STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT
P.O. BOX 621
HONOLULU, HAWAII 96809

STAFF SUBMITTAL

COMMISSION ON WATER RESOURCE MANAGEMENT

February 19, 2019
Honolulu, Hawai‘i

Alexander & Baldwin, Inc.
Application for a Stream Diversion Works Abandonment Permit, Category 2 Diversions,
Honopou, Pi‘ina‘au (Palauhulu), and Wailuanui Streams, East Maui, Hawai‘i

Diversion Name	Stream Name	TMK	Ref. ID
Wailoa Ditch (W-22)	Honopou	(2) 2-8-008:007 (2) 2-9-014:001	Reg.152.6
Wailole intake at Wailoa Ditch (W-22b)	Honopou	(2) 2-8-008:007	N/A
Honopou side ditch at Lowrie Ditch (L-17)	Honopou	(2) 2-9-014:017	Reg.210.6
Kano intake at Ko‘olau Ditch (K-26)	Palauhulu	(2) 1-1-002:002	Reg.318.6
Lalahai #3 at Hauoli Ditch (K-27)	Palauhulu	(2) 1-1-002:002	Reg.319.6
Lalapipi #2 at Hauoli Ditch (K-28)	Palauhulu	(2) 1-1-002:002	Reg.312.6
Ka‘auau #1 at Hauoli Ditch (K-29)	Palauhulu	(2) 1-1-002:002	Reg.311.6
Hau‘oliwahine at Hauoli Ditch (K-30)	Palauhulu	(2) 1-1-002:002	Reg.309.6
Ka‘auau diversion tunnel to #1 intake (K-29a)	Palauhulu	(2) 1-1-002:002	N/A
Hau‘oliwahine small intake (K-30a)	Palauhulu	(2) 1-1-002:002	N/A
Hau‘oliwahine small intake (K-30c)	Palauhulu	(2) 1-1-002:002	N/A
Six-inch steel pipe at Ko‘olau Ditch (K-31a)	Palauhulu	(2) 1-1-002:002	N/A
Three-inch pipe by control house at Ko‘olau Ditch (K-19a)	Palauhulu	(2) 1-1-002:002	N/A
Wailuanui #8 intake at Ko‘olau Ditch (K-20a)	Palauhulu	(2) 1-1-002:002	N/A
Eight-inch pipe east of #9 intake at Ko‘olau Ditch (K-21a)	Palauhulu	(2) 1-1-002:002	N/A

Item B-3

APPLICANT
Sean M. O'Keefe
Alexander & Baldwin, Inc.
PO Box 266
Puunene, HI 96784

LANDOWNER
Alexander & Baldwin, Inc.
(2) 2-8-008:007

Department of Land and Natural Resources
(2) 1-1-002:002, (2) 2-9-014:001,
(2) 2-9-014:017

SUMMARY OF REQUEST

Approve the Stream Diversion Works Permit (SCAP.4915.6) Application to abandon in-place the subject 15 diversions on the Honopou, Piʻinaʻau (Palauhulu), and Wailuanui Streams, East Maui, in compliance with the interim instream flow standards (IIFS) established in the Commission on Water Resource Management's contested case hearing CCH-MA13-01.

LOCATION: Island of Maui in the surface water hydrologic units of Honopou (**Map 1**), Piʻinaʻau (Palauhulu) (**Map 2**), and Wailuanui (**Map 3**).

STREAM DESCRIPTION

Honopou. The hydrologic unit of Honopou covers an area of 2.7 square miles from the lower slopes of Haleakala at 2,286 feet elevation to the sea (**Map 1**). Honopou is 4 miles in length. Most of the hydrologic unit is made up of the Koʻolau Forest Reserve. Honopou is mostly a gaining stream. The Hawaii Stream Assessment rates Honopou average in comparison to other watersheds in Maui and statewide. The Division of Aquatic Resources (DAR) assigns Honopou a total watershed rating of 5 out of 10, a total biological rating of 5 out of 10, and a combined 5 out of 10. Native species observed in the stream include:

Fish:	ʻOʻopu nākea (*Awaous guamensis*), ʻoʻopu ʻakupa (*Eleotris sandwicensis*), ʻoʻopu ʻalamoʻo (*Lentipes concolor*), and ʻoʻopu nōpili (*Sicyopterus stimpsoni*)
Crustaceans:	ʻŌpae kalaʻole (*Atyoida bisulcate*) and ʻōpae ʻoehaʻa (*Macrobrachium grandimanus*)
Mollusks:	none observed

Also observed were two native dragonflies, giant Hawaiian dragonfly (*Anax strenuous*) and globe skimmer (*Pantala flavescens*), and the native damselfly, pacific megalagrion damselfly (*Megalagrion pacificum*). ʻOʻopu ʻalamoʻo was found only in the upper reaches. Larval recruitment of native fish has been observed near the stream mouth.

Piʻinaʻau (Palauhulu). The hydrologic unit of Piʻinaʻau covers an area of 22 square miles (**Map 2**). Piʻinaʻau is 13.1 miles in length, originating in the Waikamoi Preserve before entering the ocean. A tributary, Palauhulu, is 4.8 miles in length. It is fed perennially by the Koʻolau Forest Reserve and flows through Keahu Falls, Waiokuna Falls, and the Waiokuna Pond before joining with Piʻinaʻau Stream. The Hawaii Stream Assessment classifies the aquatic resources as outstanding. Piʻinaʻau was noted for the presence of ʻoʻopu ʻalamoʻo, ʻoʻopu nākea, ʻoʻopu

nōpili, and hīhīwai (*Neritina granosa*), among others. Pi‘ina‘au and Palauhulu feed Waialohe Pond, which provides habitat for estuarine animals. The size of the watershed and the diversity of native stream animals present makes Pi‘ina‘au rate high in comparison to other watersheds in Maui and statewide. DAR assigns Pi‘ina‘au a total watershed rating of 8 out of 10, a total biological rating of 8 out of 10, and a combined overall rating of 9 out of 10. Native species observed in the stream include:

Fish:	‘O‘opu nākea, ‘o‘opu ‘akupa, ‘o‘opu ‘alamo‘o, and ‘o‘opu nōpili, ‘o‘opu ‘akupa (*Stenogobius hawaiiensis*), and Hawaiian or barred flagtail (*Kuhlia sp.*)
Crustaceans:	‘Ōpae kala‘ole and ‘ōpae ‘oeha‘a
Mollusks:	Freshwater limpet (*Ferrissia sharpi*), hapawai (*Neritina vespertina*), and hihiwai

Wailuanui. The hydrologic unit contains Wailuanui and its two main tributaries, West and East Wailuanui Streams, and covers an area of 6 square miles (**Map 3**). The Hawaii Stream Assessment classifies the aquatic resources of Wailuanui as outstanding. Wailuanui has a combination of large watershed size, higher biodiversity protection, high native species diversity and low alien species population. The ditch diversions create disconnected deep pools, restricting the movement of adult animals and standing post-larvae recruits at the stream mouth. Wailuanui rates highly in comparison to other watersheds in Maui and statewide. DAR assigns Wailuanui a total watershed rating of 7 out of 10, a total biological rating of 8 out of 10, and a combined overall rating of 8 out of 10. Native species observed in the stream include:

Fish — ‘O‘opu nākea, ‘o‘opu ‘akupa, ‘o‘opu ‘alamo‘o, and ‘o‘opu nōpili, and Hawaiian or barred flagtail
Crustaceans — ‘Ōpae kala‘ole and ‘ōpae ‘oeha‘a
Mollusks — Hapawai and hīhīwai

BACKGROUND

On September 16, 2016, Alexander & Baldwin, Inc. (A&B), filed a Stream Diversion Works Permit Application for Removal / Abandonment for 70 diversions along the A&B System in the surface water hydrologic units of Honopou, Hanehoi, Pi‘ina‘au, Waiokamilo, and Wailuanui. Commission staff asked A&B to refile separate applications, presenting the data (descriptions, maps, photos, sketches, etc.) by hydrologic unit (east to west), then by ditch system (mauka to makai) in order to more effectively convey the proposed work to government agency reviewers and the general public. Revised applications were received in February 2017.

In March 2017, staff met with the Department of Health’s Clean Water Branch (DOH-CWB) to discuss the abandonment application. However, in part due to their unfamiliarity with the A&B System, DOH-CWB staff contended that a more rigorous environmental review process may be necessary and that some diversion structures may need to be completely removed.

In January 2018, A&B received a letter from the Army Corps stating that the proposed project (abandon in-place) would be exempt under Section 404(f) of the Clean Water Act and therefore a Department of the Army permit would not be required.

In June 2018, staff met with A&B to discuss the stream diversion works abandonment process. It was decided that A&B: 1) take certain minor maintenance actions where possible to effectuate the restoration of streamflow quickly (Category 1 diversions, 15 total) then subsequently file a revised application to formally abandon these diversions; 2) file a revised application for Category 2 diversions (15 total) which are located away from the main ditch and require minor work to abandon in-place; 3) file a revised application for Category 3 diversions (11 total) which require more extensive work to abandon in-place; and 4) file a revised application for Category 4 diversions (29 total) of which 28 have been inactive since 2007 and one cannot be located and is believed to be no longer functional.

On June 20, 2018, the Commission issued its Findings of Fact, Conclusions of Law, and Decision and Order (D&O) in contested case hearing CCH-MA13-01. The Commission classified streams in four broad categories (D&O, p. iv) that represent different priorities and management strategies. Of the four, one category is Kalo (Taro) and Community Streams and is summarized as follows:

Kalo (Taro) and Community Streams - The goal is to return free flowing water, with no upstream diversions, to all streams which have historically supported significant kalo cultivation. From the D&O, p. 262:

138. The following streams will have all diversions ceased to allow for all water to flow to the taro growing areas or for community and non-municipal domestic use: Honopou, Huelo (Puolua), Hanehoi, Pi‘ina‘au, Palauhulu, Waikamilo, Wailuanui, Ohia, Waianu, Kualani, and Makapipi.
139. All diversions for these streams shall be modified so that no out of watershed transfers will occur from these streams.
140. In requiring the release of all water from these streams for the use of appurtenant rights users, the IIFS will be set at zero (0) below the taro loi complexes and the domestic use diversions. The users will determine the amount of water that will remain in the stream or that will be returned to the stream from the taro loi.

Additionally, the Commission noted on page 269 of the D&O:

i. It is intended that diversion structures only need to be modified to the degree necessary to accomplish the amended IIFS and to allow for passage of stream biota, if needed.

j. This Order does not require that every diversion on every tributary be removed or modified, the Commission is only looking at modifications to main stem and major diversions to accomplish the amended IIFS set forth above (*in reference to the chart of IIFS values by stream on p. 268 of D&O*). The Commission also recognizes that it is not the purpose of this proceeding to determine how the diversions will be modified. That issue will be before the Commission in a subsequent process.

k. The intent of the Commission is to allow for the continued use and viability of the EMI (*East Maui Irrigation*) Ditch system and will not require the complete removal of diversions unless necessary to achieve the IIFS.

On July 23, 2018, in a coordinated agency effort, Commission staff conducted a site visit of Honopou and Hanehoi with staff from A&B, the Department of Land and Natural Resources' Office of Conservation and Coastal Lands, Land Division, Division of Forestry and Wildlife, and DAR. The site visit was intended to address pending issues including, but not limited to, Conservation District Use permits, streamflow connectivity to address fish passage across stream diversion structures, and activities within the State Forest Reserve.

On July 23, 2018, the Commission received a request for determination from A&B on 15 Category 1 stream diversions. The proposed work was intended to provide intermediate restoration of streamflow until more permanent work could be performed. Based on the information that they provided, the Commission did not require a stream diversion works permit application to be submitted because maintenance of existing facilities are exempt from obtaining a permit per Hawai'i Administrative Rules §13-169-50. The Commission sent its response on October 16, 2018.

On August 22, 2018, the Commission received a revised abandonment application for 15 Category 2 diversions; a revised abandonment application (electronic only) for 11 Category 3 diversions on October 2, 2018; and a revised abandonment application (electronic only) for 29 Category 4 diversions on October 2, 2018. Staff made additional non-substantive comments.

PROJECT DESCRIPTION

The Applicant is proposing to abandon fifteen (15) Category 2 stream diversions works structures that are part of the East Maui Irrigation system in order to meet the interim instream flow standards approved by the Commission in contested case hearing CCH-MA13-01. Category 2 diversions have been defined by the Applicant as stream diversion structures that are located away from the main ditch and require minor work to abandon in place. Of the 15 diversions, seven (7) are considered major diversions, while the remaining eight (8) diversions were considered minor diversions at the time of registration. Major diversions are structures located on streams and tributaries. Minor diversions are generally minimal structures that capture water from small springs, seeps, and smaller tributaries, which is then conveyed to a larger stream or tributary, or directly into the ditch system, via pipes or dug channels. Location maps, photos, and a summary of the proposed work for each stream diversion are provided on the following pages.

Map 1. Honopou Watershed Unit.

1. Honopou at Wailoa Ditch (Wailoa Ditch intake) (W-22). Reg.152.6. To prevent flow into the ditch, the grate must be sealed by filling the grate openings with concrete/grout. The amount of fill will be about one to two cubic yards in volume and will be installed directly on the existing grate. The existing sluice gate will also be removed. (Photos below).

Photo 1. a) Honopou at Wailoa Ditch (W-22) (2010);

Photos. b) Sluice gate box (2010); c) Below sluice gate (2010); d) Flow release from the sluice gate looking downstream (2010); e) Flow release from the sluice gate looking upstream (2010).

b)

c)

d)

e)

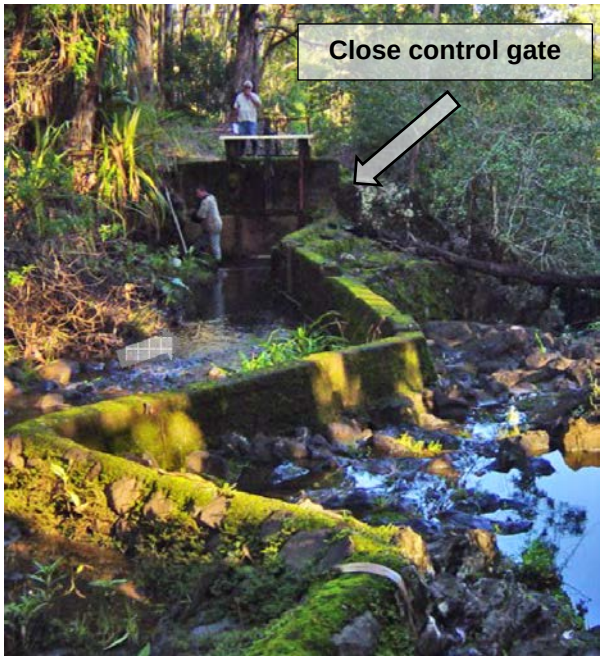
2. Wailole at Wailoa Ditch (Wailole intake at Wailoa Ditch) (W-22b). To prevent flow into the ditch, the grate must be sealed by filling the grate opening with concrete/grout. The amount of fill is anticipated to be less than one cubic yard in volume and will be installed directly on the existing grate. (Photo 2).

Photo 2. Wailole at Wailoa Ditch (W-22b) (1989).

3. Honopou at Lowrie (Honopou side ditch at Lowrie Ditch) (L-17). Reg.210.6. Control gate that allows flow into the ditch will be closed, and the sluice gate that allows flow to bypass the diversion will be removed. (Photo 3).

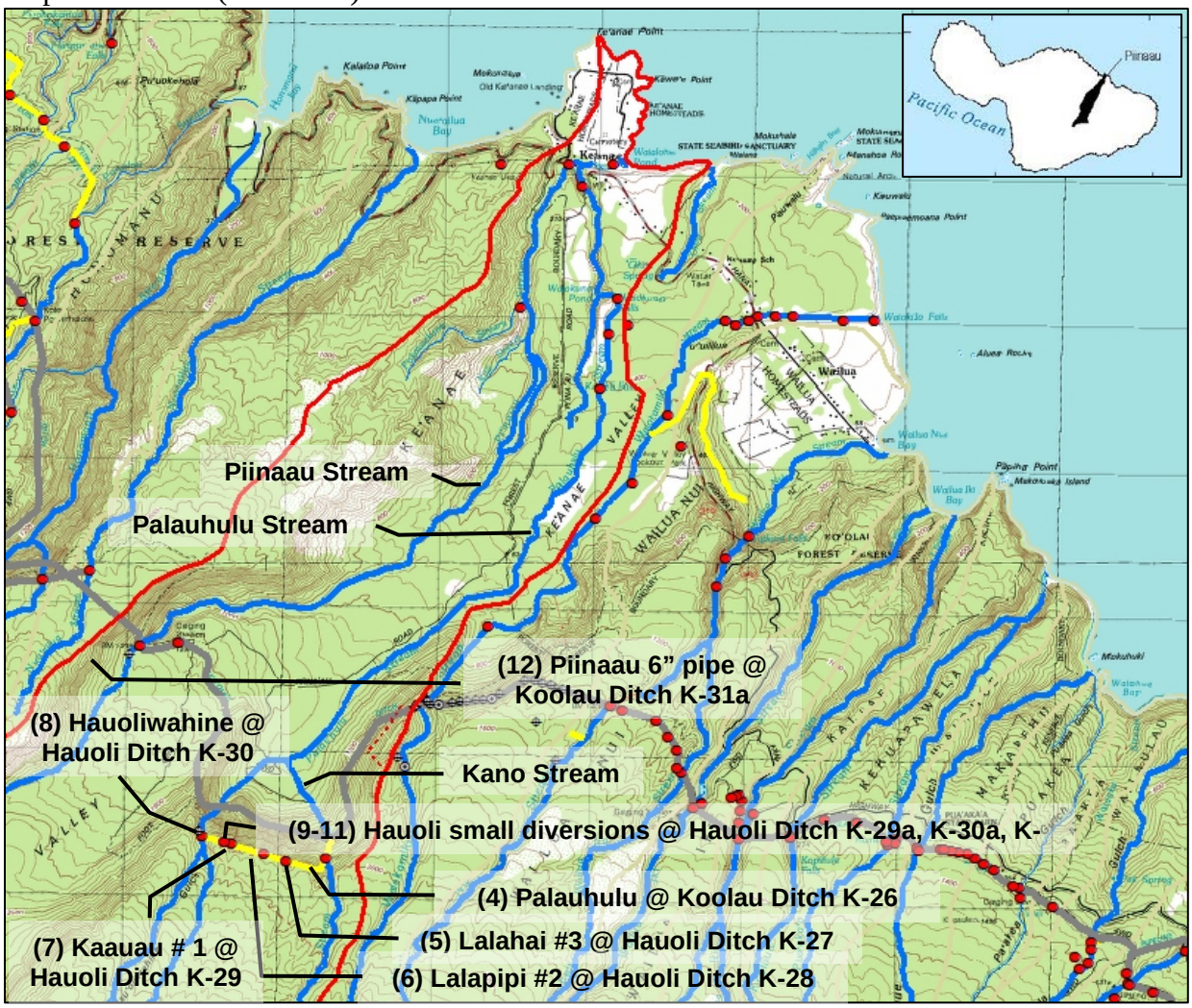
Photo 3. Honopou at Lowrie (L-17) (2008).

a)



b)

Map 2. Pi‘ina‘au (Palauhulu) Watershed Unit. Yellow line is a tunnel.



4. Palauhulu at Koʻolau Ditch (Kano intake at Koʻolau Ditch (K-26). Reg.318.6. Most flow will be restored at this diversion by the removal of a sluice gate. While the scope of work for full restoration has not yet been determined, all work is anticipated to be conducted within the diversion tunnel, outside of the stream. (Photo 4).

Photo 4. Palauhulu at Koʻolau Ditch (K-26) (1989).

5. Lalahai #3 intake at Hauoli Ditch (K-27). Reg.319.6. While the scope of work for full restoration at this diversion has not yet been determined, all work is anticipated to be conducted within the diversion tunnel, outside of the stream. (Photo 5).

Photo 5. Lalahai #3 intake at Hauoli Ditch (K-27) (1989).

6. Lalapipi #2 intake at Hauoli Ditch (K-28). Reg.312.6. While the scope of work for full restoration at this diversion has not yet been determined, all work is anticipated to be conducted within the diversion tunnel, outside of the stream. (Photo 6).

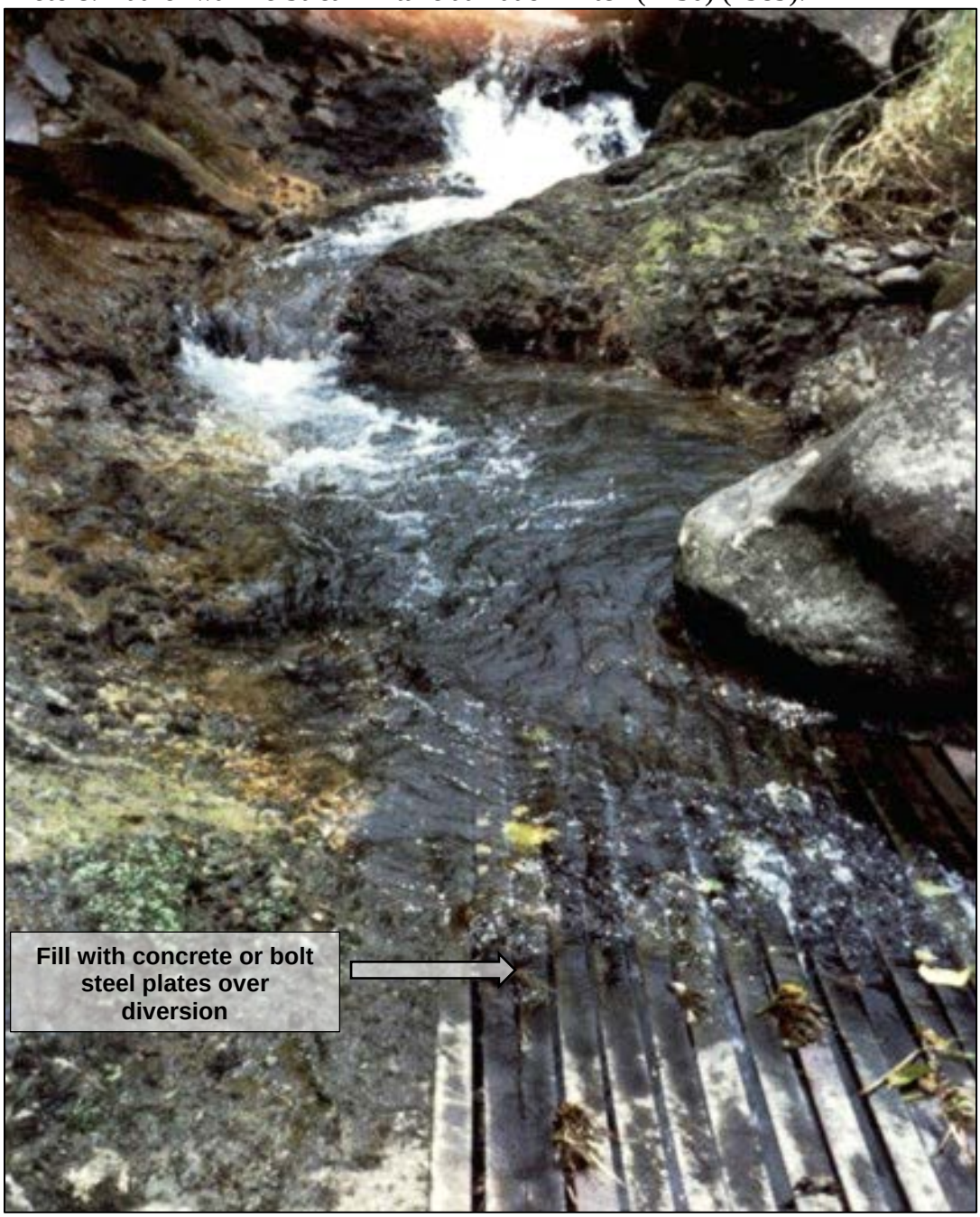
Photo 6. Lalapipi #2 intake at Hauoli Ditch (K-28) (1989).

7. Ka‘auau #1 intake at Hauoli Ditch (K-29). Reg.311.6. While the scope of work for full restoration at this diversion has not yet been determined, all work is anticipated to be conducted within the diversion tunnel, outside of the stream. (Photo 7).

Photo 7. Ka‘auau #1 intake at Hauoli Ditch (K-29) (1989).

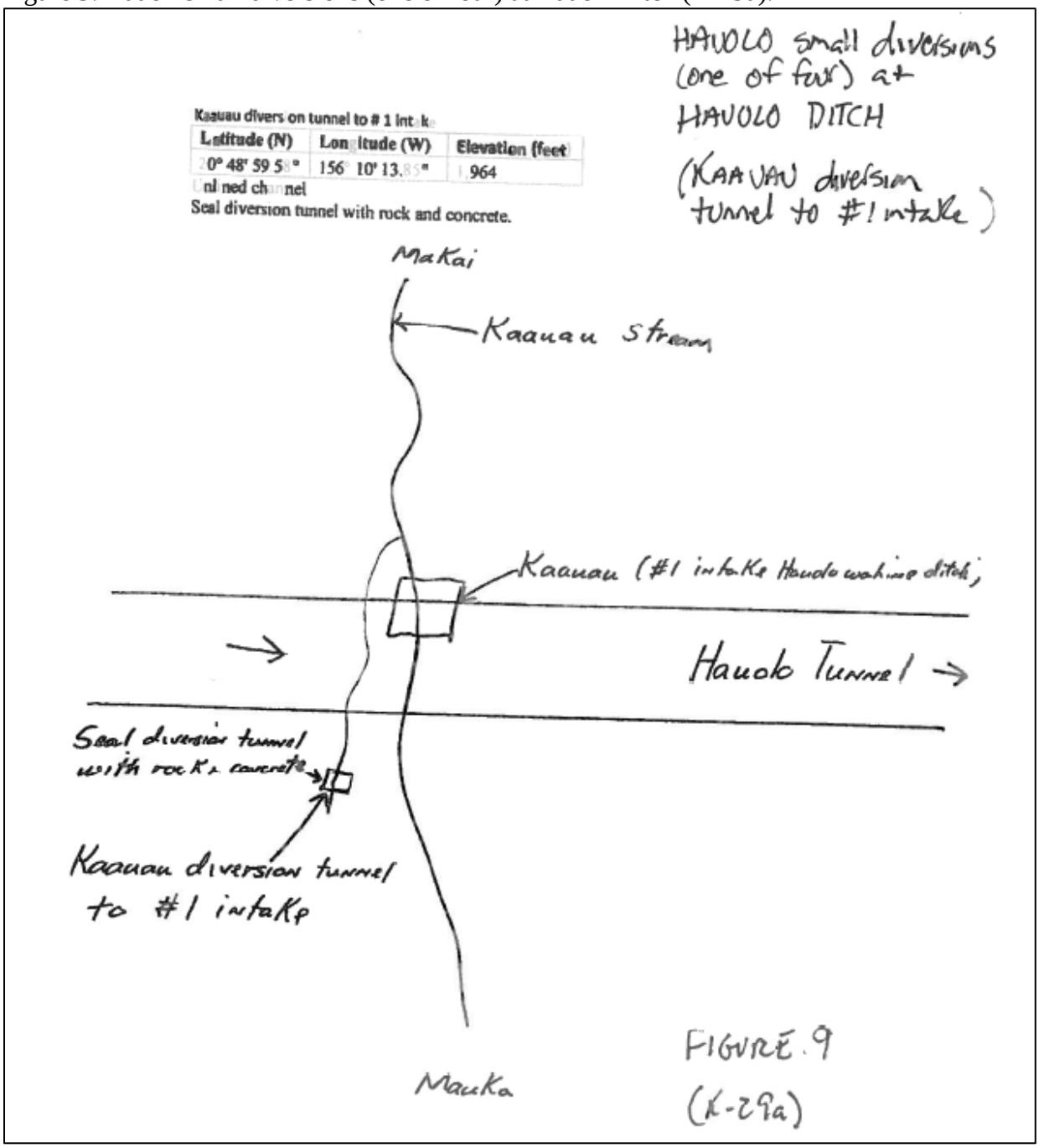
8. Hau‘oliwahine Stream at Hauoli Ditch (K-30). Reg.309.6. Applicant documents refer to it as “Hauolowahine”. To prevent flow into the ditch, the grate in the diversion must be sealed by filling the grate openings with concrete /grout or bolt steel plates over the diversion. The amount of fill material is anticipated to be no more than one to two cubic yards in volume and will be installed directly on the existing grate. (Photo 8).

Photo 8. Hau‘oliwahine Stream intake at Hauoli Ditch (K-30) (1989).



9. Hauoli small diversions (one of four) at Hauoli Ditch (Ka‘auau diversion tunnel to #1 intake) (K-29a). The diversion tunnel will be sealed with rock and concrete. All work is anticipated to be conducted within the diversion tunnel, outside of the stream. (Figure 9).

Figure 9. Hauoli small diversions (one of four) at Hauoli Ditch (K-29a).



10. Hauoli small diversions (one of four) at Hauoli Ditch (K-30a). A concrete catchment basin captures seepage and routes it to the Hauoli Ditch via a pipe. The pipe will be removed. (Photo 10).

Photo 10. Hauoli small diversions (one of four) at Hauoli Ditch (K-30a) (1989).

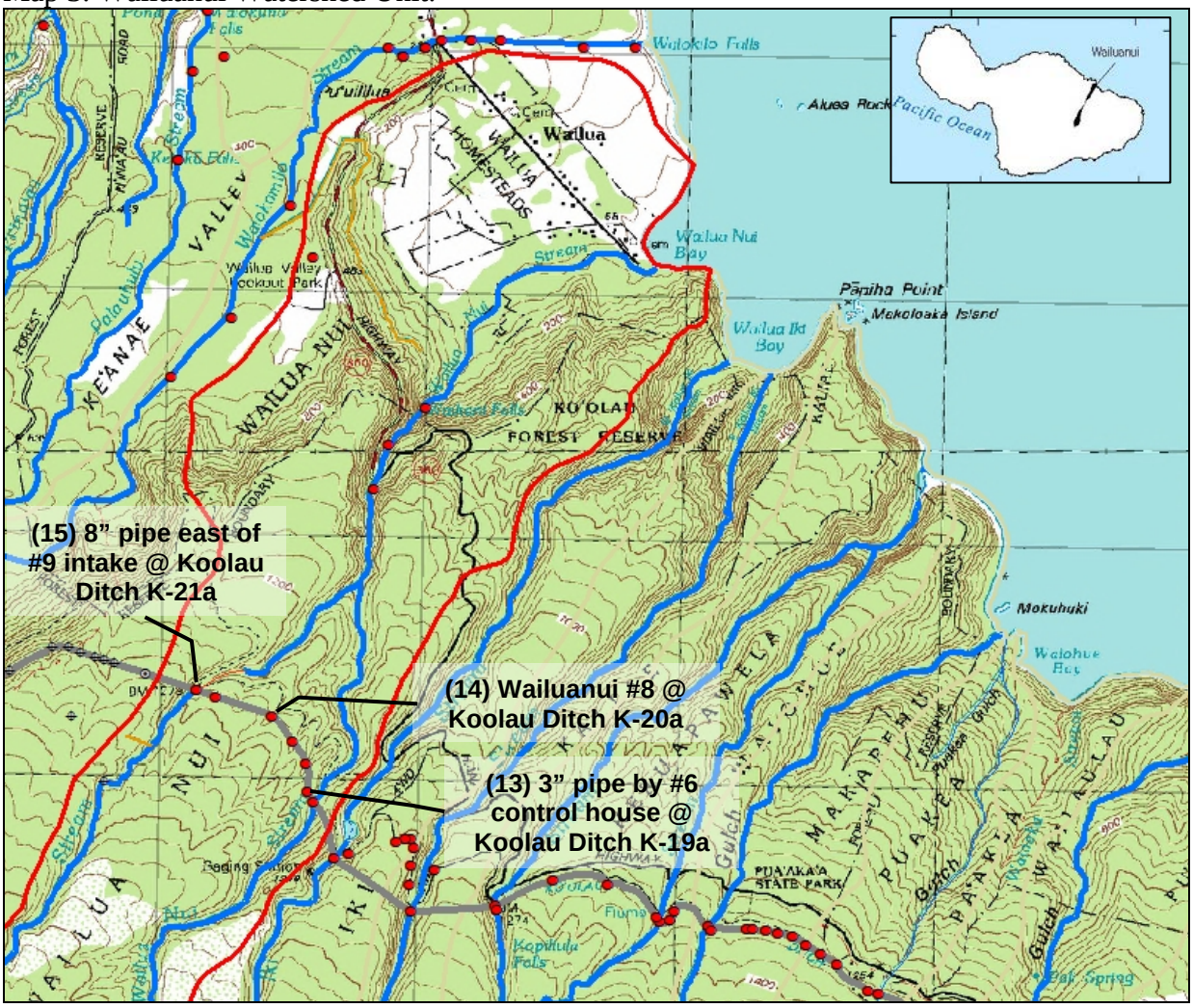
11. Hauoli small diversions (one of four) at Hauoli Ditch (K-30c). A concrete catchment basin captures seepage and routes it to the Hauoli Ditch via a pipe. The pipe and dam will be removed. (Photo 11).

Photo 11. Hauoli small diversions (one of four) at Hauoli Ditch (K-30c) (1989).

12. Pi‘ina‘au six-inch steel (and PVC) pipe at Ko‘olau Ditch (K-31a). A tributary is diverted and routed to the main Pi‘ina‘au intake via a pipe. The pipe will be removed. (Photo 12).

Photo 12. Pi‘ina‘au six-inch steel (and PVC) pipe at Ko‘olau Ditch (K-31a) (1989).

Map 3. Wailuanui Watershed Unit.

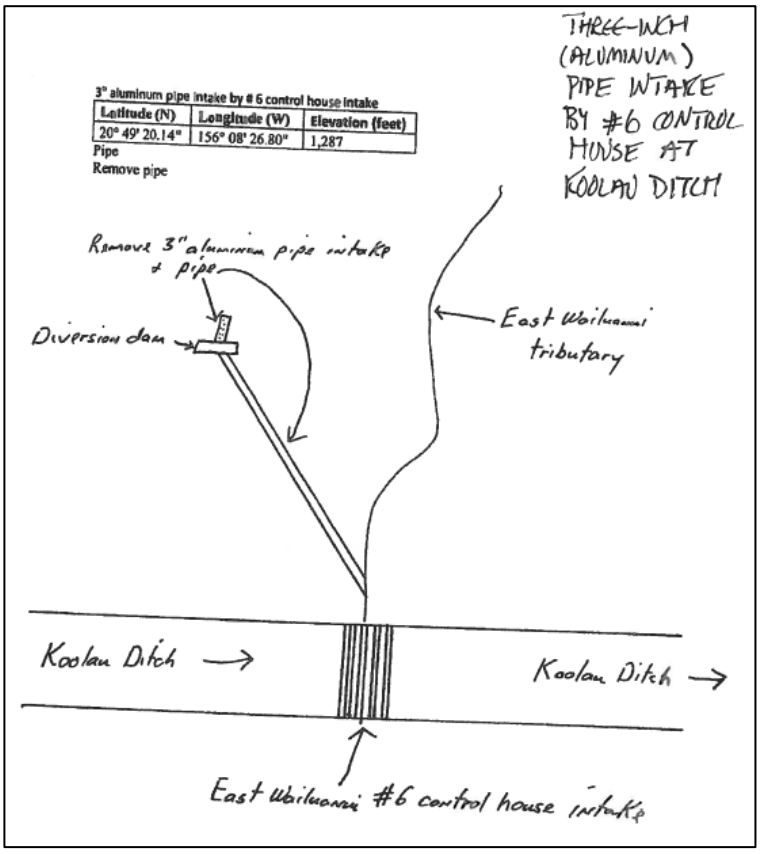


13. Three-inch (aluminum) pipe intake by #6 control house at Ko‘olau Ditch (K-19a). A submerged three-inch aluminum pipe embedded in a diversion dam collects water from a tributary and directs it to the control house intake. The pipe will be removed. (Photo 13).

Photo/Figure 13a and b. Three-inch pipe intake by #6 control house (K-19a) (2007).

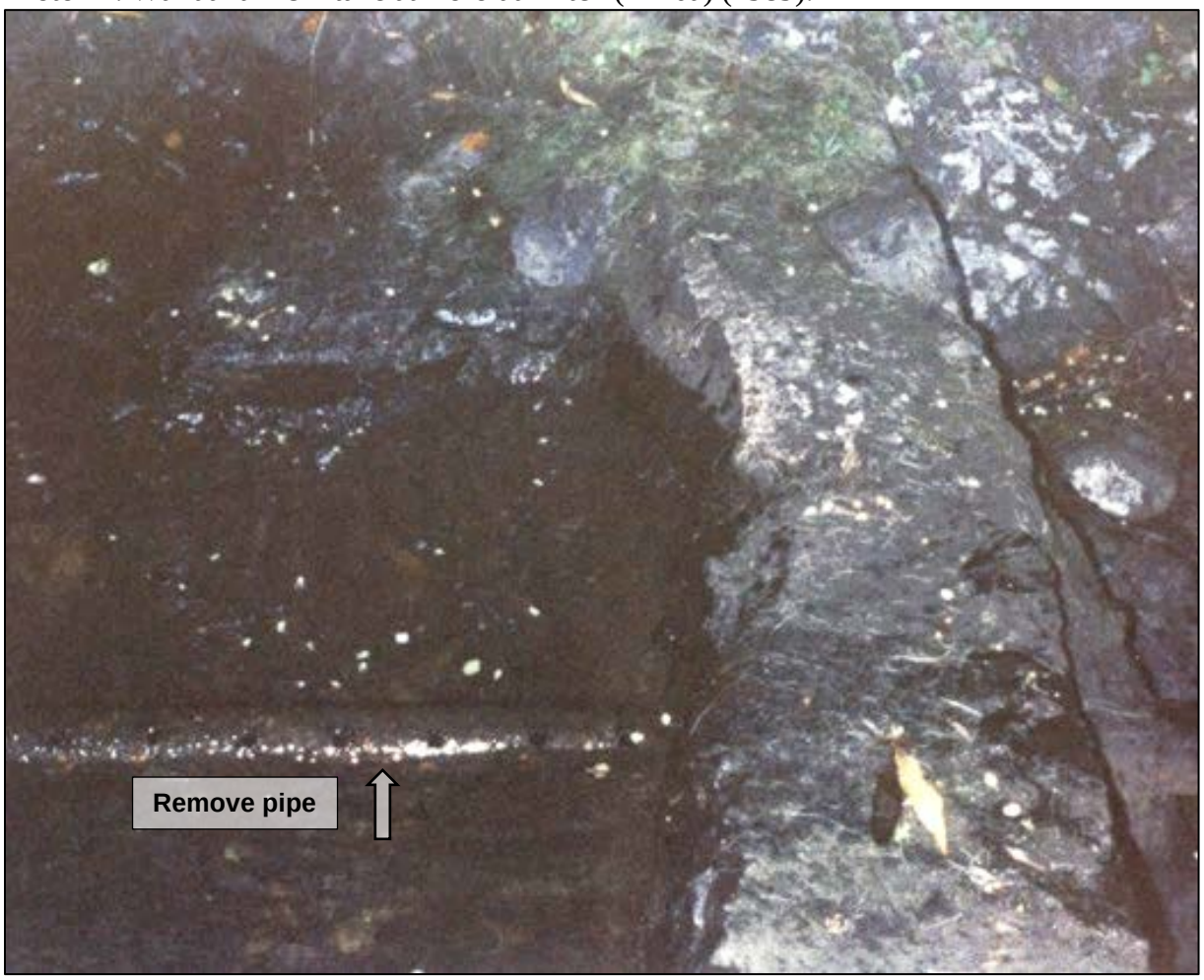
a)

b)



14. Wailuanui #8 intake at Koʻolau Ditch (K-20a). This diversion consists of a concrete masonry wall which captures seepage and then pipes it to an access tunnel and into the Koʻolau Ditch. The pipes will be removed. (Photo 14).

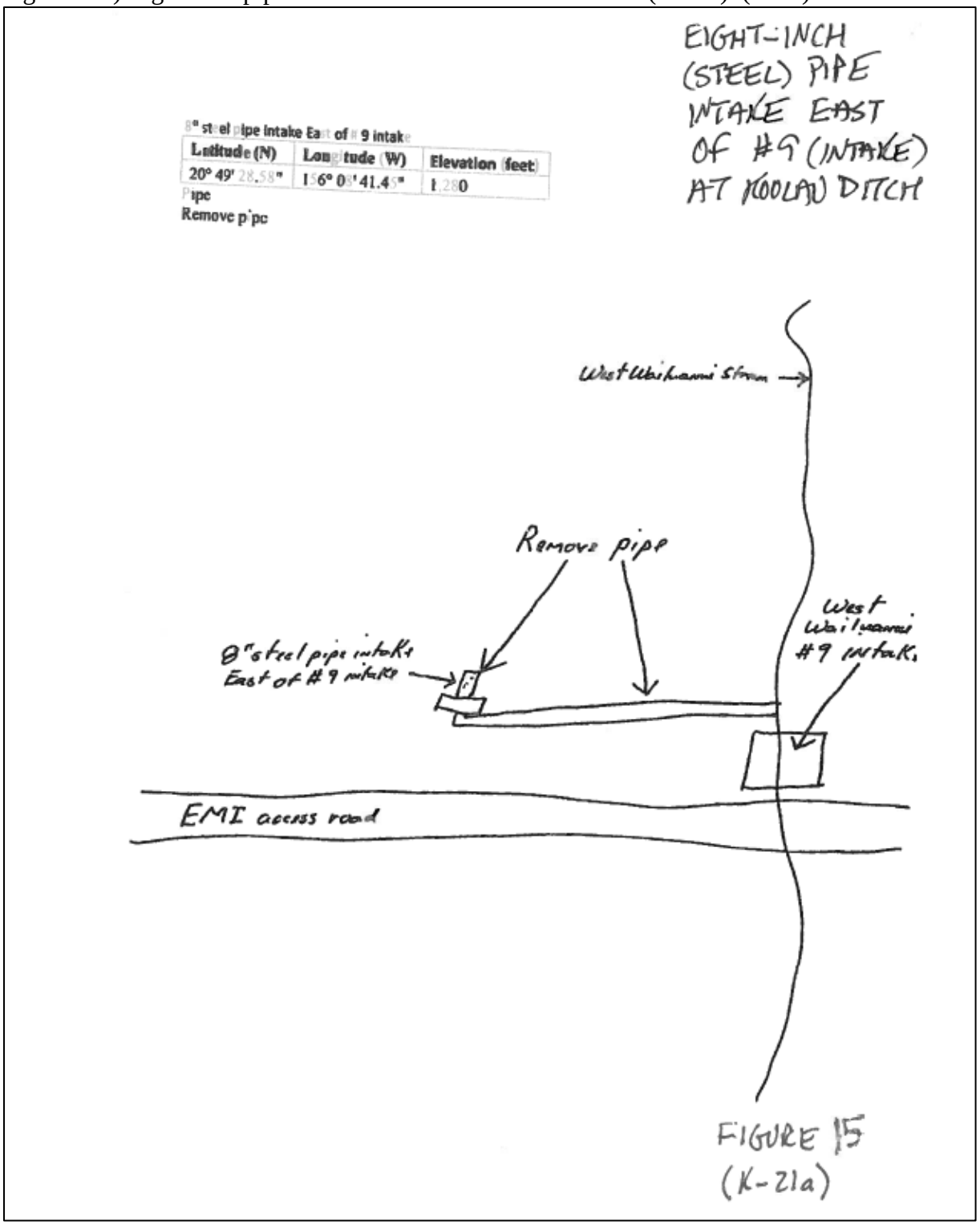
Photo 14. Wailuanui #8 intake at Koʻolau Ditch (K-20a) (1989).



15. Eight-inch (steel) pipe intake east of #9 (intake) at Ko‘olau Ditch (K-21a). This diversion consists of a rock wall which captures seepage and then pipes it to the Ko‘olau Ditch via the #9 intake. The pipe will be removed. (Photo/Figure 15a and b).

Photo 15a) Eight-inch pipe east of #9 intake at Ko‘olau Ditch (K-21a) (2007).

Figure 15b) Eight-inch pipe east of #9 intake at Koʻolau Ditch (K-21a). (2007).



AGENCY REVIEW COMMENTS

County of Maui, Planning Department: Pursuant to Sections 19.62.050.E and 19.62.100, Maui County Code:

E. Watercourse alteration. Whenever a watercourse is to be altered or relocated, the director shall:

1. For riverine situations, require the applicant to notify the State of Hawaii department of land and natural resources, commission on water resource management, before such alteration or relocation, and submit evidence of such notification to the Federal Insurance Administration and Federal Emergency Management Agency (FEMA).
2. Require that the flood-carrying capacity of the altered or relocated portion of the watercourse be maintained.

19.62.100 - Developments adjacent to drainage facilities.

A. Applications involving developments encompassing or adjoining any stream, river, or drainage facility outside of the special flood hazard areas identified on the Flood Insurance Rate Map (FIRM) shall be subject to review by the director. Upon request by the director, further information concerning base flood elevation, floodways, surface water runoff, existing and proposed drainage patterns, and other information, including a detailed flood elevation study, drainage report, and findings and opinions by a licensed professional civil engineer, shall be provided to evaluate the potential flooding of the area.
B. The director shall not issue or recommend issuance of any permit or approval involving modification, construction, lining, or alteration of any drainage facility, river, or stream unless such modification, construction, lining, or alteration does not reduce the capacity of the drainage facility, river, or stream, or adversely affect any downstream or adjacent property.

Accordingly, a permit may be required to alter or relocate water course and since these streams are located outside of special flood hazard areas they may be subject to review and or flood hazard development permit.

Staff: The Commissions' standard permit condition #2 states that "the project may require other agency approvals regarding wetlands, water quality, grading, stockpiling, endangered species, and floodways. The permittee shall comply with all other applicable statutes, ordinances, and regulations of the Federal, State and county governments." However, the Applicant has no stated timeline to complete County requirements.

Department of Hawaiian Home Land (DHHL): Did not comment.

Department of Land and Natural Resources (DLNR), Aquatic Resources:

Honopou Stream. W-22; W-22b; L-17. We strongly support the sealing of grates and removal of the sluice gate as a first step. We strongly recommend removal of infrastructure

(Honopou at Lowrie Ditch L-17) dams that have been built within the stream to funnel water to the intakes. The proposed actions will help restore stream flow but natural stream habitat must also be restored to allow ʻoʻopu, ʻōpae and hīhīwai to migrate upstream.

Piʻinaʻau (Palauhulu) Stream Diversions. (K-27; K-28; K-29) Full restoration has not yet been determined. K-26 removal of sluice gate; K-30 seal gratings; K-29a diversion tunnel will be sealed with rock and concrete; K-30a removal of pipe; K-30c removal of pipe; K-31a removal of pipe(s). We strongly agree on the removal of pipes but will the rock/concrete channel or catch basins also be removed? Why is work restricted to "tunnel" while some in-stream modifications such as walls and dams would also need to be removed? We strongly recommend the restoration of natural stream habitat. The existing irrigation system continues to divert some streams at four different elevation/locations. Additional diversions also exist on tributary streams. These have not been fully described in the overall discussion. We strongly recommend all diversions be modified or removed. These "historic" modifications have helped make the irrigation systems highly efficient to capture water but prohibit the natural migration of native stream species. We also need full descriptions of "pipes that transport stream water over ditches" in certain locations. If streams are to be modified to flow over specific ditches, continuous stream flow to the ocean will be necessary.

Staff: The D&O identified Piʻinaʻau (Palauhulu) and Honopou as kalo and community streams described above. Habitat Streams – other streams not part of this permit application - were defined as "limited or no water diversions in order to foster improved habitat for native fish and other stream animals. The Commission's intent is to have all diversions within these habitat streams modified to ensure connectivity to allow unrestricted movement of native species. The Commission's expectation is that restoring flows to streams that are spread out geographically will: 1) provide greater protection against localized habitat disruptions; 2) produce a wider benefit to estuarine and near-shore marine species; and 3) result in improved comprehensive ecosystem function across the entire East Maui watershed". (D&O, p. v).

DLNR, Engineering: No comment.

DLNR, Forestry and Wildlife: Fourteen out of fifteen diversions are located within the Koʻolau Forest Reserve, and therefore may directly affect the plants and wildlife within those reserves. One is located downstream of the Forest Reserve, such that the proposed work may affect stream biology in the Forest Reserve indirectly by influencing dispersal of plants and animals.

In its Conclusions of Law, dated June 20, 2018, the Commission notes that instream uses shall be guided by the general principles set forth in §13-169-20, Hawaii Administrative Rules, which include that, where practicable, streams should be maintained with water sufficient to preserve fish, wildlife, scenic, aesthetic, recreational, and other uses, *and stream systems should be retained substantially in their natural condition* (emphasis added).

The application includes a description of the mechanical and structural alterations that are proposed to prevent stream water from entering into the diversion system, thereby returning the water to the stream. The proposed work includes removal of collecting pipes, covering of intake

grates, sealing of tunnels, and removal sluice gates that would otherwise serve to divert water. In a number of locations, the description appears to propose to leave substantial structures and fixtures in place, and notes for others that the "scope of work for full restoration is to be determined". Features proposed to be left in place may include concrete fixtures, channels, walls, catchments, and tunnels that potentially alter stream flows and surfaces, exacerbate erosion, encourage establishment of invasive species, degrade plant and wildlife habitats, and affect wildlife dispersal and movements.

While we understand that the intention of the proposed work is to discontinue water diversion, and that the removal of those fixtures and structures may not be necessary to restore stream flow, it is not clear what assessment was done to retain the stream systems substantially in their natural condition upon the abandonment of the diversions, and how ecological processes may be affected by structures and fixtures left in place. Please refer to the comments submitted by the Division of Aquatic Resources (DAR) regarding their concerns for the restoration of stream habitat. We also note that the applicant holds State revocable permits (S-7263, S-7264, S-7265, S-7266) for the use of water and operation of those diversions located in the Forest Reserve. Under the terms of those permits, those improvements and other structures should be removed upon termination of the permits (see Additional Condition B.5).

We appreciate that practical considerations may bear on the assessment of the removal and disposition of those fixtures and structures and that their removal may not be feasible or advisable in all cases, and request additional information concerning the criteria and decision process used to determine whether and why structures and fixtures are proposed to be left in place. We have had initial discussions with the applicant and appreciate their efforts to address our concerns but feel that additional details and information is needed to assess those aspects of the proposal.

Staff: Removal of structures upon termination of the revocable permits (S-7263, S-7264, S-7265, S-7266) for the use of water and operation of those diversions located in the Forest Reserve is under the jurisdiction of the Board of Land and Natural Resources.

DLNR, State Historic Preservation Division (SHPD): Did not comment.

DLNR, Land Division: Did not comment.

DLNR, State Parks: Not subject to our regulatory authority. No objections.

Dept. of Health (DOH), Clean Water Branch: Did not comment.

Office of Hawaiian Affairs: Did not comment.

US Army Corps of Engineers: Did not comment.

US Fish and Wildlife Service (FWS): Did not comment.

PUBLIC COMMENTS

On January 31, 2019, the Commission received a comment letter from Na Moku Aupuni o Koʻolau Hui. Na Moku Aupuni o Koʻolau Hui (Na Moku) are traditional practitioners who rely on the subject streams and estuaries for their numerous traditional and customary practices. The abandonment permit application is the direct result of Na Moku's decades' long petition to restore streams within Koʻolau Moku. Recently, some members of Na Moku went on a site visit with A&B staff and were told that these streams required the fewest regulatory agency approvals in order to comply with the interim instream flow standards and would restore streams as soon as possible. The sites that they visited were difficult to get to due to a lack of road maintenance, etc., but were representative of the subject sites. A&B explained what actions that they were proposing to the Commission. Na Moku asked that certain additional structures be removed in the future. Based on A&B's proposed work statements, Na Moku supports the work being proposed on these permit applications.

Chapter 343, Hawaii Revised Statutes (HRS) Environmental Assessment

The action triggers an Environmental Assessment (EA) pursuant to HRS, Chapter 343 because 14 of the 15 subject diversions are located on State land. DLNR's Office of Conservation and Coastal Land's (OCCL) Site Plan Approval letter dated October 19, 2018, exempted all of the subject actions from requiring an EA pursuant to HAR §11-200-8 and the departments' exemption list DLNR Exemption Class 8 (2) which states that the demolition and removal of existing structures, facilities, utilities, and other improvements on state lands, except those structures located on any historic site as designated in the National Register or Hawaii Register as provided for in the National Historic Preservation Act of 1966 are exempt from conducting an EA.

TRADITIONAL AND CUSTOMARY PRACTICES

The subject action is not anticipated to have any impact upon traditional and customary practices in the watershed area. Should any impacts be identified in the future, the Commission may decide to re-evaluate the IIFS.

The Commission's analysis under *Ka Paʻakai O Kaʻaina*, are as follows:

The Commission, as part of contested case hearing CCH-MA13-01, reviewed documentation and heard testimony from many area residents regarding traditional and customary native Hawaiian practices on the subject East Maui streams. Implementation of these proposed stream diversion works abandonment actions are in support of those practices (Exhibit 1).

1) *The identity and scope of valued cultural, historical, or natural resources in the petition area, including the extent to which traditional and customary native Hawaiian rights are exercised in the petition area.*

The Applicant referenced the 275-page County of Maui Planning Department, Kalo Kanu O Ka ʻĀina: A Cultural Landscape Study of Keʻanae and Wailuanui, Island of Maui, July 1995; and Kepa Maly and Onaona Maly, Wai O Ke Ola: He Wahi Moʻolelo No Maui Hikina, 2001.

2) *The extent to which those resources – including traditional and customary native Hawaiian rights – will be affected or impaired by the proposed action.*

The Applicant stated that the proposed action will have a positive impact on stream resources due to the total restoration of flows in the affected streams. This in turn will have a positive effect on T&C rights, including but not limited to kalo cultivation in areas downstream of the diversions.

3) *The feasible action, if any, to be taken by the Commission on Water Resource Management to reasonably protect native Hawaiian rights if they are found to exist.*

The Applicant stated that the Commission's expedited approval will advance the projects' work schedule.

STAFF REVIEW

Criteria for Ruling on a Stream Diversion Works Permit Application (HAR §13-168-32(d)):

1. *The quantity and quality of the stream water or the stream ecology shall not be adversely affected.*

The quantity of water will increase with the subject actions. The quality of water or stream ecology is not expected to be adversely affected. The D&O identified these streams as kalo and community streams - the goal is to return free flowing water.

2. *Where instream flow standards or interim instream flow standards have been established pursuant to HAR Chapter 13-169, no permit should be granted for any diversion works which diminishes the quantity or quality of stream water below the minimum established to support identified instream uses, as expressed in the standards.*

The IIFS for Honopou, Piʻinaʻau (Palauhulu), and Wailuanui were established in the D&O. Streamflow will increase with the subject actions taken.

3. *The proposed diversion works shall not interfere substantially and materially with existing instream or non-instream uses or with diversion works previously permitted.*

Honopou. Commission records show 13 registered diversions located downstream of the subject area.

Piʻinaʻau (Palauhulu). Commission records show 14 registered diversions, of which eight are non-A&B. Of the eight, four were declared for domestic, in part, with a total of five service connections. All eight diversions are also utilized for irrigation of various crops and livestock, including the cultivation of taro. The DOH Safe Drinking Water Branch does not currently regulate any public water systems in the Piʻinaʻau hydrologic unit.

Wailuanui. Commission records show two registered diversions declared for taro cultivation.

The subject actions located upstream will not interfere with the existing uses.

RECOMMENDATION

That the Commission:

1. Approve the Stream Diversion Works Permit (SCAP.4915.6) Application to abandon in-place the subject 15 diversions on the Honopou, Piʻinaʻau (Palauhulu), and Wailuanui Streams, East Maui, in compliance with the interim instream flow standards (IIFS) established in the Commission on Water Resource Management's contested case hearing CCH-MA13-01, subject to the standard conditions in Exhibit 1.

   Honopou:
   1. Wailoa Ditch (W-22), Honopou Stream. Seal the intake grate with concrete/grout and remove the existing sluice gate.
   2. Wailole intake at Wailoa Ditch (W-22b), Honopou Stream. Seal the intake grate with concrete/grout.
   3. Honopou side ditch at Lowrie Ditch (L-17), Honopou Stream. Permanently close control gate that allows flow into the ditch and remove the sluice gate that allows flow to bypass the diversion.

   Piʻinaʻau (Palauhulu):
   4. Kano intake at Koʻolau Ditch (K-26), Piʻinaʻau (Palauhulu) Stream. Removal of sluice gate. The Applicant shall submit final plans to the Commission prior to work being conducted.
   5. Lalahai #3 at Hauoli Ditch (K-27), Piʻinaʻau (Palauhulu) Stream. The Applicant shall submit final plans to the Commission prior to work being conducted.
   6. Lalapipi #2 at Hauoli Ditch (K-28), Piʻinaʻau (Palauhulu) Stream. The Applicant shall submit final plans to the Commission prior to work being conducted.
   7. Kaʻauau #1 at Hauoli Ditch (K-29), Piʻinaʻau (Palauhulu) Stream. The Applicant shall submit final plans to the Commission prior to work being conducted.
   8. Hauʻoliwahine at Hauoli Ditch (K-30), Piʻinaʻau (Palauhulu) Stream. Seal the intake grate opening with concrete /grout or bolt steel plates over the diversion

9. Ka'auau diversion tunnel to #1 intake (K-29a), Pi'ina'au (Palauhulu) Stream. Seal the diversion tunnel with rock and concrete.
10. Hau'oliwahine small intake (K-30a), Pi'ina'au (Palauhulu) Stream. Removal of pipe.
11. Hau'oliwahine small intake (K-30c), Pi'ina'au (Palauhulu) Stream. Removal of pipe.
12. Six-inch steel pipe at Ko'olau Ditch (K-31a), Pi'ina'au (Palauhulu) Stream. Removal of pipe.

Wailuanui:

13. Three-inch pipe by control house at Ko'olau Ditch (K-19a), Wailuanui Stream. Removal of pipe.
14. Wailuanui #8 intake at Ko'olau Ditch (K-20a), Wailuanui Stream. Removal of pipe.
15. Eight-inch pipe east of #9 intake at Ko'olau Ditch (K-21a), Wailuanui Stream. Removal of pipe.

Ola i ka wai,

M. KALEO MANUEL
Deputy Director

Exhibits:
1. Comment letter received from Na Moku Aupuni o Ko'olau Hui on January 31, 2019.
2. Standard Stream Channel Alteration Permit and Stream Diversion Works Permit Conditions.
3. Legal Authorities.

APPROVED FOR SUBMITTAL:

SUZANNE D. CASE
Chairperson

P. O. Box 961, Ha`Tku, Hawai`i 96708

Commission on Water Resource Management
Stream Protection Branch
1151 Punchbowl Street, Rm 227
Honolulu, HI 96813

Re: SDWP 4915.6 Alexander & Baldwin, Inc. Abandonment Category 2 Diversions, Taro Streams, Pi`ina`au (Palauhulu), and Wailuanui Streams, East Maui

Na Moku Aupuni o Ko`olau Hui ("Na Moku") is a 501(c)(3) non-profit organization whose members are the lineal descendants of the original inhabitants and current residents of the adjacent ahupua`a of Ke`anae and Wailuanui, East Maui. Many of our member families are traditional practitioners who rely on the subject streams to grow taro, gather `o`opu, opae and hihiwai, and who also rely on these stream estuaries and surrounding environs as important sources of reef fish, limu, `opihi, etc. These abandonment permit applications are the direct result of Na Moku's decades' long petitions to restore streams within Ko`olau Moku.

On Sunday, January 27, 2019, some of our members, including several of their children, went on a site visit conducted by Mark Vaught, East Maui Irrigation operations manager and one of his workmen, Kai. We spent approximately six hours on the site visit and saw several diversion sites affecting Pi`ina`au / Palauhulu streams. Some of the terrain was steep but still accessible, much of it covered with dense under- and overgrowth. It was necessary to do some clearing with cane knives to get to some of these areas. The Pi`ina`au access road was also a challenge to drive with four-wheel vehicles. Our community has a monthly workday and for the past three years its volunteers have been able to help keep the road accessible for community maintenance work at Akeke Springs and adjacent areas by removing fallen trees and other growth, but access to the area is becoming increasingly challenging.

We visited several Pi`ina`au / Palauhulu diversion sites along and above the Ko`olau Ditch. We were told by Mark Vaught these were representative of the other sites with respect to remediation work proposed; i.e., in general, work that required the fewest number of regulatory agency approvals in order to comply with the interim instream flow standards and restore streams as soon as possible. This work principally involves removal of pipes and sealing intakes manually. We also visited a site high above the Ko`olau Ditch, where we observed swift-flowing waters through a tunnel, part of Hauolo (aka "Haole") contra-flow ditch, which collects water from the many tributaries, subsequently dropping the waters into Ko`olau Ditch through openings. Mark explained that these openings either are or would be sealed so that all of the water would collect at Pi`ina`au / Palauhulu as part of natural stream flow. No heavy equipment would be required for this phase of the work. We observed stone and concrete structures, walls and dams, and other structures at these diversions that would neither be required to restore streamflow nor ensure the integrity of EMI's overall ditch network. We ask that these structures be removed in the future; not only are they a blight upon the natural environment, but painful vestiges and reminders of over a century of cultural genocide. Mr. Vaught assured us they would make every good faith effort to do so. He also explained that he did not have a full workforce at this time but was optimistic there would be a full complement of needed workers soon. Although we did not visit every site, including the sites along Wailuanui Streams, we are relying on Mr. Vaught's statements that the sites we did observe, and the work being proposed, was representative of the other sites. Based on the foregoing, we support the work being proposed on these permit applications.

Sincerely,
Mahealani Wendt

Mahealani Wendt
Administrator

EXHIBIT 1

Staff Submittal February 19, 2019
Alexander & Baldwin, Inc.

STANDARD STREAM CHANNEL ALTERATION PERMIT AND
STREAM DIVERSION WORKS PERMIT CONDITIONS
(Revised May 15, 2018)

1. The permit application and staff submittal approved by the Commission at its meeting on the above date shall be incorporated herein by reference.
2. The project may require other agency approvals regarding wetlands, water quality, grading, stockpiling, endangered species, and floodways. The permittee shall comply with all other applicable statutes, ordinances, and regulations of the Federal, State and county governments, including, but not limited to, instream flow standards.
3. The permittee, his successors, assigns, officers, employees, contractors, agents, and representatives, shall indemnify, defend, and hold the State of Hawaii harmless from and against any claim or demand for loss, liability, or damage including claims for property damage, personal injury, or death arising out of any act or omission of the permittee or his successors, assigns, officers, employees, contractors, and agents under this permit or related to the granting of this permit.
4. The permittee shall notify the Commission, by letter, of the actual dates of project initiation and completion. The permittee shall submit a set of as-built plans and photos in pdf format of the completed work to the Commission upon completion of this project. This permit may be revoked if work is not started within six (6) months after the date of approval or if work is suspended or abandoned for six (6) months, unless otherwise specified. The proposed work under this stream channel alteration permit shall be completed within two (2) years from the date of permit approval, unless otherwise specified. The permit may be extended by the Commission upon showing of good cause and good-faith performance. A request to extend the permit shall be submitted to the Commission no later than three (3) months prior to the date the permit expires. If the commencement or completion date is not met, the Commission may revoke the permit after giving the permittee notice of the proposed action and an opportunity to be heard.
5. Before proceeding with any work authorized by the Commission, the permittee shall submit one set of construction plans and specifications in PDF format to determine consistency with the conditions of the permit and the declarations set forth in the permit application.
6. The permittee shall implement site-specific, construction Best Management Practices in consultation with the DOH Clean Water Branch and other agencies as applicable, that are designed, implemented, operated, and maintained by the permittee and its contractor to properly isolate and confine activities and to contain and prevent any potential pollutant(s) discharges from adversely impacting State waters per HRS Ch. 342D Water Pollution; HAR §11-54-1 through §11-54-8 Water Quality Standards; and HAR Ch. 11-55 Water Pollution Control, Appendix C.
7. The permittee shall protect and preserve the natural character of the stream bank and stream bed to the greatest extent possible. The permittee shall plant or cover lands denuded of vegetation as quickly as possible to prevent erosion and use native plant species common to riparian environments to improve the habitat quality of the stream environment.
8. In the event that subsurface cultural remains such as artifacts, burials or deposits of shells or charcoal are encountered during excavation work, the permittee shall stop work in the area of the find and contact the Department's Historic Preservation Division immediately. Work may commence only after written concurrence by the State Historic Preservation Division.

EXHIBIT 2

LEGAL AUTHORITIES

Water as a Public Trust. The four public trust purposes are:

1. Maintenance of waters in their natural state;
2. Domestic water use of the general public, particularly drinking water;
3. The exercise of Native Hawaiian and traditional and customary rights, including appurtenant rights. Waiahole, 94 Hawaii 97; 9 P.3d 409 (2000).
4. Reservations of water for use on Hawaiian home lands. Waiola O Molokai, Inc., 103 Hawaii 401; 83 P.3d 664 (2004).

HRS §174C-71 Protection of instream uses. The commission shall establish and administer a statewide instream use protection program. In carrying out this part, the commission shall cooperate with the United States government or any of its agencies, other state agencies, and the county governments and any of their agencies. In the performance of its duties the commission shall:

(2) Establish interim instream flow standards;
  (D) In considering a petition to adopt an interim instream flow standard, the commission shall weigh the importance of the present or potential instream values with the importance of the present or potential uses of water for noninstream purposes, including the economic impact of restricting such uses;
(3) Protect stream channels from alteration whenever practicable to provide for fishery, wildlife, recreational, aesthetic, scenic, and other beneficial instream uses;
  (A) The commission shall require persons to obtain a permit from the commission prior to undertaking a stream channel alteration; provided that routine streambed and drainageway maintenance activities and maintenance of existing facilities are exempt from obtaining a permit;
  (C) The commission shall establish guidelines for processing and considering applications for stream channel alterations consistent with section 174C-93;

HRS §174C-92 Registration of existing stream diversion works. Any person owning or operating a stream diversion works within or outside of a water management area shall register such work with the commission. Registration shall be on the forms provided by the commission. Reporting requirements on the registration forms shall be reasonable.

HRS §174C-93 Permits for construction or alteration. No person shall construct or alter a stream diversion works, other than in the course of normal maintenance, without first obtaining a permit from the commission.

HAR §13-168-2 Definitions.

"Instream flow standard" means a quantity or flow of water or depth of water which is required to be present at a specific location in a stream system at certain specified times of the year to protect aquatic life, wildlife, recreational, aesthetic, scenic, and other beneficial instream uses.

"Instream use" means beneficial uses of stream water for significant purposes which are located in the stream and which are achieved by leaving the water in the stream. Instream uses include, but are not limited to:

(1) Maintenance of aquatic life and wildlife habitats;
(2) Outdoor recreational activities;
(3) Maintenance of ecosystems such as estuaries, wetlands, and stream vegetation;
(4) Aesthetic values such as waterfalls and scenic waterways;
(5) Navigation;
(6) Instream hydropower generation;
(7) Maintenance of water quality;
(8) The conveyance of irrigation and domestic water supplies to downstream points of diversion; and
(9) The protection of traditional and customary Hawaiian rights.

"Stream diversion" means the act of diverting, pumping or otherwise removing water from a stream into a channel, ditch, pipeline, or other conduit.

"Stream diversion works" means any artificial structure, excavation, pipeline, or other conduit constructed singly or in combination, for the purpose of diverting or otherwise removing water from a stream into a channel, ditch, tunnel, pipeline, etc.

HAR §13-168-31 Registration of existing stream diversion works. Within one year from the effective date of these rules, the owner or operator of any stream diversion works in any area of the state shall register such facility with the commission. Registration shall be on the forms provided by the commission and shall include information such as location, dimensions, elevations, divertible capacity, construction plans, method of measuring flows, and all other facts or information reasonably required.

HAR §13-168-35 Abandoned stream diversion works. (a) The owner of any stream diversion works wishing to abandon or remove such works shall first obtain a stream diversion permit issued or caused to be issued by the commission. No abandonment work shall be undertaken by the applicant until such a permit is issued by the commission.

(b) Each application for a stream diversion permit to perform abandonment work shall be made on forms furnished by the commission, shall not require a fee, and shall include:

(1) The name and address of the applicant;
(2) The location and description of the proposed stream diversion work abandonment;
(3) An assessment of the impact the abandonment will have on the stream environment;
(4) Relevant maps, plans, and drawings; and
(5) Other information as may be necessary for the commission to determine the merits of the proposed stream channel alteration, including any hazards to public health, safety, or welfare, and the desirability of issuing a permit.