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

November 20, 2019
Lahaina, Maui

Approval of a Stream Diversion Works Permit Application (SDWP.4951.6) by East Maui Irrigation Company to Remove and Abandon 29 Diversions (Category 4) on Waiokamilo and Wailuanui Streams, and Find that SDWP.4951.6 is Exempt from Hawaii Revised Statutes, Chapter 343, East Maui Irrigation System, East Maui, Hawai'i; TMK: Various

No.	Diversion Name	Stream	Landowner	FR	CD	SMA
1	East Waiokamilo (Kualani) at Ko'olau Ditch (K-22)	Waiokamilo	State	Y	Y	-
2	6-inch Kualani (East Waiokamilo) aluminum pipe at Ko'olau Ditch (K-22a)	Waiokamilo	State	Y	Y	-
3	Number 10 crosscut intake at Ko'olau Ditch, #1 of 6 (K-22b)	Waiokamilo	State	Y	Y	-
4	Number 10 crosscut intake at Ko'olau Ditch, #2 of 6 (K-22c)	Waiokamilo	State	Y	Y	-
5	Number 10 crosscut intake at Ko'olau Ditch, #3 of 6 (K-22d)	Waiokamilo	State	Y	Y	-
6	Number 10 crosscut intake at Ko'olau Ditch, #4 of 6 (K-22e)	Waiokamilo	State	Y	Y	-
7	Number 10 crosscut intake at Ko'olau Ditch, #5 of 6 (K-22f)	Waiokamilo	State	Y	Y	-
8	Number 10 crosscut intake at Ko'olau Ditch, #6 of 6 (K-22g)	Waiokamilo	State	Y	Y	-
9	Waiokamilo #11 Intake at Ko'olau Ditch (K-23)	Waiokamilo	State	Y	Y	-
10	4-inch pipe east of #11 intake at Ko'olau Ditch (K-23a)	Waiokamilo	State	Y	Y	-
11	Waiokamilo #12 intake at Ko'olau Ditch (K-24)	Waiokamilo	State	Y	Y	-

Item C-1
000001

EXHIBIT S-53

No.	Diversion Name	Stream	Landowner	FR	CD	SMA
12	Number 12 crosscut intake at Ko'olau Ditch #1 of 5 (K-24a)	Waiokamilo	State	Y	Y	-
13	Number 12 crosscut intake at Ko'olau Ditch #2 of 5 (K-24b)	Waiokamilo	State	Y	Y	-
14	Number 12 crosscut intake at Ko'olau Ditch #3 of 5 (K-24c)	Waiokamilo	State	Y	Y	-
15	Number 12 crosscut intake at Ko'olau Ditch #4 of 5 (K-24d)	Waiokamilo	State	Y	Y	-
16	Number 12 crosscut intake at Ko'olau Ditch #5 of 5 (K-24e)	Waiokamilo	State	Y	Y	-
17	Small intake west of number 12 crosscut intake at Ko'olau Ditch #1 of 6 (K-24f)	Waiokamilo	State	Y	Y	-
18	Small intake west of number 12 crosscut intake at Ko'olau Ditch #2 of 6 (K-24g)	Waiokamilo	State	Y	Y	-
19	Small intake west of number 12 crosscut intake at Ko'olau Ditch #3 of 6 (K-24h)	Waiokamilo	State	Y	Y	-
20	Small intake west of number 12 crosscut intake at Ko'olau Ditch #4 of 6 (K-24i)	Waiokamilo	State	Y	Y	-
21	Small intake west of number 12 crosscut intake at Ko'olau Ditch #5 of 6 (K-24j)	Waiokamilo	State	Y	Y	-
22	Waiokamilo Kikokiko intake at Ko'olau Ditch (K-25)	Waiokamilo	State	Y	Y	-
23	Small intake west of number 12 crosscut intake at Ko'olau Ditch #6 of 6 (K-25a)	Waiokamilo	State	Y	Y	-
24	Kikokiko small intake at Ko'olau Ditch (K-25b)	Waiokamilo	State	Y	Y	-
25	West Kikokiko small intake at Ko'olau Ditch #1 of 4 (K-25c)	Waiokamilo	State	Y	Y	-
26	West Kikokiko small intake at Ko'olau Ditch #2 of 4 (K-25d)	Waiokamilo	State	Y	Y	-
27	West Kikokiko small intake at Ko'olau Ditch #3 of 4 (K-25e)	Waiokamilo	State	Y	Y	-
28	West Kikokiko small intake at Ko'olau Ditch #4 of 4 (K-25f)	Waiokamilo	State	Y	Y	-
29	Filipino Ditch diversion (K-21b)	Wailuanui	State	Y	Y	-

FR - Forest Reserve; CD - Conservation District; SMA - Special Management Area.

APPLICANT
Mark Vaught
East Maui Irrigation, Co.
P.O. Box 791628
Paia, HI 96779

LANDOWNER
State of Hawaii
Department of Land and Natural Resources
(2) 1-1-002:002

SUMMARY OF REQUEST

Approve the Stream Diversion Works Permit (SDWP.4951.6) Application in which the applicant filled intake grates with rock and concrete and removed pipes in 2007. The above actions were completed as part of Contested Case Hearing No. 01-05-MA regarding water licenses heard before the Board of Land and Natural Resources in 2007.

The SDWP application proposes to abandon in-place the subject 29 diversions and associated infrastructure, to comply with the interim instream flow standards (IIFS) established under the Commission on Water Resource Management's Contested Case Hearing CCH-MA13-01 Decision and Order dated June 20, 2018. Category 4 diversions are defined by the Applicant as all Waiokamilo Stream diversions where flow was restored in 2007 and no further work is necessary. Also included in this SDWP application is the Filipino Ditch diversion on Wailuanui Stream which cannot be located and is believed to be no longer diverting water.

The Board of Land and Natural Resources (BLNR) has jurisdiction on land owned by the State through Revocable Permits No. S-7265 for the Ke'anae License area. The Commission has jurisdiction for actions taken in the stream channel only.

LOCATION: Island of Maui in the Waiokamilo (**Map 1**) and Wailuanui (**Map 2**) surface water hydrologic units.

STREAM DESCRIPTION

Waiokamilo. The hydrologic unit of Waiokamilo covers an area of 2.45 square miles from the slopes of Haleakala at 4,891 feet elevation to the sea. (**Map 1**). Waiokamilo Stream is 4.4 miles in length, originating in the Ko'olau Forest Reserve to Waiokamilo Falls before entering the ocean. East Maui Irrigation, Co. (EMI) ceased all diversions within the Waiokamilo hydrologic unit after the Board of Land and Natural Resources ruled in March 2007 that EMI should release 6 million gallons per day (mgd) from Waiokamilo Stream. Waiokamilo Stream is generally a losing stream. The Hawaii Stream Assessment classifies the aquatic resources of Waiokamilo Stream as "unknown." The Division of Aquatic Resources (DAR) assigns Waiokamilo a total watershed rating of 7 out of 10, a total biological rating of 3 out of 10, and a combined overall rating of 5 out of 10. Native species observed in the stream include:

Fish:	'O'opu nākea (*Awaous guamensis*)
Crustaceans:	'Ōpae kala'ole (*Atyoida bisulcata*)
Mollusks:	none observed

Wailuanui. The hydrologic unit of Wailuanui covers an area of 6.0 square miles from the upper slopes of Haleakala at 8,891 feet elevation to the sea. (**Map 2**). EMI operates diversions on Wailuanui Stream and its tributaries, West and East Wailuanui, at the Ko'olau Ditch. Wailuanui Stream is gaining flow from the lower reaches of its tributaries down to the coast. The Hawaii Stream Assessment classifies the aquatic resources of Wailuanui Stream as outstanding. Wailuanui Stream 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 Stream rates high 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:	ʻOʻopu nākea (*Awaous guamensis*), ʻoʻopu akupa (*Eleotris sandwicensis*), *aholehole* (*Kuhlia sp.*), ʻoʻopu ʻalamoʻo (*Lentipes concolor*), and ʻoʻopu nōpili (*Sicyopterus stimpsoni*)
Crustaceans:	ʻŌpae kalaʻole (*Atyoida bisulcata*) and ʻŌpae ʻoehaʻa (*Macrobrachium grandimanus*)
Mollusks:	Hīhīwai (*Neritina granosa*) and Hapawai (*Neritina vespertina*)

BACKGROUND

On March 23, 2007, in the contested case hearing regarding water licenses at Honomanu, Keʻanae, Nahiku, and Huelo, Maui, the Board of Land and Natural Resources (BLNR) ordered EMI to "decrease current diversions on Waiokamilo Stream such that the water flow can be measured below Dam #3 at a rate of 6 mgd based on a monthly moving average on an annual basis." Understanding that Waiokamilo Stream did not naturally flow at a rate of 6 mgd, EMI decided to abandon all major and minor diversions on Waiokamilo Stream in an effort to comply with the BLNR Order. The Commission staff was notified subsequent to the action and was told that pipes were cut and removed and intakes were cemented. A site visit to indentify and verify the diversions was conducted by Commission staff on December 9, 2008.

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, Piʻinaʻau, 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) 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 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, Waiokamilo, 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 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.

On February 7, 2019, the Commission received a complete permit application.

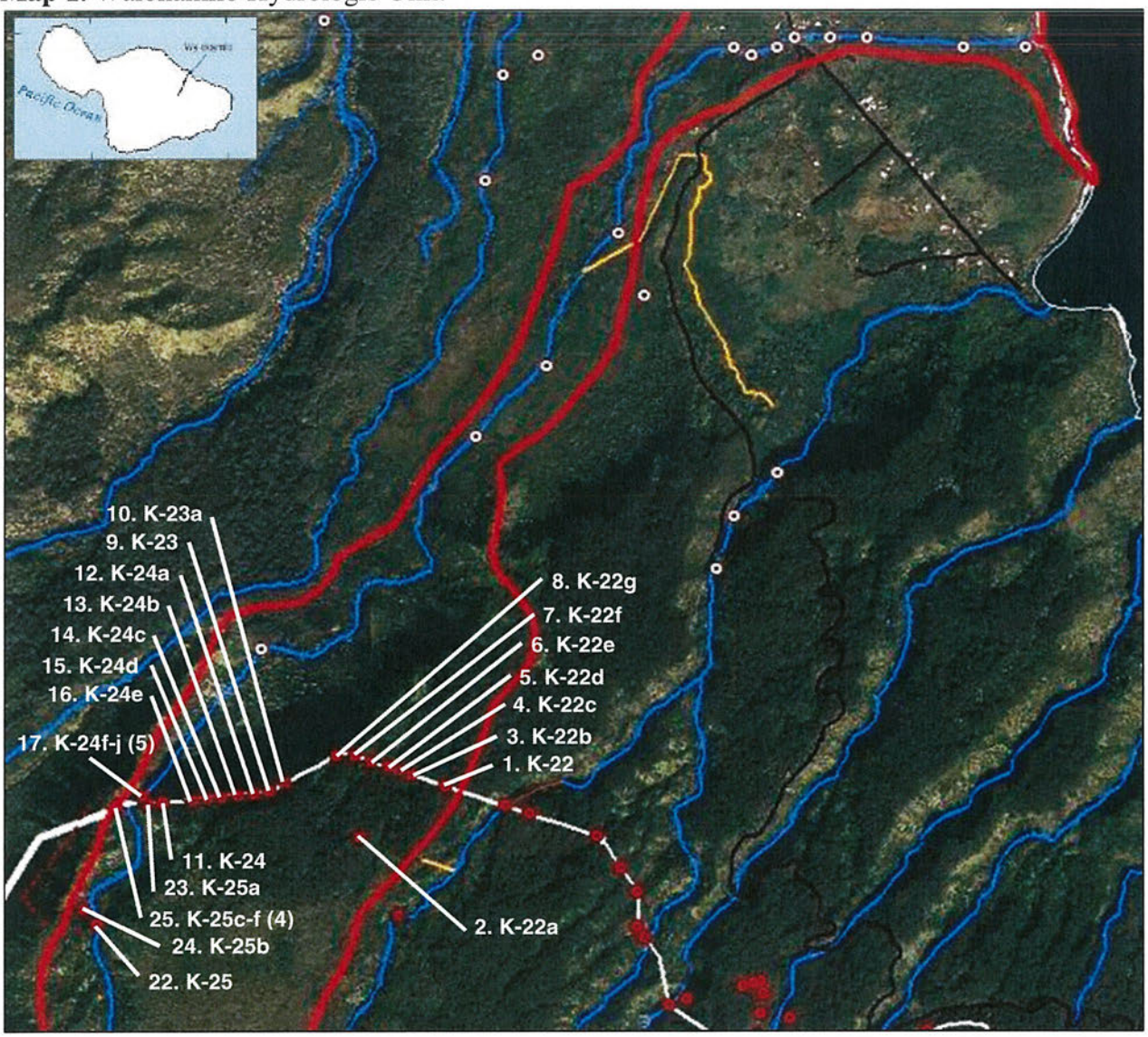
On February 19, 2019, the Commission approved to abandon in-place 15 category 2 diversions on the Honopou, Pi'ina'au (Palauhulu), and Wailuanui Streams, East Maui. Category 2 was defined by the applicant as located away from the main ditch and required minor work to abandon.

On August 29, 2019, the Commission approved the Stream Diversion Works Permit (SDWP.4950.6) Application to reconnect tributaries to the main stream, fill intake grates with rock and concrete, construct wingwalls, put in a stream overpass, remove a small diversion dam, then abandon in-place 11 diversions on the Honopou, Hanehoi (Puolua), and Pi'ina'au (Palauhulu) Streams, East Maui. Category 3 was defined by the applicant as actions that were more extensive than maintenance.

PROJECT DESCRIPTION

In 2007, the Applicant sealed intake grates with concrete and removed pipes in 2007 on 28 of the subject 29 diversions. Location maps, photos, and a summary of the completed work for each diversion are provided on the following pages.

Map 1. Waiokamilo Hydrologic Unit.



1. East Waiokamilo (Kualani) at Ko'olau Ditch (K-22). Water is diverted from Kualani Stream at Intake K-22 into the Ditch. The diversion structure is concrete and a 10-inch steel pipe.

EMI Actions. Diversion intake grate (A) was sealed with concrete in 2007.

Photos. A) Diversion intake structure at K-22 (EMI, 1989); B) Water flow at the roadway adjacent to tunnel (RMT, 2007).

DOFAW comments. See **Exhibit 1**. The applicant currently holds authorizations to employ certain structural improvements within the forest reserve to divert water for collection and use. At such time that those structures will no longer be used for that, or any other approved purpose, DOFAW requests that they be removed, to the extent practicable for the reasons given below. We believe this request is consistent with the Commission's D&O dated June 20, 2018, which noted that instream uses shall be guided by the general principles set forth in §13-169-20, Hawaii Administrative Rules (HAR), 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. Also:

1. Walls, structures, or channels that alter the natural course of the stream can restrict flow. Stagnant waters become breeding sites for mosquitoes and are vectors for introduced diseases and are a major threat to native forest birds.
2. The use of pipes or other structures obstruct fish passage.
3. Stream alteration can result in high levels of erosion and adversely affect water quality.
4. Abandonment of accessory structures, including pipes, pump houses, intakes, mechanisms, or other items no longer in use, may become derelict if not maintained.

Sierra Club Hawaii Chapter. See **Exhibit 2**. Request that the Commission not approve the category 4 permit application due to their concerns regarding the restoration of biological connectivity in the stream to support gathering practices. Recommended that unused infrastructure be removed. Asked how "dry sections" of stream between diversion structures will be avoided to ensure complete restoration of mauka-makai stream flows and where does the water go once the pipe was removed.

Commission Staff Recommendations: The Commission staff, with assistance from EMI, shall conduct a site reconnaissance of the subject diversion in early 2020 to verify diversion location and conditions to determine if any further actions are required such as removal of discarded material, removal of accessory structures, and/or sealing of intakes. The Commission staff shall work with EMI to ensure performance of work actions identified and will conduct a site inspection upon completion of the work.

2. 6-inch Kualani (East Waiokamilo) aluminum pipe at Ko'olau Ditch (K-22a). 6-inch aluminum pipe intake diverted to main Kulani intake. Concrete catchment basin with pipe.

EMI Actions. Pipe (A) was removed in 2007.

Photos. A) Concrete catchment basin captures seepage and transports water to Ko'olau Ditch below by an aluminum pipe (EMI, 1989);B) Upstream view from below basin with PVC pipe (RMT, 2007); C) PVC pipe disconnected (RMT, 2007).

DOFAW comments. As noted previously, with general concerns:

1. Walls, structures, or channels that alter the natural course of the stream can restrict flow. Stagnant waters become breeding sites for mosquitoes and are vectors for introduced diseases and are a major threat to native forest birds.
2. The use of pipes or other structures obstruct fish passage.
3. Stream alteration can result in high levels of erosion and adversely affect water quality.
4. Abandonment of accessory structures, including pipes, pump houses, intakes, mechanisms, or other items no longer in use, may become derelict if not maintained.

Sierra Club Hawaii Chapter. As noted previously, requested that the Commission not approve the category 4 permit application due to their concerns regarding the restoration of biological connectivity in the stream to support gathering practices. Recommended that unused infrastructure be removed. Asked how "dry sections" of stream between diversion structures will be avoided to ensure complete restoration of mauka-makai stream flows and where does the water go once the pipe was removed.

Commission Staff Recommendations: The Commission staff, with assistance from EMI, shall conduct a site reconnaissance of the subject diversion in early 2020 to verify diversion location and conditions to determine if any further actions are required such as removal of discarded material, removal of accessory structures, and/or sealing of intakes. The Commission staff shall work with EMI to ensure performance of work actions identified and will conduct a site inspection upon completion of the work.

3. Number 10 crosscut intake at Ko'olau Ditch, #1 of 6 (K-22b). Concrete catchment basin with pipe.

EMI Actions. Pipe (A) was capped/removed in 2007.

Photos. A) Concrete catchment basin captures seepage and transports water to Ko'olau Ditch by a PVC pipe (EMI, 1989); B) Upstream view from below capture of seepage with PVC pipe (RMT, 2007).

DOFAW comments. As noted previously, with general concerns:

1. Walls, structures, or channels that alter the natural course of the stream can restrict flow. Stagnant waters become breeding sites for mosquitoes and are vectors for introduced diseases and are a major threat to native forest birds.
2. The use of pipes or other structures obstruct fish passage.
3. Stream alteration can result in high levels of erosion and adversely affect water quality.
4. Abandonment of accessory structures, including pipes, pump houses, intakes, mechanisms, or other items no longer in use, may become derelict if not maintained.

Sierra Club Hawaii Chapter. As noted previously, requested that the Commission not approve the category 4 permit application due to their concerns regarding the restoration of biological connectivity in the stream to support gathering practices. Recommended that unused infrastructure be removed. Asked how "dry sections" of stream between diversion structures will be avoided to ensure complete restoration of mauka-makai stream flows and where does the water go once the pipe was removed.

Commission Staff Recommendations: The Commission staff, with assistance from EMI, shall conduct a site reconnaissance of the subject diversion in early 2020 to verify diversion location and conditions to determine if any further actions are required such as removal of discarded material, removal of accessory structures, and/or sealing of intakes. The Commission staff shall work with EMI to ensure performance of work actions identified and will conduct a site inspection upon completion of the work.

4. Number 10 crosscut intake at Ko'olau Ditch, #2 of 6 (K-22c). Concrete catchment basin with pipe.

EMI Actions. Pipe (A) was removed in 2007.

Photos. A) Concrete catchment basin captures seepage and transports water to Ko'olau Ditch by a PVC pipe (EMI, 1989); B) Upstream view from below capture of seepage with PVC pipe disconnected (RMT, 2007).

DOFAW comments. As noted previously, with general concerns:

1. Walls, structures, or channels that alter the natural course of the stream can restrict flow. Stagnant waters become breeding sites for mosquitoes and are vectors for introduced diseases and are a major threat to native forest birds.
2. The use of pipes or other structures obstruct fish passage.
3. Stream alteration can result in high levels of erosion and adversely affect water quality.
4. Abandonment of accessory structures, including pipes, pump houses, intakes, mechanisms, or other items no longer in use, may become derelict if not maintained.

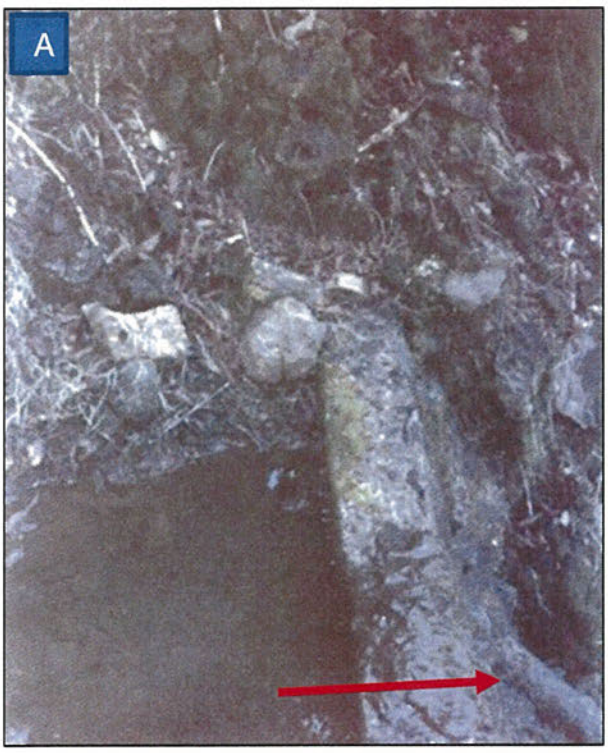
Sierra Club Hawaii Chapter. As noted previously, requested that the Commission not approve the category 4 permit application due to their concerns regarding the restoration of biological connectivity in the stream to support gathering practices. Recommended that unused infrastructure be removed. Asked how "dry sections" of stream between diversion structures will be avoided to ensure complete restoration of mauka-makai stream flows and where does the water go once the pipe was removed.

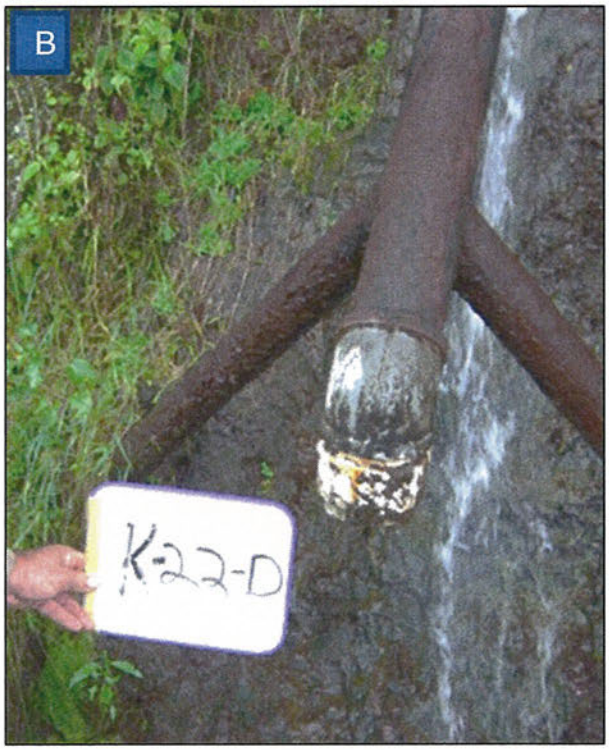
Commission Staff Recommendations: The Commission staff, with assistance from EMI, shall conduct a site reconnaissance of the subject diversion in early 2020 to verify diversion location and conditions to determine if any further actions are required such as removal of discarded material, removal of accessory structures, and/or sealing of intakes. The Commission staff shall work with EMI to ensure performance of work actions identified and will conduct a site inspection upon completion of the work.

5. Number 10 crosscut intake at Ko'olau Ditch, #3 of 6 (K-22d). Concrete catchment basin with pipe.

EMI Actions. Pipe (A) was capped/removed in 2007.

Photos. A) Concrete catchment basin captures seepage and transports water to Ko'olau Ditch by a pipe (EMI, 1989);B) Close-up of disconnected pipe below basin (RMT, 2007).





DOFAW comments. As noted previously, with general concerns:

1. Walls, structures, or channels that alter the natural course of the stream can restrict flow. Stagnant waters become breeding sites for mosquitoes and are vectors for introduced diseases and are a major threat to native forest birds.
2. The use of pipes or other structures obstruct fish passage.
3. Stream alteration can result in high levels of erosion and adversely affect water quality.
4. Abandonment of accessory structures, including pipes, pump houses, intakes, mechanisms, or other items no longer in use, may become derelict if not maintained.

Sierra Club Hawaii Chapter. As noted previously, requested that the Commission not approve the category 4 permit application due to their concerns regarding the restoration of biological connectivity in the stream to support gathering practices. Recommended that unused infrastructure be removed. Asked how "dry sections" of stream between diversion structures will be avoided to ensure complete restoration of mauka-makai stream flows and where does the water go once the pipe was removed.

Commission Staff Recommendations: The Commission staff, with assistance from EMI, shall conduct a site reconnaissance of the subject diversion in early 2020 to verify diversion location and conditions to determine if any further actions are required such as removal of discarded material, removal of accessory structures, and/or sealing of intakes. The Commission staff shall work with EMI to ensure performance of work actions identified and will conduct a site inspection upon completion of the work.

6. Number 10 crosscut intake at Ko'olau Ditch, #4 of 6 (K-22e). Concrete catchment basin with pipe.

EMI Actions. Pipe (A) was capped/removed in 2007.

Photos. A) Concrete catchment basin captures seepage and transports water to Ko'olau Ditch by a PVC pipe (EMI, 1989); B) PVC pipe outlet from catchment basin (RMT, 2007).

DOFAW comments. As noted previously, with general concerns:

1. Walls, structures, or channels that alter the natural course of the stream can restrict flow. Stagnant waters become breeding sites for mosquitoes and are vectors for introduced diseases and are a major threat to native forest birds.
2. The use of pipes or other structures obstruct fish passage.
3. Stream alteration can result in high levels of erosion and adversely affect water quality.
4. Abandonment of accessory structures, including pipes, pump houses, intakes, mechanisms, or other items no longer in use, may become derelict if not maintained.

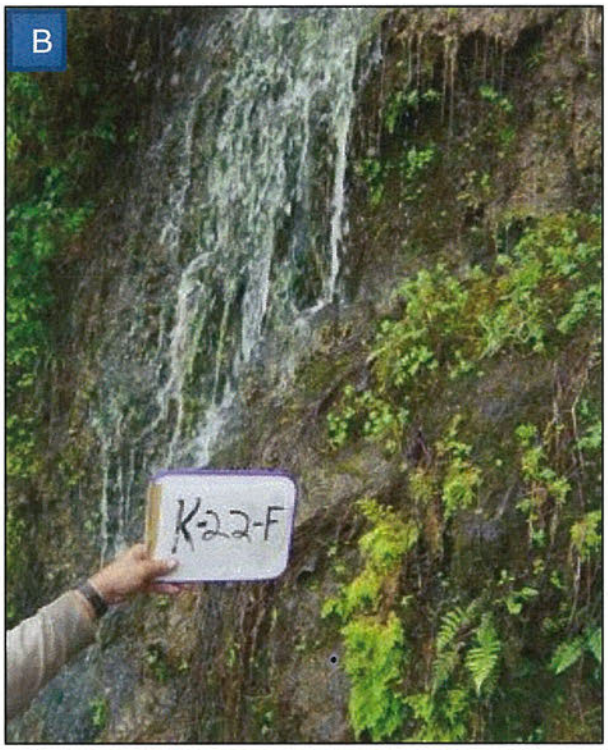
Sierra Club Hawaii Chapter. As noted previously, requested that the Commission not approve the category 4 permit application due to their concerns regarding the restoration of biological connectivity in the stream to support gathering practices. Recommended that unused infrastructure be removed. Asked how "dry sections" of stream between diversion structures will be avoided to ensure complete restoration of mauka-makai stream flows and where does the water go once the pipe was removed.

Commission Staff Recommendations: The Commission staff, with assistance from EMI, shall conduct a site reconnaissance of the subject diversion in early 2020 to verify diversion location and conditions to determine if any further actions are required such as removal of discarded material, removal of accessory structures, and/or sealing of intakes. The Commission staff shall work with EMI to ensure performance of work actions identified and will conduct a site inspection upon completion of the work.

7. Number 10 crosscut intake at Ko'olau Ditch, #5 of 6 (K-22f). Concrete catchment basin with pipe.

EMI Actions. Pipe (A) was capped/removed in 2007.

Photos. A) Concrete catchment basin captures seepage and transports water to Ko'olau Ditch by a PVC pipe (EMI, 1989); B) Water flowing downstream from catchment basin above (RMT, 2007).



DOFAW comments. As noted previously, with general concerns:

1. Walls, structures, or channels that alter the natural course of the stream can restrict flow. Stagnant waters become breeding sites for mosquitoes and are vectors for introduced diseases and are a major threat to native forest birds.
2. The use of pipes or other structures obstruct fish passage.
3. Stream alteration can result in high levels of erosion and adversely affect water quality.
4. Abandonment of accessory structures, including pipes, pump houses, intakes, mechanisms, or other items no longer in use, may become derelict if not maintained.

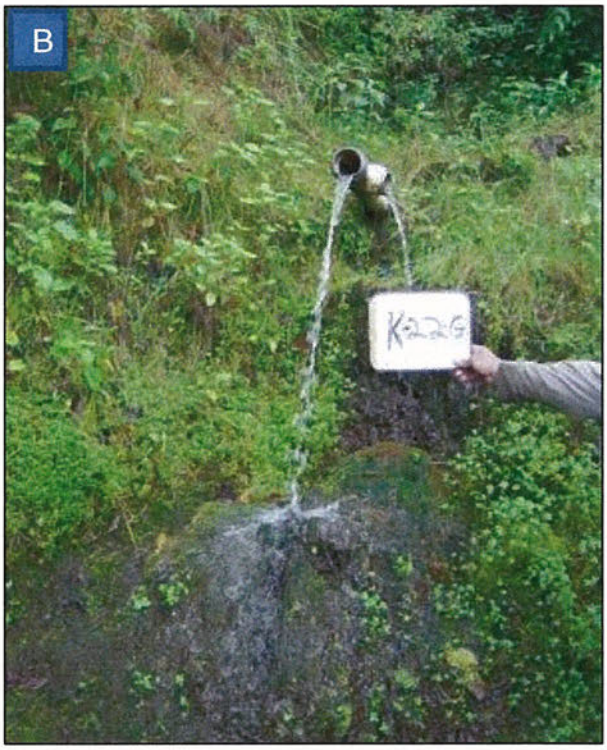
Sierra Club Hawaii Chapter. As noted previously, requested that the Commission not approve the category 4 permit application due to their concerns regarding the restoration of biological connectivity in the stream to support gathering practices. Recommended that unused infrastructure be removed. Asked how "dry sections" of stream between diversion structures will be avoided to ensure complete restoration of mauka-makai stream flows and where does the water go once the pipe was removed.

Commission Staff Recommendations: The Commission staff, with assistance from EMI, shall conduct a site reconnaissance of the subject diversion in early 2020 to verify diversion location and conditions to determine if any further actions are required such as removal of discarded material, removal of accessory structures, and/or sealing of intakes. The Commission staff shall work with EMI to ensure performance of work actions identified and will conduct a site inspection upon completion of the work.

8. Number 10 crosscut intake at Ko'olau Ditch, #6 of 6 (K-22g). Concrete catchment basin with pipe.

EMI Actions. Pipe (A) was capped/removed in 2007.

Photos. A) Concrete catchment basin captures seepage and transports water to Ko'olau Ditch by a PVC pipe (EMI, 1989); B) Close-up view of disconnected PVC pipe outlet from catchment basin (RMT, 2007).



DOFAW comments. As noted previously, with general concerns:

1. Walls, structures, or channels that alter the natural course of the stream can restrict flow. Stagnant waters become breeding sites for mosquitoes and are vectors for introduced diseases and are a major threat to native forest birds.
2. The use of pipes or other structures obstruct fish passage.
3. Stream alteration can result in high levels of erosion and adversely affect water quality.
4. Abandonment of accessory structures, including pipes, pump houses, intakes, mechanisms, or other items no longer in use, may become derelict if not maintained.

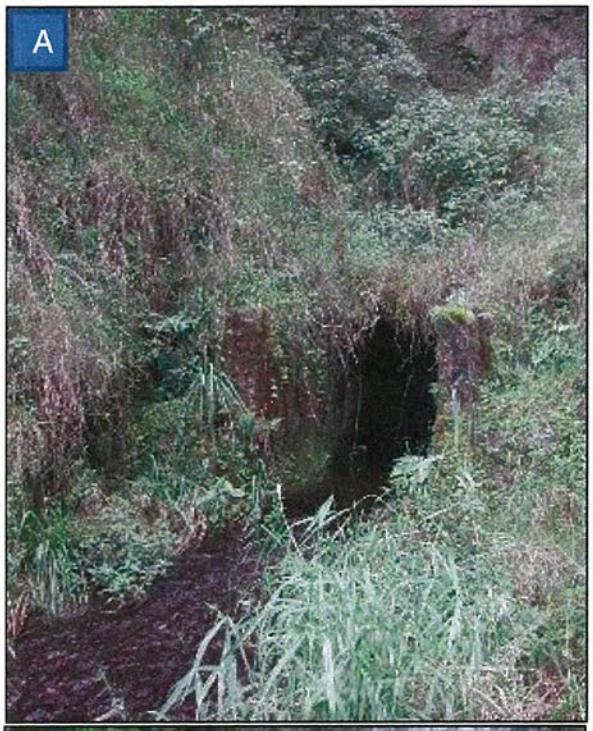
Sierra Club Hawaii Chapter. As noted previously, requested that the Commission not approve the category 4 permit application due to their concerns regarding the restoration of biological connectivity in the stream to support gathering practices. Recommended that unused infrastructure be removed. Asked how "dry sections" of stream between diversion structures will be avoided to ensure complete restoration of mauka-makai stream flows and where does the water go once the pipe was removed.

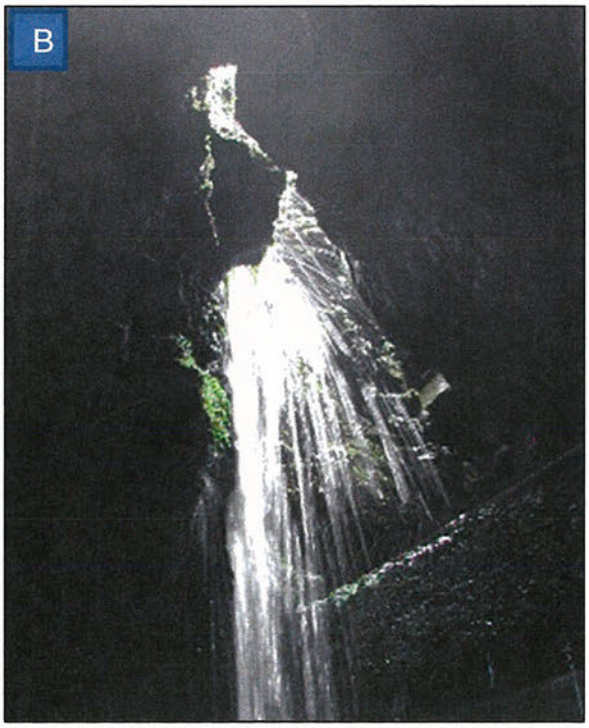
Commission Staff Recommendations: The Commission staff, with assistance from EMI, shall conduct a site reconnaissance of the subject diversion in early 2020 to verify diversion location and conditions to determine if any further actions are required such as removal of discarded material, removal of accessory structures, and/or sealing of intakes. The Commission staff shall work with EMI to ensure performance of work actions identified and will conduct a site inspection upon completion of the work.

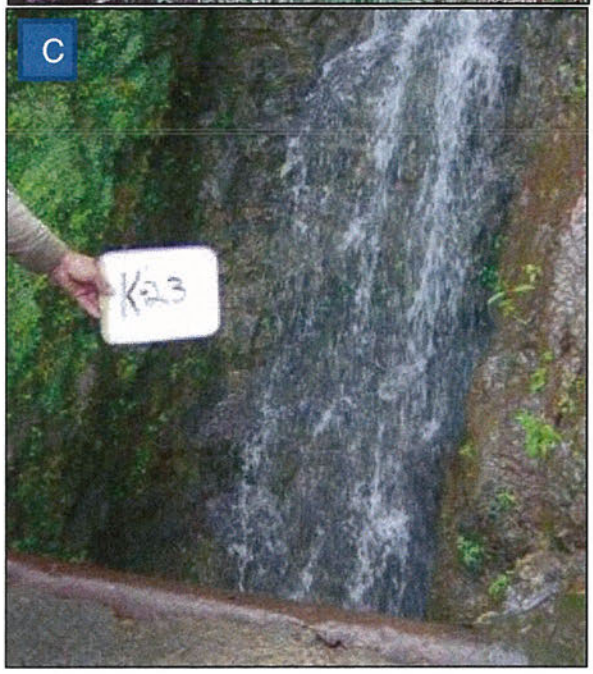
9. Waiokamilo #11 Intake at Ko'olau Ditch (K-23). The diversion structure is concrete with a divertible capacity of 20 mgd, controlled by the size of the opening.

EMI Actions. Boards and fill material (A) placed in tunnel to block water from entering Ko'olau Ditch.

Photos. A) Water from the cliffside would drop into an access tunnel, but after sealing the water flows out from the access tunnel; B) Water drops from the cliffside into the access tunnel; C) Water flows from above the cliff and goes under the road (RMT, 12/2007).







DOFAW comments. As noted previously, with general concerns:

1. Walls, structures, or channels that alter the natural course of the stream can restrict flow. Stagnant waters become breeding sites for mosquitoes and are vectors for introduced diseases and are a major threat to native forest birds.
2. The use of pipes or other structures obstruct fish passage.
3. Stream alteration can result in high levels of erosion and adversely affect water quality.
4. Abandonment of accessory structures, including pipes, pump houses, intakes, mechanisms, or other items no longer in use, may become derelict if not maintained.

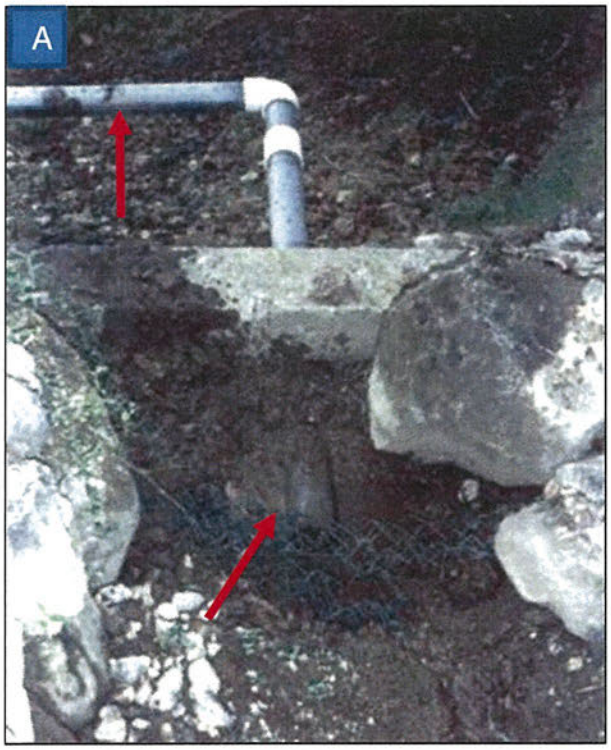
Sierra Club Hawaii Chapter. As noted previously, requested that the Commission not approve the category 4 permit application due to their concerns regarding the restoration of biological connectivity in the stream to support gathering practices. Recommended that unused infrastructure be removed. Asked how "dry sections" of stream between diversion structures will be avoided to ensure complete restoration of mauka-makai stream flows and where does the water go once the pipe was removed.

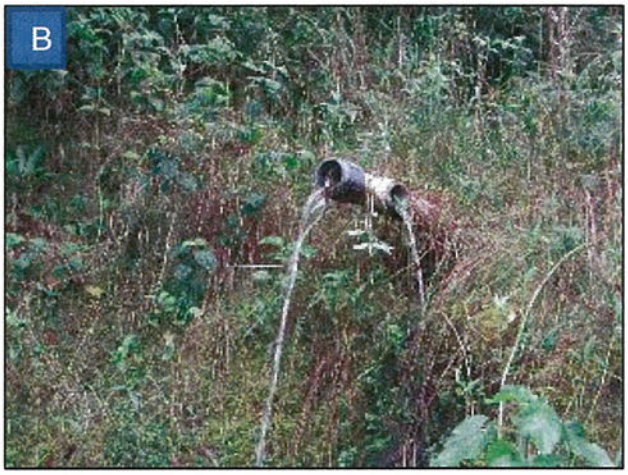
Commission Staff Recommendations: The Commission staff, with assistance from EMI, shall conduct a site reconnaissance of the subject diversion in early 2020 to verify diversion location and conditions to determine if any further actions are required such as removal of discarded material, removal of accessory structures, and/or sealing of intakes. The Commission staff shall work with EMI to ensure performance of work actions identified and will conduct a site inspection upon completion of the work.

10. 4-inch pipe east of #11 intake at Ko'olau Ditch (K-23a). Concrete catchment basin with pipe.

EMI Actions. Pipe (A) was removed in 2007.

Photos. A) Concrete catchment basin captures seepage and transports water to Ko'olau Ditch by a PVC pipe (EMI, 1989); B) The pipe that conveyed water to the Ko'olau Ditch was severed adjacent to the access road.





DOFAW comments. As noted previously, with general concerns:

1. Walls, structures, or channels that alter the natural course of the stream can restrict flow. Stagnant waters become breeding sites for mosquitoes and are vectors for introduced diseases and are a major threat to native forest birds.
2. The use of pipes or other structures obstruct fish passage.
3. Stream alteration can result in high levels of erosion and adversely affect water quality.
4. Abandonment of accessory structures, including pipes, pump houses, intakes, mechanisms, or other items no longer in use, may become derelict if not maintained.

Sierra Club Hawaii Chapter. As noted previously, requested that the Commission not approve the category 4 permit application due to their concerns regarding the restoration of biological connectivity in the stream to support gathering practices. Recommended that unused infrastructure be removed. Asked how "dry sections" of stream between diversion structures will be avoided to ensure complete restoration of mauka-makai stream flows and where does the water go once the pipe was removed.

Commission Staff Recommendations: The Commission staff, with assistance from EMI, shall conduct a site reconnaissance of the subject diversion in early 2020 to verify diversion location and conditions to determine if any further actions are required such as removal of discarded material, removal of accessory structures, and/or sealing of intakes. The Commission staff shall work with EMI to ensure performance of work actions identified and will conduct a site inspection upon completion of the work.

11. Waiokamilo #12 intake at Ko'olau Ditch (K-24). The diversion structure is concrete with a divertible capacity of 9 mgd, controlled by the size of the opening.

EMI Actions. Diversion (A) closed in 2007. Concreted over diversion intake. Flow continues downstream.

Photos. A) Diversion intake structure (EMI, 1989); B) Intake K-24 flowing downstream (RMT, 2007).

DOFAW comments. As noted previously, with general concerns:

1. Walls, structures, or channels that alter the natural course of the stream can restrict flow. Stagnant waters become breeding sites for mosquitoes and are vectors for introduced diseases and are a major threat to native forest birds.
2. The use of pipes or other structures obstruct fish passage.
3. Stream alteration can result in high levels of erosion and adversely affect water quality.
4. Abandonment of accessory structures, including pipes, pump houses, intakes, mechanisms, or other items no longer in use, may become derelict if not maintained.

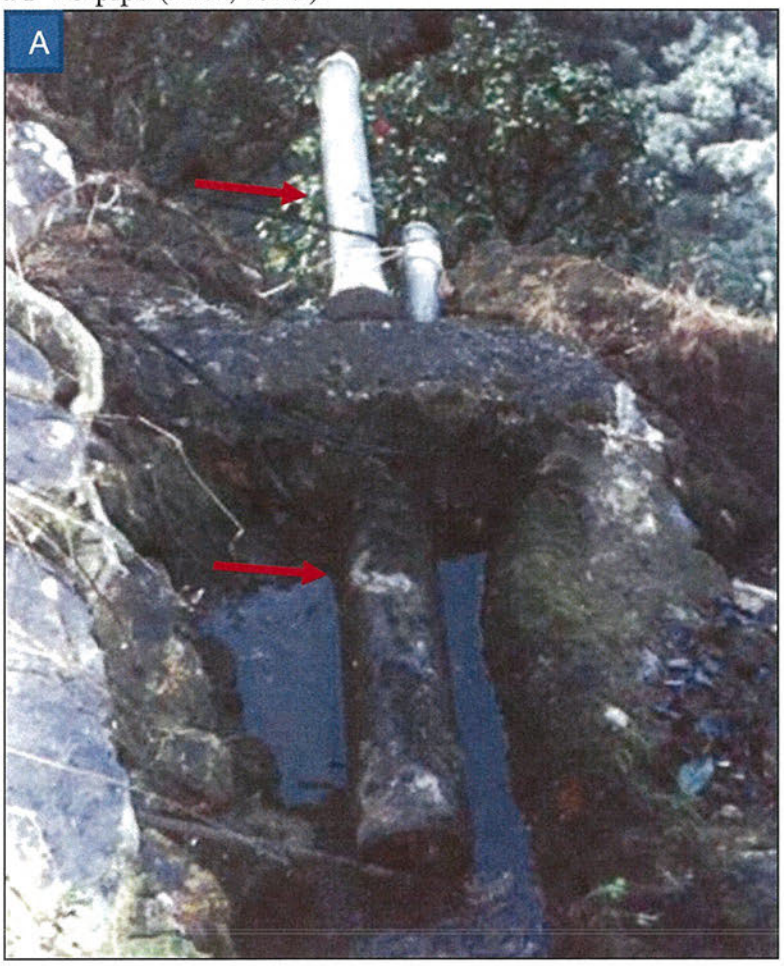
Sierra Club Hawaii Chapter. As noted previously, requested that the Commission not approve the category 4 permit application due to their concerns regarding the restoration of biological connectivity in the stream to support gathering practices. Recommended that unused infrastructure be removed. Asked how "dry sections" of stream between diversion structures will be avoided to ensure complete restoration of mauka-makai stream flows and where does the water go once the pipe was removed.

Commission Staff Recommendations: The Commission staff, with assistance from EMI, shall conduct a site reconnaissance of the subject diversion in early 2020 to verify diversion location and conditions to determine if any further actions are required such as removal of discarded material, removal of accessory structures, and/or sealing of intakes. The Commission staff shall work with EMI to ensure performance of work actions identified and will conduct a site inspection upon completion of the work.

12. Number 12 crosscut intake at Ko'olau Ditch #1 of 5 (K-24a). Concrete catchment basin with pipe.

EMI Actions. Pipe (A) was removed in 2007.

Photo. A) Concrete catchment basin captures seepage and transports water to Ko'olau Ditch by a PVC pipe (EMI, 1989).



DOFAW comments. As noted previously, with general concerns:

1. Walls, structures, or channels that alter the natural course of the stream can restrict flow. Stagnant waters become breeding sites for mosquitoes and are vectors for introduced diseases and are a major threat to native forest birds.
2. The use of pipes or other structures obstruct fish passage.
3. Stream alteration can result in high levels of erosion and adversely affect water quality.
4. Abandonment of accessory structures, including pipes, pump houses, intakes, mechanisms, or other items no longer in use, may become derelict if not maintained.

Sierra Club Hawaii Chapter. As noted previously, requested that the Commission not approve the category 4 permit application due to their concerns regarding the restoration of biological

connectivity in the stream to support gathering practices. Recommended that unused infrastructure be removed. Asked how "dry sections" of stream between diversion structures will be avoided to ensure complete restoration of mauka-makai stream flows and where does the water go once the pipe was removed.

Commission Staff Recommendations: The Commission staff, with assistance from EMI, shall conduct a site reconnaissance of the subject diversion in early 2020 to verify diversion location and conditions to determine if any further actions are required such as removal of discarded material, removal of accessory structures, and/or sealing of intakes. The Commission staff shall work with EMI to ensure performance of work actions identified and will conduct a site inspection upon completion of the work.

13. Number 12 crosscut intake at Ko'olau Ditch #2 of 5 (K-24b). Concrete catchment basin with pipe.

EMI Actions. Pipe (A) was removed in 2007.

Photo. A) Concrete catchment basin captures seepage and transports water to Ko'olau Ditch below by a PVC pipe (EMI, 05/1989).

DOFAW comments. As noted previously, with general concerns:

1. Walls, structures, or channels that alter the natural course of the stream can restrict flow. Stagnant waters become breeding sites for mosquitoes and are vectors for introduced diseases and are a major threat to native forest birds.
2. The use of pipes or other structures obstruct fish passage.
3. Stream alteration can result in high levels of erosion and adversely affect water quality.
4. Abandonment of accessory structures, including pipes, pump houses, intakes, mechanisms, or other items no longer in use, may become derelict if not maintained.

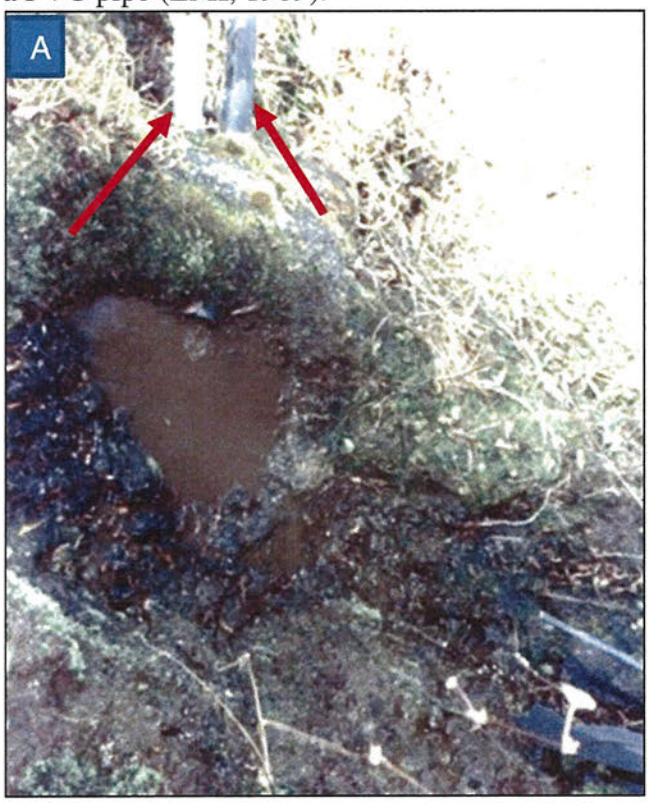
Sierra Club Hawaii Chapter. As noted previously, requested that the Commission not approve the category 4 permit application due to their concerns regarding the restoration of biological connectivity in the stream to support gathering practices. Recommended that unused infrastructure be removed. Asked how "dry sections" of stream between diversion structures will be avoided to ensure complete restoration of mauka-makai stream flows and where does the water go once the pipe was removed.

Commission Staff Recommendations: The Commission staff, with assistance from EMI, shall conduct a site reconnaissance of the subject diversion in early 2020 to verify diversion location and conditions to determine if any further actions are required such as removal of discarded material, removal of accessory structures, and/or sealing of intakes. The Commission staff shall work with EMI to ensure performance of work actions identified and will conduct a site inspection upon completion of the work.

14. Number 12 crosscut intake at Ko'olau Ditch #3 of 5 (K-24c). Concrete catchment basin with pipe.

EMI Actions. Pipes (A) were removed in 2007.

Photo. A) Concrete catchment basin captures seepage and transports water to Ko'olau Ditch by a PVC pipe (EMI, 1989).



DOFAW comments. As noted previously, with general concerns:

1. Walls, structures, or channels that alter the natural course of the stream can restrict flow. Stagnant waters become breeding sites for mosquitoes and are vectors for introduced diseases and are a major threat to native forest birds.
2. The use of pipes or other structures obstruct fish passage.
3. Stream alteration can result in high levels of erosion and adversely affect water quality.
4. Abandonment of accessory structures, including pipes, pump houses, intakes, mechanisms, or other items no longer in use, may become derelict if not maintained.

Sierra Club Hawaii Chapter. As noted previously, requested that the Commission not approve the category 4 permit application due to their concerns regarding the restoration of biological connectivity in the stream to support gathering practices. Recommended that unused infrastructure be removed. Asked how "dry sections" of stream between diversion structures will be avoided to ensure complete restoration of mauka-makai stream flows and where does the water go once the pipe was removed.

Commission Staff Recommendations: The Commission staff, with assistance from EMI, shall conduct a site reconnaissance of the subject diversion in early 2020 to verify diversion location and conditions to determine if any further actions are required such as removal of discarded material, removal of accessory structures, and/or sealing of intakes. The Commission staff shall work with EMI to ensure performance of work actions identified and will conduct a site inspection upon completion of the work.

15. Number 12 crosscut intake at Ko'olau Ditch #4 of 5 (K-24d). Concrete catchment basin with pipe.

EMI Actions. Pipes (A) were removed in 2007.

Photo. A) Concrete catchment basin captures seepage and transports water to Ko'olau Ditch by a PVC pipe (EMI, 1989).

DOFAW comments. As noted previously, with general concerns:

1. Walls, structures, or channels that alter the natural course of the stream can restrict flow. Stagnant waters become breeding sites for mosquitoes and are vectors for introduced diseases and are a major threat to native forest birds.
2. The use of pipes or other structures obstruct fish passage.
3. Stream alteration can result in high levels of erosion and adversely affect water quality.
4. Abandonment of accessory structures, including pipes, pump houses, intakes, mechanisms, or other items no longer in use, may become derelict if not maintained.

Sierra Club Hawaii Chapter. As noted previously, requested that the Commission not approve the category 4 permit application due to their concerns regarding the restoration of biological connectivity in the stream to support gathering practices. Recommended that unused infrastructure be removed. Asked how "dry sections" of stream between diversion structures

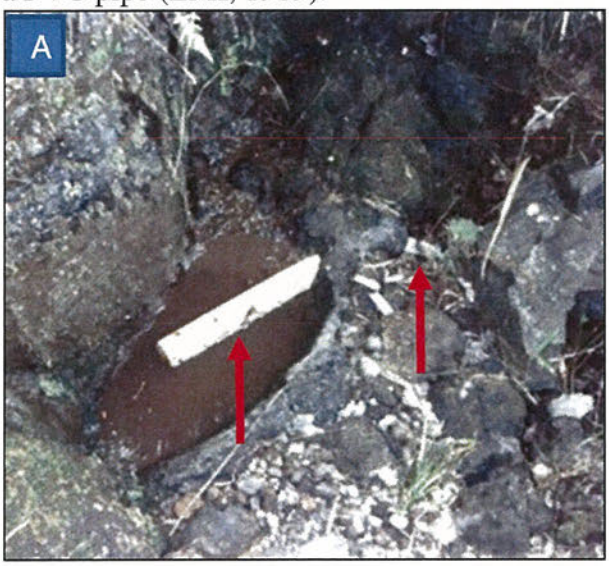
will be avoided to ensure complete restoration of mauka-makai stream flows and where does the water go once the pipe was removed.

Commission Staff Recommendations: The Commission staff, with assistance from EMI, shall conduct a site reconnaissance of the subject diversion in early 2020 to verify diversion location and conditions to determine if any further actions are required such as removal of discarded material, removal of accessory structures, and/or sealing of intakes. The Commission staff shall work with EMI to ensure performance of work actions identified and will conduct a site inspection upon completion of the work.

16. Number 12 crosscut intake at Ko'olau Ditch #5 of 5 (K-24e). Concrete catchment basin with pipe.

EMI Actions. Pipe (A) was removed in 2007.

Photos. A) Concrete catchment basin captures seepage and transports water to Ko'olau Ditch by a PVC pipe (EMI, 1989).



DOFAW comments. As noted previously, with general concerns:

1. Walls, structures, or channels that alter the natural course of the stream can restrict flow. Stagnant waters become breeding sites for mosquitoes and are vectors for introduced diseases and are a major threat to native forest birds.
2. The use of pipes or other structures obstruct fish passage.
3. Stream alteration can result in high levels of erosion and adversely affect water quality.
4. Abandonment of accessory structures, including pipes, pump houses, intakes, mechanisms, or other items no longer in use, may become derelict if not maintained.

Sierra Club Hawaii Chapter. As noted previously, requested that the Commission not approve the category 4 permit application due to their concerns regarding the restoration of biological connectivity in the stream to support gathering practices. Recommended that unused infrastructure be removed. Asked how "dry sections" of stream between diversion structures will be avoided to ensure complete restoration of mauka-makai stream flows and where does the water go once the pipe was removed.

Commission Staff Recommendations: The Commission staff, with assistance from EMI, shall conduct a site reconnaissance of the subject diversion in early 2020 to verify diversion location and conditions to determine if any further actions are required such as removal of discarded material, removal of accessory structures, and/or sealing of intakes. The Commission staff shall work with EMI to ensure performance of work actions identified and will conduct a site inspection upon completion of the work.

17. Small intake west of number 12 crosscut intake at Ko'olau Ditch #1 of 6 (K-24f). Concrete catchment basin with pipe.

EMI Actions. Pipe (A) was removed in 2007.

Photo. A) Concrete catchment basin captures seepage and transports water to Ko'olau Ditch by a PVC pipe (EMI, 1989).

DOFAW comments. As noted previously, with general concerns:

1. Walls, structures, or channels that alter the natural course of the stream can restrict flow. Stagnant waters become breeding sites for mosquitoes and are vectors for introduced diseases and are a major threat to native forest birds.
2. The use of pipes or other structures obstruct fish passage.
3. Stream alteration can result in high levels of erosion and adversely affect water quality.
4. Abandonment of accessory structures, including pipes, pump houses, intakes, mechanisms, or other items no longer in use, may become derelict if not maintained.

Sierra Club Hawaii Chapter. As noted previously, requested that the Commission not approve the category 4 permit application due to their concerns regarding the restoration of biological connectivity in the stream to support gathering practices. Recommended that unused infrastructure be removed. Asked how "dry sections" of stream between diversion structures will be avoided to ensure complete restoration of mauka-makai stream flows and where does the water go once the pipe was removed.

Commission Staff Recommendations: The Commission staff, with assistance from EMI, shall conduct a site reconnaissance of the subject diversion in early 2020 to verify diversion location

and conditions to determine if any further actions are required such as removal of discarded material, removal of accessory structures, and/or sealing of intakes. The Commission staff shall work with EMI to ensure performance of work actions identified and will conduct a site inspection upon completion of the work.

18. Small intake west of number 12 crosscut intake at Ko'olau Ditch #2 of 6 (K-24g). Concrete catchment basin with pipe.

EMI Actions. Pipe (A) was removed in 2007.

Photo. A) Concrete catchment basin captures seepage and transports water to Ko'olau Ditch by a PVC pipe (EMI, 1989).

DOFAW comments. As noted previously, with general concerns:

1. Walls, structures, or channels that alter the natural course of the stream can restrict flow. Stagnant waters become breeding sites for mosquitoes and are vectors for introduced diseases and are a major threat to native forest birds.
2. The use of pipes or other structures obstruct fish passage.
3. Stream alteration can result in high levels of erosion and adversely affect water quality.
4. Abandonment of accessory structures, including pipes, pump houses, intakes, mechanisms, or other items no longer in use, may become derelict if not maintained.

Sierra Club Hawaii Chapter. As noted previously, requested that the Commission not approve the category 4 permit application due to their concerns regarding the restoration of biological connectivity in the stream to support gathering practices. Recommended that unused infrastructure be removed. Asked how "dry sections" of stream between diversion structures will be avoided to ensure complete restoration of mauka-makai stream flows and where does the water go once the pipe was removed.

Commission Staff Recommendations: The Commission staff, with assistance from EMI, shall conduct a site reconnaissance of the subject diversion in early 2020 to verify diversion location and conditions to determine if any further actions are required such as removal of discarded material, removal of accessory structures, and/or sealing of intakes. The Commission staff shall

work with EMI to ensure performance of work actions identified and will conduct a site inspection upon completion of the work.

19. Small intake west of number 12 crosscut intake at Ko'olau Ditch #3 of 6 (K-24h). Stream tributary captured by ditch.

EMI Actions. Pipe (A) was removed in 2007.

Photo. A) Concrete catchment basin captures seepage and transports water to Ko'olau Ditch by a PVC pipe (EMI, 1989).

DOFAW comments. As noted previously, with general concerns:

1. Walls, structures, or channels that alter the natural course of the stream can restrict flow. Stagnant waters become breeding sites for mosquitoes and are vectors for introduced diseases and are a major threat to native forest birds.
2. The use of pipes or other structures obstruct fish passage.
3. Stream alteration can result in high levels of erosion and adversely affect water quality.
4. Abandonment of accessory structures, including pipes, pump houses, intakes, mechanisms, or other items no longer in use, may become derelict if not maintained.

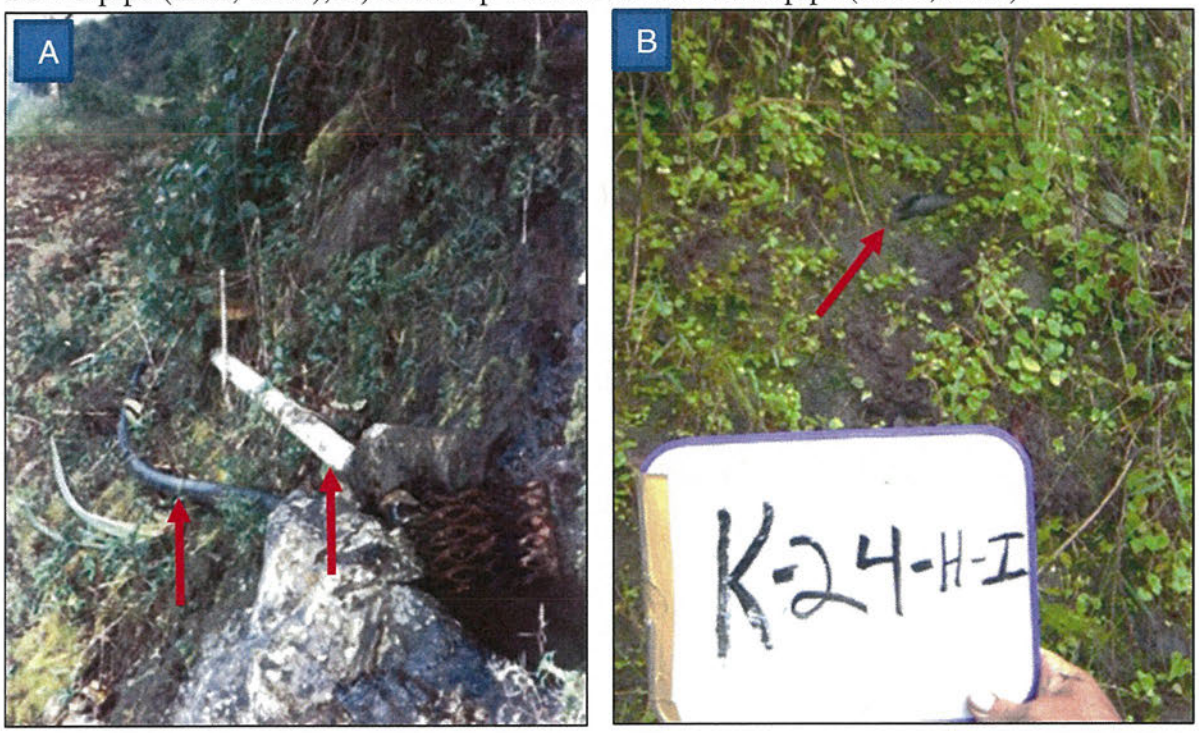
Sierra Club Hawaii Chapter. As noted previously, requested that the Commission not approve the category 4 permit application due to their concerns regarding the restoration of biological connectivity in the stream to support gathering practices. Recommended that unused infrastructure be removed. Asked how "dry sections" of stream between diversion structures will be avoided to ensure complete restoration of mauka-makai stream flows and where does the water go once the pipe was removed.

Commission Staff Recommendations: The Commission staff, with assistance from EMI, shall conduct a site reconnaissance of the subject diversion in early 2020 to verify diversion location and conditions to determine if any further actions are required such as removal of discarded material, removal of accessory structures, and/or sealing of intakes. The Commission staff shall work with EMI to ensure performance of work actions identified and will conduct a site inspection upon completion of the work.

20. Small intake west of number 12 crosscut intake at Ko'olau Ditch #4 of 6 (K-24i). Concrete catchment basin with pipe.

EMI Actions. Pipes (A) were removed in 2007.

Photos. A) Concrete catchment basin captures seepage and transports water to Ko'olau Ditch by a PVC pipe (EMI, 1989); B) Close-up view of disconnected pipe (RMT, 2007).



DOFAW comments. As noted previously, with general concerns:

1. Walls, structures, or channels that alter the natural course of the stream can restrict flow. Stagnant waters become breeding sites for mosquitoes and are vectors for introduced diseases and are a major threat to native forest birds.
2. The use of pipes or other structures obstruct fish passage.
3. Stream alteration can result in high levels of erosion and adversely affect water quality.
4. Abandonment of accessory structures, including pipes, pump houses, intakes, mechanisms, or other items no longer in use, may become derelict if not maintained.

Sierra Club Hawaii Chapter. As noted previously, requested that the Commission not approve the category 4 permit application due to their concerns regarding the restoration of biological connectivity in the stream to support gathering practices. Recommended that unused infrastructure be removed. Asked how "dry sections" of stream between diversion structures will be avoided to ensure complete restoration of mauka-makai stream flows and where does the water go once the pipe was removed.

Commission Staff Recommendations: The Commission staff, with assistance from EMI, shall conduct a site reconnaissance of the subject diversion in early 2020 to verify diversion location and conditions to determine if any further actions are required such as removal of discarded material, removal of accessory structures, and/or sealing of intakes. The Commission staff shall work with EMI to ensure performance of work actions identified and will conduct a site inspection upon completion of the work.

21. Small intake west of number 12 crosscut intake at Ko'olau Ditch #5 of 6 (K-24j).

EMI Actions. Pipe (A) was removed in 2007.

Photo. A) Concrete catchment basin captures seepage and transports water to Ko'olau Ditch by a PVC pipe (EMI, 1989).

DOFAW comments. As noted previously, with general concerns:

1. Walls, structures, or channels that alter the natural course of the stream can restrict flow. Stagnant waters become breeding sites for mosquitoes and are vectors for introduced diseases and are a major threat to native forest birds.
2. The use of pipes or other structures obstruct fish passage.
3. Stream alteration can result in high levels of erosion and adversely affect water quality.
4. Abandonment of accessory structures, including pipes, pump houses, intakes, mechanisms, or other items no longer in use, may become derelict if not maintained.

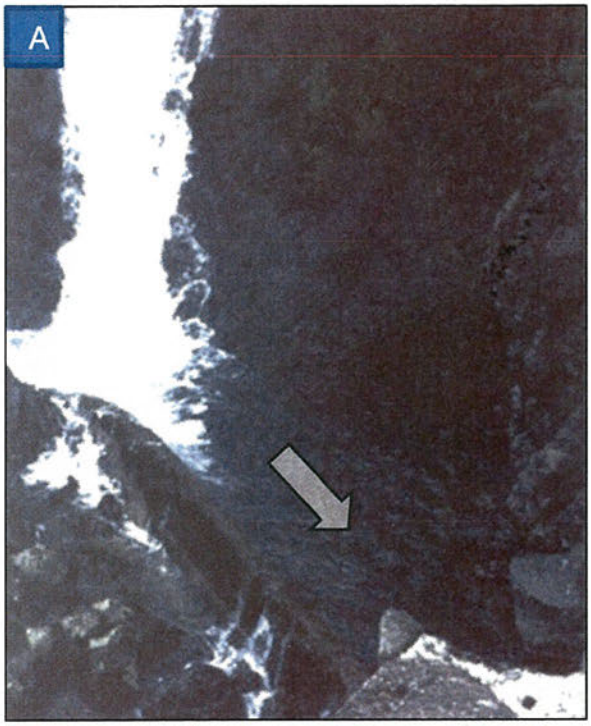
Sierra Club Hawaii Chapter. As noted previously, requested that the Commission not approve the category 4 permit application due to their concerns regarding the restoration of biological connectivity in the stream to support gathering practices. Recommended that unused infrastructure be removed. Asked how "dry sections" of stream between diversion structures will be avoided to ensure complete restoration of mauka-makai stream flows and where does the water go once the pipe was removed.

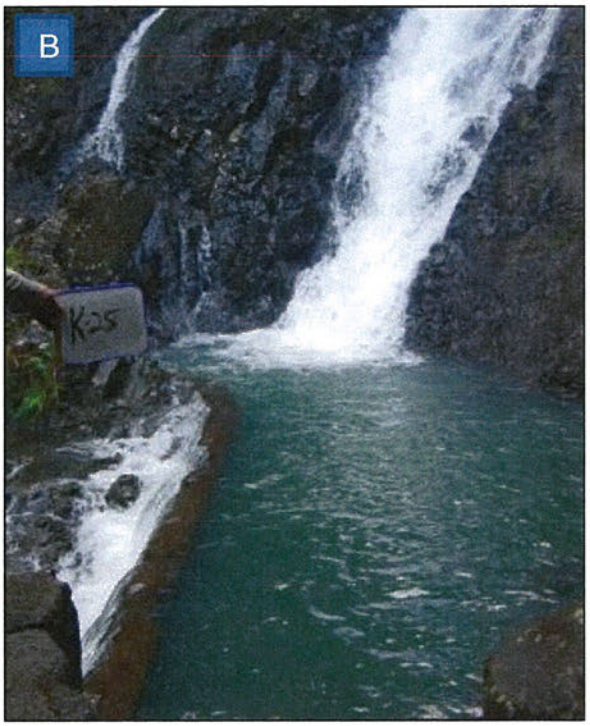
Commission Staff Recommendations: The Commission staff, with assistance from EMI, shall conduct a site reconnaissance of the subject diversion in early 2020 to verify diversion location and conditions to determine if any further actions are required such as removal of discarded material, removal of accessory structures, and/or sealing of intakes. The Commission staff shall work with EMI to ensure performance of work actions identified and will conduct a site inspection upon completion of the work.

22. Waiokamilo Kikokiko intake at Ko'olau Ditch (K-25). The diversion structure is concrete with a divertible capacity of 7 mgd, controlled by a wooden gate.

EMI Actions. Intake (A) was sealed with concrete in 2007.

Photos. A) The diversion intake captures water at the foot of the falls and directs it into the intake at bottom right (EMI, 1989); B) Photo is taken after intake was sealed with concrete and allows water to flow downstream (RMT, 2007); C) Water would normally flow into the intake structure on the left bank below the falls (RMT, 2007).





Photos. D) Water flows down a flume towards the Ko'olau Ditch (RMT, 2007); E) Water continues to flow downstream as a result of the intake closure (RMT, 2007); F) Conveyance ditch from diversion to Ko'olau Ditch looking upstream and G) Conveyance ditch from diversion to Ko'olau Ditch looking downstream (CWRM, 2008).

Photos. H) Site photo (CWRM, 2008).

DOFAW comments. As noted previously, with general concerns:

1. Walls, structures, or channels that alter the natural course of the stream can restrict flow. Stagnant waters become breeding sites for mosquitoes and are vectors for introduced diseases and are a major threat to native forest birds.
2. The use of pipes or other structures obstruct fish passage.
3. Stream alteration can result in high levels of erosion and adversely affect water quality.
4. Abandonment of accessory structures, including pipes, pump houses, intakes, mechanisms, or other items no longer in use, may become derelict if not maintained.

Sierra Club Hawaii Chapter. As noted previously, requested that the Commission not approve the category 4 permit application due to their concerns regarding the restoration of biological connectivity in the stream to support gathering practices. Recommended that unused infrastructure be removed. Asked how "dry sections" of stream between diversion structures will be avoided to ensure complete restoration of mauka-makai stream flows and where does the water go once the pipe was removed.

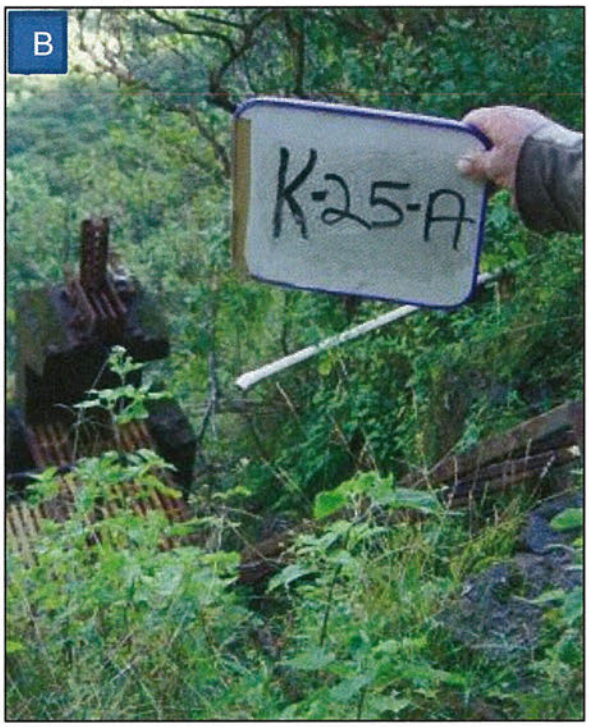
Commission Staff Recommendations: The Commission staff, with assistance from EMI, shall conduct a site reconnaissance of the subject diversion in early 2020 to verify diversion location and conditions to determine if any further actions are required such as removal of discarded

material, removal of accessory structures, and/or sealing of intakes. The Commission staff shall work with EMI to ensure performance of work actions identified and will conduct a site inspection upon completion of the work.

23. Small intake west of number 12 crosscut intake at Ko'olau Ditch #6 of 6 (K-25a). Concrete catchment basin with pipe.

EMI Actions. Pipe (A) was removed in 2007.

Photos. A) Concrete catchment basin captures seepage and transports water to Ko'olau Ditch by a PVC pipe (EMI, 1989); B) Downstream view from diversion structure (RMT, 2007); C) Water dropping into concrete catchment basin below roadway (RMT, 2007).



DOFAW comments. As noted previously, with general concerns:

1. Walls, structures, or channels that alter the natural course of the stream can restrict flow. Stagnant waters become breeding sites for mosquitoes and are vectors for introduced diseases and are a major threat to native forest birds.
2. The use of pipes or other structures obstruct fish passage.
3. Stream alteration can result in high levels of erosion and adversely affect water quality.
4. Abandonment of accessory structures, including pipes, pump houses, intakes, mechanisms, or other items no longer in use, may become derelict if not maintained.

Sierra Club Hawaii Chapter. As noted previously, requested that the Commission not approve the category 4 permit application due to their concerns regarding the restoration of biological connectivity in the stream to support gathering practices. Recommended that unused infrastructure be removed. Asked how "dry sections" of stream between diversion structures will be avoided to ensure complete restoration of mauka-makai stream flows and where does the water go once the pipe was removed.

Commission Staff Recommendations: The Commission staff, with assistance from EMI, shall conduct a site reconnaissance of the subject diversion in early 2020 to verify diversion location and conditions to determine if any further actions are required such as removal of discarded material, removal of accessory structures, and/or sealing of intakes. The Commission staff shall work with EMI to ensure performance of work actions identified and will conduct a site inspection upon completion of the work.

24. Kikokiko small intake at Ko'olau Ditch (K-25b). Concrete diversion structure with grate.

EMI Actions. Intake (A) was sealed with concrete in 2007.

Photos. A) Concrete diversion structure with intake grate (EMI, 1989); B) Diversion intake structure from right bank with intake grate cemented shut (RMT, 2007); C) Upstream view from intake (RMT, 2007); d) Downstream view from intake (RMT, 2007).

DOFAW comments. As noted previously, with general concerns:

1. Walls, structures, or channels that alter the natural course of the stream can restrict flow. Stagnant waters become breeding sites for mosquitoes and are vectors for introduced diseases and are a major threat to native forest birds.

2. The use of pipes or other structures obstruct fish passage.
3. Stream alteration can result in high levels of erosion and adversely affect water quality.
4. Abandonment of accessory structures, including pipes, pump houses, intakes, mechanisms, or other items no longer in use, may become derelict if not maintained.

Sierra Club Hawaii Chapter. As noted previously, requested that the Commission not approve the category 4 permit application due to their concerns regarding the restoration of biological connectivity in the stream to support gathering practices. Recommended that unused infrastructure be removed. Asked how "dry sections" of stream between diversion structures will be avoided to ensure complete restoration of mauka-makai stream flows and where does the water go once the pipe was removed.

Commission Staff Recommendations: The Commission staff, with assistance from EMI, shall conduct a site reconnaissance of the subject diversion in early 2020 to verify diversion location and conditions to determine if any further actions are required such as removal of discarded material, removal of accessory structures, and/or sealing of intakes. The Commission staff shall work with EMI to ensure performance of work actions identified and will conduct a site inspection upon completion of the work.

25. West Kikokiko small intake at Ko'olau Ditch #1 of 4 (K-25c). Concrete catchment basin with pipe.

EMI Actions. Pipe (A) was removed in 2007.

Photos. A) Concrete catchment basin captures seepage and transports water to Ko'olau Ditch by a PVC pipe (EMI, 1989); B) Upstream view from diversion structure with disconnected PVC pipe (RMT, 2007)

DOFAW comments. As noted previously, with general concerns:

1. Walls, structures, or channels that alter the natural course of the stream can restrict flow. Stagnant waters become breeding sites for mosquitoes and are vectors for introduced diseases and are a major threat to native forest birds.
2. The use of pipes or other structures obstruct fish passage.
3. Stream alteration can result in high levels of erosion and adversely affect water quality.
4. Abandonment of accessory structures, including pipes, pump houses, intakes, mechanisms, or other items no longer in use, may become derelict if not maintained.

Sierra Club Hawaii Chapter. As noted previously, requested that the Commission not approve the category 4 permit application due to their concerns regarding the restoration of biological connectivity in the stream to support gathering practices. Recommended that unused infrastructure be removed. Asked how "dry sections" of stream between diversion structures will be avoided to ensure complete restoration of mauka-makai stream flows and where does the water go once the pipe was removed.

Commission Staff Recommendations: The Commission staff, with assistance from EMI, shall conduct a site reconnaissance of the subject diversion in early 2020 to verify diversion location and conditions to determine if any further actions are required such as removal of discarded material, removal of accessory structures, and/or sealing of intakes. The Commission staff shall work with EMI to ensure performance of work actions identified and will conduct a site inspection upon completion of the work.

26. West Kikokiko small intake at Ko'olau Ditch #2 of 4 (K-25d).

EMI Actions. Pipe (A) was removed in 2007.

Photos. A) Concrete catchment basin captures seepage and transports water to Ko'olau Ditch by a PVC pipe (EMI, 1989); B) Outflow from catchment basin (RMT, 2007)

DOFAW comments. As noted previously, with general concerns:

1. Walls, structures, or channels that alter the natural course of the stream can restrict flow. Stagnant waters become breeding sites for mosquitoes and are vectors for introduced diseases and are a major threat to native forest birds.
2. The use of pipes or other structures obstruct fish passage.
3. Stream alteration can result in high levels of erosion and adversely affect water quality.
4. Abandonment of accessory structures, including pipes, pump houses, intakes, mechanisms, or other items no longer in use, may become derelict if not maintained.

Sierra Club Hawaii Chapter. As noted previously, requested that the Commission not approve the category 4 permit application due to their concerns regarding the restoration of biological connectivity in the stream to support gathering practices. Recommended that unused infrastructure be removed. Asked how "dry sections" of stream between diversion structures will be avoided to ensure complete restoration of mauka-makai stream flows and where does the water go once the pipe was removed.

Commission Staff Recommendations: The Commission staff, with assistance from EMI, shall conduct a site reconnaissance of the subject diversion in early 2020 to verify diversion location

and conditions to determine if any further actions are required such as removal of discarded material, removal of accessory structures, and/or sealing of intakes. The Commission staff shall work with EMI to ensure performance of work actions identified and will conduct a site inspection upon completion of the work.

27. West Kikokiko small intake at Ko'olau Ditch #3 of 4 (K-25e). Concrete catchment basin with pipe.

EMI Actions. Pipes (A) were removed in 2007.

Photos. A) Concrete catchment basin captures seepage and transports water to Ko'olau Ditch by a PVC pipe (EMI, 1989); B) Water flowing downstream below catchment basin from disconnected PVC pipes (RMT, 2007)

DOFAW comments. As noted previously, with general concerns:

1. Walls, structures, or channels that alter the natural course of the stream can restrict flow. Stagnant waters become breeding sites for mosquitoes and are vectors for introduced diseases and are a major threat to native forest birds.
2. The use of pipes or other structures obstruct fish passage.
3. Stream alteration can result in high levels of erosion and adversely affect water quality.
4. Abandonment of accessory structures, including pipes, pump houses, intakes, mechanisms, or other items no longer in use, may become derelict if not maintained.

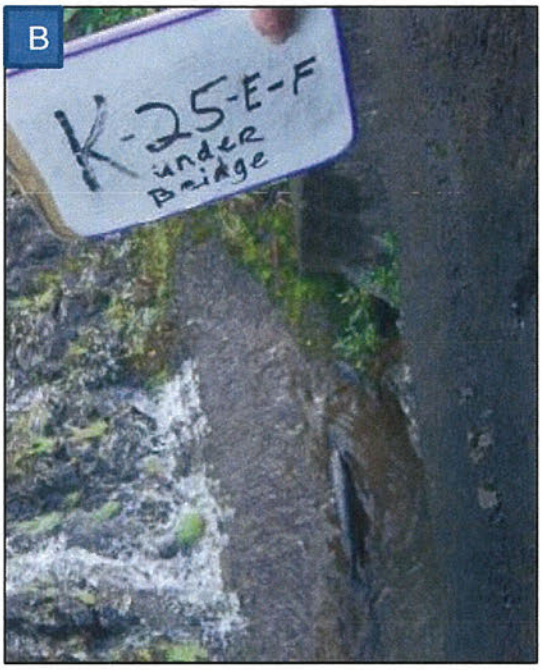
Sierra Club Hawaii Chapter. As noted previously, requested that the Commission not approve the category 4 permit application due to their concerns regarding the restoration of biological connectivity in the stream to support gathering practices. Recommended that unused infrastructure be removed. Asked how "dry sections" of stream between diversion structures will be avoided to ensure complete restoration of mauka-makai stream flows and where does the water go once the pipe was removed.

Commission Staff Recommendations: The Commission staff, with assistance from EMI, shall conduct a site reconnaissance of the subject diversion in early 2020 to verify diversion location and conditions to determine if any further actions are required such as removal of discarded material, removal of accessory structures, and/or sealing of intakes. The Commission staff shall work with EMI to ensure performance of work actions identified and will conduct a site inspection upon completion of the work.

28. West Kikokiko small intake at Ko'olau Ditch #4 of 4 (K-25f).

EMI Actions. Pipe (A) was removed in 2007.

Photos. A) Downstream view of PVC pipe intake under roadway bridge (EMI, 1989); B) View from atop bridge of PVC pipe intake below (RMT, 2007).



DOFAW comments. As noted previously, with general concerns:

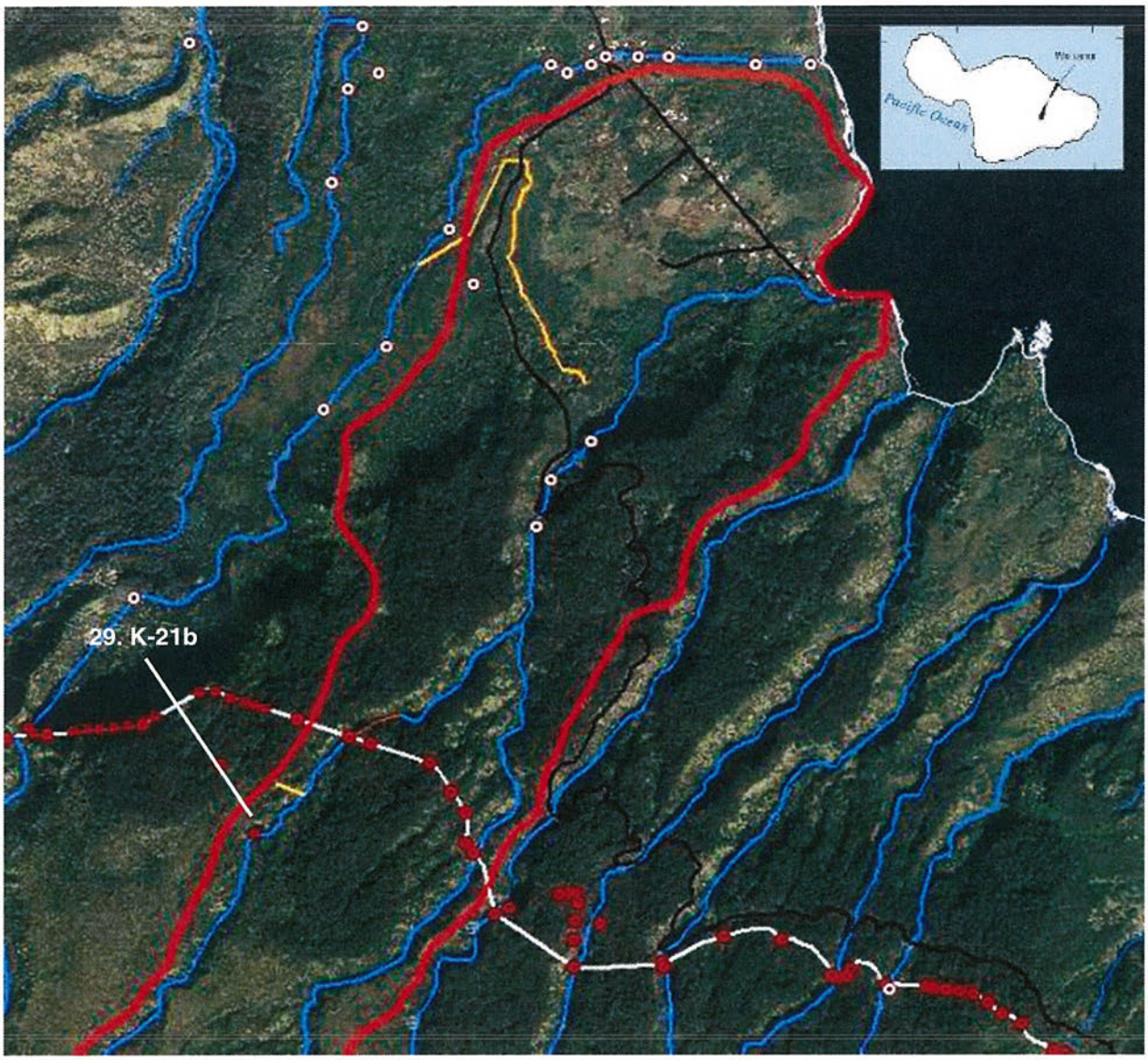
1. Walls, structures, or channels that alter the natural course of the stream can restrict flow. Stagnant waters become breeding sites for mosquitoes and are vectors for introduced diseases and are a major threat to native forest birds.
2. The use of pipes or other structures obstruct fish passage.
3. Stream alteration can result in high levels of erosion and adversely affect water quality.
4. Abandonment of accessory structures, including pipes, pump houses, intakes, mechanisms, or other items no longer in use, may become derelict if not maintained.

Sierra Club Hawaii Chapter. As noted previously, requested that the Commission not approve the category 4 permit application due to their concerns regarding the restoration of biological connectivity in the stream to support gathering practices. Recommended that unused infrastructure be removed. Asked how "dry sections" of stream between diversion structures will be avoided to ensure complete restoration of mauka-makai stream flows and where does the water go once the pipe was removed.

Commission Staff Recommendations: The Commission staff, with assistance from EMI, shall conduct a site reconnaissance of the subject diversion in early 2020 to verify diversion location and conditions to determine if any further actions are required such as removal of discarded material, removal of accessory structures, and/or sealing of intakes. The Commission staff shall

work with EMI to ensure performance of work actions identified and will conduct a site inspection upon completion of the work.

Map 2. Wailuanui Watershed Unit.



29. Filipino Ditch diversion (K-21b). Diversion not found and believed to be no longer functional. No photo available. However, this diversion formerly discharged into the number 9 diversion (K-21) on West Wailuanui Stream at Ko'olau Ditch. K-21 intake is being sealed as part of the Category 1 diversion work and will be abandoned at a later date.

DOFAW comments. As noted previously, with general concerns:

1. Walls, structures, or channels that alter the natural course of the stream can restrict flow. Stagnant waters become breeding sites for mosquitoes and are vectors for introduced diseases and are a major threat to native forest birds.
2. The use of pipes or other structures obstruct fish passage.
3. Stream alteration can result in high levels of erosion and adversely affect water quality.
4. Abandonment of accessory structures, including pipes, pump houses, intakes, mechanisms, or other items no longer in use, may become derelict if not maintained.

Sierra Club Hawaii Chapter. As noted previously, requested that the Commission not approve the category 4 permit application due to their concerns regarding the restoration of biological connectivity in the stream to support gathering practices. Recommended that unused infrastructure be removed. Asked how "dry sections" of stream between diversion structures will be avoided to ensure complete restoration of mauka-makai stream flows and where does the water go once the pipe was removed.

Commission Staff Recommendations: No action required.

AGENCY REVIEW COMMENTS

County of Maui, Planning Department: Did not comment.

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

Department of Land and Natural Resources (DLNR), Aquatic Resources: Did not comment.

DLNR, Engineering: Not subject to our regulatory authority and permit.

DLNR, Forestry and Wildlife (DOFAW): See **Exhibit 1**.

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

DLNR, Land Division: Not subject to our regulatory authority and permit.

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

Dept. of Health (DOH), Clean Water Branch: Standard comments. See **Exhibit 3**

Staff: The lead agency for the protection of water quality is the Department of Health, Clean Water Branch, which administers the Federal Clean Water Act (33 U.S.C. §1251 et seq.) and the State Water Pollution Act (HRS Ch. 342D; HAR Ch. 11-54 Water Quality Standards; and HAR Ch. 11-55 Water Pollution Control). HAR §11-54-1 through §11-54-8 defines Best Management Practices and water quality criteria applicable to inland and nearshore waters and are based on the Federal Clean Water Act. HAR Ch. 11-55 Appendix C defines discharges of storm water associated with construction activity. HRS 174C-66 states that the DOH oversees the State's water quality control program.

Office of Hawaiian Affairs: Did not comment.

US Army Corps of Engineers: Did not comment.

US Fish and Wildlife Service (FWS): No objections.

ENVIRONMENTAL REVIEW CHAPTER 343, HAWAII REVISED STATUTES

Under Hawaii Revised Statutes §343-5(a), the action triggers an Environmental Assessment (EA) because all of the subject diversions are located on State land and in the Conservation District.

The proposed actions are exempt from an EA in accordance with Hawaii Administrative Rule §11-200.1-15(c)(6) which provides for "Demolition of structures, except those structures that are listed on the national register or Hawaii Register of Historic Places"; and the Exemption List for the Department of Land and Natural Resources approved by the Environmental Council on

June 5, 2015, Exemption Class 8(2) that states "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, 16 U.S.C §§470 et. seq., as amended, or Haw. Rev. Stat. Chapter 6E." The exemption notification is attached as **Exhibit 6**.

PUBLIC COMMENTS

Sierra Club Hawaii Chapter: See **Exhibit 2**.

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 Pa'akai O Ka'aina*, 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.

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 cited the 275-page County of Maui Planning Department, Kalo Kanu O Ka 'Āina: A Cultural Landscape Study of Ke'anae and Wailuanui, Island of Maui, July 1995; and Kumu Pono Associates, Wai O Ke Ola: He Wahi Mo'olelo No Maui Hikina, A Collection of Native Traditions and Historical Accounts of the Lands of Hāmākua Poko, Hāmākua Loa and Ko'olau, Maui Hikina (East Maui), Island of Maui, 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 work was completed in 2007 and has had a positive impact on stream resources due to the restoration of streamflow. This has had a positive effect on traditional and customary Native Hawaiian 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.*

   None known as the diversions have been deactivated and flow has been restored.

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.

   Staff: The actions were intended to restore streamflow to more natural conditions.

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.

   Staff: The IIFS for Waiokamilo and Wailuanui Streams were established in the Commission's Decision and Order (p. 268) under CCH-MA13-01.

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

   Staff: The actions were intended to restore streamflow to more natural conditions.

RECOMMENDATION

1. Approve the after-the-fact Stream Diversion Works Permit (SDWP.4951.6) Application to seal intake grates and remove pipes and then abandon in-place the subject 29 diversions and associated infrastructure on the Waiokamilo and Wailuanui Streams, East Maui, subject to the standard conditions in **Exhibit 4** and special conditions below.

2. Direct the Commission staff, with assistance from EMI and Na Moku 'Aupuni O Ko'olau representatives, to conduct a site reconnaissance of the major and minor diversions (listed below) on streams and tributaries of Waiokamilo Stream in early 2020 to verify diversion locations and conditions to determine if any further actions are required such as removal of discarded material, removal of accessory structures, and/or sealing of intakes. The Commission staff shall work with EMI to ensure performance of work actions identified and will conduct a site inspection upon completion of the work. A site inspection report shall be submitted to the Commission for review.

   Waiokamilo:

   1. East Waiokamilo (Kualani) at Ko'olau Ditch (K-22): Diversion intake grate was sealed with concrete in 2007.
   2. 6-inch Kualani (East Waiokamilo) aluminum pipe at Ko'olau Ditch (K-22a): Pipe was removed in 2007.
   3. Number 10 crosscut intake at Ko'olau Ditch, #1 of 6 (K-22b): Pipe was capped/removed in 2007.

4. Number 10 crosscut intake at Ko'olau Ditch, #2 of 6 (K-22c): Pipe was removed in 2007.
5. Number 10 crosscut intake at Ko'olau Ditch, #3 of 6 (K-22d): Pipe was capped/removed in 2007.
6. Number 10 crosscut intake at Ko'olau Ditch, #4 of 6 (K-22e): Pipe was capped/removed in 2007.
7. Number 10 crosscut intake at Ko'olau Ditch, #5 of 6 (K-22f): Pipe was capped/removed in 2007.
8. Number 10 crosscut intake at Ko'olau Ditch, #6 of 6 (K-22g): Pipe was capped/removed in 2007.
9. Waiokamilo #11 Intake at Ko'olau Ditch (K-23): Boards and fill material placed in tunnel to block water from entering Ko'olau Ditch.
10. 4-inch pipe east of #11 intake at Ko'olau Ditch (K-23a): Pipe was removed in 2007.
11. Waiokamilo #12 intake at Ko'olau Ditch (K-24): Diversion closed in 2007. Concreted over diversion intake.
12. Number 12 crosscut intake at Ko'olau Ditch #1 of 5 (K-24a): Pipe was removed in 2007.
13. Number 12 crosscut intake at Ko'olau Ditch #2 of 5 (K-24b): Pipe was removed in 2007.
14. Number 12 crosscut intake at Ko'olau Ditch #3 of 5 (K-24c): Pipes were removed in 2007.
15. Number 12 crosscut intake at Ko'olau Ditch #4 of 5 (K-24d): Pipes were removed in 2007
16. Number 12 crosscut intake at Ko'olau Ditch #5 of 5 (K-24e): Pipe was removed in 2007.
17. Small intake west of number 12 crosscut intake at Ko'olau Ditch #1 of 6 (K-24f): Pipe was removed in 2007.
18. Small intake west of number 12 crosscut intake at Ko'olau Ditch #2 of 6 (K-24g): Pipe was removed in 2007.
19. Small intake west of number 12 crosscut intake at Ko'olau Ditch #3 of 6 (K-24h): Pipe was removed in 2007.
20. Small intake west of number 12 crosscut intake at Ko'olau Ditch #4 of 6 (K-24i): Pipes were removed in 2007.
21. Small intake west of number 12 crosscut intake at Ko'olau Ditch #5 of 6 (K-24j): Pipe was removed in 2007.
22. Waiokamilo Kikokiko intake at Ko'olau Ditch (K-25): Intake was sealed with concrete in 2007.
23. Small intake west of number 12 crosscut intake at Ko'olau Ditch #6 of 6 (K-25a): Pipe was removed in 2007.
24. Kikokiko small intake at Ko'olau Ditch (K-25b): Intake was sealed with concrete in 2007.
25. West Kikokiko small intake at Ko'olau Ditch #1 of 4 (K-25c): Pipe was removed in 2007.
26. West Kikokiko small intake at Ko'olau Ditch #2 of 4 (K-25d): Pipe was removed in 2007.

27. West Kikokiko small intake at Ko'olau Ditch #3 of 4 (K-25e): Pipe was removed in 2007.
28. West Kikokiko small intake at Ko'olau Ditch #4 of 4 (K-25f): Pipe was removed in 2007.

Wailuanui:

29. Filipino Ditch diversion (K-21b): Diversion not found and believed to be no longer functional. No action taken.

3. Find that the work performed under this SDWP.4951.6 is exempt from the preparation of an environmental assessment under Hawaii Revised Statutes Chapter §343 based on Hawaii Administrative Rules §11-200.1-15(c)(6) and the Exemption List for the Department of Land and Natural Resources approved by the Environmental Council on June 5, 2015.

Ola i ka wai,

M. KALEO MANUEL
Deputy Director

Exhibits:

1. DLNR, Division of Forestry and Wildlife letter dated August 8, 2019.
2. Sierra Club letter dated August 9, 2019.
3. DOH standard comments.
4. Standard Stream Channel Alteration Permit and Stream Diversion Works Permit Conditions.
5. Legal Authorities.
6. Chapter 343 HRS Exemption Notification

APPROVED FOR SUBMITTAL:

SUZANNE D. CASE
Chairperson

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
DIVISION OF FORESTRY AND WILDLIFE
1151 PUNCHBOWL STREET, ROOM 325
HONOLULU, HAWAII 96813

August 8, 2019

TO: Kaleo Manuel, Deputy Director
Commission on Water Resource Management

FROM: David Smith, Administrator
Division of Forestry and Wildlife

SUBJECT: Comments on Alexander and Baldwin, Inc. applications for stream diversion works permits for abandonment, SDWP .4951.6 EMI cat 4.

Thank you for the opportunity to comment on the applications for stream diversion works permits for abandonment submitted to the Commission on Water Resource Management (Commission) by Alexander and Baldwin, Inc. (A&B). It is our understanding that the applicant intends to abandon 70 stream diversions and is in the process of securing the appropriate permits to do so. We understand further that the diversions are being grouped into different categories for administrative purposes and that separate applications are being submitted for each category.

The Division appreciates A&B's long-standing commitment to the conservation of East Maui's vital watersheds. We have worked closely with A&B and the other partners of the EMWP to implement effective conservation measures at a landscape scale with unprecedented success. We provide our comments here in the spirit of that partnership to further our shared commitment to the effective conservation of the watersheds of east Maui.

The Division of Forestry and Wildlife is responsible for the management of forest and wildlife resources within the Ko'olau Forest Reserve that may be affected by the actions proposed in the subject application. The applicant currently holds authorizations to employ certain structural improvements within the forest reserve to effect the diversion of water for collection and use. At such time that those structures will no longer be used for that, or any other, approved purpose, the Division requests that they be removed, to the extent practicable. We belief this request is consistent with the Commission's Conclusions of Law, dated June 20, 2018, in which it is noted that instream uses shall be guided by the general principles set forth in §13-169-20, Hawaii Administrative Rules, which include that, where

EXHIBIT 1

November 20, 2019

SIERRA CLUB
FOUNDED 1892

To: Kaleo Manuel, Deputy Director
Commission on Water Resource Management

August 9, 2019

From: Sierra Club, Hawai'i Chapter
PO Box 2577Honolulu, Hawai'i 96803

Subject: Comments on East Maui Irrigation ("EMI")/ Alexander and Baldwin, Inc. ("A&B") "Category 3" (SDWP 4950.6) and "Category 4" (SDWP 4951.6) applications for stream diversion works permits to abandon listed East Maui diversions.

Aloha Deputy Director Manuel, Water Commissioners and staff

Sierra Club of Hawai'i, on behalf of our 27,000 supporters across the state, thanks you for the opportunity to comment on the EMI/Alexander and Baldwin, Inc. (A&B) applications for stream diversion works SDWP-4950.6 (proposed Category 3 abandonment permits) and SDWP-4951.6 (already completed Category 4 abandonment permits), submitted to the Commission on Water Resource Management (CWRM). We understand that the official comment period for Cat 3 permits has already passed, but hope that the Commission will keep our comments in mind when they hear the matter of the Cat. 3 permits in Maui later this month.

As noted below, we ask the Commission to not approve the Category 4 after the fact permits until CWRM staff and Ke'anae-Wailuanui community members are satisfied that there is a plan and implementation schedule to restore biological connectivity for native stream species for the Waiokamilo-Palauhulu-Wailuanui-Wailuaiki stream system. The Commission has a proactive duty to make decisions which uphold Native Hawaiian traditional and customary rights. The Ko'olau community has fished and gathered from these same streams for centuries, and their rights to continue these practices is protected under the Hawai'i State Constitution.

Sierra Club has long advocated for the restoration of East Maui streams for the benefit of rural East Maui and Native Hawaiian communities, native fisheries and stream life, watershed ecosystems and public recreation and nature study. We support the efforts of A&B/EMI to abandon 70 stream diversions and restore mauka-makai flow and biological connectivity to the numerous streams and tributaries that are the lifeblood of East Maui.

EXHIBIT 2

We are mystified as to why the process has dragged on for so long. We often hear that the delay was due to County SMA and Army Corps review. Records obtained by Sierra Club Hawai'i indicate that USACE determinations were completed on January 26, 2018, a few months after being requested on October 17, 2017 and Maui County SMA exemption was granted on November 27, 2017, one month after requested. It has now been over a year and half since these needed agency reviews were completed. It is now past time to proceed with the complete and permanent restoration of the specific East Maui streams promised by A&B/EMI in April 2016, and formalized in the June 2018 CWRM IIFS Decision and Order.

We commend all involved for working towards a solution. We understand that the diversions are being grouped into different categories for administrative purposes and that separate applications are being submitted for each category, and we offer comments at this time for streams involved in Category 3 (SDWP_4950) and Category 4 (SDWP_4951.)

Sierra Club Maui volunteers have led educational hikes in these stream areas for over 30 years and have observed conditions along the streams and in the areas of the diversions. While SDWP Application 4951 (after the fact permits for diversions abandoned on 28-29 intakes on Waiokamilo stream and its tributaries) and SDWP Application 4950 (sealing intake grates, building stream overpasses and other modifications to abandon diversions on 11 streams and tributaries in the Huelo and Ke'anae areas) contain various maps and photos, many of these are very unclear, making detailed agency or public review difficult.

For example, in SDWP_4951, over a dozen metal or PVC pipes were described as already having been capped or removed. This action supposedly took place 12 years ago and is being permitted now. The Application should specify which pipes were removed, along with how the discarded pipe sections were disposed of. It should also indicate which pipes were "capped" and whether the capped sections are found near trails, streams or other natural areas, and if they are tightly sealed or leak. None of this information is provided. It is difficult to know when pictures were taken and whether the former "minor diversions," which once carried water from springs or tributaries into the Ko'olau Ditch, now carry water to any restored stream. We simply are not told in the Application what happens to the water that once went into the minor diversions.

In her December 26, 2016 comments on the EISPN for proposed long term A&B/EMI leases for East Maui, Sierra Club member and longtime Wailuanui resident, Leina Wender, offered these personal observations regarding the Waiokamilo stream Diversion restoration referenced in the EMI/A&B Category 4 After the Fact permit application SDWP_4951:

> "The Early Consultation Summary of November 23, 2016 states that Waiokamilo Stream was "fully restored in 2007", and that several other streams are "planned for full and permanent restoration." The dictionary definitions of "restore" include "to return...something to a former condition..."; "to repair or renovate...so as to return it to its original condition"; and "to give something previously stolen, taken away, or lost back to the original owner or recipient." EMI has not restored Waiokamilo or any other stream."

Wender continues in her comments:

> "EMI apparently no longer utilizes water from Waiokamilo. But this is not the same as restoration. EMI formerly diverted water not only from the main flume at Kikokiko, but also from numerous tributaries of various sizes which, before the existence of the ditch, eventually

found their way into Waiokamilo Stream. This water was collected via about two dozen diversions consisting primarily of concrete catchment basins with pipes. EMI has cut these pipes so that the water no longer goes into the ditch. Instead, it now drips or flows onto the ditch road, creating a muddy mess and additional habitat for invasive plants. Most of this water never makes its way off of the road, much less back into the stream. When they were built, the ditch and the ditch road cut into and altered the natural terrain. Nothing has been done to return this terrain to its original condition or to ensure that the water not diverted actually gets into the stream."

"In addition, EMI has abandoned and no longer maintains the ditch road in the Waiokamilo area, resulting in its present hazardous condition. They also no longer monitor the area for miconia, which I have frequently encountered there in recent years. EMI has abandoned any responsibility for stewardship of the watershed areas they no longer utilize. Even in the areas they still use, banyan trees, clidemia and other invasive plants grow unfettered."

These conditions of the Waikokamilo steam were reported in 2016, nine years after the claimed "restoration" of Waiokamilo stream. Photos taken by CWRM staff in 2008 and found in CWRM report PR200804 (*Instream Flow Standard Assessment Report for Hydrological Unit 6055, Waiokamilo*) show numerous Waiokamilo "minor" diversions as closed, but with pipes, unneeded dams and other debris left in place.

CWRM should not approve this After-the-Fact permit until they have a report from a staff visit to the area, in the company of Na Moku 'Aupuni o Ko'olau representatives. If conditions are as described, CWRM should request that EMI submit within 60 days, the outline of a plan to remediate the situation and fully restore the natural ecosystem of the Waiokamilo stream and its tributaries. We would particularly recommend the removal of dam structures located far from the Ko'olau ditch, such as the one shown on intake K-25 at the Kikokiko waterfall intake. (See picture in Attachment A)

In reviewing the permit applications, it appears that some other significant information was not provided, especially in these areas:

1) How the abandoned diversions will be modified or removed to allow adequate biological connectivity to support Native Hawaiian traditional and customary gathering practices;

2) How diversion structures will be properly removed to minimize debris and mosquito breeding in and along streams; and

3) How "dry sections" of stream between diversion structures will be avoided to ensure complete restoration of mauka-makai stream flows.

Cultural Impacts Posed by Diversion Structures

The SDWP Application has a section (Items 44 & 45) to provide information on "Cultural Impacts" of the proposed action. The response provided by A&B/EMI in all the applications assumes that by simply allowing stream water to flow over, around or through the extensive, century old diversion dams and sluices, all traditional and customary cultural practices can be protected and ensured. Experience, generational knowledge and common sense has shown us that this simply is not true.

There is no discussion in the A&B/EMI Applications of the impacts presented by massive structures, pipes and catch basins to native stream life and its habitat. Native Hawaiian culture includes traditional gathering, and any "stream restoration" plan that returns stream water yet does not provide a viable habitat for the culturally and biologically important resources that live in the stream is an incomplete plan.

In their October 2016 letter to then EMI head, Garrett Hew, CWRM staff made it clear that the EMI Diversion Abandonment Applications needed to have sufficiently clear and detailed information for Agency and public review, and commented to A&B/EMI staff:

"After reviewing your submission, as discussed briefly last week, we are requesting that you provide more specific information for all of the diversions listed."

CWRM staff also noted that: "The information will also be available for public review and, as you are well aware, will be heavily scrutinized to ensure that all water is restored and biological connectivity is optimized."

Although this specific request was made by CWRM staff, the EMI/A&B applications make no reference to efforts made or planned to optimize biological connectivity for native stream life on the streams covered by the permit activities.

In November 2017, BLNR approved a continuation of the EMI holdover permit for the East maui Lease areas covered by these applications. The holdover permit was approved for another year on the condition that "A&B needs to clean up their debris starting with more accessible areas and along streams."

That condition was also included in the November 2018 BLNR hearing decision on the holdover permits for 2019. A&B's current permit request would allow it to abandon in place discarded pipes and concrete that no longer serve any useful purpose. As such, they constitute debris that litters state land. In order to be consistent with the BLNR's condition, CWRM must mandate that these features that no longer serve any useful purpose be removed from state land.

The State of Hawaii Division of Fish and Wildlife (DOFAW) in their June 28, 2019 letter commenting on the EMI/A&B applications, appear to have the same concerns that discarded diversion structures will be left in place along the "restored" streams. Both the June 28 DOFAW letter and an earlier DOFAW memo from December 18, 2018, expressed concerns that the "applicant intends to leave a place a number of stream alterations that may substantially alter the natural condition of streams, 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."

DOFAW provided a detailed analyses of intakes found in the EMI Cat 1 Application. EMI Cat 2 Application (SDWP_4915_6) and EMI Cat 3 Application (SDWP_4950) illustrate the types of alterations that can impact streams and stream life and should be properly removed.

DOFAW suggested that the present permits should be seen as the first step of the restoration process and that "the primary tasks to restore stream flow can be implemented initially, ensuring the water is returned to the streams in a timely manner, with the additional recommended work to proceed on a reasonable schedule."

The Sierra Club would like to see CWRM go a step further. We ask that CWRM require EMI/A&B to partner with the state on a specific plan and implementation timetable to remove unneeded diversion

debris, structures and accessory equipment (such as pipes) on or along the restored streams, to protect the Public Trust resources of the East Maui Lease/License areas.

Sierra Club concurs with the DOFAW comments, and requests that all the diversion structures be removed and are not allowed to be left in place. These structures:

(a) interfere with native aquatic species;
(b) facilitate mosquito breeding;
(c) have the potential to take water from streams (even if the water is not removed from the ahupua'a);
(d) threaten the safety of recreational users of public land;
(e) will essentially become garbage, and
(f) are aesthetically inappropriate in a natural environment.

We attach a short slide presentation (Attachment "A") of a few East Maui Lease area streams proposed for complete restoration, illustrating these conditions that need to be addressed during the stream restoration/diversion abandonment process.

We appreciate your consideration of our comments and suggestions.

Attachment A

from

Sierra Club Hawaii

August 11, 2019 Comments

RE: EMI ATF stream abandonment
Category 4 permits (SDWPA_4951)
Category 3 permits (SDWPA_4950)
and comments on other Restoration
streams

Sierra Club has concerns that unmodified diversion structures on "restored" stream interfere with movement and habitat of native aquatic species

Intake L-5
Hanehoi stream
Lowrie ditch

Status: to be fully and permanently restored.

Permit Action: CAT 1. seal grate with concrete

Recommendation: Diversion structure impedes natural stream flow and has a slight overhang. It should be removed and a flatter bypass created over the Lowrie ditch to allow more natural grade of stream bed

Monday, August 12, 19

Intake K-17 W. Wailuaiki stream Ko'olau ditch

Status: to be fully and permanently restored.

Permit Action: NONE. Gate removed.
Streamlife left with very limited migration path

West Wailuaiki Stream has high native streamlife habitat value :

"The data in this report reveals the potential adverse effects of stream alterations to biological resources in the stream and estuary, which bears significant ecological and cultural value."

DAR 2009 survey of West Wailuaiki stream

Recommendations:

- **Remove unneeded dam structure (photo below) to restore more natural flow pattems and avoid stagnant pools that breed mosquitos during low flow periods**

W. Wailuaiki -open gate to restore flow, Restricts flow area

Overall, Wailua Iki West Stream has good potential stream habitat in the lower, middle, and upper reaches...IRestoration of flow **and improvement of animal passage** would have the greatest effect on S. stimpsoni (*'o 'opu nopili*) and A. bisulcata (*'opae kala 'ole*), and would further enhance the overall productivity of Wailua Iki West Stream.

DAR 2009 survey of West Wailuaiki stream

Monday, August 12, 19

Intake K-21 W. Wailuanui stream Ko'olau ditch on State land

Status: to be fully and permanently restored.

Permit Action: NONE. Gate removed.

Streamlife left with very limited migration path due to two large dam structures

Recommendation: Remove unneeded dam structures to create more natural stream bed

W. Wailuanui -narrow gate to restore flow, Restricts flow area

W. Wailuanui connectivity is important for native streamlife recovery

West Wailuanui stream rates better than average for streams on Maui and statewide. due to range of habitats present and the number of different native species observed in the lower parts of the stream. The stream lacks many of the commonly introduced species and thus has a relatively intact native biota.

DAR 2009 study

Monday, August 12, 19

Intake H-3 Hanehoi stream New Haiku ditch
Status: to be fully and permanently restored.
Permit Action: CAT.1. Gate removed/grate sealed
Streamlife left with very limited migration path
Recommendation: remove unneeded dam/ catch basin structures

Monday, August 12, 19

Intake H-3 Hanehoi stream New Haiku ditch
Status: to be fully and permanently restored.
Permit Action: CAT.1. Gate removed/grate sealed
Unneeded debris basin facilitates accumulation of stagnant water and mosquito breeding; Flow concentrated in one spot erodes soil banks and silts up water.
Recommendation: remove unneeded dam/ catch basin structures create more natural flows
Monday, August 12, 19

Debris left along public trails on public land threatens the safety of recreational users of public land;

Photo: jagged iron pipe along Wailuaiki Trail on State land

Broken EMI pipes carrying water from a W. Wailuaiki stream tributary to Ko'olau ditch make almost half the public trail muddy, slippery and hazardous. W. Wailuaiki is supposed to be restored, but debris like this remains remains

Monday, August 12, 19

Unneeded Irrigation system debris are aesthetically inappropriate in a natural environment, and will essentially become garbage.....

WAIOKAMILO

Waiokamilo Kikokiko Intake

Dec. 2008

Main Kikokiko 6-in intake pipe - severed and no longer operational

Intake K-25 Kikokiko waterfall leads by pipe to Ko'olau ditch

Status: stream to be fully and permanently restored.

Permit Action: Cat 4. Pipe severed but not removed at its source

Recommendation: remove unneeded pipe (photo left) and diversion dam (photo far left) at Kikokiko falls

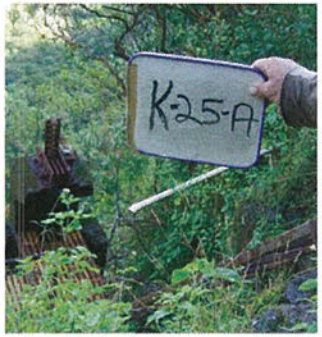
Table 13-2. Continued. Minor diversions on the EMI System in the Waiokamilo hydrologic unit.

Diversion ID	EMI Ditch System	Description
K-25a	Koolau	East Kikokiko 2-inch pipe intake. Concrete catchment basin with pipe.

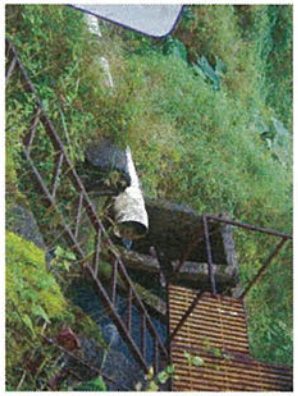
Photos. a) Concrete catchment basin captures seepage and transports water to Koolau Ditch below via a PVC pipe (EMI, 05/1989); b) Downstream view from diversion structure (RMT, 12/2007); c) Water dropping into concrete catchment basin below roadway (RMT, 12/2007).

a)

b)



c)



Intakes K-25-a & K-22-g Waiokamilo Stream Ko'olau ditch-- State Land

Status: stream to be fully and permanently restored.

Permit Action: CAT 4. Pipes "cut" but not removed at their source

Recommended Action: remove unsightly pipes on public land

K-22g	Koolau	Koolau Ditch #10 crosscut intake #6. Concrete catchment basin with pipe.

Photos. a) Concrete catchment basin captures seepage and transports water to Koolau Ditch below via a PVC pipe (EMI, 05/1989); b) Close-up view of disconnected PVC pipe outlet from catchment basin (RMT, 12/2007).

a)

b)

Intakes K-22-c & K-22-d Waiokamilo Stream Ko'olau ditch-- State Land

Status: stream to be fully and permanently restored.

Permit Action: CAT 4. Pipes "cut" but not removed at their source. piped water may be causing erosions and degradion of trails on state land

Recommended Action: remove unsightly pipes on public land

Table 13-2. Continued. Minor diversions on the EMI System in the Waiokamilo hydrologic unit.

Diversion ID	EMI Ditch System	Description
K-22c	Koolau	Koolau Ditch #10 crosscut intake #2. Concrete catchment basin with pipe.

Photos. a) Concrete catchment basin captures seepage and transports water to Koolau Ditch below via a PVC pipe (EMI, 05/1989); b) Upstream view from below capture of seepage with PVC pipe disconnected (RMT, 12/2007).

a)

b)

K-22d	Koolau	Koolau Ditch #10 crosscut intake #3. Concrete catchment basin with pipe.

Photos. a) Concrete catchment basin captures seepage and transports water to Koolau Ditch below via a pipe (EMI, 05/1989); b) Close-up of disconnected pipe below basin (RMT, 12/2007).

a)

b)

- 114 -

Monday, August 12, 19

Dept. of Health (DOH), Clean Water Branch:

1. Any project and its potential impacts to State waters must meet the following criteria:
   a. Antidegradation policy (HAR, §11-54-1.1) requires that the existing uses and the level of water quality necessary to protect the existing uses of the receiving State water be maintained and protected.
   b. Designated uses (HAR, §11-54-3) as determined by the classification of the receiving State waters.
   c. Water quality criteria (HAR, §11-54-4 through §11-54-8).
2. You may be required to obtain National Pollutant Discharge Elimination System (NPDES) permit coverage for point source water pollutant discharges into State surface waters (HAR, Chapter 11-55). Point source means any discernible, confined, and discrete conveyance from which pollutants are or may be discharged. For NPDES general permit coverage, a Notice of Intent (NOI) form must be submitted at least 30 calendar days before the commencement of the discharge. An application for a NPDES individual permit must be submitted at least 180 calendar days before the commencement of the discharge. To request NPDES permit coverage, you must submit the applicable form ("CWB Individual NPDES Form" or "CWB NOI Form") through the e-Permitting Portal and the hard copy certification statement with the respective filing fee ($1,000 for an individual NPDES permit or $500 for a Notice of General Permit Coverage). Please open the e-Permitting Portal website at: https://eha-cloud.doh.hawaii.gov/epermit/. You will be asked to do a one-time registration to obtain your login and password. After you register, click on the Application Finder tool and locate the appropriate form. Follow the instructions to complete and submit the form. Some of the activities requiring NPDES permit coverage include, but, are not limited to:
   a. Discharges of Storm Water
      i. For Construction Activities Disturbing One (1) or More Acres of Total Land Area. By HAR Chapter 11-55, an NPDES permit is required before the start of the construction activities that result in the disturbance of one (1) or more acres of total land area, including clearing, grading, and excavation. The total land area includes a contiguous area where multiple separate and distinct construction activities may be taking place at different times on different schedules under a larger common plan of development or sale.
      ii. For Industrial Activities for facilities with primary Standard Industrial Classification (SIC) Codes regulated in the Code of Federal Regulations (CFR) at 40 CFR 122.26(b)(14)(i) through (ix) and (xi). If a facility has more than one SIC code, the activity that generates the greatest revenue is the primary SIC code. If revenue information is unavailable, use the SIC code for the activity with the most employees. If employee information is also unavailable, use the SIC code for the activity with the greatest production.
      iii. From a small Municipal Separate Storm Sewer System (along with certain non-storm water discharges).
   b. Discharges to State surface waters from construction activity hydrotesting or dewatering
   c. Discharges to State surface waters from cooling water applications

EXHIBIT 3

d. Discharges to State surface waters from the application of pesticides (including insecticides, herbicides, fungicides, rodenticides, and various other substances to control pest) to State waters
e. Well-Drilling Activities
Any discharge to State surface waters of treated process wastewater effluent associated with well drilling activities is regulated by HAR Chapter 11-55. Discharges of treated process wastewater effluent (including well drilling slurries, lubricating fluids wastewater, and well purge wastewater) to State surface waters requires NPDES permit coverage. NPDES permit coverage is not required for well pump testing. For well pump testing, the discharger shall take all measures necessary to prevent the discharge of pollutants from entering State waters. Such measures shall include, if necessary, containment of initial discharge until the discharge is essentially free of pollutants. If the discharge is entering a stream or river bed, best management practices (BMPs) shall be implemented to prevent the discharge from disturbing the clarity of the receiving water. If the discharge is entering a storm drain, the discharger must obtain written permission from the owner of the storm drain prior to discharge. Furthermore, BMPs shall be implemented to prevent the discharge from collecting sediments and other pollutants prior to entering the storm drain.

3. A Section 401 Water Quality Certification (WQC) is required if your project/activity:
   a. Requires a federal permit, license, certificate, approval, registration, or statutory exemption; and
   b. May result in a discharge into State waters. The term "discharge" is defined in Clean Water Act, Subsections 502(16), 502(12), and 502(6).

   Examples of "discharge" include, but are not limited to, allowing the following pollutants to enter State waters from the surface or in-water: solid waste, rock/sand/dirt, heat, sewage, construction debris, any underwater work, chemicals, fugitive dust/spray paint, agricultural wastes, biological materials, industrial wastes, concrete/sealant/epoxy, and washing/cleaning effluent. Determine if your project/activity requires a federal permit, license, certificate, approval, registration, or statutory exemption by contacting the appropriate federal agencies (e.g. Department of the Army (DA), U.S. Army Corps of Engineers (COE), Pacific Ocean Division Honolulu District Office (POH) Tel: (808) 835-4303; U.S. Environmental Protection Agency, Region 9 Tel: (415) 947-8021; Federal Energy Regulatory Commission Tel: (866) 208-3372; U.S. Coast Guard Office of Bridge Programs Tel: (202) 372-1511). If your project involves work in, over, or under waters of the United States, it is highly recommended that you contact the Army Corp of Engineers, Regulatory Branch regarding their permitting requirements. To request a Section 401 WQC, you must complete and submit the Section 401 WQC application. This application is available on the e-Permitting Portal website located at: https://eha-cloud.doh.hawaii.gov/epermit/. Please see HAR, Chapter 11-54 for the State's Water Quality Standards and for more information on the Section 401 WQC. HAR, Chapter 11-54 is available on the CWB website at: http://health.hawaii.gov/cwb/.
4. Please note that all discharges related to the project construction or operation activities, whether or not NPDES permit coverage and/or Section 401 WQC are required, must comply with the State's Water Quality Standards. Noncompliance with water quality

requirements contained in HAR, Chapter 11-54, and/or permitting requirements, specified in HAR, Chapter 11-55, may be subject to penalties of $25,000 per day per violation and up to two (2) years in jail.

5. It is the State's position that all projects must reduce, reuse, and recycle to protect, restore, and sustain water quality and beneficial uses of State waters. Project planning should:
   a. Treat storm water as a resource to be protected by integrating it into project planning and permitting. Storm water has long been recognized as a source of irrigation that will not deplete potable water resources. What is often overlooked is that storm water recharges ground water supplies and feeds streams and estuaries; to ensure that these water cycles are not disrupted, storm water cannot be relegated as a waste product of impervious surfaces. Any project planning must recognize storm water as an asset that sustains and protects natural ecosystems and traditional beneficial uses of State waters, like community beautification, beach going, swimming, and fishing. The approaches necessary to do so, including low impact development methods or ecological bio-engineering of drainage ways must be identified in the planning stages to allow designers opportunity to include those approaches up front, prior to seeking zoning, construction, or building permits.
   b. Clearly articulate the State's position on water quality and the beneficial uses of State waters. The plan should include statements regarding the implementation of methods to conserve natural resources (e.g. minimizing potable water for irrigation, gray water re-use options, energy conservation through smart design) and improve water quality.
   c. Consider storm water Best Management Practice (BMP) approaches that minimize the use of potable water for irrigation through storm water storage and reuse, percolate storm water to recharge groundwater to revitalize natural hydrology, and treat storm water which is to be discharged.
   d. Consider the use of green building practices, such as pervious pavement and landscaping with native vegetation, to improve water quality by reducing excessive runoff and the need for excessive fertilization, respectively.
   e. Identify opportunities for retrofitting or bio-engineering existing storm water infrastructure to restore ecological function while maintaining, or even enhancing, hydraulic capacity. Consideration should be given to areas prone to flooding, or where the infrastructure is aged and will need to be rehabilitated.

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 4

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.

EXHIBIT 5

"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.

CHAPTER 343 HRS EXEMPTION NOTIFICATION

Regarding the preparation of an environmental assessment pursuant to Chapter 343, HRS and Chapter 11-200.1, HAR.

Project Title:	Stream Diversion Works Permit Application (SDWP.4951.6) by East Maui Irrigation Company to Remove and Abandon 29 Diversions (Category 4) on Waiokamilo and Wailuanui Streams
Project / Reference No.:	SDWP.4951.6
Project Location:	Waiokamilo and Wailuanui Stream, Maui
Project Description:	After-the-fact removal and abandonment of 29 diversion structures on Waiokamilo and Wailuanui Streams in East Maui.
Chap. 343 Trigger(s):	Work occurring on State lands and in the Conservation District.
Exemption Class No.:	The subject project is exempt from the preparation of an environmental assessment in accordance with Hawaii Administrative Rule §11-200.1-15(c)(6), which provides for "Demolition of structures, except those structures that are listed on the national register or Hawaii Register of Historic Places"; and the Exemption List for the Department of Land and Natural Resources approved by the Environmental Council on June 5, 2015, Exemption Class 8(2) that states "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, 16 U.S.C §§470 et. seq., as amended, or Haw. Rev. Stat. Chapter 6E."
Consulted Parties:	DLNR Engineering Division DLNR Office of Conservation and Coastal Landsr
Determination:	The Commission on Water Resource Management declares that this project will likely have minimal or no significant impact on the environment and is therefore exempt from the preparation of an environmental assessment under the above exemption classes.

Suzanne D. Case, Chairperson Date

EXHIBIT 6