

**THE BOARD OF DIRECTORS OF CANYON LAKES GEOLOGIC HAZARD
ABATEMENT DISTRICT**

Adopted this Resolution on _____, by the following vote:

AYES:

NOES:

ABSENT:

ABSTAIN:

RESOLUTION NO. 2009/01 (CANYON LAKES GHAD)

SUBJECT: Adopting 2009/2010 annual budget and appointing Treasurer.

WHEREAS, pursuant to Public Resources Code section 26585, the Board of Directors must appoint a Treasurer to the GHAD.

WHEREAS, by Resolution 2008-01, the Board of Directors retained and reappointed the County Treasurer as the Interim GHAD Treasurer, and directed the GHAD Manager to report back to the Board of Directors with a recommendation for a permanent GHAD Treasurer.

WHEREAS, the GHAD Manager has made a recommendation to appoint Watermark Asset Management Inc. as the GHAD Treasurer based on their experience and credentials in providing such services. The Board of Directors has reviewed the qualifications and investment guidelines and policies of Watermark Asset Management Inc. (attached as Exhibit A to the staff report).

WHEREAS, the Board of Directors desires to appoint Watermark Asset Management Inc. as the permanent GHAD Treasurer.

WHEREAS, the Board of Directors further desires to adopt the annual fiscal budget for 2009/2010 attached hereto as Exhibit A.

The Board of Directors of the GHAD HEREBY RESOLVES THAT:

1. The County Treasurer is retained and reappointed as the Interim GHAD Treasurer until June 30, 2009.
2. As of July 1, 2009, Watermark Asset Management Inc. is hereby appointed as the GHAD Treasurer.
3. The GHAD Board further authorizes the GHAD Treasurer to collect, hold, invest, appropriate and expend GHAD funds as necessary for carrying out the GHAD operations in accordance with the budget approved by the GHAD Board. The GHAD Treasurer shall work

directly with the GHAD Manager in appropriating funds from the GHAD account to cover all GHAD costs and expenditures.

4. The GHAD Board approves the annual GHAD budget for the 2009-2010 fiscal year which is attached hereto as Exhibit A and incorporated herein by this reference.

5. The recitals are incorporated herein by this reference.

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

Exhibit A



CANYON LAKES
GEOLOGIC
HAZARD
ABATEMENT
DISTRICT

RICHARD D. SHORT
GENERAL MANAGER

KLEINFELDER

April 21, 2009

Canyon Lakes GHAD Board of Directors
c/o Supervisor Mary N. Piepho
309 Diablo Road
Danville, California 94526

**SUBJECT: Proposed Program Budget for Fiscal Year 2009-2010
Canyon Lakes Geologic Hazard Abatement District**

Dear Board of Directors:

Attached is the proposed program budget for the Canyon Lakes Geologic Hazard Abatement District for the fiscal year 2009-2010. The proposed program budget is \$877,600.00. On a percentage basis the budget expenses breakdown as follows:

Major Repair	47 percent
Preventative Maintenance and Operations	22 percent
Special Projects	10 percent
Administration	21 percent

This budget anticipates the reserve fund balance of \$2,017,835.00 on June 30, 2010. A summary of the expenses is shown on Table 1, page 6 and 7 followed by brief descriptions of each budget item on pages 8 through 12.

Very truly yours,
Canyon Lakes Geologic Hazard Abatement District

Richard Short
General Manager
Kleinfelder, Inc.

Canyon Lakes Geologic Hazard Abatement District Proposed Program Budget for Fiscal Year 2009/2010

The following proposed line item program budget summarizes the anticipated expenditures for fiscal year 2009/2010 for the Canyon Lakes Geologic Hazard Abatement District. The GHAD manager evaluates and addresses risk through the implementation of an annual program budget consisting of four major categories.

Major Repairs

Major repairs include slope repairs and drainage improvement projects that are typically required as a result of slope damage resulting from previous winters; Capital Improvement projects necessary to control or mitigate landslide activity, and other large program responses necessary to implement the Plan of Control. Generally, major repairs have a minimum contract value in excess of \$10,000.00.

Accrued Reserve Funds would be used in the event the Major Repair Projects exceeded the annual budget in the case of extreme or emergency events.

Preventative Maintenance and Operations

Preventative Maintenance and Operations includes all routine repairs, cleanup, maintenance, monitoring and replacement of drainage structures and other assets that deteriorate over time. The goal of preventative maintenance is to keep the GHAD assets in operational condition and identify potential slope stability problems before they occur so that measures can be taken to either prevent, or mitigate the impact of geologic hazards as defined by the GHAD Plan of Control

Typical GHAD assets include concrete lined ditches, subdrainage systems, groundwater measuring instrumentation, and slope debris catchment features. Preventative maintenance also includes preparations for emergency response to rain caused slope damage including stock-piling erosion protection and slope stabilization supplies.

Special Projects

The GHAD pursues ongoing and new efforts identified as "Special Projects". Special Projects include activities requested by the Board or projects designed to improve the District's operational effectiveness and insure financial solvency.

Administration

Administrative expenses are required to operate the GHAD and implement the projects. Administrative expenses include the General Manager, the Administrative Manager, clerical and accounting staff, office expenses and legal support.

A summary of the proposed Fiscal Year 2009/2010 Budget is presented in Table 1 on the following page.

Table 1 – Summary of Proposed Fiscal Year 2009/2010 Budget

Major Repairs		
Lakewall Reinforcement Project (Phase 2)	110,000	
Lake Area Dewatering Measures	20,000	
Fairway 14 Landslide Repair Project	150,000	
Medical Center Dewatering Measures	35,000	
Winter Storm Repairs	35,000	
Landscape Replacement (associated with repairs)	20,000	
Lake Shoreline Wall Replacement*	40,000	
Total Major Projects (2319)	\$410,000	47%
Preventative Maintenance/Operations		
Preventative Maintenance		
Drainage		
B-58 Concrete Lined Ditches		
Maintenance Cleanup	35,000	
Repair and Replace	10,000	
Subdrain Systems	20,000	
Cleanout Horizontal Drains	10,000	
Subdrain Pumps	25,000	
Piezometers	5,000	
Settlement Monitors	1,000	
Minor Repairs	30,000	
Winterizing	10,000	
Emergency Response	15,000	
Clean Debris Benches	5,000	
Subtotal	\$166,000	
Operations		
Piezometer Monitoring	2,800	
Horizontal Drain Monitoring	2,800	
Subdrain Monitoring	4,500	
Settlement Monitoring	1,000	
Incident Response/Homeowner Relations	15,000	
Subtotal	\$26,100	
Total Preventative Maintenance/Operations (2282)	\$192,100	22%
Special Projects		
Plan of Control Update	15,000	
Reserve Study	10,000	
Special Studies	20,000	
GIS/GPS Systems	45,000	
Total Special Projects (2479)	\$90,000	10%

Administration		
Legal Fees	20,000	
Rent, office supplies, Copier	18,500	
Postage/Reproduction, Telephone, Computers,		
Accounting/Bookkeeping	37,000	
General Manager	110,000	
Total Administration (2310, 3611, 3530, 5011)	\$185,500	21%
TOTAL PROPOSED BUDGET	\$877,600	100%
Available Funds		
Estimated Beginning Fund Balance – July 1, 2009		\$2,315,000
Estimated Property Owner Assessments		540,435
Estimated Interest on Investments		40,000
Other Income		0
Total Available Funds		\$2,895,435
Uses of Funds		
Major Projects		\$ 410,000
Preventive Maintenance/Operations		192,100
Special Projects		90,000
Administrative		185,500
Total Use of Funds		\$877,600
Estimated Reserve Available /Ending Fund balance June 30, 2010		\$2,017,835

*The lake shoreline retaining wall replacement budget amount will be set aside in a special fund for the construction of a new shoreline wall at the Lake at Canyon Lakes. The amount of this budget item is determined based on the matching funds set aside by the Lake at Canyon Lakes Home Owners Association.

DESCRIPTION OF BUDGET ITEMS

A brief description of each of the budget item categories is presented below.

Major Repairs

Lakewall Reinforcement Project (Phase 2)

In 2007, a project was initiated to replace a portion of the lake shoreline retaining wall at the Lake at Canyon Lakes. A portion of wall had collapsed and additional contiguous segments of the existing wall were at jeopardy of imminent collapse. The collapse of the retaining wall caused shallow landsliding of the shoreline into the lake and associated loss of property. The GHAD completed a cost sharing project with the Homeowners Association to replace 438 linear feet of damaged wall with a new sheet pile and concrete wall [completed in August of 2007]. At that time, it was discovered that other segments of the existing shoreline wall were also deteriorating and at risk of failure over time. It was determined that the area along the east shoreline [approximately 1000 linear feet] was at the highest risk of continued deterioration and possible failure due to the prevailing winds in that direction.

In an effort to temporarily reinforce these areas Platepiles will be installed behind the affected wall to reduce pressure on the wall and increase the serviceable life of the existing wall. It is further anticipated that this project may commence in late FY08/09 however it has the strong likelihood of continuing into FY09/10.

Estimated Cost \$110,000

Lake Area Dewatering Measures:

In previous years the District has conducted studies to analyze groundwater conditions around the lake area of Canyon Lakes. The resulting studies determined that localized groundwater conditions had incrementally elevated over time and remedial measures were proposed to drill a series of horizontal drains in the terraces below the entrance of the Lakes at Canyon Lakes.

The General Manager has been evaluating mitigation measures, including the evaluation of new horizontal drainage technology [push drains] currently being tested and utilized in other areas of the Canyon Lakes District. The General Manager intends to install several push drains and or horizontally drilled drains within the impacted area to alleviate rising local groundwater conditions.

Estimated Cost \$20,000

Fairway 14 Landslide Repair Project:

During the intense winter rains of 2006 a re-activation of a landslide occurred on the east slope of Fairway 14 of the Golf Course. The failure occurred within an area of previously known instability and assigned a priority 3 [moderate risk] conditions.

Because of the ongoing risk to improved areas, the area will be repaired utilizing the plate-pile method of slope stability improvement and the push drain system of drainage, both technologies developed, tested and previously utilized by the Canyon Lakes GHAD.

Estimated Cost \$150,000

Medical Center Dewatering Measures:

It has been determined that the local groundwater conditions on the west slope of the Medical Center facility has elevated persistently over a period of time. ENGEIO, Inc. was retained to evaluate slope conditions and provide recommendations.

The General Manager is currently monitoring conditions, evaluating slope stability and considering possible mitigation schemes. A reasonable budget is being set aside to provide ongoing analysis of this condition and a response to any emergent condition that would threaten slope stability in the area.

Estimated Cost \$35,000

Winter Storm Repairs:

The District has an inventory of low-priority minor slides and must provide for unanticipated repairs occurring during this fiscal year. The General Manager has set aside a fund to evaluate and repair a number of these projects.

Estimated Cost \$35,000

Landscape Replacement:

Typically, remedial landscaping is either included in the scope of work for major projects, or eliminated completely from the repair scheme. However, License Agreements executed in preparation for the work may address a reimbursement or allowance to the property owner for remedial landscaping.

Estimated Cost \$20,000

Lake Shoreline Retaining Wall Replacement Fund:

The Lake at Canyon Lakes has experienced deterioration and failure of sections of shoreline retaining wall. The GHAD Manager has established an agreement with the HOA to cost share by setting aside equal amounts in a special fund to be used only for replacement of the retaining wall.

Estimated Cost \$40,000

Preventative Maintenance and Operations

Preventive maintenance generally includes drainage issues and preventive operations include ongoing monitoring programs and response to homeowner concerns. Details of the proposed budget for each of these categories are listed below.

Preventative Maintenance

B-58 Drain Systems

Maintenance - One major cleaning and mapping. The Operations Manager periodically walks the B-58 systems to observe their condition. This year the Operations Manager will accompany the contractor in performing this inspection.

Estimated Cost \$35,000

Repair and Replacement – There is approximately 250 lineal feet of damaged B-58 to be repaired. A priority will be established, based on degree of damage and risk to improved properties, and a percentage of these replacement projects will be budgeted in the upcoming years. 100 lineal feet of replacement B-58 has been budgeted for this fiscal year.

Estimated Cost \$10,000

Subdrain Systems – The District works with a consultant to identify, locate and make determinations about the effectiveness of the network of subdrains throughout the Development. The District anticipates that on-site restoration work may be necessary at some sites. This additional work as well as the introduction of the subdrain systems into the District GIS system has been incorporated into this budget item.

Estimated Cost \$20,000

Horizontal Drains – The District Manager has placed high priority on verifying the condition of and restoring as many existing horizontal drains throughout the development as possible. The District is currently working with a consultant, to determine the existing condition and effectiveness of all of the horizontal drains within the development. Certain unnecessary drains will be abandoned and others will be restored. Work has been nearly completed to restore each site, install

identification markers and GPS coordinates have been collected for inclusion in the District's GIS system.

Estimated Cost \$10,000

Subdrain Outlets/Pumps – The District maintains three substation subdrain pumping facility sites around the lake at Canyon Lakes. Periodic site checks for operation are required. In recent years the equipment, instrumentation and telemetry have been updated. This year plans are underway to finalize an early warning system to notify GHAD staff in the event of a failure, as well as the ability to accrue data for use in evaluation and financial planning.

Estimated Cost \$25,000

Piezometers – The District reads and maintains in excess of 72 piezometers measuring ground water elevations. A definitive list of sites requiring repairs has been determined and work completed on restoring many of the sites and installing identification markers and protective monuments at virtually all sites. The work this year has been expanded to include a greater number of sites and inclusion of the sites into the GIS system.

Estimated Cost \$5,000

Settlement Monitors – A number of settlement monitors have been placed throughout the development. These monitors were in large part, installed as part of a specific study and therefore are not continually monitored. A budget has been established to update monitors and analyze results.

Estimated Cost \$1,000

Minor Repairs – Annually a budget is established for unanticipated minor repair projects.

Estimated Cost \$30,000

Winterization – An annual budget for the cost of winterization materials and installation has been established.

Estimated Cost \$10,000

Emergency Response –During the winter rainy season the GHAD responds to a range of drainage incidents on short notice in emergency situations where property damage is threatened. These incidents typically involve clogged storm drains at the base of slopes or flooded residential properties due to the overflow of runoff from clogged V-ditches. In severe cases these responses can be the initiation of slope stabilization measures in preparation for a major repair.

Estimated Cost \$15,000

Debris Benches –Debris benches are located on slopes throughout the development to collect eroded soil resulting from heavy concentrations of runoff. The District cleans these benches to re-establish their capacity to collect and contain erosion and mudflows. In order to check and maintain the debris retention capacity, a budget has been established for field visits and observations.

Estimated Cost \$5,000

Operations

An inventory of on-site instrumentation including hundreds of piezometers, inclinometers, horizontal drains, subdrains and settlement monuments are monitored periodically throughout the year as a preventative measure.

Often repair sites require monitoring to confirm that the slope has been stabilized. Other sites have been utilized to indicate signs of unstable conditions developing and have been instrumental in determining slope conditions prior to the activation of a landslide.

Through the use of collected data such as water depth, magnitude of slope movement, depth of movement and ground surface movement, the District has been able to arrest slope movement in advance of an incipient failure. Archiving of this data is currently being integrated into the GHAD GIS system.

Through the year the District receives incident response or assistance calls from homeowners regarding slope stability or drainage issues. The General Manager and the Operations Manager make calls on the homeowners to address their concerns. Community relations, including incident responses through the annual Operations Program has been institutionalized as a role of GHAD management.

Estimated Cost \$26,100

Special Projects

In the upcoming fiscal year, the GHAD is anticipating completion of several special projects, as well as introducing several new special projects. A brief description of the special projects are presented below.

Plan of Control Update

It is understood that a draft revision to the existing Plan of Control has been completed. The General Manager will review the status of the existing plan, and proceed to finalizing the revised plan of control.

Estimated Cost \$15,000

Reserve Study

The District reserve fund will be evaluated and recommendations will be made regarding the reserve fund status. A reserve study calculates the annual contribution required by the District to build and maintain sufficient funds for emergencies based on past weather patterns and slide repair costs. The reserve study will project annual contribution to the funds required for a 40 year period.

Estimated Cost \$10,000

Slope Stabilization Research Program

The District’s Research Program includes studying the typical adverse effects of slope creep, settlement, leaking pipes and other common problems the District routinely deals with. Periodic full scale landslide test will be performed on the new, less costly slope stabilization technique developed that has saved at least 50 percent of the cost of traditional remove and replace methods. Typical foundations for wooden decks are being studied to show the benefit of deepened footings or piers to minimize creep distress, as well as ongoing testing of new slope erosion techniques, applications and products.

Estimated Cost \$20,000

GIS/GPS Systems

GHAD has contracted with Farallon Geographic Inc. to upgrade our GIS system to include all of the GHAD’s data collection and monitoring operations. The system will create a fast desk-top read out of hundreds of ground-water measurements. This record facilitates the General Manager’s ability to locate past repairs and assist in the risk evaluation of in any particular area within the District. The GIS is also used for researching a site’s history for purposes of disclosure during real estate transactions. A public accessed website will also be launched to disseminate information to GHAD constituents and provide updates, warnings and contact information.

In FY09/10 final upgrades to the site will be completed allowing the GHAD to utilize the latest technology in digital imagery and data storage and access.

Estimated Cost \$45,000

uAdministration

The administration of the GHAD includes all costs associated with legal support, office expenses, contracting, site evaluations and staffing. Brief descriptions follow.

Legal

The GHAD incurs legal expenses from outsourced Special Counsel. Special Counsel typically handles certain contract issues, assists in legislative matters and litigation issues for the GHAD, as required.

Estimated Cost \$20,000

Staffing

The GHAD staff includes the General Manager and one administrative support staff. The GHAD staff is assisted by Sands Construction, for support services pertaining to operations. Sands Construction costs are included in the relevant budget items listed above. The General Manager handles all GHAD issues and communications regarding its activities. The administrative staff is responsible for accounting/bookkeeping, clerical and construction management support. Training and Education are also included.

Estimated Cost \$149,000