

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

JAN 22 2016

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

**Request Authorization to Select Consultants;**

**Authorize the Chairperson to Negotiate, Enter and Execute Agreements with Consultants, Contractors and/or Government Agencies to Implement and Administer Projects in Support of Hawaii Revised Statutes (HRS) Chapter 179D, Dams and Reservoirs; Execute Right Of Entry Agreements for these Projects; and Declare These Proposed HRS Chapter 179D Projects Exempt from Requirements of HRS Chapter 343 and Hawaii Administrative Rules (HAR) Title 11, Chapter 200, Environmental Impact Statement Rules**

The Engineering Division (Division) desires to execute agreements with consultants, contractors and/or government agencies as necessary to implement and administer projects in support of the Dam and Reservoir Safety Act of 2007, HRS Chapter 179D. Rights of Entry Agreements may be desired for execution for some of these projects, as approximately sixty percent of the state regulated dams are located on privately owned property.

Funding for this work will be provided primarily from the Dam and Reservoir Safety Special Fund (LNR 810 Operating Special Fund) and may be supplemented by the Department of Homeland Security, National Dam Safety Program Grant and other State Operational Funds.

This authorization is being requested to support the following projects:

**Annual Operational Projects**

These projects are required annually for continued support of core functions of the Dam Safety Program:

1. Dam Safety Training and Educational Outreach Program Estimate \$ 200,000

Three general types of training and outreach programs:

Develop and implement training programs on dam safety fundamentals and current standards of practices for dam owners, operators and consultants. Typically, we provide these trainings in all four counties to ensure maximum participation from dam owners and operators.

Develop a continuing education program for dam owners and operators to access dam safety training opportunities. Anticipate accomplishing this by partnering with the Association of State Dam Safety Officials (ASDSO) educational outreach publications, training webinars, regional and national technical classes and conferences for dam owners and operators.

Develop a public outreach program, including a communication plan for the dam safety program. The educational program will include outreach efforts to the public, dam owners, downstream

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residents and local emergency management and elected officials. The communication plan will evaluate and provide recommendations as to how sensitive information is released and publicized from the department, while mitigating possible terrorist targeting and the negative effects on the dam owners' or downstream residents' properties. The communication plan will also map out procedures to be implemented by the department for the release of studies, investigations, and reports, provided by third party or private owners. The implementation of the outreach efforts shall utilize various types of media including but not limited to magazine, video, mail outs, radio, and website.

2. **Dam Failure Mapping and Hazard Assessment** Estimate \$ 50,000  
The Division desires to contract with the Pacific Disaster Center (PDC), under management by the Research Corporation of the University of Hawaii (RCUH), to conduct dam failure model simulations of selected dams statewide, along with a detailed hazard assessment of the modeled area and evacuation mapping documentation. The Division has previously worked with the PDC to provide dam failure modeling of almost all regulated dams statewide. Additional structures have been identified for inclusion into the regulatory program and will be evaluated to determine their appropriate hazard classification, as well as the remodeling of existing structures with changed conditions.
3. **Dam Safety Permit Review and Related Technical Services** Estimate \$ 250,000  
The Division utilizes consultant services for inspection and assessment of existing dams and to assist in the technical review of proposed dam safety construction, alteration and removal permit applications, certificate of approval to impound applications and related dam safety technical assistance. Additionally this procurement maybe utilized for emergency dam safety inspections and assessments. Multiple consultants may be selected and contracted to fulfill various portions of this work.
4. **Information Technology Maintenance Support** Estimate \$ 200,000  
The Division hosts a number of information technologies (IT) applications and servers that support the Dam Safety Program. The Dam Inventory Maintenance System (DIMS), which is an online database management system of regulated dams; Hawaii Flash Flood Response Tool, a web GIS application for monitoring real time reservoir levels, rainfall imagery and stream gages; Dam and Reservoir Permitting System, application for filing online permit applications; and our Division Webpage. Maintenance support is required to provide ongoing licensing, service, maintenance, hosting and help desk support for these systems. Additional services may be procured for hardware/software upgrades and to modify these applications to best meet current program needs and objectives.
5. **Updated Aerial Photography** Estimate \$ 100,000  
The Department would like retain a contractor to update the aerial photography of selected regulated dams and reservoirs as significant amounts of work have been accomplished on many of these facilities. The updated aerial imagery can also be used to verify downstream hazard assessments and provide approximate topographic information.

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### **Dam Safety Special Projects**

Dam Safety Special Projects are desired for implementation over the next several years, dependent on available resources:

1. Dam and Reservoir Water Level Monitoring System Estimate \$ 500,000  
Project will consist of the installation of various reservoir water level monitoring and supporting instrumentation equipment and the updating and maintenance of a web-based application to monitor and record data from these gages. The Department will retain the consultant to host and maintain the application and provide updates such as access by dam owners and partner agencies, such as the National Weather Service and local civil defense agencies. These water level monitoring systems are intended to provide monitoring support on the hydraulic loading of high hazard reservoirs and also for compliance monitoring of reservoirs that are placed under water level restrictions as a result of deficiencies or as a requirement of the certificate of approval to impound. The Department has secured 80 slots on the NOAA GOES satellite transmission system for this effort and has installed two (2) pilot sites each on Maui and Kauai.
  
2. Dam Safety Seismic Analysis Study: Estimate \$ 400,000  
The Department would like to retain a consultant to determine the Maximum Credible Earthquake and related seismic and stability requirements for each island. Some geotechnical subsurface and related investigations maybe required to aid in the determination and verification of these parameters. Additional work may include providing recommendations to update the Department's Seismic Design Guidelines.
  
3. Dam Safety Hydrology & Spillway Adequacy Analysis Estimate \$ 400,000  
The Department would like to retain a consultant to determine the inflow design flood and 100 year flood analysis for regulated dams statewide and analyze the existing spillway adequacy from these calculated flows. Anticipate accomplishing this project in phases.

### **Procurement and Contracts for these Projects**

All procurements will be made in accordance with the State Procurement Code, Hawaii Revised Statutes Chapter 103D and the latest Executive Memorandum on Budget Execution Policies and Instructions.

### **HRS Chapter 343 Exemption Analysis and Declaration of Impact**

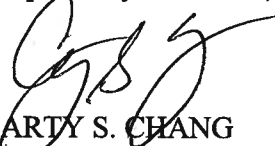
In accordance with HAR Section 11-200-8(a), and the Exemption List for the Department of Land and Natural Resources, which was reviewed and concurred by the Environmental Council on June 5, 2015, the subject projects are exempt from the preparation of an environmental assessment pursuant to Exemption Class No. 5, that states, "Basic data collection, research, experimental management, and resource evaluation activities which no not result in a serious or major disturbance to an environmental resource." Outside consultation with the DLNR Office of Coastal and Conservation Lands and the DLNR State Historic Preservation Division, concurred with the use of these exemptions and concluded that potential environment effects would be minimal. Details regarding this exemption analysis are provided in the attached Exemption Notification, Exhibit A.

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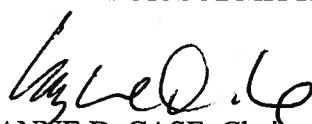
RECOMMENDATIONS:

1. That the Board of Land and Natural Resources (Board) authorize the selection of consultants, contractors or government agencies to implement and administer projects in support of HRS Chapter 179D and authorize the Chairperson to negotiate, enter and execute agreements, subject to Governor's approval, and review and approval as to form by the Department of the Attorney General.
2. That the Board authorize the Chairperson, subject to available funding and review and approval as to form by the Department of the Attorney General, to enter into supplemental contracts to address unforeseen conditions and sign the necessary documents to implement the additional work.
3. That Board authorize the Chairperson to enter into and execute right of entry agreements with dam owners for the Department and its employees, representatives, contractors and consultants, to enter upon State and private property for the purposes of conducting investigations, installing, operating and maintaining monitoring equipment, conducting inspections and surveys in and around regulated dams and reservoirs and appurtenant features for the purposes of conducting projects in support of HRS Chapter 179D, subject to review and approval as to form by the Department of the Attorney General.
4. That the Board declares that after considering the potential effects of the proposed projects as provided by HRS Chapter 343, and HAR Chapter 11-200, these projects will probably have minimal or no significant effect on the environment and is therefore exempt from the preparation of an environmental assessment.

Respectfully submitted,

  
CARTY S. CHANG  
Chief Engineer

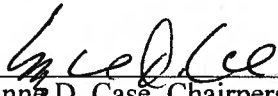
APPROVED FOR SUBMITTAL:

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

**EXEMPTION NOTIFICATION**

Regarding the preparation of an environmental assessment pursuant to Chapter 343, Hawaii Revised Statutes (HRS), and Chapter 11-200, Hawaii Administrative Rules (HAR):

Project Title:	Various DLNR Dam and Reservoir Safety Projects to Administer HRS Chapter 179D
Project Description:	Various Consultants, Goods and Services Contracts to evaluate and monitor the condition of dams and reservoirs under the DLNR jurisdiction for HRS Chapter 179D. May include some procurement of good and services for use in supporting projects, such as monitoring reservoir water levels via real time monitoring systems.
Chapter 343 Trigger(s):	Use of State Funds, Possible Conservation Zone Lands
Exemption Class & Description:	<b>Exemption Class No. 5</b> of the Exemption List for the Department of Land and Natural Resources and reviewed and concurred by the Environmental Council on June 5, 2015, states: "Basic data collection, research, experimental management, and resource evaluation activities which no not result in a serious or major disturbance to an environmental resource."
Exemption Item Number and Description:	<p><b>Exemption Item No. 1</b> of Class No. 5 states: "Conduct Surveys or collect data on existing environmental conditions (eg, noise, air quality, water flow, water quality, etc.)."</p> <p><b>Exemption Item No. 2</b> of Class No. 5 states: "Non-destructive data collection and inventory, including field, aerial, and satellite surveying and mapping."</p> <p><b>Exemption Item No. 9</b> of Class No. 5 states: "Installation of staff gages, water monitoring and reporting equipment at dam facilities and appurtenant works to include trenching work and construction of supporting features such as equipment sheds, transmitting devices, solar panels, and minimal site grading and improvements for the save operations and installation of these features."</p> <p><b>Exemption Item No. 10</b> of Class No. 5 states: "Phase II Investigation work on a dam or reservoir, including soil sampling and drilling, water monitoring, and / or test pit excavations. This may include clearing or construction of the site improvements needed to mobilize equipment or personnel to accomplish the task."</p>
Agencies and Parties Consulted:	DLNR Office of Conservation and Coastal Lands DLNR State Historic Preservation Division
Recommendation:	It is anticipated these projects will probably have minimal or no significant effect on the environment and is presumed to be exempt from the preparation of an environmental assessment.

  
Suzanna D. Case, Chairperson

12/23/15  
Date