

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

October 14, 2010

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

Statewide

Delegation of Authority to the Chairperson of the Board of Land and Natural Resources to Do All Things Necessary to Implement and Effectuate the Maintenance, Remediation or Removal of All Dams, Reservoirs, and Ancillary Infrastructure Under the Jurisdiction of the Department of Land and Natural Resources, Statewide

BACKGROUND:

Act 213, SLH 2007, Item K-6, as amended by Act 158, SLH 2008 appropriated \$14,530,000 for the Department of Land and Natural Resources (“DLNR”) 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".

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. Consequently, Department of Accounting and General Services (“D.A.G.S.”), Public Works Division (“PWD”) was delegated the responsibility for managing the assessment, repair, alteration and/or removal of the dams and reservoirs under the DLNR’s jurisdiction due to the potential appearance of a "conflict of interest" for DLNR, as owner, to be the responsible party for the maintenance and remediation of these dams and reservoirs while simultaneously being the regulatory agency responsible for ensuring dam safety compliance. By Governor's Memorandum, dated December 18, 2008, DLNR requested delegation of the \$14,530,000 to D.A.G.S. to carry out its delegated duties. The Governor approved this delegation on January 28, 2009 (Exhibit A).

In February 2009, D.A.G.S. – PWD and Planning Branch (“PB”) met with DLNR’s Land Division to discuss the prioritization of the scope of work and D.A.G.S. responsibilities. In June 2009, D.A.G.S.- PB completed the selection process for consultant firms to provide designs of the remediation improvements for the various structures. The following firms were selected:

| Job No. | Island | Firm | Design CIP Funds Allotment |
|------------|--------|----------------------------|----------------------------|
| 11-23-7381 | Hawaii | Gannett Fleming, Inc. | \$490,200.00 |
| 14-23-7382 | Kauai | GEI Consultants, Inc. | \$1,393,000.00 |
| 15-23-7383 | Maui | Oceanit Laboratories, Inc. | \$703,220.00 |

These consultants’ contracts were executed in October 2009 (Gannett Fleming and GEI Consultants) and in January 2010 (Oceanit Laboratories).

In May 2010, a total of eight (8) projects were advertised and Pre-Bid Construction Meetings were held on May 19, 2010 on Hawaii, May 26, 2010 on Maui, and June 1 & 2, 2010, on Kauai. Bids for the subject projects were received and opened in June 2010. The results and recommendations are as follows:

| Job No. | TMK No. | Lowest Bidder | Total Lump Sum Bid Price |
|------------|--------------------|---|--------------------------|
| 11-23-7408 | (3) 5-5-3:1,4 & 5 | Willocks Construction Corp. | \$856,629.43 |
| 14-23-7391 | (4) 4-6-7:11 | Jennings Pacific LLC | \$4,406,000.00 |
| 14-23-7392 | (4) 4-6-6:7, 32:22 | Earthworks Pacific, Inc. | \$625,000.00 |
| 14-23-7393 | (4) 3-9-2:1 | Earthworks Pacific, Inc. | \$1,439,000.00 |
| 14-23-7394 | (4) 4-2-1:4,5 & 8 | Jennings Pacific LLC | \$1,059,000.00 |
| 14-23-7395 | (4) 3-9-2:20 | Earthworks Pacific, Inc. | \$399,000.00 |
| 15-23-7409 | (2) 1-1-1:50 | Goodfellow Bros., Inc. | \$699,997.00 |
| 15-23-7410 | (2) 4-5-21:2 & 22 | Hawaiian Dredging Construction Co., Inc. | \$455,400.00 |

All procurements have been and are being made in accordance with the State Procurement Code, Chapter 103D, Hawaii Revised Statutes.

Below is a brief description of each project:

1. D.A.G.S. Job No. 11-23-7408; Hawi No. 3 Dam and Reservoir, Hawi, Hawaii; TMK Nos. (3) 5-5-3:1, 4 & 5: This maintenance and improvement project consists of reduction of the spillway crest elevation to 880 feet that will result in reducing storage volume to approximately 7.4 million gallons (approximately 22.8 ac-ft). This modification will provide sufficient water to meet the immediate needs of the lessee for irrigation and water storage, while at the same time reducing the risk of dam failure. Additional improvements include reconstruction of the spillway and outlet channel, improvements to outlet works, replacement of pipe culvert, and flattening embankment slopes to a ratio of 3:1. Appurtenant changes include grading and repair of the inflow feeder channel from the irrigation ditch and access road, and installation of a staff gage.

The Board of Land and Natural Resources (“Board”) at its meeting on May 13, 2010, agenda item D-7, authorized the Chairperson to negotiate terms and conditions and sign a Memorandum of Agreement with Kamehameha Schools to fund 50% of the construction costs of up to \$650,000 since a portion of the Hawi No. 3 Dam and Reservoir is situated on their property, identified as TMK No. (3) 5-5-3:1.

2. D.A.G.S. Job No. 14-23-7391; Upper Kapahi Dam and Reservoir, Kapahi, Kauai; TMK No. (4) 4-6-7:11: This project consists of vegetation clearing on the upstream slope, crest, and downstream slope of the dam, stabilizing the upstream slope with rock-filled buttresses, and furnishing and placing rock slope protection, adding earthen extension on the downstream slope for stabilization and future on-going maintenance, and excavating and constructing a new box culvert spillway structure to meet standard dam safety requirements. A portion of the roadway on the dam crest that will be removed for the construction of the box culvert spillway will be replaced, as well as the guardrails on the dam crest.

3. D.A.G.S. Job No. 14-23-7392; Lower Kapahi Dam, Kapahi, Kauai;
TMK Nos. (4) 4-6-6:7, 32:22: This project consists of the construction of a cast-in-place box culvert spillway so that this Structure will not be able to impound water and to meet dam safety requirements. A portion of the roadway on the dam crest that will be removed for the construction of the box culvert spillway will be replaced to provide County-requested access.

The Board at its meeting on August 12, 2010, agenda item D-17, authorized the Chairperson to negotiate terms and conditions and enter into a Memorandum of Agreement with the County of Kauai to fund the construction costs of up to \$1,800,000.

4. D.A.G.S. Job No. 14-23-7393; Aahoaka Dam and Reservoir, Wailua, Kauai;
TMK No. (4) 3-9-2:1: This project consists of vegetation clearing on the upstream / downstream slopes and crest of the dam and the spillway, installing a new outlet, and constructing an invert culvert as the new spillway to reduce storage capacity to meet standard dam safety requirements, while at the same time providing a water source for agriculture.
5. D.A.G.S. Job No. 14-23-7394; Wailua Reservoir, Wailua, Kauai;
TMK Nos. (4) 4-2-1:4, 5 & 8: This project consists of vegetation clearing on the upstream /downstream slopes and crest of the dam and the spillway, repairing the near vertical eroded areas of the upstream slope by providing compacted embankment fill and covering with rock fill protection with a 1.7:1 slope, and expanding and improving the spillway to pass the probable maximum flood (PMF) to meet standard dam safety requirements.
6. D.A.G.S. Job No. 14-23-7395; Hanamaulu Field 21 Reservoir, Kapaia, Kauai;
TMK No. (4) 3-9-2:20: This 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 crest and in the spillway is also planned.
7. D.A.G.S. Job No. 15-23-7409; Kolea Dam and Reservoir, Hana, Maui;
TMK No. (2) 1-1-1:50: This reservoir is no longer needed for the storage of stream water for irrigation, and will be removed and restored to a natural stream. The reservoir will be graded to form a 15-foot wide channel with a 2:1 slope sides, then grassed for erosion control. The overall result of the dam removal and stream restoration is to remove the hazard of dam water impoundment, allow a natural flow, provide a means to reduce sediment transport, and restore the stream's local ecosystem.
8. D.A.G.S. Job No. 15-23-7410; Wahikuli Dam and Reservoir, Lahaina, Maui;
TMK Nos. (2) 4-5-21:2 & 22: This removal project includes constructing a breach channel through the dam slope near the spillway to eliminate the capacity of the reservoir to impound water, earthwork consisting of excavation of the embankment, and demolition of specified existing facilities. Additional improvements such as installation of riprap apron and riprap channel protection and erosion control measures are also planned.

Staff is currently working on Right-of-Entry permits for the Hawaii and Maui projects, a Memorandum of Understanding for the Wahikuli Dam and Reservoir project, perpetual easements documents with private landowners for the Upper Kapahi Dam and Reservoir project, reviewing the Draft Environmental Assessment for the Kolea Reservoir project, and supporting D.A.G.S. and its consultants with the various permits that are required for the projects, such as the National Pollutant Discharge Elimination System (NPDES) Permits, U.S. Army Corp or Engineers 404 Permits, and the Dam Safety Permits. There are some unresolved issues with the Lower Kapahi Dam and Wahikuli Dam and Reservoir projects. Staff is requesting that the Chairperson be authorized to do all things necessary to ensure that all of the various projects proceed to completion, i.e., without limitation, right-of entry permits on State encumbered lands and private lands.

RECOMMENDATION THAT THE BOARD:

1. Authorize the Chairperson of the Board of Land and Natural Resources to do all things necessary to implement and effectuate the maintenance, remediation and/or removal of all dams, reservoirs, and ancillary infrastructure under the jurisdiction of the DLNR, statewide, for the purpose of fulfilling the State's obligations under Act 262, SLH 2007, including without limitation, the negotiation, approval, and execution of all contracts, rights-of-entries, and other documents necessary to carry out such activities, subject to available funding;
2. Approve and ratify all actions taken by the Chairperson and DLNR to date since the enactment of Act 213, SLH 2007, for the purpose of maintaining, remediating or removing any dam, reservoir, or ancillary infrastructure under the jurisdiction of the DLNR pursuant to its obligations under Act 262, SLH 2007, and
3. Review and approval by the Department of the Attorney General.

Respectfully Submitted,



Lydia M. Morikawa
Special Projects and Development Specialist

APPROVED FOR SUBMITTAL:



Laura H. Thielen, Chairperson

PUT

LINDA LINGLE
GOVERNOR OF HAWAII



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LAND DIVISION

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STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES

POST OFFICE BOX 621
HONOLULU, HAWAII 96809

December 18, 2008

LAURA H. THIELEN
CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCES
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DIRECTOR
KEN C. KAWAMURA
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DIVISION AND COORDINATOR
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COMMISSION ON WATER RESOURCES
COMMISSION ON WATER RESOURCES
CONSERVATION AND RESOURCES
ENGINEERING
FORESTRY AND WILDLIFE
HISTORIC PRESERVATION
KAWAII WATER RESOURCES
COMMISSION

B&F 14116
S: 12/30/08

09: 012825



TO: THE HONORABLE LINDA LINGLE
Governor, State of Hawaii

THROUGH: THE HONORABLE GEORGINA KAWAMURA
Director of Finance, Department of Budget and Finance

FROM: LAURA H. THIELEN, Chairperson
Department of Land and Natural Resources *LHT*

SUBJECT: Request to Delegate \$14,530,000 for Dam Assessments, Maintenance and Remediation, Statewide, as Authorized by Act 213, SLH 2007, and as Amended by Act 158, SLH 2008, Item K-6

The Department of Land and Natural Resources (Department) is requesting the delegation of \$14,530,000 in General Obligation Bond funds to the Department of Accounting and General Services – Public Works Division (DAGS-PWD) for the subject project, for the purpose of satisfying the State's obligations under Act 262, the "Hawaii Dam and Reservoir Safety Act of 2007". The purpose of this Act is "to provide for the inspection and regulation of construction, enlargement, repair, alteration, maintenance, operation, and removal of all dams and reservoirs to protect the health, safety, and welfare of the citizens of the State by reducing the risk of failure of all dams or reservoirs." Since the Department, through its Engineering Division Dam Safety Program, is responsible for the inspection and regulation of all of the State's dams and reservoirs, there appears to be a "conflict of interest" for the Department to also be responsible for the party conducting the actual assessment, maintenance and remediation of dams and reservoirs under the Department's regulatory oversight.

Section 160 of Act 213, SLH 2007, as amended by Act 158, SLH 2008 allows, with your approval, the delegation of the implementation of capital improvement projects when it is determined by all involved agencies and parties that it is advantageous to do so.

EXHIBIT "A"

If there are any questions, please contact Mr. Morris M. Atta, Administrator, Land Division at (808) 587-0422.

cc: DLNR – Fiscal Office
DLNR – Engineering
DAGS - PWD

Attachment

RECOMMEND:

APPROVAL DISAPPROVAL

APPROVED DISAPPROVED



GEORGINA KAWAMURA, Director of Finance
Department of Budget and Finance

1/27/09

Date



LINDA LINGLE, Governor
State of Hawaii

1/28/09

Date

Department of Natural Resources - Land Division

| County | HW ID | DAM NAME | Proposed Hazard Classification | Assessment / Reports on File | | | Annual Maintenance | Description / Comments | Proposed Remediation | | | OWNER | |
|--------|--------|--|--------------------------------|------------------------------|---------------------|---------|--------------------|--|--|---------|-------------|---|-------------|
| | | | | Hydraulics | Stability / Seepage | Seismic | | | DEM | EAP | Remediation | | Engineering |
| Kauai | H00013 | UPPER KAPAHU RESERVOIR | H | COE | | | 25,000 | Spillway is undersized, heavy vegetation, average siltation, stability issues | New Outlet / Spillway Study, Erosion Control, Vegetation Removal | 420,000 | 3,500,000 | STATE - DLNR (lessee East Kuaia Water Users Cooperative) | 3,920,000 |
| Maui | H00055 | WAIKIKULI RESERVOIR | H | | | | 25,000 | Spillway deteriorating, Heavy Vegetation | Spillway Repairs, Vegetation Removal | 320,000 | 3,000,000 | West Maui Land Co / State DLNR | 7,740,000 |
| Hawaii | H00050 | HAWAII 3 RESERVOIR | H | | | 41706 | 25,000 | Heavy vegetation, outlet works needs repair | Vegetation Removal | 320,000 | 2,000,000 | KAUHAHAUNA SCHOOLS / State - DLNR (lessee Bobzho) | 9,560,000 |
| Kauai | H00135 | HALAMANU FIELD 21 | L / H | COE | | | 25,000 | Spillway possibly undersized, outlet gate needs to be replaced, should give to either DPHL or State Parks | Auxiliary Spillway, Outlet Gate Replacement, Vegetation Removal | 520,000 | 3,000,000 | STATE - DLNR (lessee East Kuaia Water Users Cooperative) | 13,080,000 |
| Kauai | H00091 | LOWER KAPAHU RESERVOIR | H | Herata | Herata | | 25,000 | No Spillway, outlet is small and dam has overgrown previously, Heavy vegetation on downstream side, overflowing water on top | New Outlet / Spillway (Consult), Vegetation Removal | 420,000 | 2,000,000 | STATE - DLNR | 14,520,000 |
| Kauai | H00090 | WAIALUA RESERVOIR | H | COE | | | 25,000 | Heavy vegetation, possible seepage on top | Vegetation Removal | 420,000 | 1,000,000 | STATE - DLNR (lessee East Kuaia Water Users Cooperative) | |
| Maui | H00097 | KOLEA RESERVOIR | L | | | 322096 | 25,000 | Should be removed if not utilized, Heavy vegetation, no spillway | Vegetation Removal | 320,000 | 1,500,000 | EAST MAUI IRRIGATION CO (lessee) / State DLNR Land | |
| Hawaii | H00051 | HAWAII 5 RESERVOIR | H | | | | 25,000 | Heavy vegetation, outlet works needs repair | New Spillway, Vegetation Removal | 420,000 | 2,000,000 | SURETY KOHALA CORP / STATE - DLNR (lessee: Tropical Ponds HI) | |
| Kauai | H00063 | AAHOAANA RESERVOIR | H | | | | 25,000 | | Vegetation Removal, Erosion Control (Konaia Storage) | 320,000 | 2,000,000 | STATE - DLNR (lessee East Kuaia Water Users Cooperative) | |
| Hawaii | H00043 | PULUKAPU WATERSHED (RETARDING DAM R-1) | H | | | | 25,000 | | | 100,000 | 100,000 | STATE - DLNR | |

| FY07 | | FY09 CIP Request | | FY11 | |
|------------|--|------------------|--|-----------|--|
| total | | total | | total | |
| 3,920,000 | | 2,000,000 | | 2,000,000 | |
| 20,160,000 | | 8,500,000 | | 4,500,000 | |
| 23,880,000 | | 10,500,000 | | 6,500,000 | |

Remediations
Design
Construction

14,520,000
9,180,000

Annual Maintenance
200,000