

State of Hawaii
DEPARTMENT OF LAND AND NATURAL RESOURCES
Engineering Division
Honolulu, Hawaii 96813

May 27, 2011

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

**APPLICATION FOR A DLNR DAM SAFETY CONSTRUCTION/ALTERATION PERMIT
PERMIT NO. 46 – HANAMAULU FIELD 21 RESERVOIR (KA-0135)
DAM ALTERATION AND REMOVAL, KAPAIA, KAUAI, HAWAII**

The Engineering Division hereby submits an application for your approval and authorization for the Chairperson and Department to stipulate conditions and issue a Dam Safety Construction/Alteration Permit for the subject application, "Alteration and removal of the HANAMAULU FIELD 21 RESERVOIR", pursuant to Chapter 179D Hawaii Revised Statutes.

APPLICANT:

Mr. Ernest Y.W. Lau
Public Works Administrator
State of Hawaii
Department of Accounting and General Services
1151 Punchbowl Street, Room 426
Honolulu, HI 96813

LANDOWNER:

Russell Y. Tsuji, Administrator
State of Hawaii
Department of Land and Natural Resources
Land Division
1151 Punchbowl Street, Room 220
Honolulu, HI 96813
TMK: (4) 3-9-002:020

SUMMARY OF REQUEST:

Application for a Dam Safety Construction/Alteration Permit for the remediation of the Hanamaulu Field 21 Reservoir, Kapaia, Kauai, Hawaii, see Exhibit 1.

LOCATION: Kapaia, Kauai, Hawaii, TMK: (4) 3-9-002:020. See Exhibit 2.

BACKGROUND:

The Hanamaulu Field 21 Reservoir is believed to have been constructed around 1920 by Lihue Plantation and used as a silt and sedimentation basin based on historic records of a nearby reservoir and ditch system. The reservoir is currently used for irrigation water and non-potable water to the Fern Grotto State Park, and managed by the East Kauai Water Users Cooperative, lessee from the State of Hawaii.

The Hanamaulu Field 21 Reservoir Dam is approximately 19-ft. high, 370-ft. long. The dam crest is about 19-22.5 ft wide. The surface area of the reservoir at the dam crest is approximately 6.9 acres. The reservoir impounds a maximum of 57 ac-ft. The existing spillway is a concrete lined open channel with a bottom width of 25-ft, length of 46-ft and has 6.5-ft high walls. The exit channel discharges free flow over a 200-ft high cliff to the Fern Grotto State Park. The end of the concrete slab at the end of the spillway channel was damaged during the March 2006 rain events and has since been fixed. The dam has an outlet works with a concrete intake box that leads to a tunnel through the mountain to a Department of Hawaiian Home Lands property ditch system. The dam has a size classification of "small" and hazard potential classification of "high".

A 2009 Phase I Visual Inspection Report by Kleinfelder West, Inc. identified that the dam has an upstream slope with erosion damage and covered with vegetation and the downstream slope was completely covered with large trees and other undergrowth. The outlet gate was operational but not fully functional.

An application for the alteration and removal of the Hanamaulu Field 21 Reservoir was filed on September 10, 2010 by the State of Hawaii, Department of Accounting and General Services (DAGS), on behalf of the owner, the State of Hawaii, Department of Land and Natural Resources (DLNR).

PROJECT DESCRIPTION:

The owner is proposing to reconstruct the spillway by lowering the spillway by approximately 10-ft and widening it to approximately 40-ft. The modified spillway channel and downstream slope will be lined with shotcrete to prevent erosion. The project also will include replacement of the trash rack and slide gate operator on the existing outlet works structure and a staff gage and survey monuments will also be installed. See Exhibit 3.

The completion of this alteration will result in lowering the effective height and volume capacity of the dam such that it will fall below the jurisdictional size definition of a state regulated dam, pursuant to Chapter 179D Hawaii Revised Statutes.

CHAPTER 343 – ENVIRONMENTAL ASSESSMENT:

In accordance with the Division of Land Management's Environmental Impact Statement Exemption List, approved by the Environmental Council dated April 28, 1986, the subject request is considered exempt from the preparation of an environmental assessment pursuant to Exemption Class No. 1 that states: "Operations, repairs or maintenance of existing structures, facilities, equipment or topographical features, involving negligible or no expansion or change of use beyond that previously existing." See Exhibit 4.

REMARKS:

The applicant (DAGS) and their client, DLNR-Land Division and the applicant's consultant, GEI Consultants, Inc., have completed a basis of design, plans and specifications and requests for the approval of a dam safety construction/alteration permit. The Department and its engineering consultant, Kleinfelder, Inc. have reviewed the documents and concluded that it is sufficient for its intended purposes, (see Exhibit 5). Staff recommends approval of this permit application with the Dam Safety Permit General Conditions (see Exhibit 6) and additional Special Conditions listed below:

SPECIAL CONDITIONS:

1. Provide adequate evidence that revisions to the original construction drawings and specifications that were submitted and approved by DLNR and reviewed by their consultant, Kleinfelder West, Inc. have been incorporated into the construction work (such as in the form of approved change orders or shop drawings).

RECOMMENDATION:

That the Board:

1. Authorize the approval and issuance of the Dam Safety Construction/Alteration Permit for this project; and
2. Direct the Chairperson to issue a dam safety permit for the remediation of the Hanamaulu Field 21 Reservoir (DLNR Dam Safety Construction/Alteration Permit No. 46) subject to such other terms and conditions as may be prescribed by the Chairperson to best serve the interests of the State.
3. Authorize the Department to oversee the permitted work and take appropriate action including but not limited to selecting and procuring testing or professional services to verify construction work, approval of minor revisions and changes, issuance of fines and /or revocation of the permit, if necessary.
4. Authorize the Department to remove this dam from dam safety regulatory oversight and the requirements of Chapter 179D, Hawaii Revised Statutes, upon satisfactory completion of the construction project.

Respectfully submitted,



CARTY S. CHANG
Chief Engineer

APPROVED FOR SUBMITTAL:



WILLIAM J. AILA, JR.
Chairperson

- Exhibit(s):
- 1 Owner Permit Application
 - 2 Location map
 - 3 Partial Construction Drawing set
 - 4 DAGS Right-of-Entry, including Environmental assessment exemption justification (Chapter 343 HRS)
 - 5 Kleinfelder, Inc. correspondence on approval of plans (to be provided at Board meeting)
 - 6 Dam Safety Permit General Conditions

State of Hawaii
 BOARD OF LAND AND NATURAL RESOURCES
 Department of Land and Natural Resources
 Engineering Division

APPLICATION FOR APPROVAL OF PLANS AND SPECIFICATIONS FOR CONSTRUCTION,
 ENLARGEMENT, REPAIR, ALTERATION, OR REMOVAL OF A DAM

10 SEP 10 AM 08:44 ENGINEERING
 10 SEP 10 AM 08:44 ENGINEERING

Date of Application: August 20th, 2010

Applicant: Department of Accounting &
 Contact Name: Ernest Y. W. Lau Firm / Company: General Services (DAGS), State of Hawaii

Mailing Address 1151 Punchbowl Street, Room 426, Honolulu, HI 96813

Telephone: 808-586-0526 Fax: 808-586-0521 Email: ernest.y.lau@hawaii.gov

The Applicant hereby applies to the Board of Land and Natural Resources for the approval of the attached plans and specification for the Hanamaulu Field Dam Safety Improvements (construction, etc.) in accordance with Chapter 179D HRS (as amended by Act 262, SLH 2006), and subject to the provisions, conditions, and limitations of the current Hawaii Administrative Rules and various DLNR dam safety guidelines.

Accompanying this application are:

(please check)

	Waived
1. Filing fee (\$25.00) (Waived for government agencies)	<input type="checkbox"/>
2. Three (3) copies of the Detailed Cost Estimate	<input checked="" type="checkbox"/>
3. Three (3) copies of the Final Design Report	<input checked="" type="checkbox"/>
4. Three (3) copies of the Plans	<input checked="" type="checkbox"/>
5. Three (3) copies of the Specifications	<input checked="" type="checkbox"/>
6. Proposed Construction Schedule	<input checked="" type="checkbox"/>
7. Supporting documents:	<input checked="" type="checkbox"/>
<u>Three (3) copies of the Emergency Action Plan for Construction</u>	<input checked="" type="checkbox"/>
<u>Three (3) copies of the letters of exemption</u>	<input checked="" type="checkbox"/>
_____	<input type="checkbox"/>

NAME OF STRUCTURE: Hanamaulu Field 21 Dam

DAM OR RESERVOIR LOCATION: North of Lihue, Kaua'i County

Island: Kaua'i Tax Map Key: (4) 3-9-002:020

Attach USGS topographic map (scale 1" = 2000') and property tax map (showing location access to site, proposed work)

State Land Use District: Agriculture Urban Rural Conservation

BRIEF DESCRIPTION OF WORK TO BE PERFORMED

Vegetation clearing in area of spillway modifications, spillway modifications will result in a shotcrete-lined (8-inch thick), open cut spillway with a 2% slope for a length of about 167 feet and upstream invert elevation of about 267.5 feet. Replace trash rack/slide gate with new trash rack and stainless steel slide gate for existing outlet works. Remove the dam from jurisdiction.

Exhibit 1

TECHNICAL INFORMATION:

1. Drainage Area 0.59 sq. miles or 378 acres
2. Classification of Dam Dam size: SMALL, Hazard Classification: HIGH
3. Type of Structure Earthen embankment
4. Elevation-Area-Capacity Data:

	Elevation	Surface Area (acres)	Total Storage Volume (acre-feet)
Natural Streambed	~259'	N/A	N/A
Primary Spillway	~276.5'	N/A	N/A
Secondary Spillway	N/A	N/A	N/A
Top of Dam	~278'	N/A	N/A
Design Water Level	~275'	~4.5	~37.5
Invert of Drain	Upstream ~ 251'	N/A	N/A
5. Spillway Details (Type, Dimensions, Material)

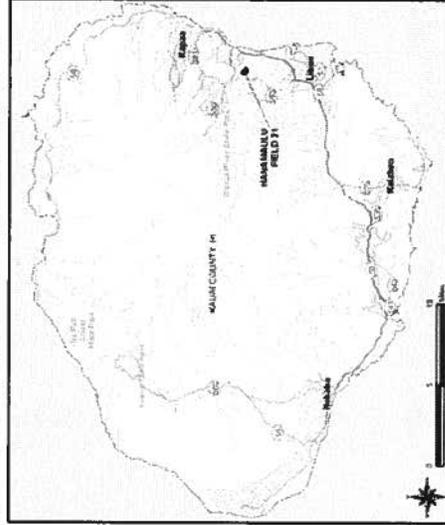
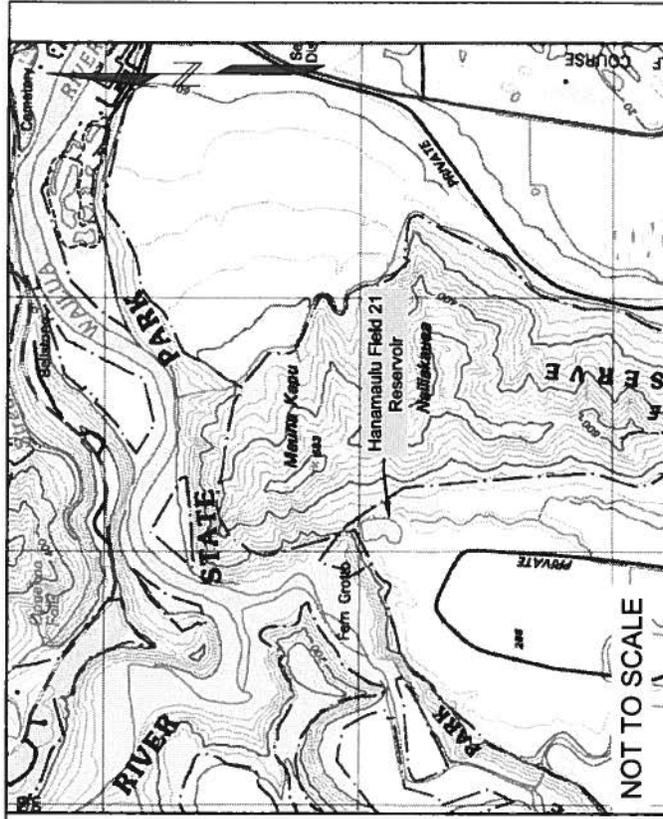
Primary: 20ft. wide concrete/shot-crete lined, discharge to Fern Grotto.

Secondary: None
6. Purpose of Structure Agricultural water supply.
(water supply, irrigation, recreation, real estate development, etc.)
7. Attach rainfall and stream flow records, and flood-flow records and estimates (as accurately as may be readily obtained) See section 2.2 of Design Memorandum - Pertinent Data, Table 2.1: Median annual rainfall is 60 inches.

ADDITIONAL INFORMATION

1. Primary Owner Contact (if different from applicant) Morris Atta, Acting Administrator
 Owner Company or Entity: DLNR - Land Division
 Mailing Address 1151 Punchbowl St. Room 220, Honolulu, HI 96813
 Telephone: 808-587-0422 Fax: 808-587-0455 Email: dlnr.land@hawaii.gov
2. Registered Hawaii Professional Engineer who prepared the plan GEI Consultants, Inc.
Steve Verigin
 Mailing Address 10860 Gold Center Drive, Suite 350, Rancho Cordova, CA 95670
 Registration No. 13646-CE
 Telephone: 916-631-4574 Fax: 916-631-4501 Email: sverigin@geiconsultants.com
3. Registered Professional Engineer to be responsible for inspection during construction Steve Verigin, GEI Consultants Inc.
4. Contractor (If known) Unknown at this time
 Mailing Address _____
 Telephone: _____ Fax: _____ Email: _____
5. List all other permits applications submitted to other governmental agencies:
Pending submittal by Contractor: DOH - Community Noise Permit, NPDES (Form C & G).
Submitted: 404 to USACE (AG exemption), SCAP (not required).
6. Anticipated effect of proposed structure on natural environment: Modifications to existing spillway will require some vegetation clearing, excavation and placement of concrete. Impact to natural environment will be ephemeral.

Exhibit 1



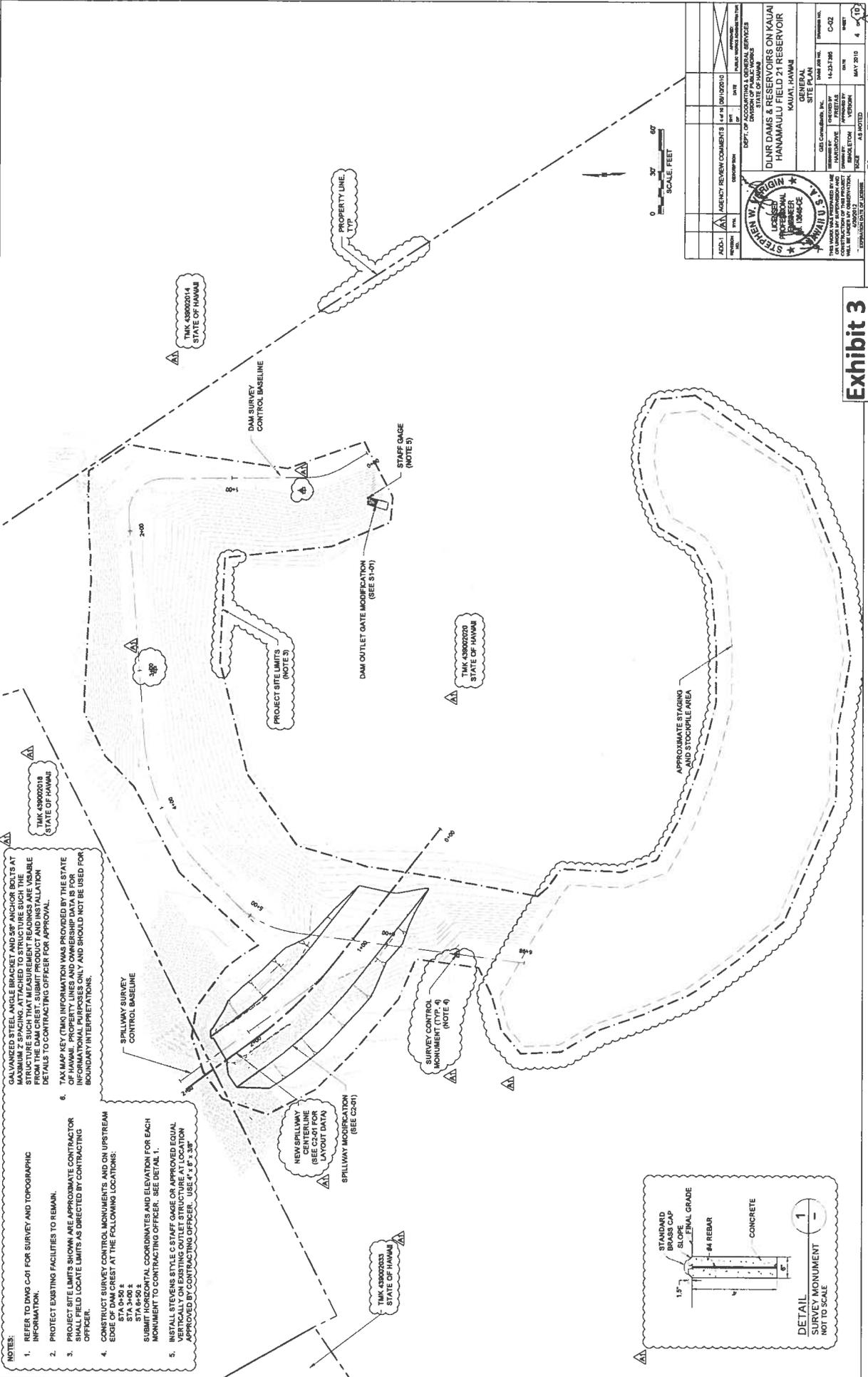
Source:
USGS 1:24000 Topographic Maps

DLNR Dams & Reservoirs on Kaua'i
Kaua'i, Hawaii
State of Hawaii
Department of Accounting & General Services

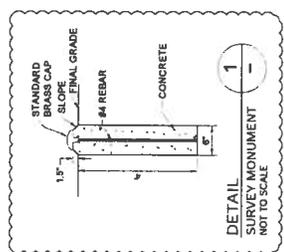
GEI
Brooklyn-Edinborough Division
Consultants

HANAMAULU FIELD 21
RESERVOIR
(HI-00135)
SITE LOCATION

Project 092490 June 2010 Figure 2.1



- NOTES:**
1. REFER TO DWG C-01 FOR SURVEY AND TOPOGRAPHIC INFORMATION.
 2. PROTECT EXISTING FACILITIES TO REMAIN.
 3. PROJECT SITE LIMITS SHOWN ARE APPROXIMATE CONTRACTOR SHALL FIELD LOCATE LIMITS AS DIRECTED BY CONTRACTING OFFICER.
 4. CONSTRUCT SURVEY CONTROL MONUMENTS AND ON UPSTREAM EDGE OF DAM CREST AT THE FOLLOWING LOCATIONS:
STA 0+50 ±
STA 0+00 ±
SUBMIT HORIZONTAL COORDINATES AND ELEVATION FOR EACH MONUMENT TO CONTRACTING OFFICER. SEE DETAIL 1.
 5. INSTALL STEVENS STYLE C STAFF GAUGE OR APPROVED EQUAL VERTICALLY ON EXISTING OUTLET STRUCTURE AT LOCATION APPROVED BY CONTRACTING OFFICER. USE 4" x 6" x 38" GALVANIZED STEEL ANGLE BRACKET AND 5/8" ANCHOR BOLTS AT MAXIMUM Z SPACING. ATTACHED TO STRUCTURE SUCH THE STRUCTURE SUCH THAT MEASUREMENT READINGS ARE VISIBLE FROM THE DAM CREST. SEE DETAIL 1 FOR INSTALLATION DETAILS TO CONTRACTING OFFICER FOR APPROVAL.
 6. TAX MAP KEY (TMK) INFORMATION WAS PROVIDED BY THE STATE OF HAWAII FOR INFORMATIONAL PURPOSES ONLY AND SHOULD NOT BE USED FOR BOUNDARY INTERPRETATIONS.



NO.	AGENCY REVIEW COMMENTS	DATE	DATE

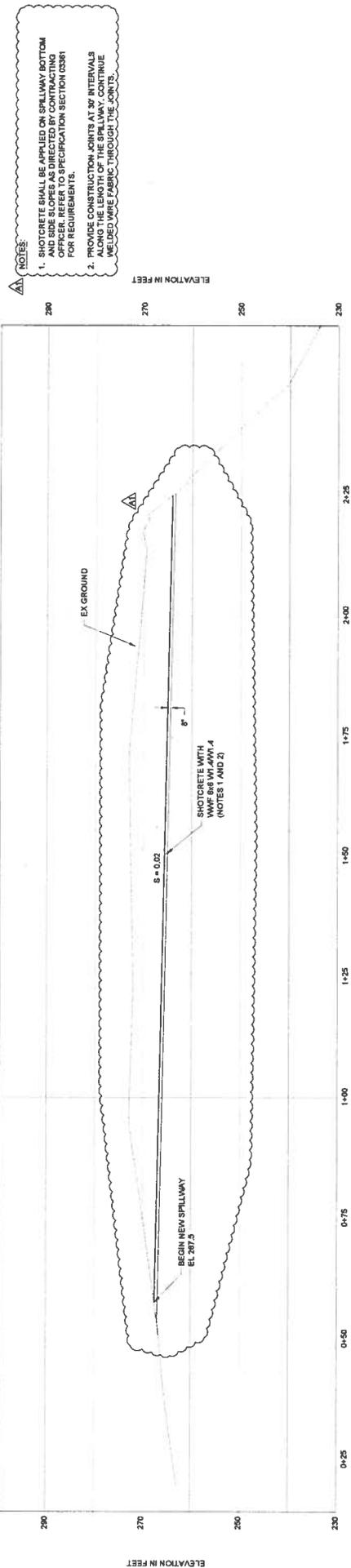
DEPT. OF ACCOUNTING & GENERAL SERVICES
DIVISION OF LAND & NATURAL RESOURCES
DLNR DAMS & RESERVOIRS ON KAUAI
HANAMALUU FIELD 21 RESERVOIR
KAUAI, HAWAII

GENERAL
SITE PLAN

DESIGNED BY: [Name]
DRAWN BY: [Name]
CHECKED BY: [Name]
DATE: MAY 2010

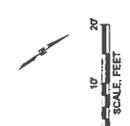
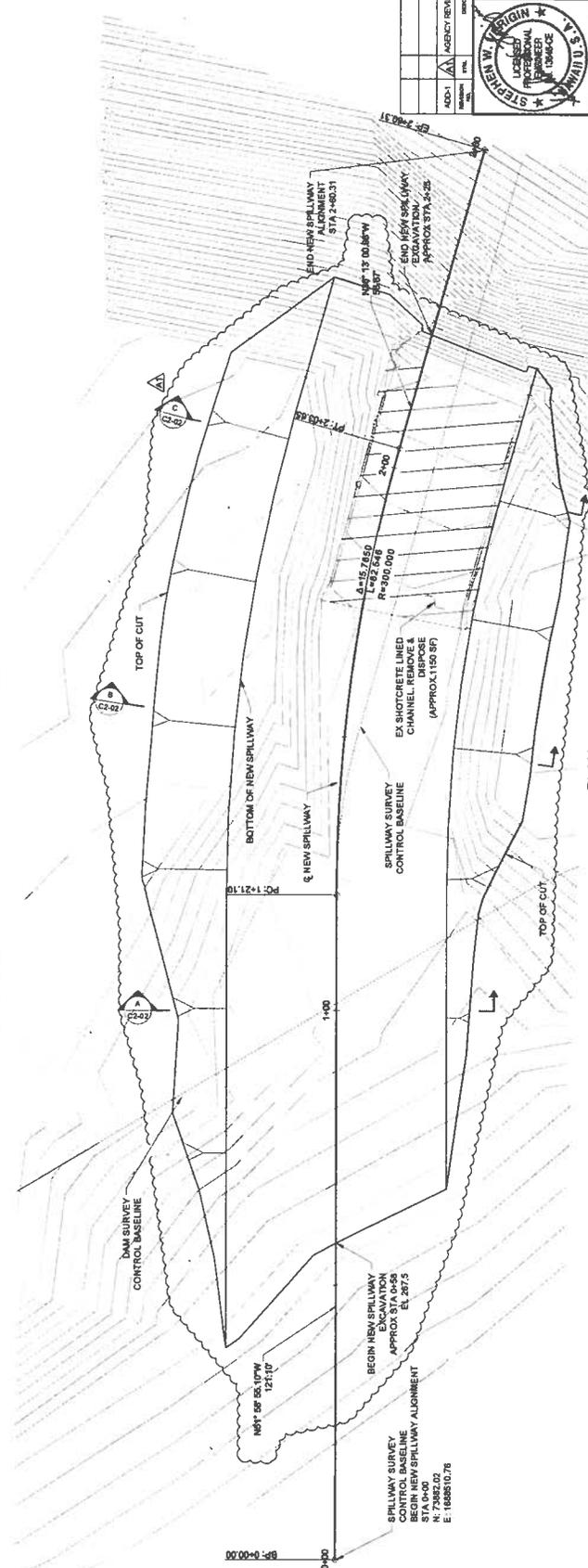
PROJECT NO: C-02
SHEET NO: 4 OF 10

Exhibit 3



- NOTES:**
- SHOTCRETE SHALL BE APPLIED ON SPILLWAY BOTTOM AND SIDE SLOPES AS DIRECTED BY CONTRACTING OFFICER. REFER TO SPECIFICATION SECTION 03381 FOR REQUIREMENTS.
 - PROVIDE CONSTRUCTION JOINTS AT 30' INTERVALS ALONG THE LENGTH OF THE SPILLWAY. CONTINUE WELDED WIRE FABRIC THROUGH THE JOINTS.

PROFILE ALONG NEW SPILLWAY CENTERLINE



PROJECT NO.	14-001	DATE	10/10/2010
DESCRIPTION	DLNR DAMS & RESERVOIRS ON KAUAI HANAMALU FIELD 21 RESERVOIR		
DESIGNED BY	STEPHEN W. BERGIN	CHECKED BY	STEPHEN W. BERGIN
DRAWN BY	STEPHEN W. BERGIN	DATE	11-23-2006
PROJECT NO.	14-001	DATE	11-23-2006
SCALE	AS NOTED	DATE	MAY 2010

DEPT. OF ACCOUNTS & GENERAL SERVICES
STATE OF HAWAII
KAWAII, HAWAII

PROFESSIONAL ENGINEER
STEPHEN W. BERGIN
NO. 11585
EXPIRES 12/31/10

THIS PROJECT WAS PREPARED BY ME OR UNDER MY SUPERVISION AND I AM A LICENSED PROFESSIONAL ENGINEER IN THE STATE OF HAWAII. I AM NOT PROVIDING ANY GUARANTEE OR WARRANTY, EXPRESS OR IMPLIED, FOR THE USE OF THIS PROJECT FOR ANY PURPOSE OTHER THAN THAT FOR WHICH IT WAS DESIGNED.

Exhibit 3

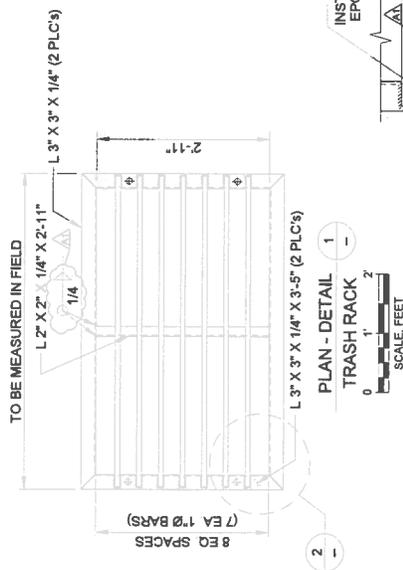


EXIST. CONC. BEAM
EXIST. STEM
EXIST. CONC. BOX

INCLINED WALLS

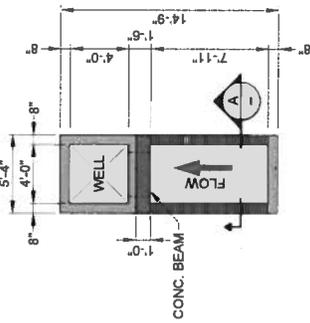
TRASH RACK

EXISTING CONDITIONS

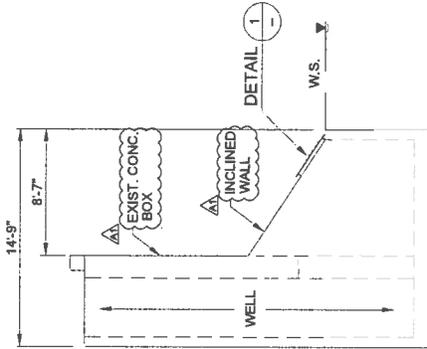


PLAN - DETAIL 1
TRASH RACK
SCALE, FEET
0 1' 2'

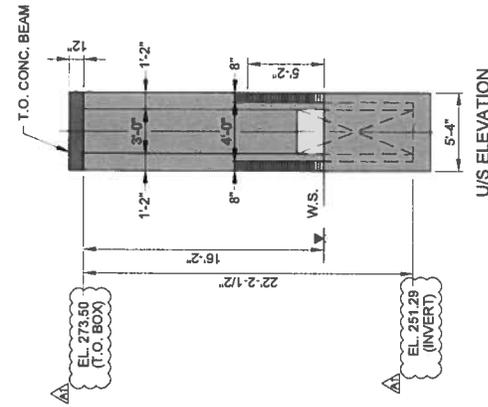
NOTE: HOT DIP GALVANIZE TRASH RACK AFTER FABRICATION.



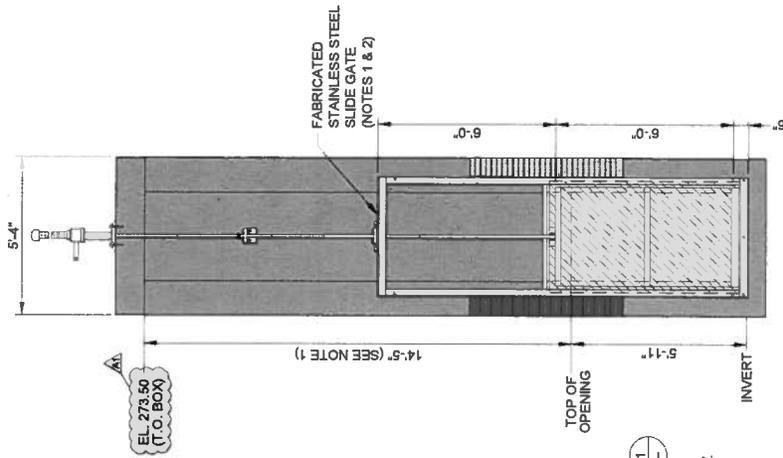
TOP VIEW



VIEW - PROFILE



U/S ELEVATION



SECTION A-A
SCALE, FEET
0 2' 4'

NOTES

1. ALL DIMENSIONS TO BE MEASURED IN THE FIELD TO CONFIRM, PRIOR TO ORDERING GATE.
2. SUBMIT GATE SHOP DRAWINGS AND INSTALLATION DETAILS FOR APPROVAL PRIOR TO GATE FABRICATION, IN ACCORDANCE WITH SPECIFICATION SECTION 11280.

DETAIL 2
N.T.S.

SCALE, FEET
0 4' 8'

DATE	DESCRIPTION	BY	CHECKED
10/15/2010	REVISED
DEPT. OF ACCOUNTING & GENERAL SERVICES HAWAII DLNR DAMS & RESERVOIRS ON KAUAI HANAMALU FIELD 21 RESERVOIR KAUAI, HAWAII PLAN: DAM OUTLET GATE SHEET NO. 2010-01 SHEET NO. 11-01 DATE: 11-23-2008 DRAWN BY: ... CHECKED BY: ... PROJECT NO.: ... WORK ROOM: ... SCALE: AS NOTED FILE NO.: ... PROJECT NO.: ...			

Exhibit 3

D-1

AMENDED

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

September 22, 2010

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

Kauai

Issuance of a Right-of-Entry Permit to the Department of Accounting and General Services on State Encumbered Lands, Dams and Reservoirs on Kauai; Dam Maintenance and Remediation Improvements for Aahoaka, Hanamaulu Field 21, Wailua, Upper Kapahi and Lower Kapahi Dams and Reservoirs, in Wailua, Kapaia, and Kapahi, Kauai; Tax Map Keys: (4) 3-9-2:1, 20; 4-2-1:4, 5, 8; 4-6-7:11; 4-4-4:4; 4-6-6:7; 4-6-32:22

APPLICANT:

Department of Accounting and General Services (D.A.G.S.), whose business and mailing address is: 1151 Punchbowl Street; Honolulu, Hawaii 96813, on behalf of the Department of Land and Natural Resources (DLNR).

LEGAL REFERENCE:

Section 171-55, Hawaii Revised Statutes, as amended.

LOCATION:

Portions of Government lands, Dams and Reservoirs on Kauai; Dam Maintenance and Remediation Improvements for Aahoaka, Hanamaulu Field 21, Wailua, Upper Kapahi and Lower Kapahi Dams and Reservoirs, in Wailua, Kapaia, and Kapahi, Kauai; Tax Map Keys: (4) 3-9-2:1, 20; 4-2-1:4, 5, 8; 4-4-4:4; 4-6-7:11; 4-6-6:7; 4-6-32:22, as shown on the attached maps labeled Exhibit A.

AREA:

5,656.77 acres, more or less

ZONING:

State Land Use District: Agriculture
County of Kauai CZO: Agriculture / Open

Exhibit 4

TRUST LAND STATUS:

Section 5(B) lands of the Hawaii Admission Act

As Amended
APPROVED BY THE BOARD OF
LAND AND NATURAL RESOURCES
AT ITS MEETING HELD ON
September 22, 2010 **D-1**

DHHL 30% entitlement lands pursuant to the Hawaii State Constitution:
YES X NO

CURRENT USE STATUS:

Tax Map Key	Document	Tenant	Purpose
3-9-02:1; 02:20	GEO 4328*	Agribusiness Development Corp.	Agriculture and related purposes
4-2 and 4-6	RP 7310	East Kauai Water Users Cooperative (“EKWUC”)	Operation, repair and maintenance of irrigation water diversions and transportation infrastructure system including the right to divert, store, take, draw off, conduct away and dispose thereof government owned water from streams and rivers in the drainage area for irrigation purposes.
4-2-1:4	GEO 1389	DOFAW	Public hunting ground & upland game bird reserve
4-2-1; 4-4-4	GL 3911	KIUC	Electrical transmission lines
4-2-1:8	RP 5567	UH College of Tropical Ag	Agricultural experimental purposes
4-4-4:4	GL 5660**	Sanchez, William & Alison	Pasture purposes
4-6-6:7			
4-6-32:22	LOD 28120	Rodrigues, Gary & John	Access & utility easement

*Pending transfer of Revocable Permits to Agribusiness Development Corporation pursuant to Board approval on April 25, 2008, agenda item D-1.

**GL 5660 covers multiple parcels.

CHARACTER OF USE:

Capital Improvement purposes.

TERM OF RIGHT-OF-ENTRY:

Two (2) years.

CONSIDERATION:

Gratis.

Exhibit 4

CHAPTER 343 – ENVIRONMENTAL ASSESSMENT:

In accordance with the Division of Land Management's Environmental Impact Statement Exemption List, approved by the Environmental Council and dated April 28, 1986, the subject requests are exempt from the preparation of an environmental assessment pursuant to Exemption Class No. 1 and Exemption Class No. 9. Also, in accordance with Hawaii Administrative Rules, Section 11-200-8(a), the subject request is considered to be exempt from the preparation of an environmental assessment pursuant to Exemption Class No. 1. See Exhibit B.

DCCA VERIFICATION:

Government agency; not applicable.

APPLICANT REQUIREMENTS:

Applicant shall be required to:

- 1) Obtain written concurrence from tenants prior to any activity on the subject lands.

REMARKS:

Act 213, SLH 2007, Item K-6, as amended by Act 158, SLH 2008 appropriated \$14,530,000 for the Dam Assessments, Maintenance and Remediation Improvements, Statewide, for the purpose of satisfying the State's obligations under Act 262, the "Hawaii Dam and Reservoir Safety Act of 2007".

Governor's Memorandum, dated December 18, 2008, delegated this funding to D.A.G.S. Since DLNR, through its Engineering Division's Dam Safety Program, is responsible for the inspection and regulation of all of the State's dams and reservoirs, D.A.G.S. Public Works Division was delegated the responsibility for managing the assessment, repair, alteration and/or removal of the dams and reservoirs under the Department's jurisdiction because there appeared to be the potential for a "conflict of interest" for DLNR to also be responsible for the party conducting the actual assessment and remediation of these dams and reservoirs.

Part of this \$14,530,000 funding is to remediate five (5) dams and reservoirs on Kauai: Aahoaka, Hanamaulu Field 21, Wailua, Upper Kapahi and Lower Kapahi Dams and Reservoirs. To complete the design and construction of these capital improvements, the D.A.G.S. is requesting a right-of-entry for two (2) years. See Exhibit C.

Comments were solicited from the Office of Conservation and Coastal Lands and the State Historic Preservation Division, and they had no objections.

Exhibit 4

Staff recommends gratis consideration for the issuance of the requested right-of-entry permit since the applicant is a government agency.

There are no pertinent issues or concerns.

Staff is recommending authorizing the Chairperson to extend the right-of-entry beyond the 2-year term, in the event that D.A.G.S. projects experience unanticipated delays.

RECOMMENDATION:

That the Board, subject to the Applicant fulfilling the Applicant requirements above, authorize the issuance of a right-of-entry permit to the Department of Accounting and General Services covering the subject areas under the terms and conditions cited above, which are by this reference incorporated herein and further subject to the following:

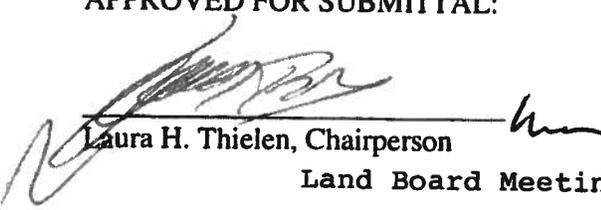
1. The standard terms and conditions of the most current right-of-entry permit form, as may be amended from time to time;
2. Such other terms and conditions as may be prescribed by the Chairperson to best serve the interests of the State; and
3. In the event the projects experience unanticipated delays, authorize the Chairperson to extend the right-of-entry.

Respectfully Submitted,



Lydia M. Morikawa
Special Projects and Development Specialist

APPROVED FOR SUBMITTAL:



Laura H. Thielen, Chairperson

Land Board Meeting September 22, 2010; D-1

Attachments

The Land Board amended the submittal by: changing the term of the right-of-entry permit from two (2) years to one (1) year, renewable annually as needed. Otherwise, the Land Board Approved staff's recommendations as submitted.

Exhibit 4

LINDA LINGLE
GOVERNOR OF HAWAII



Laura H. Fiffe
CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES
ENVIRONMENTAL RESOURCES MANAGEMENT



STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
LAND DIVISION

POST OFFICE BOX 621
HONOLULU, HAWAII 96809

September 3, 2010

EXEMPTION NOTIFICATION

regarding the preparation of an environmental assessment pursuant to Chapter 343, HRS and Chapter 11-200, HAR

Project Title: DLNR Dams and Reservoirs on Kauai
Maintenance and Remediation Improvements

Project / Reference No.: D.A.G.S. Job No. 14-23-7395

Project Location: Hanamaulu Field 21 Reservoir (State ID #KA-0135)
Kapaia, Kauai County, Hawaii
TMK No.: (4) 3-9-002:020

Project Description: Design and repair of the deficiencies of this reservoir –
spillway alteration to reduce storage capacity to non-regulatory
jurisdiction, and repair the outlet - to insure public safety.

Chapter 343 Trigger(s): Use of State funds and on State lands

Exemption Class No. and Description: 1

In accordance with the Division of Land Management's Environmental Impact Statement Exemption List, approved by the Environmental Council and dated April 28, 1986, the subject project is considered to be exempt from the preparation of an environmental assessment pursuant to Exemption Class No. 1, that states: "Operations, repairs or maintenance of existing structures, facilities, equipment or topographical features, involving negligible or no expansion or change of use beyond that previously existing."

The maintenance and improvement project consists of spillway alteration to reduce storage capacity to non-regulatory jurisdiction, and outlet repairs to control storage capacity and divert water, as necessary. Vegetation clearing on the dam

Exhibit 4

crest and in the spillway is also planned.

The maintenance and improvement project is a single action and not a component or incremental action of a larger total undertaking. There is no cumulative impact as this project will serve to ensure that the Dam will continue to function safely as it has been historically, and it will also be in compliance with the Hawaii Dam Safety Act of 2007. Upon repair, the Dam will serve to maintain a safe environment and simultaneously continue to provide an effective water supply.

Exempt Item and Description
from Agency Exemption List

5

Routine and emergency repair and restoration of existing structures and facilities on State lands involving negligible or no expansion or change or use beyond that previously existing.

Recommendation:

It is recommended that the Board find that this request will probably have minimal or no significant effect on the environment and is presumed to be exempt from the preparation of an environmental assessment.

Laura H. Thielen, Chairperson

Date

Exhibit 4

DAM SAFETY PERMIT GENERAL CONDITIONS

APPROVAL OF PLANS AND SPECIFICATIONS FOR DAM AND RESERVOIR CONSTRUCTION, ENLARGEMENT, REPAIR, ALTERATION OR REMOVAL

The following General Conditions shall be adhered to for all Dam Safety permits unless otherwise authorized in writing.

1. Actual construction, enlargement, repair, alteration or removal shall be completed within 5 years of issuance of the permit application approval unless an extension authorized in writing by the Board is issued.
2. Prior to the start of work the owner or applicant shall provide a construction engineer to ensure compliance with the approved plans and specifications and who shall have ultimate responsibility for the supervision of all inspection tasks. The construction engineer may assign some inspection tasks to a duly authorized agent under the construction engineer's supervision. The engineer shall be licensed in the State of Hawaii.
3. The construction engineer shall maintain a record of construction that at a minimum, shall include, daily activity, and progress reports, all test results pertaining to construction; photographs sufficient to provide a record of foundation conditions and various stages of the construction through completion, all geologic information obtained; and construction problems and remedies.
4. A construction quality assurance plan shall be prepared and submitted to the Department for approval prior to the start of construction, which details the minimum requirements of the construction engineer's observation of construction.
5. A construction schedule, which includes the notice to proceed date and estimated project duration and a construction emergency action plan shall be submitted prior to the preconstruction meeting.
6. A preconstruction meeting shall be held subsequent to submitting the quality assurance plan, construction schedule and construction emergency action plan, but not later than 14 days prior to the start of construction. All parties actively involved in the construction should be requested to attend, such as the dam owner, the design engineer, the construction engineer, the contractor and the Department.
7. The Department shall be notified 5 calendar days prior to the commencement of construction.
8. Any changes from the approved plans and specifications shall be approved by the design engineer and a change order, including details and supporting calculations, must be provided to the Department. Major changes must be submitted in writing with supporting documentation and approved in writing by the Department. No work shall be initiated until the approval by the Department or Board is received. Minor changes may be transmitted verbally and approved by the Department verbally provided that documentation of the change is provided to the Department within 10 days of the approval.

9. For new dam construction and for dams and reservoirs that have lowered the water level or have been drained to facilitate construction, the construction engineer shall file and obtain approval of a filling plan with the Department. The applicant/owner shall not proceed with the filling of the reservoir until it receives permission from the Department. The construction engineer shall provide documentation of monitoring during the filling operation.
10. Prior to the filling of the reservoir, the construction engineer shall submit one copy each of the approved Operations Manual and the approved Emergency Action Plan for the facility upon completion of the project as applicable.
11. The construction engineer shall give the Department at least ten days advanced notice of initial materials placement of the dam's foundation, in the cutoff trench, outlet backfill, outlet foundation, and any appurtenance requested by the Department in the approval of the plan for construction observation, to allow for observation by the Department.
12. Notice of substantial completion shall be issued by the construction engineer to the Department stating that the permitted improvements are functionally complete such that filling of the reservoir can be initiated with an approved filling plan.
13. The construction engineer shall give the Department fifteen (15) calendar days advance written notice prior to the project's final construction inspection. The construction engineer shall coordinate with the Department to conduct this inspection in the presence of the Department's dam safety personnel.
14. The construction engineer shall provide notice at least ten (10) days prior to initiating filling the reservoir, unless agreed at the final inspection.
15. If conditions are revealed which will not permit the construction, enlargement, repair, alteration, or removal of a safe dam or reservoir, the application for approval for construction, enlargement, repair, alteration, or removal shall be revoked.
16. A topographic survey of completed work including all monuments, inverts, crest alignment, spillways, and significant appurtenant features, when required by the Department shall be completed.
17. The applicant/owner shall utilize appropriate erosion control best management practice measures during construction to minimize turbidity (such as scheduling of work during period of low stream flow) and prevent debris and construction materials, including concrete, petroleum products, and other pollutants from enter the waters of the State. Construction related water and debris should be properly disposed of in a legal and environmentally safe manner and in accordance with the Department of Health and other Federal regulations.
18. The applicant/owner shall submit a copy of the dam safety application and the plans and specifications of the proposed improvements to the County Engineer of the County for which the dam resides for compliance with County codes.
19. Within fifteen (15) calendar days of completing the project, the applicant/owner or its representative shall provide the Department with a confirmation letter of compliance, signed and stamped by the construction engineer, indicating that the construction

was completed in accordance to approved plans and specifications including any field changes. The construction engineer shall submit the remaining construction completion documents which may include, but not be limited to, as-constructed drawing, final construction report, topographic survey, record of the location of permanent monuments, log of recorded water levels and other readings from the refilling operation, long-term instrumentation monitoring plan, and affidavit showing the actual cost of construction including engineering costs, within 60 calendar days of the submittal of the final construction inspection.

20. Construction completion documents and the construction engineer's certification shall be provided to the Department within 60 days of the final construction inspection. The Department will review the submitted items and furnish acceptance or denial within 60 days of receipt of satisfactorily completed construction completion documents and close out the dam safety permit.
21. This permit does not relieve the applicant/owner of their obligations to comply with all applicable Federal, State, and County regulations.