

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

June 23, 2023

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

MAUI

Amend Agenda Item D-5, Approved as Amended November 10, 2022: *Continuation of Revocable Permits S-7263 (Tax Map Key (2) 1-1-001:044), S-7264 (Tax Map Keys (2) 1-1-001:050, 2-9-014:001, 005, 011, 012 & 017) and S-7265 (Tax Map Key (2) 1-1-002:por. 002) to Alexander and Baldwin, Inc., and S-7266 (Tax Map Keys (2) 1-2-004:005 & 007) to East Maui Irrigation Company, Limited, for Water Use on the Island of Maui.*

The purpose of this amendment is to request the Board approve an amount that the Permittee will be required to contribute to watershed management activities in addition to rent.

Pursuant to Section 92-5(a) (4), Hawaii Revised Statutes (HRS), the Board may go into Executive Session in order to consult with its attorney on questions and issues pertaining to the Board's powers, duties, privileges, immunities and liabilities.

BACKGROUND:

At its meeting on November 10, 2022, under item D-5, the Board approved as amended the continuation of revocable permits held by Alexander and Baldwin, Inc. and East Maui Irrigation Company, Limited (collectively the "Permittee") for the use of water on the island of Maui for the year 2023. As part of its decision, the Board amended a prior condition requiring the Land Division and the Division of Forestry and Wildlife (DOFAW) to bring to the Board for approval an amount that the Permittee is required to contribute to watershed management activities, or required actions that the Permittee may implement for that purpose. The Board provided staff additional time until June 30, 2023, to determine an amount that the Permittee will be required to contribute to support watershed management activities. The Board also required that any amount adopted shall be applied retroactive to January 1, 2023 to apply to the entire calendar year consistent with the revocable permit approval. The Board's requirement is stated as follows:

*At or before the next renewal of the RP's, or before a request for authorization to lease water rights at public auction, at a scheduled meeting of the Board, the Permittees shall cooperate with the Department's Land*

*Division and DOFAW, who the Board directs to bring a proposed watershed management fee and/or requirements for the Permittees to implement management actions in the watershed.*

Staff worked to determine a proposed contribution amount and now brings it before the Board for review and consideration.

REMARKS:

Staff proposes to require Permittee to contribute an amount that is reflective of a fair share portion of the total watershed management costs, based on the percentage of the total available water the Permittee is authorized to divert under the revocable permits. DOFAW staff determined the total annual management costs for a 50,249-acre portion of the East Maui watershed that provides the water diverted by the East Maui irrigation system by separating the entire watershed area into three separate areas based on upper, middle and lower elevations, and prioritizing management activities based on goals and objectives for each of the three management areas. A chart providing greater detail on the management costs is included as **Exhibit A**.

For the upper elevation areas, located above the current network of fences and comprised of approximately 23,759 acres, DOFAW determined that biological integrity of the existing resources is high, and the management objective would be to maintain and enhance the biological integrity. Management activities would include maintenance of existing fences, control of feral ungulates, invasive plants, and predators and pests in selected target areas, reintroduction of rare species to selected, secured sites, and monitoring activities such as aerial and ground surveys. Costs include fence replacement, staff costs for field teams, helicopter services, vehicle use and maintenance, equipment and supplies, and administrative costs.<sup>1</sup> DOFAW estimates the costs for these activities at approximately **\$1,631,567.00** annually.

For the middle elevation areas, located below the current fence lines to the 2,000-foot elevation contour and comprised of about 13,954 acres, DOFAW determined that biological integrity is moderate and objectives would be to restore biological integrity and selected units and maintain biological integrity throughout the area. Activities would include removal and control of invasives and reintroduction of rare species, habitat management outside of the fenced unit including control of cattle, and monitoring via aerial and ground surveys. Costs include staff costs for field teams, helicopter services, vehicle use and maintenance, equipment and supplies, and administrative costs. DOFAW estimates the cost at approximately **\$182,900.00** annually.

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<sup>1</sup> Staff notes that the costs are incurred for management activities conducted by DOFAW, the East Maui Watershed Partnerships (EMWP), and The Nature Conservancy (TNC). However, the activities conducted by EMWP and TNC are mostly funded by DOFAW and other public monies.

For the lower elevation areas, located below the 2,000-foot elevation contour and comprised of approximately 12,536 acres, DOFAW determined that this area is highly disturbed and dominated by invasive species and the objectives would be to restore biological integrity in selected units and prevent the establishment of incipient invasives. Activities would include control of feral ungulates and cattle, priority threats at selected sites and incipient threats, and monitoring. Costs include staff costs for field teams, helicopter services, and vehicle use and maintenance, equipment and supplies. DOFAW estimates the cost at approximately **\$177,867.00** annually. For all three areas, DOFAW estimates the total management costs to be approximately **\$1,992,333.00** annually.

To determine the Permittee's fair share contribution of the watershed management costs, DOFAW proposes for the Permittee to pay a portion of the total management costs based on the percentage of the amount of available water that the Permittee is authorized to divert under the revocable permits. The revocable permits allow the Permittee to divert up to a maximum of 40.49 million gallons per day (mgd). To determine the amount of water available, DOFAW consulted with staff from the Commission on Water Resource Management (CWRM) and determined that the total capacity of the East Maui Irrigation system would be appropriate to use under the circumstances, which is approximately 450 mgd. Based on those amounts, the Permittee should pay amount equal to 0.08997778 of the total management costs, which totals **\$179,266.00** (rounded).

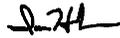
Given the time constraints faced by staff to determine the contribution amount, staff believes that this is an appropriate factor to use as an interim, temporary measure for the current revocable permit. DOFAW and CWRM staff are working to devise a data focused amount based on historical surface water availability over a long-term period. However, certain data collections and studies needed for this analysis are not yet completed. Additionally, these studies are being conducted by entities outside of the Department, such as the U.S. Geological Service. Once the material is completed, staff will integrate into the proposed watershed management plan for potential use in future revocable permit requirements or the long-term lease.

Staff discussed the proposed contribution amount with the Permittee, and the Permittee has agreed to this amount for this year. However, the Permittee did provide comments that in general watershed management should be borne by all of the users and beneficiaries of the watershed. The Permittee believes that rather than use the irrigation system capacity, total rainfall amount should be used, as it is indicative of the total amount of water in the watershed. The Permittee further noted that it is committed to continue working with Department staff to develop an appropriate and fair approach for a watershed management contribution amount for future revocable permits and a long-term lease.

RECOMMENDATION: That the Board:

- 1) Require that the Permittee contribute either in funds or in-kind services an amount of **\$179,266.00** for watershed management activities in the East Maui watershed for the year 2023.

Respectfully Submitted,



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Ian Hirokawa  
Special Projects Coordinator

APPROVED FOR SUBMITTAL:



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Dawn N.S. Chang, Chairperson



Management budget				
Zone 1				
Item	Specifications	Cost		Notes
		Periodic*	Annual	
<b>DOFAW</b>				
Field team 1 (FOR) @ 25% FTE	3 FTE, FWT IV		\$ 45,000	salary + fringe
Field team 2 (NEPM) @ 25% FTE	3 FTE, FWT IV		\$ 45,000	salary + fringe
Per diem and subsistence			\$ 14,400	estimate
Heli time				
Transport	24 field trips/year		\$ 48,000	estimate
ACETA	quarterly		\$ 9,400	estimate
Surveys	quarterly		\$ 8,000	estimate
Vehicles and maintenance	1 full size truck	\$ 70,000	\$ 4,667	replace at 15 years
	1 Compact truck	\$ 50,000	\$ 3,333	replace at 15 years
Administration	0.25 FTE		\$ 22,500	ongoing
Equipment	all tasks		\$ 15,000	gear, IT, tools, etc.
Supplies	all tasks		\$ 15,000	PPE, traps, snares, ammo, etc.
Subtotal			\$ 230,300	
<b>EMWFP</b>				
Field team 1	3 FTE, Staff		\$ 180,000	salary + fringe
Field team 2	3 FTE, Staff		\$ 180,000	salary + fringe
Per diem and subsistence			\$ 14,400	estimate
Heli time				
Transport	30 field trips/year		\$ 120,000	estimate
Surveys	quarterly		\$ 25,000	estimate
Vehicles and maintenance	1 full size truck	\$ 70,000	\$ 4,667	replace at 15 years
	1 Compact truck	\$ 50,000	\$ 3,333	replace at 15 years
Administration	0.25 FTE		\$ 22,500	ongoing
Equipment	all tasks		\$ 15,000	gear, IT, tools, etc.
Supplies	all tasks		\$ 15,000	PPE, traps, snares, ammo, etc.
Subtotal			\$ 579,900	
<b>TNC</b>				
Fence replacement	W.Waikamoi 1A		\$ 15,000	Replace
Field teams	7.5 FTE, Staff		\$ 607,500	salary + fringe+admin
Contractual			\$ 121,500	KUPU, Skyline
Heli time			\$ 20,000	
Vehicles and maintenance	1 full size truck	\$ 70,000	\$ 4,667	replace at 15 years
Equipment	all tasks		\$ 40,500	fence, gear, IT, tools, etc.
Supplies	all tasks		\$ 12,200	PPE, snares, ammo, etc.
Subtotal			\$ 821,367	
Zone 1 subtotal			\$ 1,631,567	
<b>Zone 2</b>				
Item	Specifications	Cost		Notes
		Periodic*	Annual	
<b>DOFAW</b>				
Field team 1 (FOR) @ 25% FTE	3 FTE, FWT IV		\$ 45,000	salary + fringe
Field team 2 (NEPM) @ 25% FTE	3 FTE, FWT IV		\$ 45,000	salary + fringe
Per diem and subsistence			\$ 14,400	estimate
Heli time				
Transport	24 field trips		\$ 48,000	estimate
ACETA	quarterly		\$ -	estimate
Surveys	quarterly		\$ 8,000	estimate
Vehicles and maintenance	1 full size truck	\$ -	\$ -	replace at 15 years
	1 Compact truck	\$ -	\$ -	replace at 15 years
Administration	0.25 FTE		\$ 22,500	ongoing
Equipment	all tasks		\$ -	gear, IT, tools, etc.
Supplies	all tasks		\$ -	PPE, snares, ammo, etc.
Zone 2 subtotal			\$ 182,900	
<b>Zone 3</b>				
Item	Specifications	Cost		Notes
		Periodic*	Annual	
<b>DOFAW/MISC</b>				
Field team 1 (FOR) @ 25% FTE	3 FTE, FWT IV @ 25% FTE		\$ 45,000	salary + fringe
Field team 2 (MISC) @ 25% FTE	3 FTE, FWT IV @ 25% FTE		\$ 45,000	
Per diem and subsistence			\$ 7,200	estimate
Heli time				
Transport	18 field trips/year		\$ 36,000	estimate
Surveys	quarterly		\$ 25,000	estimate
Vehicles and maintenance	1 full size truck	\$ 70,000	\$ 4,667	replace at 15 years
Equipment	all tasks		\$ 7,500	gear, IT, tools, etc.
Supplies	all tasks		\$ 7,500	PPE, snares, ammo, etc.
Zone 3 subtotal			\$ 177,867	
			TOTAL ANNUAL	\$ 1,992,333

Cost share	
Available (mg/d)	450
Usage (mg/d)	40.49
Cost (\$)	\$ 1,992,333
Share (\$)	\$ 179,265.73

EXHIBIT A