This valley is an asymmetric trough filled with a thick sequence of sediments from the Jurassic (180 million years ago) to Recent age. The sediments within the Valley were mostly derived from erosion of the Sierra Nevada mountain range to the east, with lesser material from the Coast Range Mountains to the west. In the Sacramento-San Joaquin River Delta, sedimentary assemblages of soil and rock are believed to extend up to 6 miles in thickness (Atwater, 1982).

EXHIBIT 3.1-1: Geologic Map (Atwater, 1982)



Most of the sediments deposited in the Sacramento-San Joaquin River Delta more than 25 million years ago were accumulated in marine environments, and the younger deposits (less than 25 million years) are generally described as non-marine (Burroughs, 1967). The depositional history of the Delta during the late Quaternary period was likely controlled by several cycles related to fluctuations in regional and global climate in which each cycle consisted of a period of deposition followed by a period of non-deposition and erosion (Atwater, 1982).

The Delta region, during the late Quaternary time, experienced scenarios of wetlands and flood-plain creation as the tidewater rose in the valley from the west; areas of erosion when tidedwaters receded; deposition of alluvial fans that were reworked by wind to create extensive sand dunes; and alluvial fan deposition from streams emanating from the adjacent mountain ranges (Atwater, 1982). As sea levels rose during the Holocene period, following the end of the last glacial period, flooding of the delta region increased, depositing silt, clay, and sand above the older Pleistocene-age deposits. During this time, plant growth initiated wetlands and bogs and resulted in the deposition of thick layers of peat and organic soils.

4.0 GEOLOGIC HAZARDS

The following geologic hazards were identified for the District in the draft geotechnical exploration report prepared by GEI (GEI, 2021) and are expected to remain to some extent even after construction of continued levee and flood-risk mitigation improvements.

- Inundation due to embankment failure
- Soil transport as a result of flood water movement
- Potential increases in river water surface elevations

The GHAD is intended to provide a financial reserve for the ongoing reduction of these geologic hazards. Hazard reduction items may include slope stability enhancements, seepage reduction improvements, erosion repair/prevention, drainage channel/pipeline expansion, pump station

capacity upgrades, temporary flood barrier erection, flood damage recovery improvements, and flood-fight staging improvement construction.

4.1 FLOOD PROTECTION SYSTEM (LEEVE EMBANKMENT STABILITY)

Inundation due to levee embankment failure is the GHAD’s primary geotechnical concern within the District Area. This is not unique to this District Area, but is of importance for communities in the Sacramento-San Joaquin River Delta. This section describes several types of inundation that are within the GHAD’s responsibility, subject to the provisions of Sections 5 through 7.

In the referenced geotechnical exploration report (GEI, 2021), several levee embankment failure mechanisms are described relative to the District Area (Table 4.1).

TABLE 4.1-1: Identified Embankment Failure Mechanism Assessment Results (GEI, 2021)

LEEVE SEGMENT LOCATION	REACH	SLOPE STABILITY	UNDER SEEPAGE	THROUGH SEEPAGE	EROSION
Sacramento River Left Bank near City of Isleton within BALMD	Levee Miles (LM) 0 to LM 11.58 NULE Reach Station 1554+39 to 2164+20	A	B	B	A
Sacramento River Left Bank U/S in Upper Andrus Island - RD 566 (furthest upstream of Isleton)	LM 0 to LM 5.7 NULE Reach Station 2164+21 to 2466+80	B	A	B	C
Sacramento River Left Bank U/S in Upper Andrus Island - RD 566 (closer to Isleton)	LM 0 to LM 5.7 NULE Reach Station 2164+21 to 2466+80	C-	A	B	C
Georgiana Slough Right Bank near City of Isleton within BALMD	LM 0 to LM 6.2 NULE Reach Station 1000+00 to 1317+98	B	C	B	C
Georgiana Slough Right Bank U/S in Upper Andrus Island - RD 556	LM 0 to LM 5.47 NULE Reach Station 1317+42 to 1606+78	B	C-	B	B
Sevenmile Slough Left (or North) Bank within BALMD south of City of Isleton	LM 0 to LM 4.57 NULE Reach Station 1022+55 to 1263+80	B	B	B	A
San Joaquin River Right Bank within BALMD south of the City of Isleton	LM 0 to LM 2.62 NULE Reach Station 1936+00 to 2074+35	B	C-	B	B
N.F. Mokelumne River Right Bank within BALMD southeast of the City of Isleton	LM 0 to LM 2.90 NULE Reach Station 1000+00 to 1153+05	C-	C-	B	B

Table Legend:

- A: Low Likelihood of Levee Failure or Need to Flood Fight at Assessment Water Surface Elevation (AWSE)
- B: Moderate Likelihood of Levee Failure or Need to Flood Fight at AWSE
- C: High Likelihood of Levee Failure or Need to Flood Fight at AWSE and Contains DWR Flood System Repair Project (FSRP) Serious Repair Site(s)
- C-: High Likelihood of Levee Failure or Need to Flood Fight at AWSE and Contains DWR FSRP Critical Repair Site(s)
Critical Site: If not repaired, the site presents a significant risk of failure or would impede flood control function or flood fight activities during the next high-water event.
Serious Site: If not repaired in a timely manner, the site has the potential to become critical during the next high-water event.

Proposed Flood Protection Improvements within the District Area would be designed to mitigate the effects of earth movement that may result in inundation due to embankment failure. Slope stability failures are often triggered by increased pore water pressure due to the infiltration of flood water or erosion of embankment material due to river scour. The resulting decrease of shear

resistance (internal resistance to deformation by shearing) can cause the levee slope to move. If pore water pressure becomes sufficiently high, or scour removal of embankment mass becomes sufficiently great, initiation of slope movement may be triggered.

Seepage of flood water under or through the levee embankment can result in internal erosion of levee embankment and/or foundation soil. If the resulting transportation of levee embankment and/or foundation soil away from the levee becomes sufficiently great, initiation of levee embankment movement may be triggered.

4.2 DRAINAGE RELATED FLOODING AND CLIMATE CHANGE

Flooding, associated with high-precipitation storms, excessive seepage, and/or poor run-off discharge and pumping, may pose adverse effects to the residents of the GHAD. Inundation of sediment-laden flood water may result from an inadequate capacity of surface drainage channels, subsurface storm drain infrastructure, and pump stations. Estuary zones such as the Sacramento-San Joaquin River Delta are particularly vulnerable to the potential increased exposure of these geologic hazards that may be enhanced by climate change.

The improvements and ongoing maintenance provided by the GHAD are intended to mitigate the effects of climate change. Drainage improvement projects are designed and engineered to improve the collection, conveyance, and discharge of storm and seepage water. Drainage channels, storm drain pipes, and pump stations are designed to collect rainfall and seepage water and transport it away from developed property for discharge into adjacent waterways and/or detention facilities.

5.0 CRITERIA FOR GHAD RESPONSIBILITY

In forming the GHAD and establishing the assessment levels and budgets for GHAD Activities (as defined in Section 7 below) within the District, it is important to clearly define the limits of the GHAD's responsibilities. The GHAD will accept responsibilities as described in Section 6 of this Plan of Control. However, the intent of this Plan of Control is not to extend the GHAD's responsibilities to every potential situation of inundation or instability; rather, the following are exclusions from GHAD responsibility.

5.1 ISOLATED OR REMOTE FEATURE REQUIRING MITIGATION

The GHAD shall not have sole responsibility to monitor, abate, mitigate, or control slope instability, seepage, or erosion that does not pose a significant threat of damage or inundation of Site Improvements. As used herein, the term "Site Improvements" means buildings, public and private roads, sidewalks, utilities, wastewater treatment facilities, levees, surface drainage facilities, pump stations, swimming pools, tennis courts, gazebos, cabanas, and similar improvements.

5.2 SINGLE PROPERTY

The GHAD will not prevent, mitigate, abate, or control geologic hazards which are limited in area to a single parcel of property unless the geologic hazard has significantly damaged or poses a significant threat of damage to Site Improvements located on other property(ies) within the District.

5.3 GEOLOGIC HAZARDS RESULTING FROM NEGLIGENCE OF PROPERTY OWNER

The GHAD may, in the GHAD Manager's sole discretion, decline to prevent, mitigate, abate, or control geologic hazards which occurred or resulted from any negligence of the homeowner and/or the homeowner's contractors, agents, or employees in developing, investigating, grading, constructing, maintaining, or performing or not performing any work on the subject property as long as the geologic hazard is limited to a single lot, pursuant to the single-property exclusion noted above. If the GHAD bears expense as the result of negligence described in this section, the GHAD may pursue reimbursement from the negligent parties.

5.4 PROPERTY NOT ACCEPTED

The GHAD shall not have responsibility to repair damage on a parcel of real property, which the GHAD has not accepted in accordance with Section 6 below. The GHAD, however, may monitor, abate, mitigate, or control geologic hazards on a parcel of real property which the GHAD has not accepted in accordance with Section 6 and is not excluded from GHAD responsibility by Sections 5.1, 5.2, and 5.3, provided, however, that GHAD responsibility on such parcel shall be limited to the extent necessary to address significant damage to or a significant threat of damage to Site Improvements which are within a parcel of real property which the GHAD has accepted in accordance with Section 6. Should the GHAD be required to respond to a geologic hazard outside the District, the GHAD may take such actions as may be appropriate to recover costs incurred as a result of preventing, mitigating, abating, or controlling such geologic hazard from the responsible party, if any.

5.5 GEOLOGIC HAZARD WHICH REQUIRES EXPENDITURE IN AMOUNT EXCEEDING THE VALUE OF THE THREATENED OR DAMAGED IMPROVEMENT

The GHAD may elect not to prevent, mitigate, abate, or control a geologic hazard where, in the GHAD Manager's sole discretion, the anticipated expenditure required to be funded by the GHAD to prevent, mitigate, abate, or control the geologic hazard will exceed the value of the structure(s) and Site Improvement(s) threatened with damage or loss.

5.6 INUNDATION OF BASEMENTS OR INUNDATION DUE TO FAILURE OF BUILDING PLUMBING

The GHAD may elect not to prevent, mitigate, abate, control, or provide recovery for building inundation of basements or in the event that building inundation results from the failure of plumbing associated with the building.

5.7 NO REIMBURSEMENT OF EXPENSES INCURRED BY PROPERTY OWNERS

The GHAD will not be obligated to reimburse a property owner, municipal agency, levee maintenance district, or reclamation district for expenses incurred for the prevention, mitigation, abatement, or control of a geologic hazard absent a written agreement between the property owner and the GHAD to that effect, which agreement has been executed prior to the property owner incurring said expenses and following an exploration conducted by the GHAD.

5.8 RECONSIDERATION AND APPEAL PROCEDURES

A property owner directly affected by a decision of the GHAD Manager ("GHAD Manager Decision") may request reconsideration of that decision through the following procedures. The property owner shall, within thirty (30) days from the date of a written GHAD Manager Decision, file a written request with the GHAD Manager, specifying the grounds for reconsideration, and the relief sought, including the owner's special interest and injury. Within fifteen (15) days of receipt of the property owner's written request for reconsideration, the GHAD Manager shall reconsider its decision and shall provide a copy of its written decision to the property owner ("GHAD Manager Reconsideration Decision"). The property owner may appeal the GHAD Manager Reconsideration Decision to the Board of Directors. This appeal must be filed with the GHAD Manager within fifteen (15) days from the date of the GHAD Manager Reconsideration Decision. The appeal must include the specific grounds for the appeal and the property owner's requested relief on a form provided by the GHAD Manager. The Board will make the final decision on the appeal. The GHAD Manager will proceed based on the decision of the Board of Directors.

6.0 ACCEPTANCE

6.1 ACTIVATION OF ASSESSMENT

An annual assessment shall be authorized on all parcels in the GHAD. The assessment shall be levied by the GHAD on each individual parcel beginning the first fiscal year following formation of the GHAD and the authorization of the assessment.

6.2 RESPONSIBILITY FOR GHAD ACTIVITIES

The GHAD shall not have the responsibility to perform the outlined activities until (1) the GHAD has been formed, (2) the assessment has been activated as outlined in the previous section, and (3) the GHAD has accepted responsibility for the project improvements. The GHAD shall accept responsibility once the criteria for transfer of responsibility have been met. The date of this turn-over ("Acceptance Date") may be extended at the sole discretion of the GHAD Board of Directors provided that the assessments shall continue to be levied during the extension period and that notice of such extension is delivered to the GHAD Manager at least 30 days prior to the turn-over date.

6.3 PROCESS FOR TRANSFERRING RESPONSIBILITY FOR GHAD ACTIVITIES

After the Acceptance Date for the GHAD Parcels, the process for transferring responsibility for performing GHAD Activities and Responsibilities on such Parcel(s) shall be as follows.

- Following midnight (Pacific Time) after 60 full calendar days following the levy of the approved GHAD assessment, the GHAD will undertake the activities and responsibilities defined in Section 7 herein below for the Parcels within the District, subject to the availability of sufficient funds.

As part of the transfer, the City of Isleton will provide the GHAD, for its use, copies of the applicable geotechnical exploration reports, as-built grading plans, as-built levee plans, as-built corrective grading plans, as-built improvement plans, as-built subdrain plans, or other pertinent documents as requested by the GHAD.

The GHAD is not responsible for any GHAD Activities as defined in Section 7 until it accepts such responsibilities pursuant to this section.

7.0 GHAD MONITORING, MAINTENANCE, REPAIR AND/OR RECOVERY RESPONSIBILITIES

Several entities shall have ownership, maintenance, and repair duties of flood protection structures and drainage improvements within the District Area. Flood protection structures (levees and floodwalls) and drainage improvements (open channels, storm drain pipes, and pump stations) are the primary responsibility of Levee Maintenance Districts, Reclamation Districts, Municipal Public Works Departments, County Flood Control Agencies, and local Joint Powers Authorities. The GHAD will assume monitoring, maintenance, repair, and/or recovery responsibilities, in cooperation with or in support of the primary responsible entity, for the following site facilities, improvements, and activities (“GHAD Activities”).

- Monitoring and repair of flood protection levees and floodwalls
- Monitoring and emergency repair of drainage channels
- Monitoring and emergency repair of storm drain inlets, outfalls, pipelines, and pump stations
- Monitoring and maintenance of GHAD-installed measurement devices, such as piezometers, inclinometers, and tiltmeters, if any
- Design, acquisition, and deployment of temporary flood barriers and flood fight staging improvements
- Flood damage recovery of residential, commercial, industrial, and public buildings
- Installation and operation of temporary pumping/flood fighting materials (e.g., portable flood walls, pumps)
- Improving the conveyance of flood and or waste water to reduce the potential for soil erosion

7.1 GEOTECHNICAL TECHNIQUES FOR MITIGATION OF INUNDATION DUE TO EMBANKMENT FAILURE AND EROSION/SOIL TRANSPORTATION HAZARDS

The techniques that may be employed by the GHAD to prevent, mitigate, abate, or control geologic hazards include, but are not limited to, the following.

- Stabilization (either partial or total) of the landside or waterside of levee embankments by removal and replacement with compacted fill
- Construction of structures to retain or divert sediment-laden floodwater
- Construction of downstream relief cuts
- Placement of drained or undrained engineered seepage berm fill
- Placement of subsurface seepage barrier materials
- Construction of additional surface ditches, detention basins, and/or pump stations

In the event that building inundation cannot be wholly or partially prevented, the detrimental impacts of the inundation can be minimized through monetary recovery distributions.

8.0 PRIORITY OF GHAD EXPENDITURES

The GHAD is responsible for responding to emergencies, completing scheduled repairs and maintenance, and constructing improvements that reduce the potential for flood-related geologic hazards. The GHAD's ability to respond, and the extent of the responsiveness, depends on the amount of the available funds and the parameters set forth in the GHAD-Board-approved operating budget. The GHAD may be funded through real-property assessments, which cannot be increased in real terms without a favorable vote of the residents within the GHAD boundaries. Alternatively, funding may be available through state and federal grants. When available funds are not sufficient to undertake all emergency and/or the identified remedial and preventive measures or recovery costs, the expenditures are to be prioritized as follows in descending order of priority.

- (A) Prevention, mitigation, abatement, or control of, or recovery from, geologic hazards that have either significantly damaged or pose a significant threat of damage to residential, commercial, and industrial buildings; levees and floodwalls; critical underground utilities, surface drainage channels, and pump stations; or paved streets.
- (B) Prevention, mitigation, abatement, or control of geologic hazards which have either significantly damaged or pose a significant threat of damage to ancillary structures, including but not limited to water quality facilities, pools, cabanas or restroom buildings.
- (C) Prevention, mitigation, abatement, or control of geologic hazards which have either significantly damaged or pose a significant threat of damage to open space amenities.

In performing its duties as described above, the GHAD may seek funding or reimbursements from public and private entities or agencies including, but not limited to, FEMA, the U.S. Army Corps of Engineers, other California state agencies, City and County agencies, insurance companies, etc.

9.0 MAINTENANCE AND MONITORING SCHEDULE

Geologic features and GHAD-maintained improvements defined in Section 7 shall be inspected by the GHAD Manager or its assigned consultants as presented below. The site inspections shall be undertaken at appropriate intervals as determined by the GHAD Manager using supporting documents prepared for the District Area and the Site Improvements. The GHAD budget should provide for three or more inspections in years of heavy rainfall and/or high river flow. Generally, the inspections should take place in October, prior to the first significant rainfall; mid-winter as necessary during heavy rainfall and/or high riverine flow; and in early April at the end of the rainy season. The frequency of the inspections should increase, depending upon the intensity and recurrence of rainfall and/or high river flow.

The GHAD shall obtain copies of hydraulic assessments and geologic or geotechnical exploration reports related to levees and other improvements, and the GHAD shall retain these reports in the records of the GHAD. In addition, copies of any earthwork-related testing and observation reports and as-built drawings available shall be obtained to the GHAD and maintained as part of the GHAD records.

Following are guidelines for a monitoring plan. The actual timing, scope, frequency, and other details regarding such maintenance, inspection, and similar activities shall be at the discretion of the GHAD Manager.

- The GHAD Manager’s engineer and/or geologist may inspect the outboard and (as applicable) inboard levee slopes and access roads on a regular schedule in coordination with inspections by other local, state, or federal agencies. Inspections should be scheduled twice each year, budget permitting. One inspection should be in the fall prior to the onset of winter rains. The inspector should check deformations, including evidence of erosion, seepage, and sloughing. Repairs and maintenance should be coordinated with the levee maintenance or reclamation district and performed on a regular schedule.
- Subsurface drain outlets should be checked. Water flowing from these outlets should be measured and recorded during each inspection. The inspections should take place at least twice annually, preferably in the fall and spring. Any suspicious interruption in flow should signal a need to unplug or clean by flushing the affected drain.
- Excess silt, sediment, or other obstructions in channels/ditches or other drainage courses should be removed, in coordination with the applicable flood control district, JPA, or reclamation district.
- Piezometers to measure groundwater levels, or instruments such as inclinometers or tiltmeters measuring potential slope instability should be monitored as recommended, if installed.
- Settlement monitoring devices, if any, should be measured periodically and tracked. In the event of anomalous readings or excessive settlement, the monitoring frequency should be increased.
- Inlets, outfalls, or trash racks, if used, must be kept free of debris and spillways must be maintained. Additionally, water detention facilities and water quality facilities should be inspected and maintained. It is anticipated that initially cleanup of vegetation and removal of silt at least once every two years would be in order. Attention should be given to plantings or other obstructions which may interfere with access by power equipment.
- An annual inspection shall be made by a State-licensed Professional Engineer and/or Certified Engineering Geologist to assess the effectiveness of the preventive maintenance program and to make recommendations as to which inundation reduction erosion/sediment transportation reduction measures should be undertaken in the next fiscal year. Appropriate site-specific study of potential flooding conditions shall be determined at that time. Consultants, if necessary, will be retained to undertake the needed studies. An annual inspection report to the GHAD shall be prepared by the Professional Engineer and/or Certified Engineering Geologist.

10.0 OWNERSHIP AND MANAGEMENT

Ownership, funding sources and maintenance responsibilities shall be as shown on the following table.

TABLE 10.0-1: Operation and Maintenance Responsibilities, Funding Sources

FACILITY/ACTIVITY	RESPONSIBLE ENTITY	FUNDING
a. Levee ongoing maintenance, including slope stability, erosion/underseepage control, and emergency response	Brannan-Andrus Levee Maintenance District (BALMD)	BALMD Assessment DWR Subventions Funding

FACILITY/ACTIVITY	RESPONSIBLE ENTITY	FUNDING
b. Interior drainage and pumping operation maintenance and emergency response	RD 407 RD 317 RD 2067	RD Assessments
c. Flood-fighting and Emergency Operation Plan implementation (e.g., temporary barriers)	BALMD/GHAD	BALMD/GHAD Assessments
d. Specifically identified flood infrastructure improvement projects (local cost share)	BALMD/GHAD	BALMD/GHAD Assessments
e. To Be Determined abatement and improvement projects	GHAD	GHAD Assessment
f. Baseline flood inundation recovery benefit	GHAD	GHAD Assessment
g. Private improvements	Private	Private
h. Public improvements	Public	Public, non-GHAD funding sources

11.0 RIGHT-OF-ACCESS

The GHAD Board of Directors, officers, employees, consultants, contractors, agents, and representatives shall have the right to enter upon all lands within the District Area as shown on Appendix C for the purpose of performing the GHAD Activities defined in this Plan of Control. Such GHAD Activities include, but are not limited to, the monitoring, maintenance repair, and/or recovery of those improvements listed in Section 7. Should the District need to access private residential lots to fulfill its duties under the Plan of Control, the District shall provide the affected landowner and/or resident with 72 hours advanced notice unless, in the reasonable judgment of the GHAD Manager, an emergency situation exists which makes immediate access necessary to protect the public health and safety, in which case no advanced notice is required, but the District shall inform the landowner and/or resident as soon as reasonably possible.

12.0 GLOSSARY

District Area – General area within the boundaries and subjected to the GHAD, as shown in Appendix B, Exhibit B.

Engineer's Report – The document that establishes the individual property owners' GHAD assessment limit based on the projected expenses (budget) of the GHAD.

Geologic Hazard – An actual or threatened embankment failure soil erosion/flood water transportation, earthquake, fault movement, or any other natural or unnatural movement of land or earth as defined in GHAD Law, Public Resource Code Section 26507).

Geologic Hazard Abatement District (GHAD) Manager – An entity with a licensed Geotechnical Engineer and a Certified Engineering Geologist who will oversee the operations of the GHAD, including preparation of GHAD budgets. The GHAD Manager is appointed by and reports to the GHAD Board of Directors.

GHAD Activities – Improvements and responsibilities listed in Section 7 of this Plan of Control.

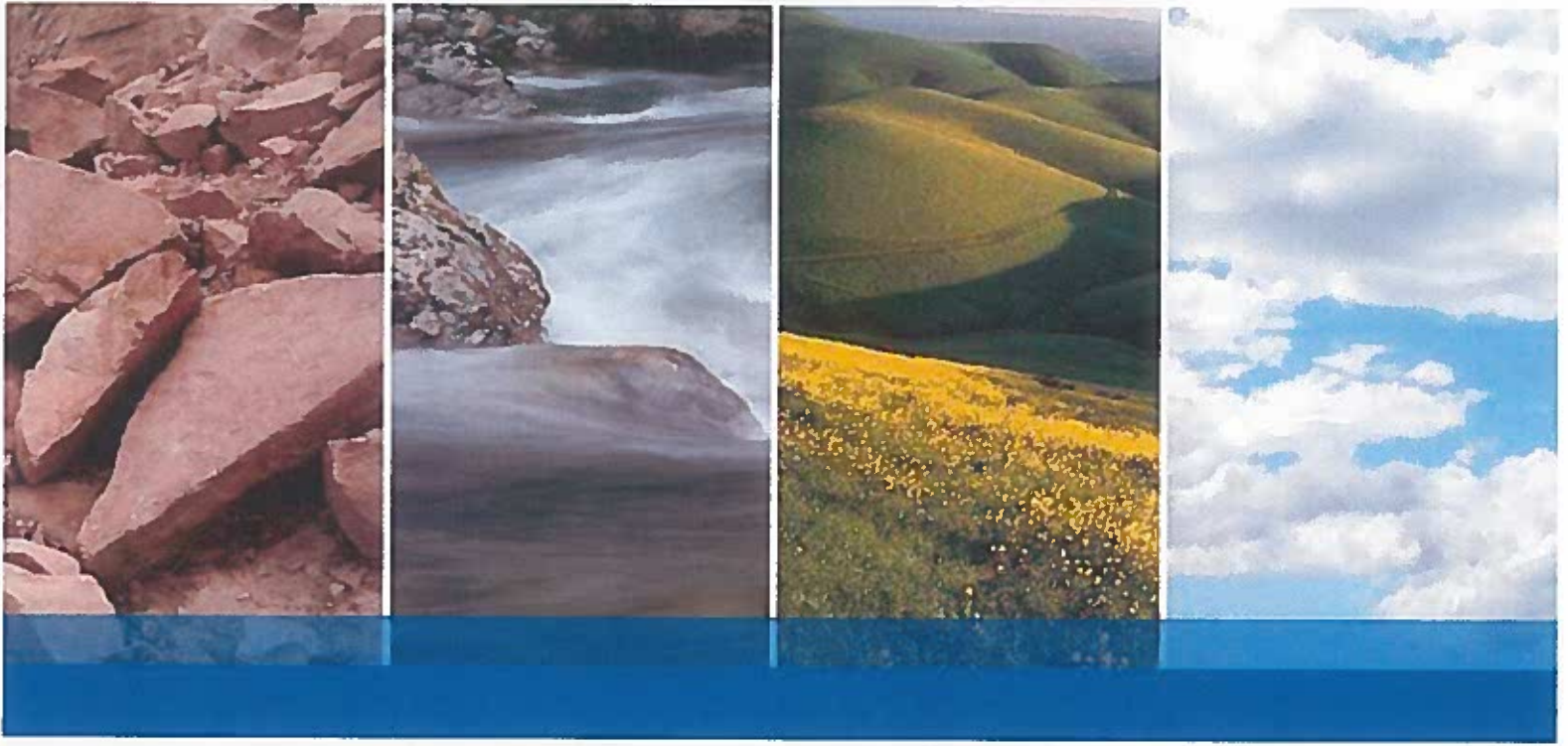
GHAD Attorney – An entity with a law license that will advise the GHAD Board and Manager.

Site Improvements – Buildings, public and private roads, sidewalks, utilities, wastewater treatment facilities, levees, surface drainage facilities, pump stations, swimming pools, tennis courts, gazebos, cabanas, or similar improvements.

SELECTED REFERENCES

1. Atwater, B.F., 1982; Geologic Maps of the Sacramento – San Joaquin Delta, California, U.S. Geological Survey, Miscellaneous Field Studies Map MF 1401.
2. Burroughs, Ernest, 1967; Rio Vista Gas Field: Summary of Operations California Oil Fields; California Division of Oil and Gas; Sacramento, California.
3. GEI; Flood Risk Reduction Feasibility Study for: Delta Legacy Community of Isleton, California; DRAFT, 2021.

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APPENDIX A

FIGURE 1: District Geologic Map



VICINITY MAP
1"=10,000'
0 5,000 10,000
FEET

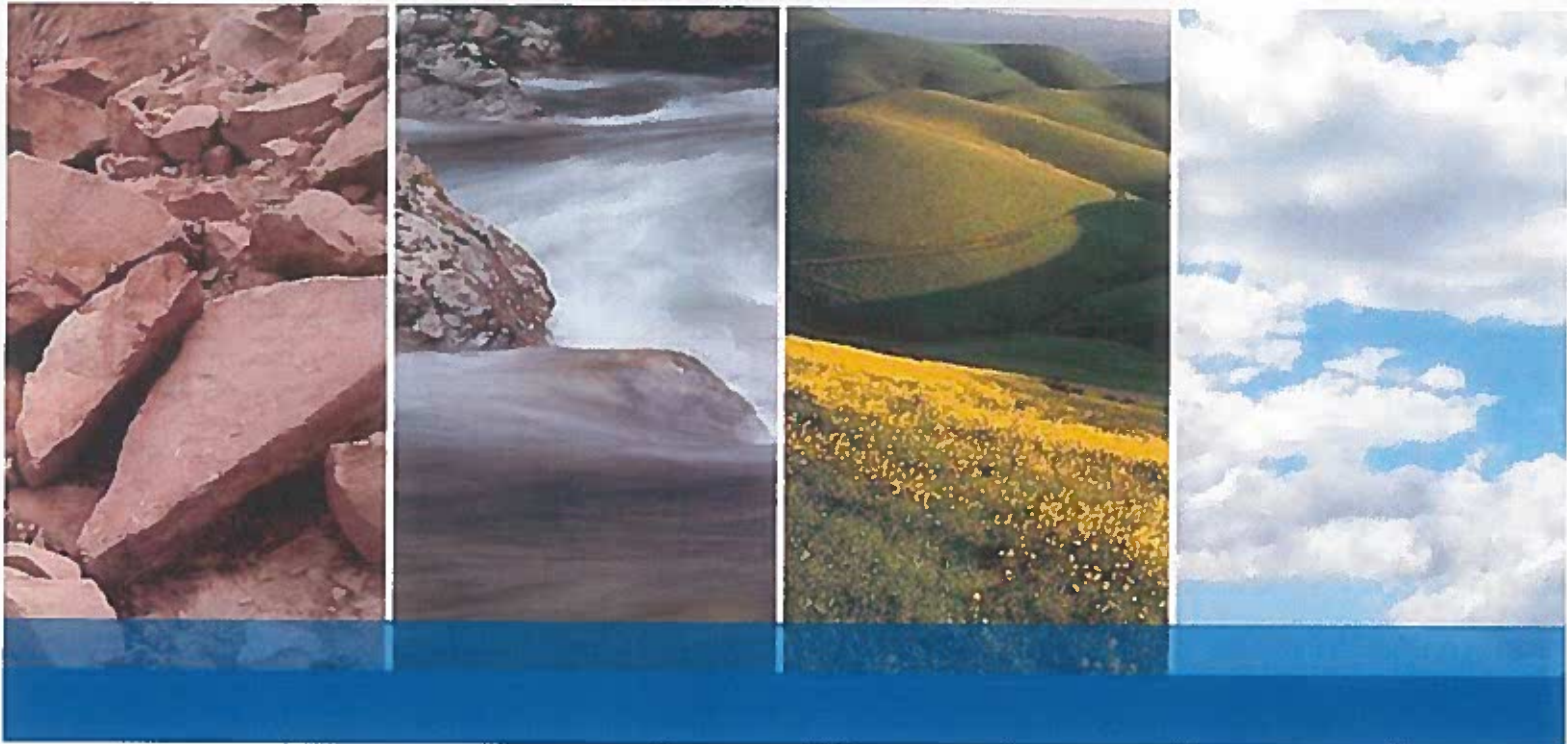


EXPLANATION
ALL LOCATIONS ARE APPROXIMATE
□ DISTRICT BOUNDARY



BASE MAP SOURCE: GOOGLE EARTH MAPPING SERVICE 6/26/2001
DISTRICT BOUNDARY
DELTA REGION GHAD
ISLETON, CALIFORNIA

PROJECT NO. - P2012 000 303
SCALE - AS SHOWN
DRAWN BY: DV
CHECKED BY: JT



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APPENDIX B

EXHIBIT A – List of APNs within GHAD

APPENDIX B
EXHIBIT A – List of APNs within GHAD

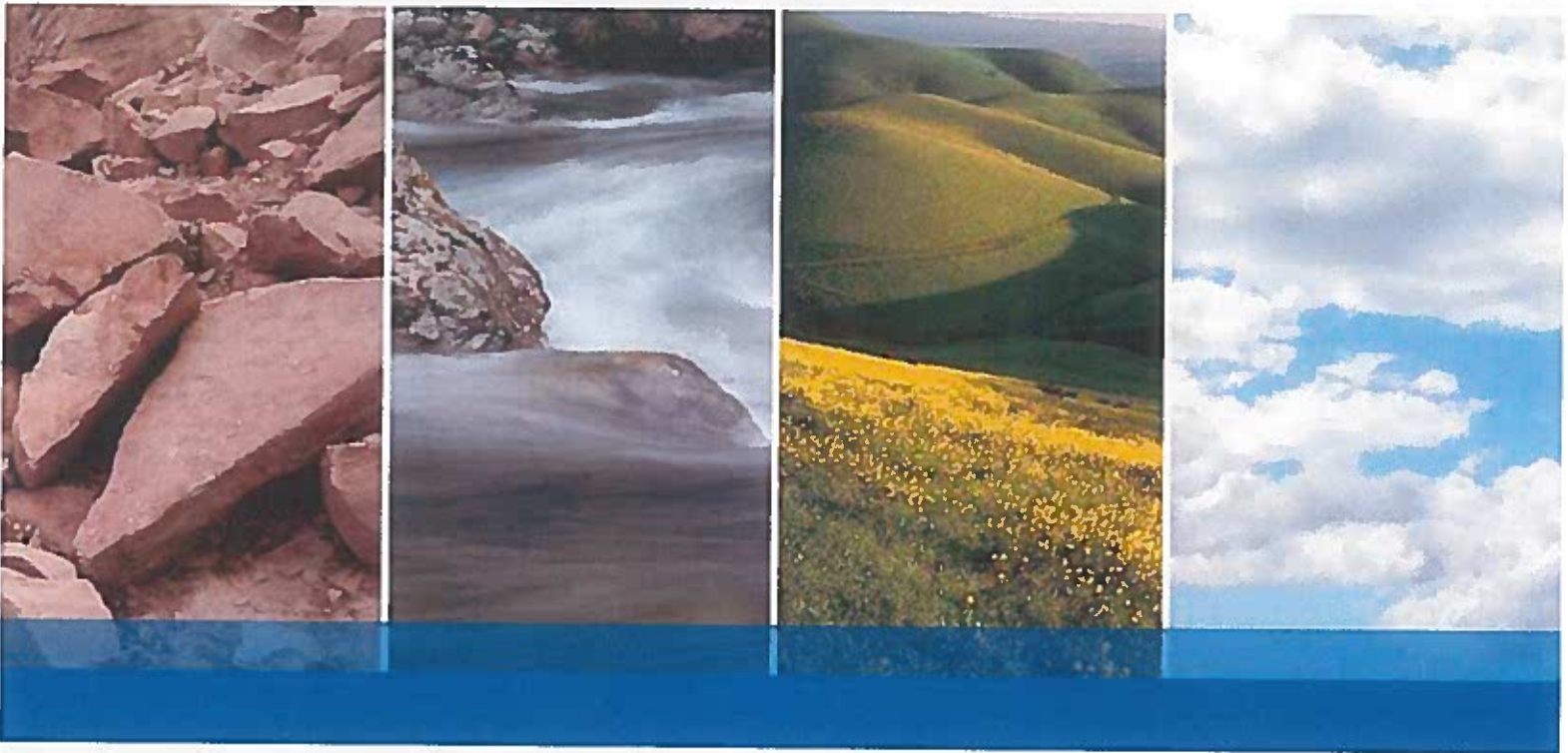
APN	Street No. and Name	APN	Street No. and Name	APN	Street No. and Name
15700210010000	200 1ST ST	15700280060000	207 B ST	15700320130000	27 MAIN ST
15700210020000	208 1ST ST	15700280070000	209 B ST	15700330120000	28 MAIN ST
15700110010000	1ST ST	15700630010000	301 B ST	15700320140000	29 MAIN ST
15700110020000	1ST ST	15700620050000	302 B ST	15700320020000	3 MAIN ST
15700210110000	1ST ST	15700630020000	303 B ST	15700320150000	31 MAIN ST
15700210120000	1ST ST	15700630030000	305 B ST	15700320160000	33 MAIN ST
15700220080000	1ST ST	15700630040000	307 B ST	15700330130000	34 MAIN ST
15700150020000	100 2ND ST	15700650070000	308 B ST	15700320170000	35 MAIN ST
15700130050000	101 2ND ST	15700630060000	309 B ST	15700330140000	36 MAIN ST
15700130060000	101 2ND ST	15700650090000	320 B ST	15700320180000	37 MAIN ST
15700130330000	103 2ND ST	15700210040000	B ST	15700320340000	37 MAIN ST
15700140130000	104 2ND ST	15702700150000	700 BERNADETTE PL	15700340190000	38 MAIN ST
15700130040000	105 2ND ST	15702700280000	701 BERNADETTE PL	15700320200000	39 MAIN ST
15700130320000	105 2ND ST	15702700160000	702 BERNADETTE PL	15700330010000	4 MAIN ST
15700140020000	106 2ND ST	15702700270000	703 BERNADETTE PL	15700340020000	40 MAIN ST
15700140110000	106 2ND ST	15702700170000	704 BERNADETTE PL	15700340030000	40 MAIN ST
15700220090000	203 2ND ST	15702700260000	705 BERNADETTE PL	15700320310000	41 MAIN ST
15700270010000	204 2ND ST	15702700180000	706 BERNADETTE PL	15700340040000	42 MAIN ST
15700220040000	207 2ND ST	15702700250000	707 BERNADETTE PL	15700320300000	43 MAIN ST
15700270020000	208 2ND ST	15702700190000	708 BERNADETTE PL	15700340050000	44 MAIN ST
15700220050000	209 2ND ST	15702700240000	709 BERNADETTE PL	15700320220000	45 MAIN ST
15700270030000	212 2ND ST	15702700200000	710 BERNADETTE PL	15700340060000	46 MAIN ST
15700220060000	215 2ND ST	15702700230000	711 BERNADETTE PL	15700320350000	47 MAIN ST
15700270040000	216 2ND ST	15702700210000	712 BERNADETTE PL	15700340070000	48 MAIN ST
15700280010000	302 2ND ST	15702700220000	713 BERNADETTE PL	15700320360000	49 MAIN ST
15700210080000	307 2ND ST	15700630050000	310 C ST	15700320030000	5 MAIN ST
15700250010000	400 2ND ST	15700260040000	501 D ST	15700340090000	50 MAIN ST
15700250020000	404 2ND ST	15700670150000	502 D ST	15700320240000	51 MAIN ST
15700250090000	406 2ND ST	15700130070000	104 DELTA AVE	15700340100000	52 MAIN ST
15700250050000	408 2ND ST	15700130080000	106 DELTA AVE	15700320250000	53 MAIN ST
15700250100000	410 2ND ST	15700130090000	108 DELTA AVE	15700340160000	54 MAIN ST
15700250080000	412 2ND ST	15700130100000	202 DELTA AVE	15700320260000	55 MAIN ST
15700260010000	500 2ND ST	15700150010000	203 DELTA AVE	15700340170000	56 MAIN ST
15700240020000	501 2ND ST	15700130110000	204 DELTA AVE	15700320270000	57 MAIN ST
15700260020000	502 2ND ST	15700150090000	205 DELTA AVE	15700340120000	58 MAIN ST
15700210050000	2ND ST	15700130120000	206 DELTA AVE	15700320280000	59 MAIN ST
15700280020000	2ND ST	15700150080000	207 DELTA AVE	15700340130000	60 MAIN ST
15700210100000	411 2ND ST # A	15700130130000	208 DELTA AVE	15700320290000	61 MAIN ST
15700160160000	10 3RD AVE	15700150070000	209 DELTA AVE	15700340150000	66 MAIN ST
15700130350000	11 3RD AVE	15700150060000	301 DELTA AVE	15700320040000	7 MAIN ST
15700160080000	12 3RD AVE	15700160110000	302 DELTA AVE	15700330020000	8 MAIN ST
15700160070000	14 3RD AVE	15700150050000	303 DELTA AVE	15700320050000	9 MAIN ST
15700130210000	15 3RD AVE	15700160120000	304 DELTA AVE	15700230010000	MAIN ST
15700160060000	16 3RD AVE	15700720010000	305 DELTA AVE	15700240010000	MAIN ST
15700130220000	17 3RD AVE	15700710110000	306 DELTA AVE	15700340140000	MAIN ST
15700160050000	18 3RD AVE	15700720050000	307 DELTA AVE	15702310200000	200 MINER CT
15700130230000	19 3RD AVE	15700710120000	308 DELTA AVE	15702310210000	201 MINER CT
15700160040000	20 3RD AVE	15700130020000	DELTA AVE	15702310190000	202 MINER CT
15700130240000	21 3RD AVE	15700540020000	10 E 3RD ST	15702310220000	203 MINER CT
15700160150000	22 3RD AVE	15700550010000	14 E 3RD ST	15702310180000	204 MINER CT
15700160140000	24 3RD AVE	15700530080000	15 E 3RD ST	15702310230000	205 MINER CT
15700130290000	25 3RD AVE	15700550020000	16 E 3RD ST	15702310170000	206 MINER CT
15702320010000	28 3RD AVE	15700530100000	17 E 3RD ST	15702310240000	207 MINER CT
15702320020000	30 3RD AVE	15700530110000	E 3RD ST	15702310160000	208 MINER CT
15702320030000	32 3RD AVE	15700520070000	402 F ST	15702600220000	700 NATALIE LN
15702310150000	33 3RD AVE	15700530040000	403 F ST	15702600350000	701 NATALIE LN
15702320040000	34 3RD AVE	15700520080000	404 F ST	15702600230000	702 NATALIE LN
15702310140000	35 3RD AVE	15700520090000	406 F ST	15702600340000	703 NATALIE LN
15702320050000	36 3RD AVE	15700540010000	407 F ST	15702600240000	704 NATALIE LN
15700130140000	5 3RD AVE	15700520100000	408 F ST	15702600330000	705 NATALIE LN
15700160100000	6 3RD AVE	15700540160000	409 F ST	15702600250000	706 NATALIE LN
15700130150000	7 3RD AVE	15700520110000	410 F ST	15702600320000	707 NATALIE LN
15700130170000	9 3RD AVE	15700540140000	411 F ST	15702600260000	708 NATALIE LN
15700130340000	3RD AVE	15700520130000	412 F ST	15702600310000	709 NATALIE LN
15700610090000	102 3RD ST	15700540130000	413 F ST	15702600270000	710 NATALIE LN
15700610100000	104 3RD ST	15700520140000	414 F ST	15702600300000	711 NATALIE LN
15700140150000	107 3RD ST	15700540120000	415 F ST	15702600280000	712 NATALIE LN
15700610030000	108 3RD ST	15700520150000	416 F ST	15702600290000	713 NATALIE LN

APPENDIX B
EXHIBIT A – List of APNs within GHAD

APN	Street No. and Name	APN	Street No. and Name	APN	Street No. and Name
15700140070000	109 3RD ST	15700540110000	417 F ST	15702600460000	501 OLIVIA LN
15700610040000	110 3RD ST	15700520160000	418 F ST	15702600450000	503 OLIVIA LN
15700270090000	205 3RD ST	15700540100000	419 F ST	15702600440000	505 OLIVIA LN
15700620020000	206 3RD ST	15700520170000	420 F ST	15702600430000	507 OLIVIA LN
15700270080000	207 3RD ST	15700520180000	422 F ST	15702600420000	509 OLIVIA LN
15700620030000	208 3RD ST	15700530120000	704 F ST	15702600410000	511 OLIVIA LN
15700270070000	209 3RD ST	15700520120000	F ST	15702600400000	513 OLIVIA LN
15700270060000	211 3RD ST	15700520310000	F ST	15702600390000	515 OLIVIA LN
15700620040000	212 3RD ST	15700530030000	F ST	15702600380000	517 OLIVIA LN
15700270050000	213 3RD ST	15700540150000	F ST	15702600370000	519 OLIVIA LN
15700730080000	10 4TH AVE	15700540170000	10 G ST	15702600360000	521 OLIVIA LN
15700710180000	11 4TH AVE	15700540070000	14 G ST	15702700410000	601 OLIVIA LN
15700710050000	13 4TH AVE	15700550080000	15 G ST	15702700400000	603 OLIVIA LN
15700730070000	14 4TH AVE	15700540080000	16 G ST	15702700390000	605 OLIVIA LN
15700710040000	15 4TH AVE	15700540090000	18 G ST	15702700380000	607 OLIVIA LN
15700730260000	16 4TH AVE	15700550030000	3 G ST	15702700370000	609 OLIVIA LN
15700710160000	17 4TH AVE	15700540030000	4 G ST	15702700360000	611 OLIVIA LN
15700710150000	19 4TH AVE	15700550040000	5 G ST	15702700350000	613 OLIVIA LN
15700730390000	2 4TH AVE	15700540040000	8 G ST	15702700340000	615 OLIVIA LN
15700730040000	20 4TH AVE	15700550050000	9 G ST	15702700330000	617 OLIVIA LN
15700710020000	21 4TH AVE	15700550060000	G ST	15702700320000	619 OLIVIA LN
15700730030000	22 4TH AVE	15700550070000	G ST	15702700310000	621 OLIVIA LN
15700730020000	24 4TH AVE	15700520250000	11 GAS WELL RD	15702700300000	623 OLIVIA LN
15700710010000	25 4TH AVE	15700520240000	15 GAS WELL RD	15702700290000	625 OLIVIA LN
15702340020000	26 4TH AVE	15700520220000	19 GAS WELL RD	15700400740000	OLIVIA LN
15700730010000	26 4TH AVE	15700520210000	23 GAS WELL RD	15700400750000	OLIVIA LN
15702320130000	27 4TH AVE	15700520200000	25 GAS WELL RD	15700400760000	OLIVIA LN
15702320120000	29 4TH AVE	15700520280000	3 GAS WELL RD	15700400430000	14719 RIVER RD
15702320110000	31 4TH AVE	15700520270000	7 GAS WELL RD	15700310020000	RIVER RD
15702330010000	32 4TH AVE	15700520260000	9 GAS WELL RD	15700320010000	RIVER RD
15702320100000	33 4TH AVE	15700510090000	GAS WELL RD	15700400040000	RIVER RD
15702330020000	34 4TH AVE	15700510110000	GAS WELL RD	15700400050000	RIVER RD
15702320090000	35 4TH AVE	15700510120000	GAS WELL RD	15700400020000	RIVER RD
15702330030000	36 4TH AVE	15700510180000	GAS WELL RD	15700400440000	RIVER RD
15702330040000	38 4TH AVE	15700520190000	GAS WELL RD	15702310300000	RIVER RD
15700710100000	5 4TH AVE	15700520230000	GAS WELL RD	15700660070000	10 SCHOOL ST
15700730100000	6 4TH AVE	15700520300000	GAS WELL RD	15700670090000	3 SCHOOL ST
15700730090000	8 4TH AVE	15700510100000	8 GASWELL RD	15700660050000	4 SCHOOL ST
15700710070000	9 4TH AVE	15702600470000	GEORGE PL	15700670110000	5 SCHOOL ST
15700710080000	4TH AVE	15702600480000	GEORGE PL	15700670130000	7 SCHOOL ST
15700710090000	4TH AVE	15702700420000	GEORGE PL	15700660060000	8 SCHOOL ST
15700710170000	4TH AVE	15702700430000	GEORGE PL	15700400680000	9 SCHOOL ST
15700640010000	102 4TH ST	15702310110000	200 GEORGIANA CT	15702700010000	700 SHANE TR
15700640020000	104 4TH ST	15702310120000	201 GEORGIANA CT	15702700140000	701 SHANE TR
15700610070000	105 4TH ST	15702310100000	202 GEORGIANA CT	15702700020000	702 SHANE TR
15700640030000	106 4TH ST	15702310130000	203 GEORGIANA CT	15702700130000	703 SHANE TR
15700640080000	108 4TH ST	15702310090000	204 GEORGIANA CT	15702700030000	704 SHANE TR
15700640090000	110 4TH ST	15702310080000	206 GEORGIANA CT	15702700120000	705 SHANE TR
15700650010000	202 4TH ST	15702310070000	208 GEORGIANA CT	15702700040000	706 SHANE TR
15700650020000	204 4TH ST	15702320060000	301 GEORGIANA DR	15702700110000	707 SHANE TR
15700620090000	205 4TH ST	15702310060000	302 GEORGIANA DR	15702700050000	708 SHANE TR
15700650030000	206 4TH ST	15702320070000	303 GEORGIANA DR	15702700100000	709 SHANE TR
15700620080000	207 4TH ST	15702310050000	304 GEORGIANA DR	15702700060000	710 SHANE TR
15700650040000	208 4TH ST	15702320080000	305 GEORGIANA DR	15702700090000	711 SHANE TR
15700620070000	209 4TH ST	15702310040000	306 GEORGIANA DR	15702700070000	712 SHANE TR
15700620060000	211 4TH ST	15702310030000	308 GEORGIANA DR	15702700080000	713 SHANE TR
15700660010000	100 5TH ST	15702310020000	402 GEORGIANA DR	15700110040000	STATE HWY 160
15700640070000	115 5TH ST	15702310010000	404 GEORGIANA DR	15702310290000	14801 STATE HWY 160
15700670050000	2 5TH ST	15703100020000	100 H ST	15700110030000	14972 STATE HWY 160
15700670020000	408 5TH ST	15700400270000	101 H ST	15700400450000	STATE HWY 160
15700670120000	412 5TH ST	15700400010000	201 H ST	15700400460000	STATE HWY 160
15700670060000	416 5TH ST	15700400250000	501 H ST	15700400470000	STATE HWY 160
15700660040000	904 5TH ST	15700400690000	H ST	15700400480000	STATE HWY 160
15700640060000	5TH ST	15703100010000	H ST	15700400370000	21 TYLER ISLAND BRIDGE RD
15700660020000	5TH ST	15700740040000	100 JACKSON BLVD	15700400560000	752 TYLER ISLAND BRIDGE RD
15700660030000	5TH ST	15700140120000	201 JACKSON BLVD	15700400120000	756 TYLER ISLAND BRIDGE RD
15700670010000	5TH ST	15700140100000	205 JACKSON BLVD	15700400340000	760 TYLER ISLAND BRIDGE RD
15700400170000	100 6TH ST	15700150030000	206 JACKSON BLVD	15700400350000	762 TYLER ISLAND BRIDGE RD

APPENDIX B
EXHIBIT A – List of APNs within GHAD

APN	Street No. and Name	APN	Street No. and Name	APN	Street No. and Name
15700400510000	401 6TH ST	15700730360000	215 JACKSON BLVD	15700400360000	764 TYLER ISLAND BRIDGE RD
15700400530000	501 6TH ST	15701000690000	301 JACKSON BLVD	15700400100000	TYLER ISLAND BRIDGE RD
15700400600000	502 6TH ST	15700720020000	310 JACKSON BLVD	15700400400000	TYLER ISLAND BRIDGE RD
15700400540000	605 6TH ST	15700610080000	311 JACKSON BLVD	15700400650000	TYLER ISLAND BRIDGE RD
15700400260000	701 6TH ST	15700740030000	400 JACKSON BLVD	15700400210000	TYLER ISLAND RD
15700400240000	801 6TH ST	15701000710000	401 JACKSON BLVD	15700400730000	TYLER ISLAND RD
15700400570000	6TH ST	157007200310000	402 JACKSON BLVD	15700260030000	411 UNION ST
15700400720000	6TH ST	15701000700000	501 JACKSON BLVD	15700510010000	412 UNION ST
15700140060000	111 A ST	15700720030000	99 JACKSON BLVD	15700510160000	604 UNION ST
15700270100000	203 A ST	15700150040000	JACKSON BLVD	15700510170000	606 UNION ST
15700140140000	204 A ST	15700400500000	JACKSON BLVD	15700510070000	608 UNION ST
15700140050000	206 A ST	15700720040000	JACKSON BLVD	15700510190000	610 UNION ST
15700620010000	301 A ST	15700730200000	JACKSON BLVD	15700520010000	612 UNION ST
15700620110000	303 A ST	15700730210000	JACKSON BLVD	15700520020000	614 UNION ST
15700610050000	304 A ST	15700740010000	JACKSON BLVD	15700520030000	616 UNION ST
15700620120000	305 A ST	15700740020000	JACKSON BLVD	15700520330000	618 UNION ST
15700610060000	308 A ST	15702600070000	701 JOSEPH PL	15700520050000	620 UNION ST
15700120030000	A ST	15702600060000	703 JOSEPH PL	15700520370000	622 UNION ST
15701000590000	1 ANDRUS CIR	15702600050000	705 JOSEPH PL	15700520360000	624 UNION ST
15702340030000	28 ANDRUS CIR	15702600040000	707 JOSEPH PL	15700520350000	626 UNION ST
15700730320000	30 ANDRUS CIR	15702600030000	709 JOSEPH PL	15700520340000	628 UNION ST
15700730330000	40 ANDRUS CIR	15702600020000	711 JOSEPH PL	15700340180000	703 UNION ST
15700730340000	50 ANDRUS CIR	15702600010000	713 JOSEPH PL	15700530050000	706 UNION ST
15702600080000	700 ANNEMARIE WAY	15700330030000	10 MAIN ST	15700530070000	712 UNION ST
15702600210000	701 ANNEMARIE WAY	15700320060000	11 MAIN ST	15700340080000	715 UNION ST
15702600090000	702 ANNEMARIE WAY	15700330040000	12 MAIN ST	15700290010000	UNION ST
15702600200000	703 ANNEMARIE WAY	15700320070000	13 MAIN ST	15700510020000	UNION ST
15702600100000	704 ANNEMARIE WAY	15700330050000	14 MAIN ST	15700510030000	UNION ST
15702600190000	705 ANNEMARIE WAY	15700320080000	15 MAIN ST	15700510040000	UNION ST
15702600110000	706 ANNEMARIE WAY	15700330060000	16 MAIN ST	15700510150000	UNION ST
15702600180000	707 ANNEMARIE WAY	15700320090000	17 MAIN ST	15700520320000	UNION ST
15702600120000	708 ANNEMARIE WAY	15700330070000	18 MAIN ST	15700530060000	UNION ST
15702600170000	709 ANNEMARIE WAY	15700330080000	20 MAIN ST	15700530090000	UNION ST
15702600130000	710 ANNEMARIE WAY	15700320100000	21 MAIN ST	15700400180000	
15702600160000	711 ANNEMARIE WAY	15700330090000	22 MAIN ST	15700400320000	
15702600140000	712 ANNEMARIE WAY	15700320110000	23 MAIN ST	15700400330000	
15702600150000	713 ANNEMARIE WAY	15700330100000	24 MAIN ST	15700400490000	
15700280040000	203 B ST	15700320120000	25 MAIN ST	15700400580000	
15700280050000	205 B ST	15700330110000	26 MAIN ST	15700730270000	



DRAFT

**DELTA REGION GEOLOGIC HAZARD ABATEMENT DISTRICT
STAFF REPORT**

TO: Delta Region Geologic Hazard Abatement District (GHAD) Board of Directors

FROM: GHAD Manager

BOARD MEETING DATE: May 31, 2022

SUBJECT: Adopt a Resolution Appointing the City of Isleton Clerk to Serve as the GHAD Clerk and Authorize the Chair to Execute an Agreement with the City of Isleton for GHAD Clerk Services at a later date.

RECOMMENDATION

That the Board adopt Resolution 22-07, appointing City of Isleton to serve as the GHAD Clerk and authorize the Chair to execute an agreement with City of Isleton for GHAD Clerk Services at a later date.

SUMMARY

The GHAD is responsible for hiring its staff (or contracting with parties to perform such staff services), including all workers who will undertake operation, maintenance, replacement, repair, and other activities of the GHAD. Pursuant to Public Resources Code Section 26584, the Board of Directors must appoint a Clerk. The Delta Region GHAD Board of Directors appointed ENGEO Incorporated to serve as the GHAD Clerk on March 29, 2022 with Resolution 2022-02. On May 31, 2022, ENGEO Incorporated submitted a resignation letter resigning from serving as the GHAD Clerk for the Delta Region GHAD. The Board of Directors now desires to appoint the City of Isleton to serve as the GHAD Clerk. It is recommended that if City employees serve in the role as GHAD Clerk, City employees should be treated as consultants or contractors to the GHAD under a separate agreement. Such agreement will be prepared and executed at a later date.

FISCAL IMPACT: The value of the services contract, to be mutually agreed upon at a later date. Fees will also be deferred until a later time. The GHAD is funded through assessments levied on properties within the GHAD and potentially other external sources. Therefore, if approved, there is no fiscal impact on the City's General Fund.

Attachment 1: Resolution 22-07

**BOARD OF DIRECTORS OF THE
DELTA REGION GEOLOGIC HAZARD ABATEMENT DISTRICT**

RESOLUTION NO. 22-07

**RESOLUTION APPOINTING CITY OF ISLETON CLERK TO SERVE AS THE GHAD
CLERK AND AUTHORIZE THE CHAIR TO EXECUTE AN AGREEMENT WITH CITY
OF ISLETON FOR GHAD CLERK SERVICES AT A LATER DATE**

WHEREAS, on December 14, 2021, the Isleton City Council adopted Resolution No. 028-21 approving and ordering the formation of the Delta Region Geologic Hazard Abatement District ("Delta Region GHAD or GHAD"); and

WHEREAS, the GHAD is a political subdivision of the State of California, governed by state law (Pub. Res. Code § 26500 et seq.), and constitutes a legal entity separate and distinct from the City of Isleton ("City"), with operations independent of City functions; and

WHEREAS, notice of the hearing on the formation of the GHAD was given in accordance with the provisions of Public Resources Code Sections 26558 and 26561-63; and

WHEREAS, at the time set for the hearing no owner of real property within the proposed GHAD made an objection to its formation in accordance with the provisions of Public Resources Code Section 26564; and

WHEREAS, at the December 14, 2021, hearing, the owners of more than 50 percent of the assessed valuation of the real property within the proposed GHAD did not object to the GHAD's formation and the Board of Supervisors closed the hearing; and

WHEREAS, the GHAD is responsible for hiring its own staff (or contracting with parties to perform such staff services), including all workers who will undertake operation, maintenance, replacement, repair, and other activities of the GHAD, and no City employees shall perform such services for GHAD facilities and improvements unless the GHAD and the City enter into a separate agreement to be executed at a later date, through which City employees would be treated as consultants or contractors to the GHAD, and provided that the GHAD shall reimburse the City of Isleton for all of the time and expenses of the Clerk; and

WHEREAS, pursuant to Public Resources Code Section 26584, the Board of Directors must appoint a Clerk; and

WHEREAS, the Delta Region GHAD Board of Directors has considered options for staffing of Geologic Hazard Abatement District Clerk position; and

WHEREAS, on March 29, 2022, the Delta Region GHAD Board of Directors appointed ENGEO Incorporated to serve as the GHAD Clerk with Resolution 22-02; and

WHEREAS, on May 31, 2022, ENGEO Incorporated submitted a letter of resignation to serve as GHAD Clerk for the Delta Region GHAD Board of Directors; and

WHEREAS, the Delta Region GHAD Board of Directors desires to accept ENGEO Incorporated's resignation and appoint the City of Isleton Clerk to serve as the GHAD Clerk; and

WHEREAS, the Delta Region GHAD Board of Directors authorizes the Chair of the Board to execute an agreement with City of Isleton for GHAD Clerk services at a later date; and

NOW, THEREFORE, BE IT RESOLVED that the Board of Directors of the Delta Region GHAD resolves and orders as follows:

1. The GHAD Board of Directors hereby appoints the City of Isleton Clerk to provide Clerk services for the Delta Region GHAD.
2. The recitals contained in this resolution are true and correct are an integral part Board of Directors' decision.
3. This resolution shall become effective immediately upon its adoption.

PASSED AND ADOPTED by the Delta Region GHAD Board of Directors, at the meeting of said Board held on the 31st day of May, 2022.

Ayes: Director(s)

Noes: Director(s)

Absent: Director(s)

Abstain: Director(s)

By:

_____, Chair of the GHAD Board of Directors

ATTEST:

_____, Clerk of the GHAD Board

Date: _____

Delta Region GHAD Potential Budget Alternatives

By

GHAD Manager

May 31, 2022

GHAD Responsibilities per Plan of Control

- **In support of Levee and Reclamation Districts**
 - Monitoring and repair of flood protection levees, floodwalls, and drainage channels
 - Monitoring and emergency repair of storm drain inlets, outfalls, pipelines, and pump stations
 - Design, acquisition, and deployment of temporary flood barriers and flood fight staging improvements
 - Improving the conveyance of flood and or wastewater to reduce the potential for soil erosion
- **Managed by GHAD**
 - Flood damage recovery benefits for residential, commercial, industrial, and public buildings
 - Monitoring and maintenance of GHAD-installed measurement devices, such as piezometers, inclinometers, and tiltmeters, if any
 - Installation and operation of temporary pumping/flood fighting materials

General Budget Categories

- **Flood Recovery Benefits**
 - Flood damage recovery benefits for residential, commercial, industrial, and local public buildings
- **Flood-Risk Reduction Improvements**
 - Levee and drainage facility improvements
 - Flood fight infrastructure improvements, flood fight materials acquisition, and monitoring instrumentation installation
- **Administration**
 - Clerk, Treasurer, Manager, and Legal Services
 - Meeting facility rental, general liability insurance, and other miscellaneous fees

Flood Recovery Benefits

- Goals
 - Provide rapid, short-term liquidity for recovery after loss
 - Reduce flood recovery (insurance) costs

• FEMA NFIP Costs

2019 NFIP Data from FEMA Open Source Data

Reported City	No. of Policies	Minimum Deductible	Median Premium	Maximum Premium	Total Premium
Isleton	339	\$2,000	\$1,126	\$6,707	\$479,673

• Isleton Demographics

2022 Sacramento County Assessors Office

Reported City	Number of Non-Federal Properties	Number of Private Properties	Number of Public Non-Federal Structures	Number of Private Structures	Total Number of Non-Federal Structures
Isleton	509	486	8	530	538

Flood Recovery Benefits

- Reduce Flood Recovery Costs

- Increase deductible amount
- Streamline loss adjustment
- Simplify policy management

- Increase Deductible

Delta Region GHAD - Deductible Increase NFIP						
No. of Policies	Chosen Deductible	Median Premium	Maximum Premium	Total Premium	Savings	
339	\$2,000	\$1,126	\$6,707	\$479,673	\$0	
339	\$10,000	\$790	\$4,700	\$336,000	\$336/\$2,007/\$143,673	
Delta Region GHAD - Flood Recovery Benefit						
No. of Policies	Deductible Benefit	Total Deductible	Structure Coverage*	Contents Coverage*	Total Coverage*	
339 (NFIP)	\$8,000	\$10,000	\$250,000	\$100,000	\$350,000	
199	---	---	---	---	\$8,000	

GHAD Budget Models

- **Budget Model Assumptions**
 - Total Number of Structures Covered = 538
 - Annual Flood-Risk Reduction Funding = \$50,000 (2022 \$)
 - Flood-Risk Reduction Funding Deferral Period = 10 years
 - Annual Cost Escalation Rate = 3%
 - Annual Earnings Rate = 2%

GHAD Budget Model Structures

1. GHAD Self-Funded Model

- All budget category costs covered by GHAD revenue/reserve
- Potential early flood recovery cost shortfall covered with commercial loan
- Commercial loan term less than full flood loss return period

2. Insurance Backstop Model

- Administration and flood-risk reduction costs covered by GHAD revenue/reserve
- Potential early flood recovery cost shortfall covered with private insurance

GHAD Self-Funded Model

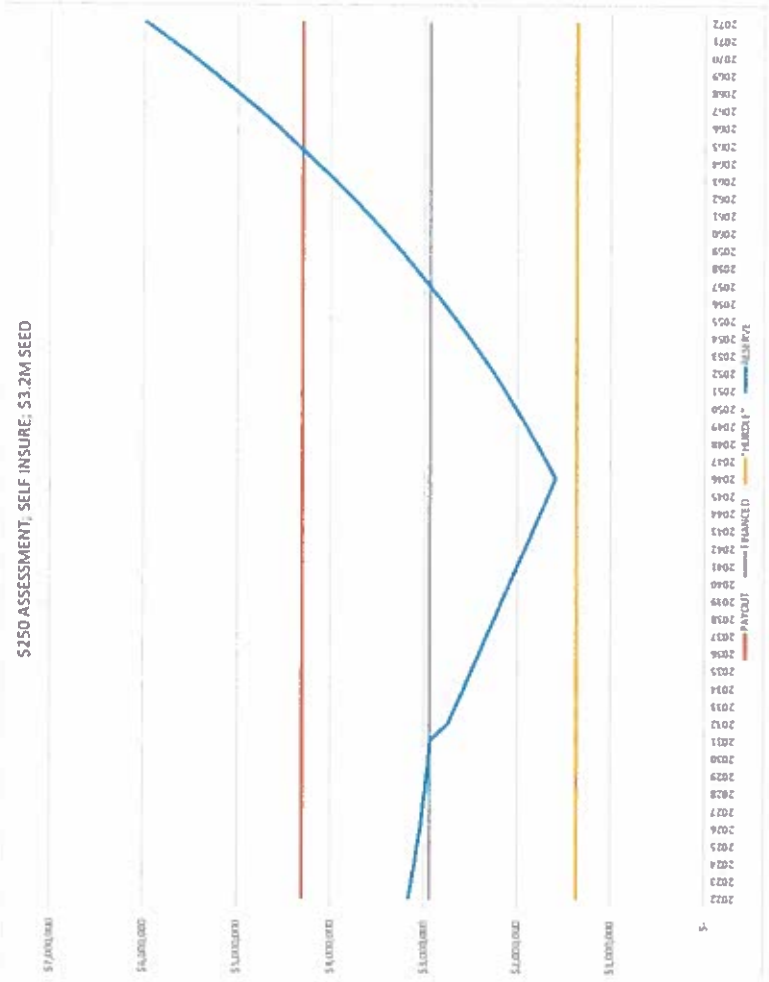
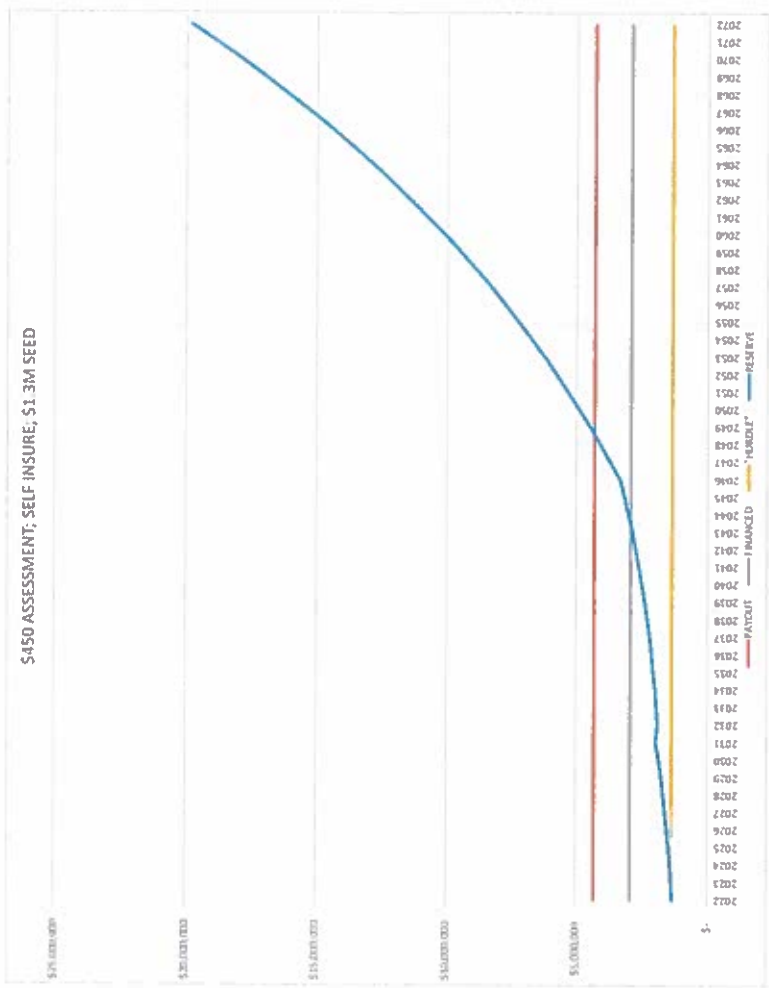
1. High Assessment

- Annual per Structure Assessment = \$450
- Required Seed Fund/Loan Guarantee = \$1.3M

2. Low Assessment

- Annual per Structure Assessment = \$250
- Required Seed Fund/Loan Guarantee = \$3.2M

GHAD Self-Funded Model



Insurance Backstop Model

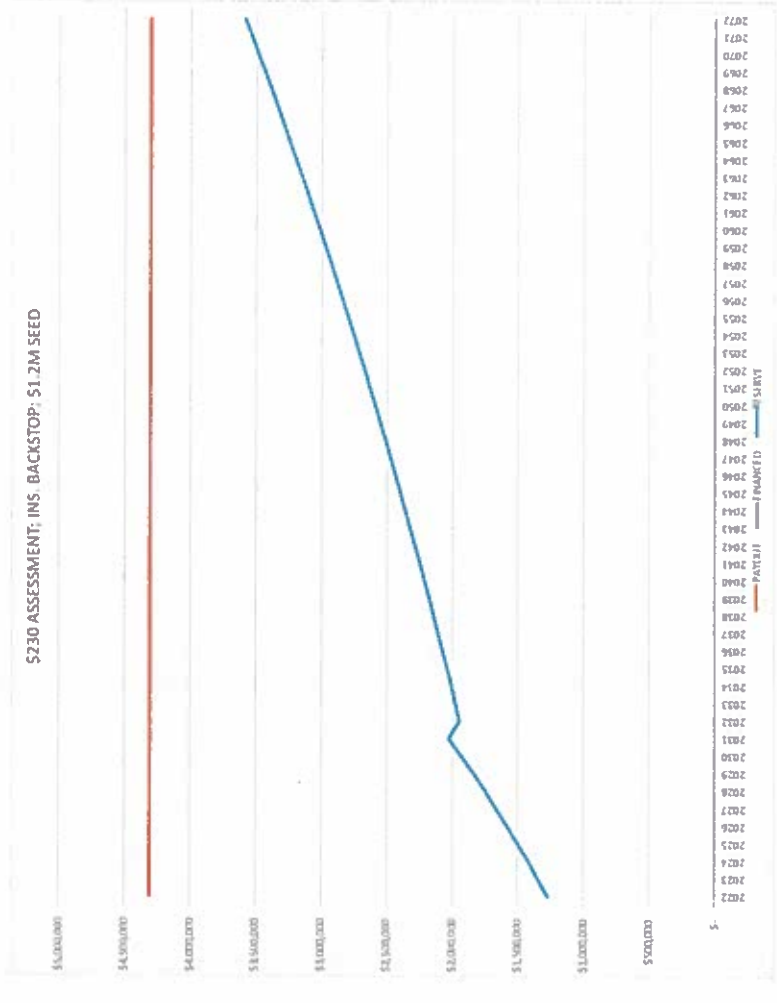
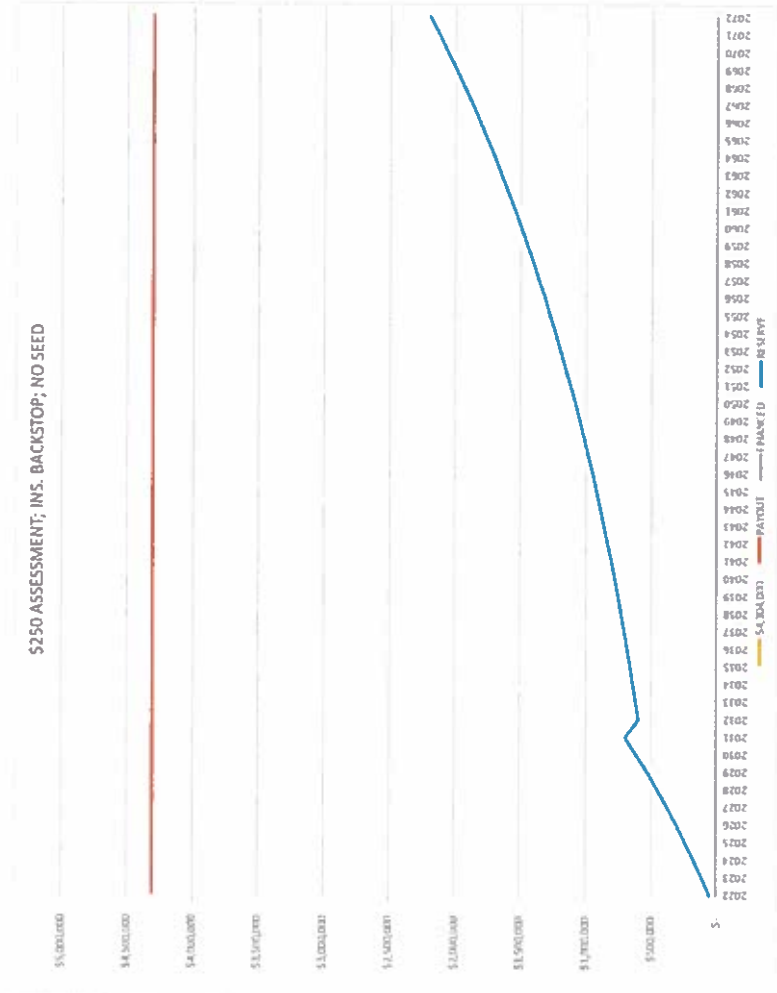
1. High Assessment

- Annual per Structure Assessment = \$250
- Required Seed Fund/Loan Guarantee = \$0

2. Low Assessment

- Annual per Structure Assessment = \$230
- Required Seed Fund/Loan Guarantee = \$1.2M

Insurance Backstop Model



Questions