

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
Engineering Division
Honolulu, Hawaii 96813

October 28, 2022

Board of Land and Natural Resources
State of Hawaii
Honolulu, Hawaii

**REQUEST AUTHORIZATION FOR THE CHAIRPERSON TO ISSUE FINES, TO
EXTEND THE NOTICE OF DEFICIENCY DEADLINES, AND MAKE A FINDING OF
VIOLATIONS SUFFICIENT TO SUPPORT SPECIFIED FINES ON THE OWNERS IF
EXTENDED DEADLINES ARE MISSED FOR
UKUMEHAME RESERVOIRS (MA-0140) REMOVAL**

WAIKAPU, MAUI

**Tax Map Keys (2) 4-8-002:066, (2) 4-8-002:015, (2) 4-8-002:017,
(2) 4-8-002:027, (2) 4-8-002:064, (2) 4-8-002:118**

SUMMARY

The Department of Land and Natural Resources (“Department”) requests the Board of Land and Natural Resources (“Board”) fine the West Maui Investors, LLC (“Owner”) \$5,000 for failing to start construction to remove the Ukumehame Reservoirs (MA-0140) by the Board ordered deadline of August 30, 2022. Further, the Department recommends the Board authorize the Chairperson to extend the deadlines to start and complete construction to remove the Ukumehame Reservoirs and to make a finding of violation sufficient to support additional fines in the event the Owner misses the new deadlines.

BACKGROUND

Built in the early 1900s, the Ukumehame Reservoirs are comprised of two interconnected rock lined reservoirs, Ukumehame No. 2 and Ukumehame No. 3, located at the downstream end of the Ukumehame Gulch watershed on the south side of the Island of Maui. The water from the reservoirs have historically been used for irrigation. The dam structures are owned by West Maui Investors, LLC, who is based in California. They rely on a property management company on Maui to operate and maintain the dam. The following is a summary of the Ukumehame Reservoirs dam structure:

Hazard Potential:	High Hazard potential dam.
Population at Risk:	Uncertain.
Structures at Risk:	Two existing structures are in the direct flow path of a dam failure; also in the flow path are multiple parcels, planned for future development; 0.35 miles of the Honoapiilani Highway, which is a major thoroughfare for West Maui; see the Pacific Disaster Center

inundation map (Figure 1) for the reservoirs.

Overall Condition: Poor.

DLNR Restriction: The reservoirs are to be kept EMPTY from May 14, 2021.

Dam Embankment: Earthen.

Dam Height: 29 feet.

Dam Length: 770 feet.

Maximum Storage: 14.3 million gallons.

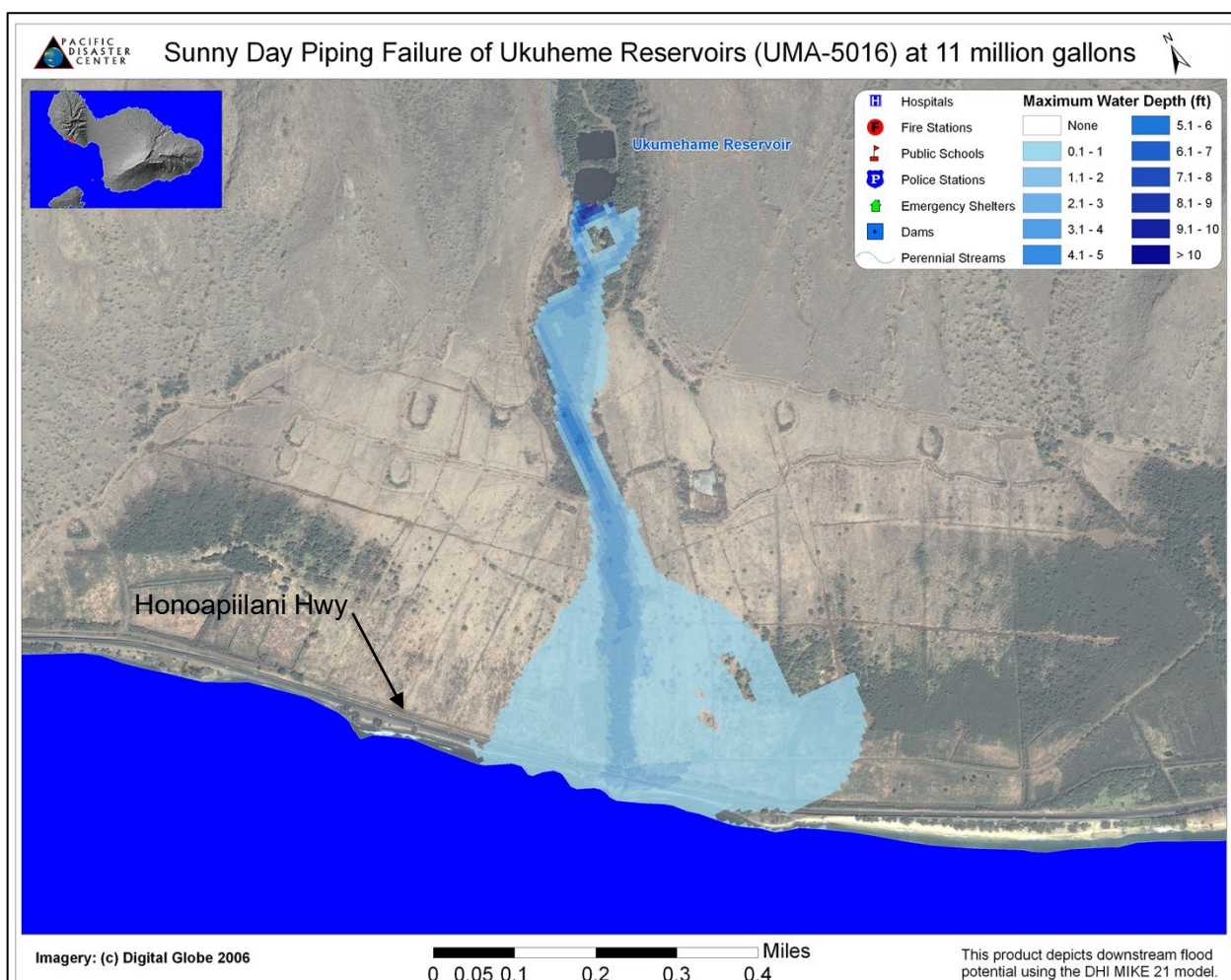


Figure 1. Ukumehame Reservoirs inundation map from the Pacific Disaster Center (2011).

On October 27, 2017, the Board approved issuance of Dam Safety Permit No. 77 to the Owner to remove the dam structure. However, since being issued the permit, the Owner has not initiated construction to remove the dam.

PRIMARY SAFETY ISSUES

The Ukumehame Reservoirs have an UNSATISFACTORY overall condition rating, which is the lowest rating possible and indicates the dam requires immediate remediation action. The major issues contributing to the UNSATISFACTORY rating, which continue to persist, are as follows:

1. A significant seepage area on the downstream slope and crest, which could progress to an internal erosion failure.

2. The spillways in both reservoirs are undersized and could result in an overtopping failure in a significant storm event.
3. The outlet works pipe on Reservoir 3 was restricted with silt and access to the outlet works operator was inaccessible, creating risk of not being able to draw down the reservoir.

RECENT BOARD ACTION

On May 14, 2021, the Board fined the Owner \$5,000 for failing to install a water level monitoring system and \$5,000 for failing to submit monthly monitoring reports. (See Enclosure 1.). The Board also ordered the Owner to start and complete construction to remove the dam by August 30, 2022 and November 14, 2022, respectively. The Owner paid the fines and installed a water level monitoring system by the due date, but has not started construction by the August 30, 2022 deadline.

DISCUSSION

The Owner has not started construction because they failed to obtain the necessary County grading permit to begin construction. The Owner claims the County has had the Owner's permit application for more than a year, which was submitted in September 2021 to the County, but issues with the County's new electronic permitting system has delayed the permit processing and issuance.

The Owner proposes starting construction in March 2023 and completing construction in June 2023 but does not provide a basis for the timeline. That is, the Owner has not provided a timeline for when they expect to receive the necessary County permits and approvals to allow construction to begin.

The Department believes the Owner is ultimately responsible for obtaining necessary permits to start construction on-schedule. Accordingly, Department believes the Owner should be held accountable for the missed deadlines and the consequences.

RECOMMENDATION

1. The Department recommends the Board issue a \$5,000 fine to the Owner for failing to start construction to remove the Ukumehame Reservoirs (MA-0140) by the Board ordered deadline of August 30, 2022.
2. The Department further recommends the Board authorize the Chairperson to extend the Owner's deadlines for construction as follows:
 - a. By March 31, 2023, the Owner shall start construction on the Ukumehame Reservoirs removal as described in Dam Safety Permit No. 77. The start of construction is defined as performing grading and excavation work on site.
 - b. By July 31, 2023, the Owner shall complete construction on the dam removal. As required in the Dam Safety Permit General Conditions, completion of the project shall be documented with a confirmation letter of compliance, signed, and stamped by the

construction engineer, indicating that construction was completed in accordance with the approved plans and specifications. The confirmation letter shall be issued by the July 31, 2023 due date.

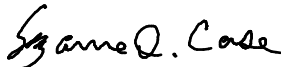
3. In the event the Owner fails to meet the deadlines in item 2 to start and complete construction, the Department recommends the Board authorize the Chairperson to make a finding of violation and to issue automatic penalties in the amount of \$10,000 for each missed deadline.
4. Owner will pay all fines issued by the Chairperson within 60 calendar days of the fine being issued. In the event the Owner fails to pay fines within the time allotted, the Owner shall be fined an additional \$5,000 per day until the ordered fine amount is paid.

Respectfully submitted,



CARTY S. CHANG
Chief Engineer

APPROVED FOR SUBMITTAL:



SUZANNE D. CASE, Chairperson
Board of Land and Natural Resources

Enclosure 1

**STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
ENGINEERING DIVISION
DAM SAFETY PROGRAM
Honolulu, Hawaii**

May 14, 2021

Approved by the Board of
Land & Natural Resources
At the meeting held on

05/14/21

**Board of Land and Natural Resources
State of Hawaii
Honolulu, Hawaii**

Regarding: Dam Safety Enforcement Action on Ukumehame Reservoirs (MA-0140) for Failure to Comply with Notice of Deficiency, February 18, 2020

Dam Owner: West Maui Investors, LLC (Faraz Daneshgar)
c/o 3D Investments, LLC
468 N. Camden Drive, #100
Beverly Hills, CA 90210

Location: Waikapu, Maui County

Tax Map Key: (2) 4-8-002:066, (2) 4-8-002:015, (2) 4-8-002:017, (2) 4-8-002:027,
(2) 4-8-002:064, (2) 4-8-002:118

Re-Submittal of Enforcement Action

At the April 9, 2021 Board meeting, the owner of the Ukumehame Reservoirs, the West Maui Investors, LLC (Owner), requested a contested case hearing. On April 14, 2021, the Owner withdrew their request by email (see Attachment A). Accordingly, the matter will be discussed at the May 14, 2021 Board meeting.

Background of Dam

Ukumehame Reservoirs are comprised of two interconnected rock lined reservoirs, Ukumehame No. 2 and Ukumehame No. 3, located at the downstream end of the Ukumehame Gulch watershed on the south side of the Island of Maui (see Figures 1 and 2). These reservoirs are regulated as one structure as they are operated as a twin reservoir facility. The original date of construction is unknown, however is believed to have been constructed in support of the sugar industry in the early 1900s.

Ukumehame Reservoir No. 1 is a small unregulated pond further up in the gulch from Reservoir No. 2. Residential dwellings are situated downstream of Reservoir No. 2 & 3, which prompts classifying these structures as a high hazard potential dam (as the dam's failure could result in a probable loss of human life).

The Ukumehame reservoirs 1, 2 and 3 have historically been utilized for storage of a small portion of the flow diverted from Ukumehame Gulch and distributed to farms and

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other uses including water supply to residential areas. Attachment B describes the diversions into the reservoirs.

Ukumehame Reservoir Nos. 2 and 3 physical data:

Construction:	Earthen embankment dams with rock lined reservoir
Dam No. 2 Height:	21 ft high
Volume:	18 acre-ft (6 million gallons)
Dam No. 3 Height:	29 ft high
Volume:	26 acre-ft (8.9 million gallons)

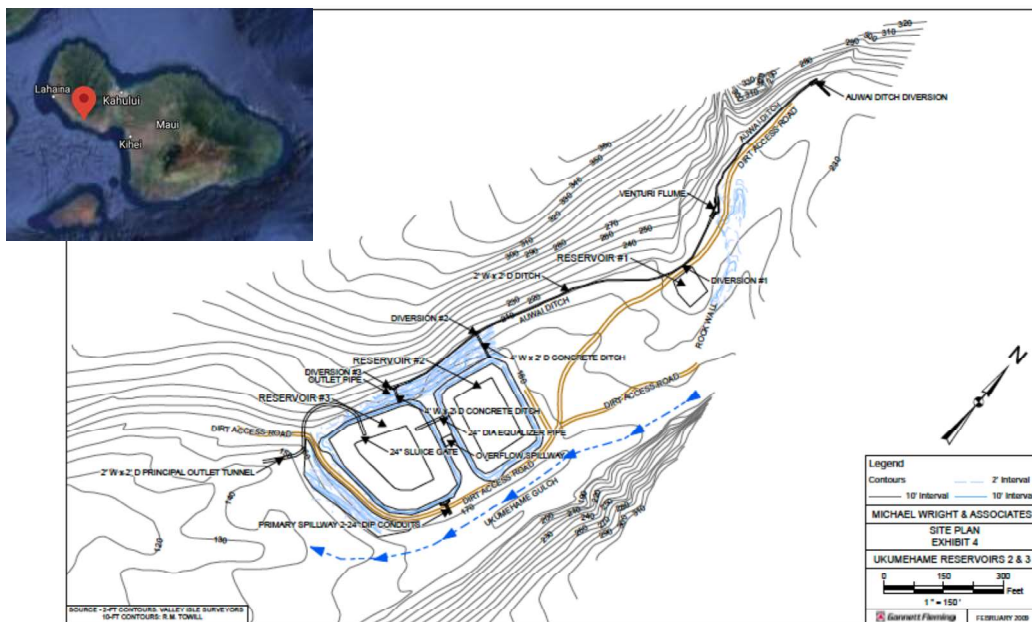


Figure 1. Map and aerial view of the Ukumehame Reservoirs.



Figure 2. Ukumehame Reservoirs No. 2 (left) and No. 3 (right). (2021)

Since 2008, four visual site inspections and a Phase 1 condition assessment have been conducted on the Ukumehame Reservoirs:

- DLNR visual inspections in 2008, 2011, 2013, and 2015.
- Gannett Fleming (Owner's Consultant) – Phase 1 Condition Assessment in 2009.

Primary Safety Issues

Two primary safety issues exist at the dam facility:

1. A large flowing seep (estimated 30-50 gallons per minute), on the downstream slope of the dam from Reservoir 3 (figure 3). If allowed to persist, the seep could develop into a more serious problem and eventually cause a piping failure of the dam.
2. The spillways for both Reservoir Nos. 2 and 3 are undersized to handle a Probable Maximum Flood (PMF) of 15,161 cfs from Ukumehame Gulch. The Reservoirs would be overtopped during a PMF storm event.



Figure 3. Seepage at the downstream face of Reservoir 3.

Enforcement Actions & Owner's Response

June 20, 2008, DNLR sent a letter directing the owner to immediately reduce the water level in Reservoir No.3 until the seep on the downstream slope stopped. The owner lowered the water level in the reservoir, and in a letter (April 13, 2009) notified the DLNR that Gannett Fleming had been retained to study the seepage and provide recommendations. In the April 2009 Condition Assessment Report performed by

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Gannett Fleming, it was determined that Ukumehame Reservoirs would be overtopped by 0.1 feet during a 100 Year Storm event and “overwhelmed” by a PMF event.

DLNR worked with the owner and their consultant on the approval of a dam safety permit to remove the structure. A dam safety permit was approved by the DLNR Land Board and issued on November 14, 2017. (See the approved Dam Safety Permit No. 77 in Attachment C.) Subsequent to the issuing the permit, DLNR dam safety staff is not aware of any further action to initiate the construction of the removal work.

On February 18, 2020, the DLNR issued a Notice of Deficiency (NOD) (see Attachment D) to the Owner indicating the dam was in POOR overall condition and a threat to public safety due to one or more physical / operational conditions and deficiencies. As a HIGH Hazard Potential structure, the facility is required to pass the Full PMF with adequate freeboard as defined in HAR §13-190.1. The NOD required the Owner to comply with the remediation schedule summarized in Table 1, below.

To date, DLNR has not received a response to the 2020 NOD. However, in a meeting with DLNR staff on December 21, 2020, the Owner indicated their intent to send a letter to the DLNR on the Owner’s plans and situation and to officially respond to the 2020 NOD. The Owner also expressed a willingness to install a water level monitoring system and to begin submitting monthly monitoring reports. The Owner requested contact information from the USGS, who installs and maintains such systems. (See the meeting notes in Attachment E.) DLNR has not received any new information from the Owner since the December 21, 2020 meeting.

A summary and status of the NOD action items is provided in Table 1.

No.	Deadline	Item	Current Status
1	4/01/2020	Contract with a Consultant to complete engineering evaluation of deficiencies.	Completed. The Owner contracted Gannett Fleming to complete the necessary studies and designs to submit a permit application package in 2016.
2	5/30/2020	Install Water Level Monitoring System.	The Owner has failed to install a level monitoring system.
3	8/30/2020	Submit Technical Studies.	Completed. Design report prepared by Gannett Fleming submitted to DLNR.
4	8/30/2021	Submit Dam Safety Permit Application.	Dam Safety Permit No. 77 for removal issued on 11/14/2017.

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			Alterations to this permit scope or new design application submittal due.
5	8/30/2022	Start Construction.	Construction not started.
6	Monthly	Keep and maintain the reservoir empty under normal conditions. Submit monthly monitoring reports including reservoir water level, photos of the water level at the staff gage and other pertinent information to the Department.	The Owner has kept the reservoirs empty but has failed to submit monthly monitoring reports.

Table 1. Summary and status of the action items from the February 18, 2020 NOD.

Staff Recommendations

DLNR has informed the Owner of the deficiencies and the regulatory requirements in multiple reports and notices dating back to 2008. However, the Owner has not followed through on permanent resolution of the dam safety issues, they have not installed a water level monitoring system, and has failed to keep the Department informed of any status of the facility as requested. Accordingly, DLNR is recommending enforcement action by issuing fines as discussed below and summarized in Attachment F.

Pursuant to Hawaii Revised Statutes (HRS) §179D and Hawaii Administrative Rules (HAR) §13-190.1, the DLNR staff recommends the Board of Land and Natural Resources find the Owner of the Ukumehame Reservoirs (MA-0140), the West Maui Investors, LLC, in violation of HRS §179D-6(b)(17) for failing to adopt remedial measures as ordered by in the February 18, 2020 Notice of Deficiency Letter and subject to the following enforcement actions/penalties:

1. The West Maui Investors, LLC is fined \$5,000 for failing to install a water level monitoring system on the reservoir by DLNR deadline of 5/30/2020, pursuant to HRS §179D-6(b)(17).
2. The West Maui Investors, LLC is fined \$5,000 for failing to submit monthly monitoring reports including reservoir water level, photos of the water level at the staff gage, and other pertinent information to the DLNR on a monthly basis, pursuant to HRS §179D-6(b)(17).
3. The West Maui Investors, LLC shall pay all fines (total \$10,000) within sixty (60) days of the date of the Board's action.

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4. In the event the West Maui Investors, LLC fails to comply with the Board order to pay fines within the time allotted, the West Maui Investors, LLC shall be fined an additional \$5,000 per day until the ordered fine amount is paid.

Pursuant to HRS §179D-6(b)(17), the West Maui Investors, LLC shall be required to comply with the following actions by the deadlines shown:

Within ninety (90) calendar days of the date of the Board's action:

Install Water Level Monitoring System - a fully functional, real-time reservoir water level gage with the readings accessible on the internet.


Within thirty (30) calendar days of the date of the Board's action:

Submit monthly monitoring reports including reservoir water level, photos of the water level at the staff gage, and other pertinent information to the DLNR by email at dlnr.en.fcads@hawaii.gov.

By August 30, 2021, the West Maui Investors, LLC shall submit an application for a new design or alterations to the previously issued Dam Safety Permit No. 77 to remove the dam; or shall provide DLNR with a project schedule to complete the construction as approved in Dam Safety Permit No. 77. The project schedule shall include deadlines for submittal of proof of construction award and a notice to proceed with construction.

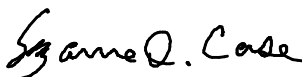
By August 30, 2022, the West Maui Investors, LLC shall start construction on the dam safety improvements (as stated in the 2020 Notice of Deficiency) and shall complete construction by November 14, 2022 (as required in Dam Safety Permit No. 77 general conditions).

Respectfully submitted,



CARTY S. CHANG
Chief Engineer

Approved for Submittal:



SUZANNE D. CASE, Chairperson
Board of Land and Natural Resources

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Enforcement Action on Ukumehame Reservoirs (MA-0140) for
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ATTACHMENTS:

- A Email from Daniel Byron, dated April 14, 2021, withdrawing Contested Case Hearing request from April 9, 2021 for Ukumehame Reservoirs
- B Flow Diversions from the Ukumehame Gulch into Ukumehame Reservoirs 1, 2, and 3
- C Approved Dam Safety Permit No. 77, issued November 14, 2017 Ukumehame Reservoirs (MA-0140) Dam Removal, Maui, Hawaii
- D Notice of Dam Safety Deficiency, issued February 18, 2020
- E Meeting Notes for Meeting on December 21, 2020 Between Ukumehame Reservoirs' Owners and DLNR Staff
- F Ukumehame Summary Sheet and Scorecard