NO. 30603

IN THE INTERMEDIATE COURT OF APPEALS OF THE STATE OF HAWAI`I

`Īao Ground Water Management Area High-Level Source Water Use Permit Applications and Petition to Amend Interim Instream Flow Standards of Waihe`e, Waiehu, `Īao, & Waikapū Streams Contested Case Hearing	Case No. CCH-MA-06-01 APPEAL FROM THE COMMISSION ON WATER RESOURCE MANAGEMENT'S FINDINGS OF FACT, CONCLUSIONS OF LAW, AND DECISION AND ORDER DATED JUNE 10, 2010

INTERVENOR-APPELLANT OFFICE OF HAWAIIAN AFFAIRS' OPENING BRIEF

STATEMENT OF RELATED CASES

APPENDICES A and B

CERTIFICATE OF SERVICE

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I.

STATEMENT OF THE CASE

Intervenor-Appellant Office of Hawaiian Affairs ("OHA") appeals from the Findings of Fact, Conclusions of Law, and Decision and Order ("Decision") issued by the Commission on Water Resource Management ("Commission") on June 10, 2010 in the `Īao Ground Water Management Area High-Level Source Water-Use Permit Applications and Petition to Amend Interim Instream Flow Standards of Waihe`e River and Waiehu, `Īao, & and Waikapū Streams Contested Case Hearing. Record on Appeal Docket No. 192, pp. 4-239 ("RA192:4-239").[1]

A. Factual Background

Nā Wai `Ehā, or "The Four Great Waters," refers to West Maui's Waihe`e River, Waiehu Stream, `Īao Stream, and Waikapū Stream, which are storied in legend[2] and song.[3] More broadly, Nā Wai `Ehā refers to the ahupua`a through which these streams flow, a region that, due to its abundance of fresh water, was once "the primary ritual, political, and population center of

[1] Citations herein to the Record on Appeal are to the docket number in the electronically filed record and the "pdf" or "adobe" page number(s) (as opposed to the document page number(s) or the bates-stamped page number(s)). "FOF," "COL," and "D&O" refer to the findings of fact, conclusions of law, and decision and order, respectively, within the Decision. "Dissent" refers to the Dissenting Opinion of the Hearings Officer/Commissioner Lawrence H. Miike, at docket number 192, pages 240-47.

[2] Among others, the legend of the Earth Mother Haumea (also known as Papa), which, metaphorically, "represents the broad historical sweep of Hawaiian social development from the point of initial settlement up into the historic period of unification as the Hawaiian Kingdom," is placed in Nā Wai `Ehā. RA58:71-72.

[3] *E.g.*, *Na Wai Kaulana*, by Alice Namakelua (1948).

Maui," RA58:67, and "figured centrally in Hawaiian history and culture in general." FOF 34. Nā Wai `Ehā once "comprised the largest continuous area of wetland taro cultivation in the islands." FOF 36; RA70:143. Its "complex agricultural system of wetland kalo cultivation," together with the abundant protein sources in the streams and nearshore waters, supported one of the largest populations on Maui. RA58:72; FOF 34-42. Analysis of Nā Wai `Ehā heiau reveal that this area "contains the largest number among all Maui island communities," which indicates large populations and agricultural pursuits. RA58:76.

The fertile kalo lands, complex system of irrigation ditches (or "`auwai") and abundant fresh water that sustained Hawaiian culture for over 1,000 years in Nā Wai `Ehā did not escape the attention of the sugar growers, including the founders and/or predecessors of Hawaiian Commercial & Sugar Company ("HC&S") and Wailuku Water Company, LLC ("WWC").[4] The sugar plantations' effects on Native Hawaiian communities in Nā Wai `Ehā were profound, and began almost immediately. RA58:81. By 1866, a letter published in the Hawaiian language newspaper Nūpepa Kū`oko`a lamented "the current condition of once cultivated taro patches being dried up by the foreigners, where they are now planting sugar cane," and told of the author's prescient fears "that Hawaiians of that place will no longer to be able to eat poi," but only hard crackers, which "do[] not satisfy the hunger of the Hawaiian people." RA58:82 (citations omitted).

In the latter half of the 19th century, shortly after the introduction of small-scale sugar cane cultivation on Maui, WWC's predecessors began constructing the Wailuku Ditch System to divert water from Nā Wai `Ehā streams and transport it to drier lands in the Central Maui and Waikapū plains to irrigate sugar cane. RA78:24; *see also, generally,* FOF 161-170. With the completion of the Waihe`e Ditch in 1907, the Wailuku Ditch System comprised eleven diversion intakes (some now inactive) which could collectively divert the entire dry-weather flow of the streams, two major ditches, Spreckels Ditch and Waihe`e Ditch, several minor ditches, and sixteen reservoirs. FOF 169, 170, 177, 560, 602; *see also* RA60:6. As the plantations voraciously consumed ever more of Nā Wai `Ehā's waters, the courts of the Kingdom, the Republic, and the Territory were frequently called upon to resolve disputes between the plantations, and between the plantations and the native tenants. *See, e,g, Peck v. Bailey,* 8 Haw. 658 (Hawai`i King. 1867), *Wilfong, et al., v. Bailey,* 3 Haw. 479 (Hawai`i King. 1873); *Lonoaea, et al. v. Wailuku Sugar Company, et al.,* 9 Haw. 651 (Hawai`i Rep. 1895); *Hawaiian Comm. & Sugar Co. v. Wailuku Sugar*

[4] WWC's predecessors are C. Brewer & Co., Limited, Wailuku Sugar Company ("Wailuku Sugar") and Wailuku Agribusiness Company, Inc. ("WACI"). RA78:24.

Co., 14 Haw. 50 (Hawai`i Terr. 1902); *Hawaiian Comm. & Sugar Co. v. Wailuku Sugar Co.,*15 Haw. 675 (Hawai`i Terr. 1904); *Hawaiian Comm. & Sugar Co. v. Wailuku Sugar Co.,* 16 Haw. 113 (Hawai`i Terr. 1904).

As to disputes between the plantations and the native tenants, it was unequivocally established in the earliest of those cases that the water rights of the plantations were "subject to the rights of tenants, which were afterwards confirmed by the Land Commission" to "certain taro patches and the water necessary for their cultivation." *Peck v. Bailey, supra,* 8 Haw. at 662.[5]

By the turn of the 20th century, HC&S and Wailuku Sugar controlled the sugar plantations in Nā Wai `Ehā and central Maui. To resolve their ongoing disputes over Nā Wai `Ehā water and allow the construction of the Waihe`e Ditch by Wailuku Sugar through lands owned by HC&S, the two companies entered an "exchange lease" in 1904, by which HC&S leased Wailuku Sugar more than 9,600 acres of land in exchange for defined "rights" in the diverted Nā Wai `Ehā waters. *See* RA76:29, 30, 35, 37. In 1924, the parties executed a Deed of Exchange ("1924 Agreement") "along the same lines," RA76:37, 35, pursuant to which HC&S quitclaimed land and water rights to Wailuku Sugar, including all "konohiki and other water rights" in Nā Wai `Ehā streams except for a portion of South Waiehu Stream. RA104:73-74. In exchange, Wailuku Sugar quitclaimed to HC&S certain lands, easements and rights of way, together with Wailuku Sugar's rights, if any, in the portion of South Waiehu Stream claimed by HC&S, and water rights in Waihe`e stream consisting of all flow that could be diverted into the "New Waihe`e Ditch" (now called Waihe`e Ditch) for ten consecutive hours of the day (5/12ths or 42% of the day) and the remaining Waihe`e River flow that could be taken into the "Old Waihe`e Ditch" (now called Spreckels Ditch) for 12 consecutive hours of the day. RA104:78; *see also* RA76:37, RA58:159, ¶¶ 10E, 11B. The parties expressly acknowledged that their agreed-upon rights in the flow of Waihe`e River were subject to the rights of kuleana users and, given that the Waihe`e Ditch diversion would take most or all of the Waihe`e River flow, they agreed upon how they would satisfy those kuleana rights in the event there was not sufficient water below the Waihe`e Ditch diversion for the kuleana users. RA104:78-79. They made similar agreements regarding the responsibility for satisfying kuleana rights in South Waiehu Stream. RA58:79.

[5] The appurtenant rights established and described in *Peck v. Bailey* are sometimes referred to herein as "kuleana rights," and those using water or seeking to use water pursuant to such rights are referred to as "kuleana users." "Kuleana" are small parcels of land awarded in fee to native tenants by the Hawaiian monarch during the Māhele. *See, e.g., Palama v. Sheehan,* 50 Haw. 298, 299 n. 1, 440 P.2d 95, 96 n. 1 (1968).

The allocation between HC&S and Wailuku Sugar resulted in Wailuku Sugar taking the greater portion of the flow from Waihe`e River, as well as the flow from North Waiehu, `Īao, and Waikapū Streams. Historically, Wailuku Sugar grew sugar cane on 5,250 acres in Nā Wai `Ehā and central Maui, and used 45 mgd of the total ditch flow. RA78:26; RA116:167. HC&S's share of total ditch flow under the 1924 Agreement was less than a third of Wailuku Sugar's share.[6] Even with the additional water HC&S diverted from South Waiehu Stream and `Īao Stream, *see* RA58:160-61, ¶¶ 11C, 11D, 11E, it did not have enough Nā Wai `Ehā water to furrow irrigate the 3,950 acres of sugar cane on Maui's central isthmus that then comprised its West Maui Fields (the "Waihe`e-Hopoi" or "owned" Fields), *see* RA60:5; RA58:156, ¶ 5, so, in 1927, HC&S dug Well No. 7 (U.S.G.S. No. 16), which, with a capacity of 40 mgd, was described in 1942 as "the well with the largest yield in the Territory" and "sufficient to supply a city the size of Honolulu." RA100:55, 59, ¶ 4. In addition to its share of the diverted Nā Wai `Ehā water, from 1927 through 1985, HC&S pumped an average of 21 mgd of brackish water from Well No. 7, its primary irrigation source for the Waihe`e-Hopoi Fields. FOF 495.

With both Wailuku Sugar and HC&S draining Nā Wai `Ehā streams to irrigate their sugar plantations, it became increasingly difficult to maintain a way of life rooted in the cultural traditions of Nā Wai `Ehā. RA58:84. What was once the largest contiguous area of kalo cultivation in the islands was reduced to a few scattered lo`i where determined kalo farmers struggled to maintain their way of life. For example, at the time of the Māhele, there were more than 1200 cultivated lo`i documented in Waikapū, and growing kalo was a way of life for a majority of those in the community. RA58:54, ¶ 23. By the 1930s, the result of the sugar industry in Waikapū was that, "[s]preading north and south from the base of Waikapū to a considerable distance below the valley are the vestiges of extensive wet plantations, now almost obliterated by sugar-cane cultivation." RA58:82 (citation omitted). In Waihe`e, where "in ancient times the terraces were more or less continuous in a belt between the sand dunes and the present irrigation ditch," by 1940, "[t]he section i[s] now mostly under sugar cane, which has obliterated the terrace lines, though the cane fields are in many places broke by *kuleana* still held by Hawaiians who have preserved the old

[6] Neither HC&S nor WWC introduced records of the volume of ditch flow delivered to HC&S pursuant to the 1924 Agreement prior to 1993, and HC&S's witness claimed to be unaware of such records. *See, e.g.,* RA321:182, ll. 9-18. However, in an exhibit to a 1994 "Temporary Water Agreement," the parties specified WACI's share under the 1924 Agreement as 42.2 mgd (77%) of a total ditch flow of 55 mgd, which would leave 12.8 mgd (or 23%) for HC&S. RA128:53. In a 2001 "white paper," WACI's President, Avery Chumbley, calculated HC&S's share under the 1924 Agreement as 14.81 mgd, based on an average ditch flow of 63.24 mgd (or 23%). RA106:16.

terraces." RA58:83. Likewise, a 1940 account of Waiehu, "the second valley of the famous Nā Wai `Ehā of western Maui," described how "[t]he canefields now extend throughout this region, continuously from Waihe`e on the lower slopes; . . . , except for [a] few patches the old terraces of the upper slopes are entirely ploughed under." *Id.* With their ability to cultivate kalo and gather from Nā Wai `Ehā streams crippled by the diversions, Native Hawaiians were forced to leave Nā Wai `Ehā in increasing numbers. RA58:84.

In the 1980s, two significant events substantially reduced the amount of Nā Wai `Ehā water required for irrigation of sugar cane. First, both plantations installed drip irrigation, RA311:90, ll. 10-12; RA58:164-165, ¶ 10A, which greatly increased their irrigation efficiency. As HC&S explained in its annual reports, "[t]he drip method increases water utilization to 90 percent or more [from 50 percent with furrow irrigation], thus reducing water required for proper irrigation of each field[.]" *See, e.g.,* RA108:28, 30, 35-36, 40, 48. Second, WACI began transitioning out of sugar cultivation in 1988,[7] first to less thirsty crops such as pineapple and macadamia nut, and ultimately, out of agriculture altogether. RA78:26, ll. 6-10; RA315:28, l. 4 – 29, l. 8. Thus, by approximately 1990, HC&S needed less water to irrigate its Waihe`e-Hopoi Fields and WACI no longer needed anywhere near the 45 mgd it had been diverting to irrigate 5,250 acres of sugar cane. The "excess" water, however, was not returned to Nā Wai `Ehā's streams, all of which the Commission identified in its 1990 "Hawai`i Stream Assessment" as "Blue Ribbon Resources" for their respective cultural, aquatic, recreation and riparian resources, and designated as among the 9 (of a total of 376 perennial streams statewide) "Candidate Streams for Protection" on Maui. RA70:148.

Instead of restoring the unneeded water to Nā Wai `Ehā streams, WACI set about transforming itself into a water purveyor. To replace agriculture, WACI developed a business plan predicated on selling off its lands without any water rights, all of which it reserved to itself, *see, e.g.,* RA317:37, l. 15 – 38, l. 3, and then entering into Water Delivery Agreements with the

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[7] Also in 1988, the Commission established "status quo" IIFS for all streams on West Maui as follows:

> that amount of water flowing in each stream on the effective date of this standard [December 10, 1988], and as that flow may naturally vary throughout the year and from year to year without further amounts of water being diverted offstream through new of expanded diversions, and under the stream conditions existing on the effective date of the standard [subject to modification under enumerated conditions].

Hawai`i Administrative Rules ("HAR") § 13-169-48.

purchasers to deliver water taken from Nā Wai `Ehā streams via its Wailuku Ditch System. As it reported to its unit holders in 2005, "In the 1980s WACI began to sell some of its former sugar lands and also deliver agricultural water from the System to these new landowners. Starting in 2001, WACI began to more aggressively sell its former sugar lands and in the process enter into more water delivery agreements." RA80:80. The Water Delivery Agreements include charges from $0.20 to $2.40 per thousand gallons, RA80:81, and most customers pay about $0.85 or $0.90 per thousand gallons. FOF 513. Many of the Water Delivery Agreements allow WWC to collect a "minimum charge" even if no water is delivered. FOF 514. Some of WWC's customers have never used any water under their Water Delivery Agreements, but continue pay the minimum charge to effectively reserve Nā Wai `Ehā water. *See, e.g.,* RA72:179, 180; RA317:92, ll. 3-9, 94, l. 16 – 95, l. 3.

Although its revenues from Nā Wai `Ehā water increased from $242,000 in 2003 to $1,130,000 in 2005, RA80:85, more than a decade after WACI ceased sugar cultivation it still did not have enough customers to consume all the water it diverted. In a 2003 "white paper," WACI's president quantified its "ownership" of the ditch flow and calculated that, of the average 63.24 mgd diverted by the system, there was "a daily balance of 37.03 mgd controlled by WACI" after subtracting allocations for kuleana users, losses, and HC&S's 14.81 mgd share under the 1924 Agreement. RA106:16-17. Of the 37.03 mgd it controlled, WACI explained that, after subtracting current and future uses "allocated by WACI," there was an "unallocated flow of 29.25 mgd." RA106:17. Two years later, in 2005, WACI, by then known as WWC, reported that the allocations to existing customers (who then numbered 13) had increased to 9.5 mgd, so the 29.25 mgd of "unallocated flow" in 2003 had decreased to 27.5 mgd that was "available to new customers." RA80:81.

The beneficiary of WWC's inability to find paying customers for all the water it diverted from the Nā Wai `Ehā streams was HC&S. WACI and HC&S entered a short-term lease in 1994 by which HC&S leased approximately 1,080 acres of former Wailuku Sugar/WACI fields (the "Leased Fields"). RA128:77-98. Pursuant to a "Temporary Water Agreement," RA128:41-58, WACI and HC&S agreed to temporarily increase HC&S's allocated share of the Nā Wai `Ehā water pursuant to the 1924 Agreement, contingent on the execution of the lease. RA128:41-2. In addition to the Leased Fields, HC&S began cultivating Field 920, a field owned by HC&S which it had previously leased to WACI. RA58:156-57, ¶ 6. The Leased Fields and Field 920 are referred to collectively as the "`Īao-Waikapū Fields." *Id.;* RA60:5 (showing the `Īao-Waikapū Fields at the

lower right in dark green). WACI notified HC&S in 2003 that the lease had expired and would not be extended and, since the lease was terminated, the Temporary Water Agreement also terminated, so "you are no longer entitled to any water allocation pursuant to that Temporary Water Agreement." RA138:2.

In July, 2005, HC&S entered a short-term lease with the new owner of the Leased Fields, RA128:100-16, and on the same date, reached agreement with WACI for delivery of Nā Wai `Ehā water for the Leased Fields and Field 920 based on a flat per-acre fee, RA124:69. The estimated 12 mgd water delivery under that 2005 agreement was expected to generate $375,000 per year in revenues to WWC, but would use only a portion of the 27.5 mgd "available to new customers" of WWC. RA80:81. Until those new customers materialize, HC&S currently, but temporarily, uses *all* of the diverted Nā Wai `Ehā water not being used by WWC's customers, *id.,* an average of 49.4 mgd. FOF 283 (39 mgd for Waihe`e-Hopoi Fields); FOF 286 (10.43 mgd for `Īao-Waikapū Fields); RA321:130, ll. 13-22 (acknowledging that, as WWC enters delivery agreements with more customers, there will less water available for HC&S).

Even though HC&S expanded cultivation to the `Īao-Waikapū Fields, and minimized pumping from Well No. 7, RA58:163, ¶ 7, the windfall of additional Nā Wai `Ehā water it received when WACI ceased cultivation was far more than HC&S has been able to put to productive use. For example, HC&S agrees that, due to differences in climatic conditions and soil type, the `Īao-Waikapū Fields need less water than the Waihe`e-Hopoi Fields. *See, e.g.,* RA321:90, l. 24 – 91, l. 11. Using a computerized daily water budget model, Dr. Fares, an expert jointly retained by the Hui o Nā Wai `Ehā and Maui Tomorrow Foundation, Inc. (collectively, the "Community Groups"), OHA and Maui Department of Water Supply ("MDWS"), calculated the optimal irrigation requirement for sugar cane grown on the Waihe`e-Hopoi Fields as 5,674 gallons per acre per day ("gad"), and the optimal irrigation requirement for sugar cane grown on the `Īao-Waikapū Fields as 5150 gad, which are the amounts that would be sufficient to satisfy the irrigation needs of the crop in 80 percent of the years during the 54-year period of the rainfall data. RA88:95-96; FOF 464, FOF 465. Notwithstanding that the actual needs of the `Īao-Waikapū Fields are lower than those of the Waihe`e-Hopoi Fields, during the period 2004 through 2006 (which is the only period for which it provided data), HC&S used an average of 6,828 gad, or 120% of the optimal irrigation requirement, on the Waihe`e-Hopoi Fields, FOF 436; RA88:95, and 7,716 gad, or *150% of the optimal irrigation requirement*, on the `Īao-Waikapū Fields, FOF 441; RA88:96.

HC&S claimed that its water use on the `Īao-Waikapū Fields was skewed by the inclusion of Field 920, RA58:167, ¶¶ 18, 19, but even when Field 920 was excluded from the calculation, HC&S's use on the `Īao-Waikapū Fields excluding Field 920 (i.e., the Leased Fields) was 7,098 gad, *id.*; FOF 443, which is *still* more than it applied on the Waihe`e-Hopoi Fields, and still 141% of the 5,026 gad that Dr. Fares calculated as the optimal irrigation requirement for those fields, FOF 467.[8] HC&S's only explanation for why it used more water on the `Īao-Waikapū Fields than the Waihe`e-Hopoi Fields notwithstanding lower irrigation requirements was that "based on the delivery infrastructure," there is more water available to the `Īao-Waikapū Fields, and "[w]e basically irrigate with what is available." RA321:97, l. 22 – 98, l. 12. The over-irrigation of the `Īao-Waikapū Fields did not, however, result in greater sugar production; despite the greater "availability" of water, during the 2004-2006 period the `Īao-Waikapū Fields actually yielded *less* than the Waihe`e-Hopoi Fields. *Id.*, RA321:98, l. 13 – 99, l. 6.

Most of the over-irrigation of the `Īao-Waikapū Fields was on Field 920, which effectively served as a "dumping ground" for "excess" Nā Wai `Ehā water that HC&S and WACI did not need but did not want to return to the streams. HC&S dumped millions of gallons per day on Field 920, which it has recognized for years is a "marginal" field. RA322:68, l. 20 – 69, l. 6). By May 2005, HC&S had a plan for soil remediation work on Field 920 because the field "is very sandy and has a low yield history." RA124:67. Despite HC&S's acknowledgement that, in its unremediated state, Field 920 was one that it would consider leaving fallow "if water availability were an issue," RA321:159, l. 24 – 160, l. 3, and that "Waiale [Field 920] could be taken out [of production] without harming HC&S very much," RA322:73, ll. 17-18, HC&S continued to use that field without remediation through 2007, RA130:140-41, and dumped an average of 11,220 gad on Field 920 during 2004-2006,[9] almost *double* the optimal irrigation requirement of 5,752 gad. FOF

[8] The majority made a calculation error when it concluded that HC&S's 2004-2006 use on the `Īao-Waikapū Fields was 38% higher than the irrigation requirement calculated by Dr. Fares. COL 90. It calculated the 38% excess by comparing HC&S's actual use of 7,098 gad, which was its use on the `Īao Waikapū Fields *excluding* Field 920, FOF 443, with Dr. Fares's calculation of 5,510 gad, which was the requirement for the for `Īao-Waikapū Fields *including* Field 920, FOF 465. HC&S applied 50 percent more than the optimal irrigation requirement on the `Īao-Waikapū Fields (which include Field 920), (RA88:96), and 41 percent more than the optimal irrigation requirement on the Leased Fields (which exclude Field 920).

[9] For the period 2004-2006, HC&S calculated that an average of 10.42 mgd was used on the `Īao-Waikapū Fields including Field 920 and an average of 7.78 mgd was used on the `Īao-Waikapū Fields excluding Field 920. (Exhs. E-6 and E-7.) The difference, 2.64 mgd, is thus the average

466. HC&S stopped using Field 920 after the 2007 harvest, and it is slated for development as part of A&B's 800-acre, 4,500 residential unit development at Wai`ale. RA110:77; RA136:63-64; RA321:161, ll. 17-24; RA322:69, ll. 19-22.

In addition to applying 50 percent more water than needed on the `Īao-Waikapū Fields and 20 percent more water than needed on the Waihe`e-Hopoi Fields, from 2004-2006 HC&S squandered billions of gallons taken from Nā Wai `Ehā streams that was not used to irrigate sugar cane, or for any other purpose. What HC&S characterized as the "differential" between the amount of water delivered to Wai`ale Reservoir and the amount used for irrigation on the Waihe`e-Hopoi Fields during that period amounted to 9.88 billion gallons (approximately 9 mgd), which is more than 25 percent of the 38.4 billion gallons diverted from Nā Wai `Ehā streams and delivered to Wai`ale Reservoir during that period. RA60:9. HC&S estimated that seepage from Wai`ale Reservoir is 6-8 mgd, and seepage from the rest of the ditch and reservoir system serving the Waihe`e-Hopoi Fields is 3-4 mgd. RA58:167, ¶ 16.[10] Although the seepage from Wai`ale Reservoir has been obvious for years, HC&S never made any attempt to determine what it would cost to line the reservoirs and eliminate, or substantially reduce, the seepage from Wai`ale Reservoir or the other reservoirs and ditches that it estimates lose 3-4 mgd. RA321:57, l. 24 – 59, l. 20.

In fact, with the windfall of "excess" Nā Wai `Ehā water that WWC could not otherwise dispose of, not only was HC&S unconcerned about losing 9 mgd to seepage, its "sister" division of A&B, A&B Properties, proposed to build a surface water treatment plant to treat 9 mgd of the Nā Wai `Ehā water currently delivered to Wai`ale Reservoir, from which it would obtain source credits to support its development plans and, assuming some agreement could be reached with WWC, sell the balance to MDWS for municipal use. RA323:18, l. 13 – 21, l. 21.

While HC&S had enough Nā Wai `Ehā water in 2004-2006 that it could dump almost 3 mgd on Field 920, a marginal field that it had never seen any need to cultivate before, lease 1,080 acres of additional fields on a short-term basis and apply 41 percent more water than needed

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water use on Field 920 over the period 2004-2006. During that period, HC&S had 235.3 acres of Field 920 planted (156.5 acres in crop cane and 78.8 acres in seed cane) RA321:25, ll. 11-16; 26, l. 8 – 27, l. 7, so the average use of 2.64 mgd on Field 920 amounts to 11,220 gad.

[10] Mr. Volner also estimated that 1-2 mgd of the "differential" was water used by Monsanto, a third-party lessee, *id.,* but when presented with Monsanto's metered usage, which was only five to ten percent of that estimate, he acknowledged that his estimate was inaccurate and that the 1-2 mgd he testified was being used by Monsanto was instead, presumably, "in one of the other categories" (*i.e.*, seepage from Wai`ale Reservoir or seepage from HC&S's other reservoirs and ditches). RA321:63, l. 3 – 65, l. 25.

for optimal irrigation, apply 20 percent more water than needed for optimal irrigation on its Waihe`e-Hopoi Fields, lose 9 mgd to seepage without feeling any need to mitigate that loss, and still have 9 mgd left over to support A&B Properties' development plans, the lack of flowing water left Nā Wai `Ehā's Native Hawaiian communities struggling to keep their cultural traditions alive.

Water has critical significance in all aspects of Hawaiian life and culture. RA58:32-33, ¶ 7; RA58:26, ¶ 3. "In traditional Hawai`i, water was considered an akua, or god, and was treated accordingly, with reverence and respect. Water signified life and was called 'ka wai`ola O Kāne,' because without water there can be no life." RA58:26, ¶ 4. "Kāne, who is the creator of the world and one of the four major Gods of Hawai`i, is found in all waters and is considered the most basic element for all things living. Kāne represents the most primal interaction of water penetrating the earth, which Hawaiians believe is the origin of life, and was thus recognized as an ancestor to the ali`i and maka`āinana in ancient Hawai`i." RA58:32-33, ¶ 7); *see also* RA58:40, ¶¶ 8, 9; RA68:116-17, ¶ 4; RA58:68-69.

"Th[e] interconnectedness of the land, the water, and the people is at the very core of the traditional and customary practices of native Hawaiians and Hawaiians, which are guided by the principles of aloha `āina and mālama `āina (to love, care for, and protect the land)." RA58:26-27, ¶ 8. "Mālama i ka `āina, or caring for the land, is a central tenet of traditional Hawaiian thought and spirituality." RA58:27, ¶ 9. "Aloha `āina is, at its root, the principle that land is both religion and culture, which is a foundation of Hawaiian culture and the practice of Hawaiian customs, lifestyles and traditions." RA58:32, ¶ 6.

"In particular, steady flowing water is essential for kalo cultivation, which in turn is integral to the well-being, sustenance, and cultural and religious practices of native Hawaiians and Hawaiians." RA58:26, ¶ 6. In the Kumulipo, or Hawaiian creation chant, kalo is the older brother of the first Hawaiian.[11] "As the older sibling of the Hawaiian people, kalo feeds us physically and spiritually. As the younger sibling, the duty of the kanaka is to take care of our kupuna and plant, grow, and mālama our kalo. Without fresh flowing water, we cannot fulfill that duty." RA58:34, ¶ 11; *see also* RA58:43, ¶ 20.

Given the significance of kalo in Hawaiian culture, many Native Hawaiians continue to cultivate kalo using traditional methods in Nā Wai `Ehā, but are restricted in their ability to do so

[11] The familial relationship between kalo and the Hawaiian people is reinforced linguistically; the Hawaiian term for family, `ohana, is derived from the word `oha, meaning the offspring which grows from the corm of the kalo plant. RA58:34, ¶ 12.

by lack of water. The nearly universal testimony of approximately thirty kuleana users who presented undisputed evidence of their appurtenant rights, and others exercising their traditional and customary right to grow kalo, was that they do not have sufficient, or in some cases any, water to satisfy their rights. *See generally* Hui O Nā Wai `Ehā and Maui Tomorrow Foundation, Inc's Proposed Findings of Fact, § IV (RA160:246-309) (summarizing evidence regarding kuleana and traditional and customary water rights and uses); *see also,* FOF 234, FOF 296, FOF 335. As it dewatered the streams and physically altered the ancient `auwai systems for its own purposes, Wailuku Sugar recognized, at least on paper, that it had an obligation to provide water from its ditch system for those kuleana users that it cut off from the streams and traditional `auwai. *See, e.g.,* RA104:78-79; RA110:40 (1961 Wailuku Sugar map of Waiehu kuleana receiving water from ditch system). Now, most of the kuleana users are dependant on WWC's ditch system for their water, FOF 221 and D&O, p. 202 (Table 1); *see also* FOF 229-232 and D&O, pp. 204-09 (Tables 3 – 6) (from WWC Exh. D-7, identifying kuleana users receiving water from the Wailuku Ditch System), and do not receive sufficient water for their kalo. FOF 234.

Kalo cultivation is not the only traditional and customary right that has been denied by the dewatering of Nā Wai `Ehā. With the streams largely dry below the diversions, the once-abundant `o`opu, `ōpae, and hīhīwai that supported a thriving population in Nā Wai `Ehā are now rare, and Native Hawaiians in Nā Wai `Ehā are currently unable to exercise their traditional and customary rights to gather these resources below the diversions, although many wish to do so. *See, e.g.,* RA58:37, ¶ 22; RA58:57, ¶ 33; RA58:45-46, ¶ 13; RA68:2, ¶ 7. The nearshore marine ecosystem also needs freshwater to thrive, and lack of streamflow has diminished the availability of resources such as limu, fish and crab to support Native Hawaiian gathering practices. *See, e.g.,* RA58:37, ¶ 23; RA70:92-93, ¶¶ 5-6; RA70:109, ¶ 9, 110-11, ¶ 14; RA302:194, ll. 14-21.

The rituals and protocol for preparing materials gathered for hula, such as hau, palapalai, la`ī, and lau`ae, involve cleaning and soaking the gathered materials in the stream to prepare them for weaving or braiding, and require stream flow. RA58:36, ¶ 21; RA58:39, ¶ 6.

Many of the spiritual or religious practices of Native Hawaiians also require freshwater flows, and the dewatering of Nā Wai `Ehā streams has limited the ability of cultural practitioners to continue these practices. For example, "the act of purifying oneself with freshwater (pīpīwai) or with ocean or brackish water for pīkai is important to many traditional and religious practitioners." RA68:117-18, ¶ 7. Pīpīwai requires the sprinkling of freshwater, and practitioners "cannot pīpīwai from the faucet." *Id.* Hi`uwai, which requires immersion in fresh water, is another

form of ritual bathing to purify oneself that is important to traditional practitioners in Nā Wai `Ehā; "Hi`uwai has been engaged in Na Wai Eha since time immemorial and continues to this day." RA58:37, ¶ 24.

As one Nā Wai `Ehā cultural practitioner testified:

> Restoration of mauka to makai flow to the streams is critical to the perpetuation and practice of Hawaiian culture in Nā Wai `Ehā. Through our gods and our stories and our traditions, the Hawaiian people have a deep connection to fresh water, but continuous access to its use and inspiration has been denied for generations. If we are not able to maintain our connection to the land and water and teach future generations our cultural traditions, we lose who we are as a people. To have the water flow once again, tells me there is life on our land. Without flowing water present, Hawaiian culture will not survive and generations of Hawaiians will not know the primary Hawaiian views of their relationship to the environment.

RA58:37-38, ¶ 25.

B. <u>Procedural Background</u>

The Community Groups filed their Petition to Amend the Interim Instream Flow Standards for Waihe`e, North and South Waiehu, `Īao and Waikapū Streams ("IIFS Petition") on June 25, 2004, seeking an upward amendment of the interim instream flow standards ("IIFS") to support native stream life, fish and wildlife habitats, traditional and customary Native Hawaiian rights and practices, and other public trust uses of Nā Wai `Ehā streams. RA 40:1-135; 42:1-196.

Following the July 21, 2003 designation of the `Īao Aquifer System Area as a Ground Water Management Area, existing users had one year to file Water Use Permit Applications ("WUPAs") to continue their uses from the `Īao Aquifer; on or before July 21, 2004, MDWS, HC&S, and WWC filed WUPAs to continue their existing uses of, *inter alia,* the high-level, dike-impounded `Īao Aquifer ground water. RA26:1-9; 28:1-13; 34:2-4; 36:2-4; 38:2-5. All of the WUPAs were the subject of objections, *see* FOF 4, and OHA, the Community Groups, MDWS, HC&S, and WWC all filed timely written requests for a contested case hearing on the high-level dike WUPAs, *see* FOF 16.

On February 15, 2006, the Commission initiated a combined contested case hearing for the WUPAs and the IIFS petition (RA52:3-9; 13-18) and, on April 18, 2006, Dr. Lawrence Miike was appointed as Hearings Officer (RA52:18-19). By Minute Order Number 2 dated June 20, 2006, standing was granted to the Community Groups, OHA, MDWS, HC&S, and WWC to participate in the contested case hearing. RA56:145.

The evidentiary portion of the contested case hearing commenced on December 3, 2007 on Maui, and continued over 23 hearing days, concluding on March 4, 2008. FOF 25. On July 18, 2008, HC&S moved to reopen evidence to offer a report of its paid consultant, John Ford, who testified at the contested case hearing but did not complete his report. RA156:4-72. Following hearing on August 21, 2008, and over objection by the Community Groups (RA156:80-116), OHA (RA156:117-136) and MDWS (RA156:137-140), HC&S's motion was granted (RA156:153-155), and an additional hearing day was scheduled for October 14, 2008 (RA156:162). When the evidentiary phase of the hearing again closed on October 14, 2008, 77 witnesses had testified and more than 600 exhibits had been received in evidence. FOF 30. On December 5, 2008, proposed Findings of Fact, Conclusions of Law, and Decisions and Orders were filed by HC&S (RA158:284-397), the Community Groups (RA160:169-444), MDWS (RA162:3-31) and WWC (RA162:36-188). On the same date, the Community Groups also filed a Closing Brief (RA160:2-168) and OHA filed joinders in the Community Groups' proposed Findings of Fact (RA158:280); proposed Conclusions of Law (RA158:277), proposed Decision and Order (RA158:274) and Closing Brief (RA158:271).

The Hearings Officer issued his Proposed Findings of Fact, Conclusions of Law, and Decision and Order ("Proposed Decision) on April 29, 2009 (RA188:1-221). Among other things, the Hearings Officer's Proposed Findings of Fact included:

- 57. "Nā Wai `Ehā continues to hold the potential to once again support enhanced traditional and customary rights and practices if sufficient water is restored." [] Restoring streamflow to Nā Wai `Ehā "would enormously benefit" Native Hawaiians and other communities who seek to reconnect with their culture and live a self-sustaining lifestyle, and more people would be able to engage in traditional and customary practices with more water.

- 58. "Restoration of mauka to makai flow to the streams is critical to the perpetuation and practice of Hawaiian culture in Nā Wai `Ehā." "If we are not able to maintain our connection to the land and water and teach future generations our cultural traditions, we lose who we are as a people."

- 59. "The return of the waters of Nā Wai `Ehā to levels that can sustain the rights of native Hawaiians and Hawaiians to practice their culture will result in the betterment of the conditions of native Hawaiians and Hawaiians by restoring spiritual well-being and a state of 'pono' (goodness, righteousness, balance) to the people and communities of Nā Wai `Ehā."

- 60. In particular, cold, free-flowing water is essential for kalo cultivation, which in turn is integral to the well-being, sustenance, and cultural and religious practices of

> native Hawaiians and Hawaiians. Kalo cultivation provides not only a source of food, but also spiritual sustenance, promotes community awareness and a connection to the land, and supports physical fitness and mental well-being.

RA188: 21-22 (citations omitted). The Proposed Decision recommended restoring a total of 34.5 mgd to Nā Wai `Ehā streams: 14 mgd to Waihe`e River, 2.2 mgd to North Waiehu Stream, 1.3 mgd to South Waiehu Stream, 13 mgd to `Īao Stream, and 4 mgd to Waikapū Stream (conditioned on flows reaching Kealia Pond). RA188:183-189.

On May 11, 2009, exceptions to the Proposed Decision were filed by OHA (RA188:233-267), HC&S (RA188:270-331), the Community Groups (RA188:334-366), WWC (RA188:370-406), and MDWS (RA188:410-419). In its exceptions HC&S proposed, for the first time, alternate IIFS totaling 16 mgd, calculated to minimize the number of days that HC&S would have to pump from Well No. 7. (RA188:310.) The hearing on the exceptions was held before four of the seven Commission members on Maui on October 15, 2009. RA336:1-2. A&B's CFO, who had recently been named HC&S's General Manager, presented HC&S's argument, RA336:11, ll. 7-15, and, given the precipitous downturn in the economy in the eighteen months since the evidentiary portion of the contested case originally concluded, used the opportunity to point out HC&S's 2008 and 2009 losses, *id.,* p. 16, ll. 10-13; p. 19, ll. 21-24 (RA336:16, ll. 10-13; 19, ll. 21-24),[12] and to threaten the Commission no less than five times that if it adopted the Proposed Decision, HC&S would shut its entire plantation down, which would put 800 people out of work. RA336:13, ll. 1-6; 21, ll. 19-25; 23, ll. 13-20; 24, ll. 20-23; 25, ll. 4-8.

On June 10, 2010, six years after the IIFS Petition was filed and more than two years after closing arguments in the contested case hearing, a majority of the Commission issued its Decision, RA192:4-239, from which Dr. Miike, the Hearings Officer who presided over the contested case hearing and heard all of the evidence, dissented, RA192:240-247. The majority acknowledged the "uncontroverted testimony" provided by cultural experts and community witnesses regarding "limitations on Native Hawaiian's ability to exercise traditional and customary

[12] According to Mr. Benjamin's unsworn "testimony," HC&S's $25 million loss in 2009 was due to "the 2007-2008 drought, which caused our sugar production to drop by almost 25 percent." RA336:16, ll. 10-13. According to the *sworn* testimony HC&S put in the record, however, the reduction in sugar production in 2008 and 2009 was *planned in 2007*, in order to correct for prior management decisions that had reduced the age of the crop: "HC&S expects to reduce its rate of harvesting into 2008 and 2009 to allow for an increase in crop age so as to improve crop yields, and then return to harvesting at its historic rate[.] . . . *The short term result will be diminished revenues from both sugar production* and reduced production of bagasse to fuel the power plant." RA114:30-31, ¶ 11 (emphasis added); FOF 538.

rights and practices in the greater Nā Wai `Ehā area due to the lack of freshwater flowing in Nā Wai `Ehā's streams and into the nearshore marine waters." FOF 49. It also found that the diversions were the "overriding factor impairing the biological and ecological integrity" of the streams, and "particularly compromise the life cycles of native amphidromous species in numerous ways[.]" FOF 68-75. Despite these and other findings about the need to restore instream flows to protect public trust uses, and notwithstanding that its own conclusions demonstrate that HC&S diverts an average of 20 mgd to 29 mgd *more* from Nā Wai `Ehā streams than it puts to reasonable-beneficial use,[13] the majority restored a total of only 12.5 mgd to Waihe`e River (10 mgd), North Waiehu Stream (1.6 mgd) and South Waiehu Stream (0.9 mgd), and failed to restore *any water at all* to `Īao Stream or Waikapū Stream. D&O, pp. 185-187.

In his dissent, the Hearings Officer pointed out that the majority turned their public trust responsibilities "on their heads" by "consistently choosing presumptions in favor of HC&S and to the detriment of stream restoration," the most glaring example being the arbitrary reduction of the practicability of Well No. 7 as an alternative water source, the vehicle by which "`Īao Stream's restoration gave way to HC&S's irrigation requirements." Dissent, p. 2. "Moreover, restoration of the Nā Wai `Ehā waters is of importance for traditional and customary purposes. FOF 34-62, 233-234. In addition to its duty to resolve uncertainty in favor of resource protection, the Commission has a duty to take feasible actions to reasonably protect native Hawaiian rights." *Id.,* p. 3 (citation omitted). "By giving HC&S more stream waters than required to operate its West Maui Fields, the Commission's Majority has forgotten that the purpose of this contested case was to restore Nā Wai `Ehā's waters to reasonable levels that struck a balance between instream and offstream uses. . . . and treated the IIFS not as stream restoration, but as leftovers, acting as a reservoir for future offstream uses." *Id.*, p. 7. "By its decision, the majority has failed in its duties under the Constitution and the State Water Code as trustee of the state's public water resources." *Id.*

[13] The majority concluded that the total irrigation need for the Waihe`e-Hopoi Fields (including an additional 300 acres which had previously been irrigated with wastewater) and the `Īao-Waikapū Fields is 27.81 mgd. COL 227. The majority also concluded that 9.5 mgd could be practicably replaced with water pumped from Well No. 7 during dry periods, COL 230, and "estimated" that system losses of 2 mgd were "reasonable" for HC&S, COL 229 (although it expressly concluded that HC&S did not meet its burden to demonstrate that it was not practicable to mitigate or eliminate system losses (COL 123)). Therefore, HC&S's "reasonable-beneficial" use of Nā Wai `Ehā water, according to the majority, is 20.31 mgd when Well 7 is being used, COL 232, and 29.81 mgd when it is not. COL 231. HC&S diverts an average of 49.4 mgd from Nā Wai `Ehā streams, FOF 283, 286, so according to the majority, 19.6 to 29.1 mgd of the diverted water is *not* put to reasonable-beneficial use.

C. Legal Framework for IIFS

Following the Hawai`i Supreme Court's 2000 decision in *In re Waiāhole Ditch Combined Contested Case Hearing,* 94 Hawai`i 97, 9 P.3d 409 (2000) ("*Waiāhole I*"), in which the issue was the subject of controversy, "[i]t is now well established that the public trust doctrine is a 'fundamental principal of constitutional law in Hawai`i,' . . . and that its principles permeate the State Water Code." *In re Kukui (Molokai) Contested Case Hearing,* 116 Hawai`i 481, 490, 174 P.3d 320, 329 (2007) ("*Kukui (Molokai)*") (citation to *Waiāhole I* omitted). "Under article XI, sections 1 and 7 of the Hawai[`]i Constitution, the public trust doctrine applies to all water resources without exception or distinction." COL 10 (citing *Waiāhole I,* 94 Hawai`i at 133, 9 P.3d at 445). As an initial matter, the majority's gratuitous assertion that this was not always the case, *see* COLs 202, 203, is fundamentally at odds with one of the most significant and enduring legacies of the late Chief Justice Richardson – the "reassertion of the dormant public interest in the diversion and application of Hawaii's waters." *Robinson v. Ariyoshi*, 65 Haw. 641, 676, 658 P.2d 286, 311 (1982).

Almost 40 years ago, in *McBryde Sugar Co. v. Robinson*, 54 Haw. 174, 504 P.2d 1330, *aff'd upon reh'g*, 55 Haw. 260, 517 P.2d 26 (1973), *appeal dismissed* and *cert. denied*, 417 U.S. 962, 94 S.Ct. 3164, 41 L.Ed.2d 1135, *cert. denied*, 417 U.S. 976, 94 S.Ct. 3183, 41 L.Ed.2d 1146 (1974), the Richardson Court examined the principles adopted by the Land Commission in implementing the Māhele and observed that the Hawaiian Kingdom, in granting land ownership interests, had expressly reserved the sovereign prerogative "[t]o encourage and even to enforce the usufruct of lands for the common good[,]" so "the following confirmations of the board and titles consequent upon them must be understood subject to these conditions. L.1847, 85; RLH 1925, Vol. II, pp. 2124, 2128." *McBryde*, 54 Haw. at 186, 504 P.2d at 1338. The Court explained that "[w]e believe that the right to water is one of the most important usufruct of lands, and it appears clear to us that by the foregoing limitation *the right to water was specifically and definitely reserved for the people for their common good in all land grants.*" *Id.* at 186, 504 P.2d 1338 (emphases added).

In *Robinson, supra*, the Richardson Court reiterated and elaborated on its holdings in *McBryde,* explaining that:

> In *McBryde, supra*, we indeed held that at the time of the introduction of fee simple ownership to these islands the king reserved the ownership of all surface waters. 54 Haw. at 187, 504 P.2d at 1339. *But we believe that by this reservation, a public trust was imposed on all the waters of the kingdom*. That is, we find the public interest in the waters of the kingdom was understood to necessitate a retention of authority and the imposition of a concomitant duty to maintain the purity and flow of our waters for future

> generations and to assure that the waters of our land are put to reasonable and beneficial uses.

Id. at 673-74, 658 P.2d at 310 (emphasis added).

That "prior courts had largely ignored the mandates of the rulers of the Kingdom and the traditions of the native Hawaiians," *Reppun v. Board of Water Supply*, 65 Haw. 531, 545, 656 P.2d 57, 67 (1982), extinguished neither the public interest in those resources nor the State's obligation to preserve them for future generations. "[*McBryde*] made clear that underlying every private diversion and application there is*, as there always has been,* a superior public interest in this natural bounty." *Robinson*, 65 Haw. at 677, 658 P.2d at 312 (emphasis added). The majority need not be concerned, therefore, about "fundamentally turning on its head" the law prevailing at the time the Wailuku Ditch System was constructed by fulfilling its obligation to establish IIFS that protect the public trust uses of Nā Wai `Ehā water. *See* COL 204.

The Hawai`i Supreme Court unequivocally laid any such concern to rest in *Waiāhole I*: "[w]e recognize . . . that this case largely involves 'existing' diversions predating the [State Water] Code[, HRS Ch. 174C]. But *this does not relieve the Commission of its duty to consider and support the public interest in instream flows.*" *Id.,* 94 Hawai`i at 149, 9 P.3d at 461 (emphasis added). "[E]xisting uses are not automatically 'grandfathered' under the constitution and the Code, especially in relation to public trust uses," and "the public trust authorizes the Commission to reassess previous diversions and allocations, even those [unlike the diversions of Nā Wai `Ehā streams] made with due regard to their effect on trust purposes." *Id.* at 149, 9 P.3d at 461. In sum, "[t]he Commission's duty to establish proper instream flow standards continues notwithstanding existing diversions." *Id.,* 94 Hawai`i at 150, 9 P.3d at 462.

In *Waiāhole I,* the Hawai`i Supreme Court provided detailed guidance to the Commission regarding the constitutional and statutory framework by which it is to fulfill its public trust duty to protect instream flows, and it is that law, rather than its own interpretation of the prevailing law of a century ago, with which the majority ought to concern itself. Under the public trust doctrine, the State, through the Commission, has "an affirmative duty to take the public trust into account in the planning and allocation of water resources, and *to protect public trust uses whenever feasible*." *Waiāhole I,* 94 Hawai`i at 141, 9 P.3d at 453 (emphasis added). As applicable to Nā Wai `Ehā, the protected public trust purposes or uses identified by the Hawai`i Supreme Court in *Waiāhole I* include: "maintenance of waters in their natural state" and "the exercise of Native Hawaiian and traditional and customary rights," which the Court described as the "original intent"

of the trust, including appurtenant (or "kuleana") rights. *Id.* at 448-49 and n.34, 9 P.3d at 136-37 and n.34. The *Waiāhole I* Court expressly rejected the notion that the public trust encompassed use of trust resources for private commercial gain, explaining that "if the public trust is to retain any meaning and effect, it must recognize enduring public rights in trust resources separate from, and superior to, the prevailing private interests in the resources at any given time." *Id.* at 450, 9 P.3d at 450 (citing *Robinson,* 65 Haw. at 677, 658 P.2d at 312).

In order to protect instream uses of water, the Code requires that the Commission "establish an instream use protection program designed to protect, enhance, and reestablish, where practicable, beneficial instream uses of water in the State," Hawaii Revised Statutes ("HRS") HRS §§ 174C-5(3), 71(4) (1993), which uses include, *inter alia*: protecting traditional and customary Hawaiian rights, maintaining fish and wildlife habitats, maintaining ecosystems such as estuaries and wetlands, outdoor recreational activities, and aesthetic values. HRS §§ 174C-3 (1993) (defining "instream use"), 174C-2(c) (1993) (enumerating uses declared to be in the public interest). "Under the Code, . . . instream flow standards serve as the primary mechanism by which the Commission is to discharge its duty to protect and promote the entire range of public trust purposes dependent upon instream flows." *Waiāhole I*, 94 Hawai`i at 148, 9 P.3d at 460.[14]

Instream flow standards may be permanent or "interim." HRS § 174C-3. An interim instream flow standard, or IIFS, "protect[s] the public interest pending the establishment of a permanent instream flow standard," HRS § 174C-71(2)(A) (1993), and terminates upon the establishment of a permanent instream flow standard for the same stream, HRS § 174C-71(2)(B) (1993). Thus, an IIFS is a "stopgap solution preceding the establishment of permanent standards[.]" *Waiāhole I*, 94 Hawai`i at 150, 9 P.3d at 462. However, "[n]otwithstanding their temporary effect, … interim standards must still provide meaningful protection of instream uses" as mandated by HRS § 174C-71(2)(A). *Id.* at 151, 9 P.3d at 463. That is, interim standards must make "adequate provision for traditional and customary Hawaiian rights" and other uses in the public interest. *See id.* at 146, 9 P.3d at 458 (discussing the policy set forth by HRS § 174C-2(c)).

In determining an IIFS, "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." HRS §

[14] An instream flow standard is "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 fishery, wildlife, recreational, aesthetic, scenic, and other beneficial uses." HRS § 174C-3.

174C-71(2)(D) (1993). The public trust requires that "any balancing between public and private purposes begin with a presumption in favor of public use, access and enjoyment," imposing a "'higher level of scrutiny' for private commercial uses such as those proposed in this case. In practical terms, this means that *the burden ultimately lies with those seeking or approving such uses to justify them in light of the purposes protected by the trust.*" *Waiāhole I*, 94 Hawai`i at 142, 9 P.3d at 454 (emphasis added).

II.

POINTS OF ERROR

A. A majority of the Commission erred by adopting IIFS that fail to consider and protect traditional and customary Native Hawaiian rights, including appurtenant rights, to the extent feasible, as required by the Hawai`i Constitution, the State Water Code, the public trust doctrine, and the common law as determined by the Hawai`i Supreme Court. The error is at D&O, pp. 185-86. OHA has consistently advocated the position that the exercise of traditional and customary Hawaiian rights is a public trust use that needed to be considered and protected in establishing the IIFS, *see, e.g.,* RA58:1-11, but had no opportunity to object to the Decision, which is where the error first appeared.

B. A majority of the Commission erred by failing to hold HC&S to its burden of proving that use of Well No. 7 was not a practicable alternative to draining Nā Wai `Ehā streams and nonetheless arbitrarily restricting the practicability of Well No. 7 as an alternative water source. COL 230. OHA objected to the failure to hold HC&S to its burden to demonstrate the absence of practicable alternatives, and the failure to require HC&S to use more than 14 mgd from Well No. 7, at RA188: 244-52.

III.

STANDARD OF REVIEW

Appeals taken from orders of the Commission are governed by the Hawai'i Administrative Procedure Act, HRS Chapter 91 (1993). HRS § 91-14(g) (1993) provides:

> Upon review of the record the court may affirm the decision of the agency or remand the case with instructions for further proceedings; or it may reverse or modify the decision and order if the substantial rights of the petitioners may have been prejudiced because the administrative findings, conclusions, decisions, or orders are:
>
> (1) In violation of constitutional or statutory provisions; or
>
> (2) In excess of the statutory authority or jurisdiction of the agency; or

(3) Made upon unlawful procedure; or

(4) Affected by other error of law; or

(5) Clearly erroneous in view of the reliable, probative, and substantial evidence on the whole record; or

(6) Arbitrary, or capricious, or characterized by abuse of discretion or clearly unwarranted exercise of discretion.

"Under HRS § 91-14(g), conclusions of law are reviewable under subsections (1), (2), and (4); questions regarding procedural defects are reviewable under subsection (3); findings of fact are reviewable under subsection (5); and an agency's exercise of discretion is reviewable under subsection (6)." *Alvarez v. Liberty House, Inc.*, 85 Hawai'i 275, 278, 942 P.2d 539, 541 (1997).

Conclusions of law "are freely reviewable to determine if the agency's decision was in violation of constitutional or statutory provisions, in excess of statutory authority or jurisdiction of agency, or affected by other error of law." *Waiāhole I*, 94 Hawai`i at 119, 9 P.3d at 431 (citations omitted). Findings of fact "are reviewable under the clearly erroneous standard to determine if the agency decision was clearly erroneous in view of the reliable, probative, and substantial evidence on the whole record." *Id.* (citations omitted). "A COL that presents mixed questions of fact and law is reviewed under the clearly erroneous standard because the conclusion is dependent upon the facts and circumstances of the particular case." *Id.* (citations omitted). "An FOF or a mixed determination of law and fact is clearly erroneous when (1) the record lacks substantial evidence to support the finding or determination, or (2) despite substantial evidence to support the finding or determination, the appellate court is left with the definite and firm conviction that a mistake has been made." *Id.* (citation omitted). "Substantial evidence" is "credible evidence with is of sufficient quality and probative value to enable a person of reasonable caution to support a conclusion." *Id.* (citation and internal quotation marks omitted).

Finally, the public trust is a statue constitutional doctrine and, "[a]s with other state constitutional guarantees, the ultimate authority to interpret and defend the public trust in Hawai`i rests with the courts of this state." *Waiāhole I,* 94 Hawai`i at 143, 9 P.3d at 455. Accordingly, "this court will take a '*close look*' at the action to determine if it complies with the public trust doctrine and it will not act merely as a rubber stamp for agency or legislative action." *Id.* at 144, 9 P.3d at 456 (citation and internal quotation marks omitted) (emphasis in original).

OHA's points on appeal concern conclusions that are legally erroneous and freely reviewable by this Court.

IV.

ARGUMENT

A. The Majority Erred by Failing to Establish IIFS that Protect Traditional and Customary Hawaiian Rights and Kuleana Rights to the Extent Feasible

Under the constitution, the Code, and the public trust, the Commission is specifically charged with protecting traditional and customary Native Hawaiian rights and kuleana, or appurtenant, rights. Article XII, § 7 of the Hawai`i constitution mandates:

> The State reaffirms and shall protect all rights, customarily and traditionally exercised for subsistence, cultural and religious purposes and possessed by ahupua`a tenants who are descendants of native Hawaiians who inhabited the Hawaiian Islands prior to 1778, subject to the right of the State to regulate such rights.

Hawai`i Const. Art. XII, § 7. The Hawai`i Supreme Court has "consistently recognized the heightened duty of care owed to the native Hawaiians," *In re Wai`ola O Moloka`i Contested Case Hearing,* 103 Hawai`i 401, 430, 83 P.2d 664, 693 (2004) ("*Wai`ola*") (citations omitted), and "has made clear that the State and its agencies are obligated to protect the reasonable exercise of customarily and traditionally exercised rights of Hawaiians to the extent feasible." *Ka Pa`akai O Ka `Aina et al. v. Land Use Commission, et al. ("Ka Pa`akai"),* 94 Hawai`i 31, 35, 7 P.3d 1068, 1072 (2000) (citing *Public Access Shoreline Hawai`i v. Hawai`i County Planning Commission* (*"PASH"*), 79 Hawai`i 425, 450 n.43, 903 P.2d 1246, 1271 n.43 (1995), *certiorari denied,* 517 U.S. 1163, 116 S.Ct. 1559, 134 L.Ed.2d 660 (1996)). State agencies "may not act without independently considering the effect of their actions on Hawaiian traditions and practices." *Ka Pa`akai*, 94 Hawai`i at 46, 7 P.3d at 1083 (citation omitted).

The Code requires, in its declaration of policy, that "adequate provision shall be made for the protection of traditional and customary Hawaiian rights," HRS § 174C-2(c), and specifically identifies certain of the traditional and customary Hawaiian rights that must be protected:

> (c) Traditional and customary rights of ahupua`a tenants who are descendants of native Hawaiians who inhabited the Hawaiian islands prior to 1778 shall not be abridged or denied by this chapter. Such traditional and customary rights shall include, but not be limited to, the cultivation or propagation of taro on one's own kuleana, and the gathering of hihiwai, opae,

> o`opu, limu, thatch, ti leaf, aho cord, and medicinal plants for subsistence, cultural, and religious purposes.

HRS § 174C-101(c) (1993). Thus, "[t]he Code [] obligates the Commission to ensure that it does not 'abridge or deny' traditional and customary rights of Native Hawaiians." *Waiāhole I,* 94 Hawai`i at 153, 9 P.3d at 465.

Kuleana rights, which are property rights,[15] enjoy near absolute protection under the constitution and the Code, and the public trust's protection of traditional and customary Hawaiian rights includes protection of these appurtenant rights. *Waiāhole I*, 94 Hawai`i at 137, fn.34, 9 P.3d at 449, fn.34. Article XI, section 7 of the Hawai`i constitution, which sets forth the State's obligation to "protect, control and regulate the use of Hawai`i's water resources for the benefit of its people," requires the legislature to provide for a water resources agency which, among other things, will "assur[e] appurtenant rights[.]" Accordingly, HRS § 174C-63 (1993) provides in part: "Appurtenant rights are preserved. Nothing in this part shall be construed to deny the exercise of an appurtenant right by the holder thereof at any time." Moreover, the Commission "[*s*]*hall* determine appurtenant water rights, including quantification of the amount of water entitled to by that right, which determination shall be valid for purposes of this chapter." HRS § 174C-5(15) (Supp. 2010) (emphasis added).

The majority violated its duties under the public trust doctrine, the constitution and the Code by failing to protect traditional and customary rights and kuleana rights to the extent feasible, or indeed, failing even to consider such rights.

1. The Majority Failed to Make Required Findings and Conclusions Regarding Traditional and Customary Native Hawaiian Rights in Nā Wai `Ehā

The Hawai`i Supreme Court, in *Ka Pa`akai,* explained that "the promise of preserving and protecting customary and traditional rights would be illusory absent findings on the extent of their exercise, their impairment, and the feasibility of their protection," *id.* at 1087, 7 P.3d at 50, and vacated an agency decision in which the agency "made no specific findings or conclusions regarding the *effects on* or the *impairment of* any Article XII, section 7 uses, or the

[15] In *Peck v. Bailey, supra,* the court explained that appurtenant rights were superior to riparian rights because "a right to interfere with the natural right to make use of the water belonging to another, when it is connected with the occupation of lands, constitutes an easement in favor of the latter, as the dominant estate." 8 Haw. at 662. Because appurtenant rights are "rights to the use of water utilized by parcels of land at the time of their original conversion into fee simple land," *Reppun, supra*, 65 Haw. at 551, 656 P.2d at 71, and attached largely to the "kuleana" parcels granted to tenants during the Māhele, they are sometimes referred to as "kuleana" rights.

feasibility of the protection of those uses." *Id.* at 1086, 7 P.3d at 49 (emphases in original). *See also, Wai`ola,* 103 Hawai`i at 432, 83 P.3d at 695 (vacating decision where Commission failed to render findings and conclusions regarding impairment of public trust use, which failure "violated its public trust duty to protect [the public trust use] in balancing the various competing interests in the state water resources trust"). The majority in this case actually strained to *avoid* entering actual findings or conclusions regarding the impairment of traditional and customary Hawaiian rights and practices. With respect to proposed Findings of Fact 57 – 61 in the Hearings Officer's Proposed Decision (*see* pp. 13-14, *supra*), which would have found, for example, that "[r]estoration of mauka to makai flow to the streams is critical to the perpetuation and practice of Hawaiian culture in Nā Wai `Ehā," and "cold, free-flowing water is essential for kalo cultivation, which in turn is integral to the well-being, sustenance, and cultural and religious practices of native Hawaiians and Hawaiians[,]" (RA188:21-22), the majority prefaced each of those findings with "[a]ccording to testimony," or "[t]estimony contended[.]" FOF 57, 58, 59, 60.[16] The majority *did* find that "[c]ultural experts and community witnesses provided *uncontroverted* testimony regarding limitations on Native Hawaiians' ability to exercise traditional and customary rights and practices in the greater Nā Wai `Ehā area due to the lack of freshwater flowing in Nā Wai `Ehā's streams and into the nearshore marine waters[,]" FOF 49 (citations omitted) (emphasis added), and that Native Hawaiian practitioners in Nā Wai `Ehā face "significant challenges" in exercising their traditional and customary rights, FOF 51, and that Nā Wai `Ehā kuleana users testified that they had insufficient water for kalo cultivation, FOF 234. Notwithstanding its implicit recognition that the diversions of Nā Wai `Ehā's streams impair traditional and customary Native Hawaiian rights, however, the majority made no findings or conclusions regarding the feasibility of protecting those rights. Indeed, nothing in the Decision indicates that the majority even considered the feasibility of protecting those traditional and customary rights, as it is required to do by the public trust, the constitution, and the Code. The majority's own description of its reasoning indicates that it gave Native Hawaiian rights on consideration at all.

[16] The majority's changes to the Hearings Officer's proposed findings of fact 57-60 indicate its recognition that recitations of testimony "[do] not do not constitute findings of basic fact, but merely the testimony of the witnesses." *Mitchell v. BWK Joint Venture,* 57 Haw. 535, 543, 560 P.2d 1292, 1297 (1977) (finding no error in board's rejection of party's proposed findings of fact that merely recited the testimony of witnesses).

2. The Majority Failed Even to Consider Traditional and Customary or Kuleana Rights in its Purported Balancing of Instream Values and Offstream Uses

The majority apparently imagined that its sole responsibility was simply to "weigh competing public and private water uses on a case-by-case basis, . . . accommodating both instream and offstream uses where feasible," D&O, p. 190 (misquoting *Waiāhole I,* 94 Hawai`i at 142, 9 P.3d at 454), and that, as long as it reviewed the record and engaged in a lengthy deliberative process before reaching its decision, it has "followed the mandates of the law as described in the Constitution, state statutes and the Hawai[`]i Supreme Court decisions." *Id.*, p. 191. What *Waiāhole I* actually held is that "the Commission inevitably must weigh competing public and private water uses on a case-by-case basis, according to any appropriate standards provided by law." *Id.,* 94 Hawai`i at 142, 9 P.3d at 454. What the majority overlooked is that, in the next paragraph, the Court went on to describe those "appropriate standards":

> we observe that the constitutional requirements of "protection" and "conservation," the historical and continuing understanding of the trust as a guaranty of public rights, and the common reality of the "zero-sum" game between competing water uses demand that any balancing between public and private purposes begin with a presumption in favor of public use, access, and enjoyment. . . . Thus, insofar as the public trust, by nature and definition, establishes use consistent with trust purposes as the norm or "default" condition, we affirm the Commission's conclusion that it effectively prescribes a "higher level of scrutiny" for private commercial uses such as those proposed in this case. *In practical terms, this means that the burden ultimately lies with those seeking or approving such uses to justify them in light of the purposes protected by the trust.*

Id. (emphasis added) (citation omitted). *See also, Kukui (Molokai),* 116 Hawai`i at 490, 174 P.3d at 329 ("[t]he Water Commission . . . is duty-bound to place the burden on the applicant to justify the proposed water use in light of the trust purposes and 'weigh competing public and private water uses on a case-by-case basis[,]' requiring a higher level of scrutiny for private commercial water usage") (citation omitted). In this case, the majority neither held the diverters to any burden to justify, nor itself attempted to justify, the diversion from Nā Wai `Ehā streams of almost double the amount of water needed for any reasonable-beneficial use in light of the obvious infringement on traditional and customary Hawaiian rights, kuleana rights, and other public trust uses.

The majority professed that it was "not concluding that it must establish the IIFS so that offstream uses are fully accommodated; only that there must be a balancing of instream values

with non-instream uses when both needs cannot be met." [17] COL 195 (underscoring in original). As described by the majority, however, its purported "balancing between instream values and noninstream uses," conspicuously omits any reference whatsoever to traditional and customary Hawaiian rights, or indeed any other instream value, and was expressly calculated to ensure that one offstream use – HC&S's – was more than "fully accommodated." *See* COL 247-256. Having inexplicably determined that the "best approach" to setting the IIFS was to choose one of the three flow rates the USGS sought as controlled releases to measure hydrologic responses over a "fairly wide range of low flow conditions,"[18] COL 246, the majority's purported "balancing" consisted of nothing more than a tortured numerical exercise to justify its choice of the lowest flow in the "range of low flows" USGS sought to cover with the controlled releases. Because it is inescapable that, if HC&S were limited to reasonable-beneficial use (even as inflated by the majority[19]), both public

[17] The majority treated kalo cultivation as an offstream use in its balancing, *see, e.g.,* Dec., p. iii, but the distinction between instream use and offstream use breaks down with respect to kalo cultivation. Although water is removed from the stream and used outside the stream channel for agriculture, HRS 174C-3 (definition of "noninstream use"), most of the water that flows through the lo`i returns to the stream. COL 220. The lo`i "function just like natural wetland systems. . . . The water flows in, goes to the lo`i, goes back in the stream again. O`opu they can go up the `auwai, the puka to the stream, they can go up into the lo`i and back to the main stream again." RA301:122, l. 17 – p. 123, l. 2. Cultivation of kalo is identified in the Code as a traditional and customary Hawaiian right, HRS § 174C-101(c), and both "protection of traditional and customary Hawaiian rights" and "conveyance of irrigation and domestic water supplies to downstream points of diversion" are instream uses, HRS § 174C-3 (definition of "instream use"). The distinction that matters with respect to kalo cultivation is not the distinction between instream use and offstream use, which is blurred, at best; it is the distinction between protected public trust use and private commercial use.

[18] According to the majority, "the most credible proposals for amending the IIFS are USGS's proposed controlled flows." COL 261. No one, including the USGS, ever proposed the controlled release flows as the IIFS. The USGS wanted controlled releases "to help us quantify seepage losses in the streams" and "to help us quantify how physical habitat changes under different flow conditions"; the flows for the controlled releases were chosen "to cover a fairly wide range of low flow conditions . . . so that we don't have to extrapolate too far in our information." RA303:46, l. 23 – 47, l. 24. The majority perhaps misses the irony in criticizing the Community Groups' expert for recommending an IIFS that it "interpreted" (incorrectly) as being based on a criteria "which was not conceptualized as a means for establishing IIFS," COL 189, and then doing *exactly that*.

[19] In calculating HC&S's reasonable-beneficial use, the majority arbitrarily added 5% to Dr. Fares's calculation of the optimal irrigation requirements, COL 91 (even after finding that Dr. Fares' model likely overstated HC&S's actual needs by up to 30%, COL 89), and added 2 mgd for losses, COL 229 (even after concluding that HC&S failed to meet its burden to establish the lack of practicable mitigating measures to address its losses, COL 123). In addition to its intentional inflation, the majority miscalculated the irrigation requirements of the `Īao-Waikapū Fields by starting with 5,150

trust uses *and* offstream uses could be met during normal flow conditions, *see, e.g.,* D&O, pp. 219, 221 (Tables 16 and 18), the majority's criteria for choosing which of the three controlled release rates to adopt as the IIFS was to determine the flow rate that would accommodate HC&S's irrigation requirements under conditions between the 90% probability level (*i.e.,* a 1 in 10 year drought) and the maximum, or 100% probability level (*i.e.,* a 1 in 54 year drought)[20] rather than the 80% probability level (or 1 in 5 year drought) that Dr. Fares explained, RA88:95, 96, and the majority found, FOF 457, is the industry standard used by government and the private sector to calculate crop water duties. COL 248, 253, 254.

So there could be no confusion about the majority's weighing of "the importance of the present or potential instream values with the importance of the present or potential uses of water for non-instream purposes," COL 257, it conveniently summarized the conclusions on which the IIFS were based, which again, did not include protection of Native Hawaiian rights. COL 258-262. The majority's IIFS were expressly based on its conclusion that: "[o]f the three proposed [controlled release] phases, the first phase [flows]. . . provide the best balance between instream values and offstream uses, and *are the only viable IIFS when stream flows are low and all available practical alternatives are in use."* COL 261 (emphasis added). From the majority's own description of its process, it is obvious that "viable IIFS" means IIFS that accommodate HC&S's irrigation needs in the driest year on record, because that is the *only* thing it actually considered in its "balancing." COL 247-254.[21] Whether the IIFS would protect traditional and customary rights and kuleana rights simply did not enter into the majority's calculation.[22]

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gad, COL 91, which is Dr. Fares' calculation of the irrigation requirements *including* Field 920, although it correctly found that HC&S no longer uses Field 920, FOF 443. Dr. Fares' calculation of 5,026 gad for the irrigation requirement for the `Īao-Waikapū Fields *excluding* Field 920, FOF 88, 467; COL 75, inflated by the majority's arbitrary 5%, results in an irrigation requirement of 5,277 gad which, applied to the 1120 acres that now comprise the `Īao-Waikapū Fields, COL 227, results in a reasonable use of 5.91 mgd, not 6.06 mgd.

[20] The 100% probability level is the "xmax," which is the amount of water that would have satisfied the irrigation needs of the crop even in the driest year in the 54-year period of rainfall data Dr. Fares used in his model. RA88:94-96; RA324:34, l. 20 – 35, l. 23. The 80% probability level is the amount of water that would have satisfied the needs of the crop in 80% of the years during the 54-year period of record. *Id.*

[21] By determining the IIFS based on HC&S's requirements during a 1-in-54 year drought, the majority effectively turned Nā Wai `Ehā's streams into "convenient reservoirs for offstream private use," a proposition that was specifically condemned by the *Waiāhole I* Court. 94 Hawai`i at 155, 9 P.3d at 467 (citation omitted).

Indeed, although the majority went to extreme lengths to gratify HC&S and relieve it of inconvenient burdens imposed by the public trust and the Code, it showed no such accommodation to the community members in Nā Wai `Ehā seeking to exercise their constitutionally guaranteed Native Hawaiian rights and kuleana rights to grow kalo. Given the community understanding of the priority of these rights, which understanding is shared, at least on paper, by WWC and HC&S, [23] the kuleana users had every reason to expect that the Commission would end the decades of water deprivation by WWC so that they could again make full use of their land to grow kalo. However, despite its obligation "to ensure that it does not 'abridge or deny' traditional and customary rights of Native Hawaiians," *Waiāhole I,* 94 Hawai`i at 153, 9 P.3d at 465, the majority simply refused to acknowledge the superior kuleana and traditional and customary rights and engaged in an obvious fiction to justify the undisputed denial of the kalo growers' rights to water.

Although the kuleana users came forward with uncontested evidence of their kuleana rights and the amounts of water associated with those rights, and were subject to cross-examination, the majority refused even to recognize their appurtenant rights because, "[a]s of the close of the evidentiary phase of this CCH, there were no petitions to the Commission from kuleana landowners for appurtenant rights . . . as required by law." COL 53. The majority identified no "law" specifying a petition as the sole means of presenting evidence and obtaining a determination of appurtenant rights, and there is none. The Code imposes on the Commission the mandatory duty to

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[22] Moreover, as explained *infra,* in order to conclude that only the lowest of the low flows would satisfy HC&S's needs in a one-in-fifty-four year drought "when all available practicable alternatives are in use," the majority had to arbitrarily restrict the practicability of Well No. 7.

[23] In their 1994 Temporary Water Agreement, WWC and HC&S agreed that there were then 60 kuleana users and "[t]here may be unexercised Kuleana rights which may be exercised in the future. *This Kuleana water has priority over any other uses,* and the allocation between the parties to this Agreement . . . will be calculated after deducting the Kuleana water use." RA128:43 (emphasis added). (With respect to the treatment of kuleana rights, the Temporary Water Agreement is the same as the 1924 Agreement. RA317:25, ll. 12-20.) In his 2003 "white paper," WACI's president calculated the share of water "controlled by WACI" "after . . . kuleana obligations." RA106:17. WWC reported to its unit holders in 2005 that "the Company provides water to several kuleana users free of charge (a kuleana is a parcel of land that was growing taro at the time of the Great Māhele in 1848 and is entitled to water as an appurtenant right." RA80:81. Most, if not all, of the Water Delivery Agreements between WWC and its third-party customers recognize the priority of kuleana users. *See, e.g.,* RA124:318, § 3.1 ("The use and withdrawal of water by [customer] shall be subject to availability and priority use by Wailuku's kuleana obligations and then Wailuku[.]")

"determine appurtenant water rights, including quantification of the amount of water entitled to by that right," HRS § 174C-5(15); *see also* COL 30, but it does not dictate the procedures by which the Commission must fulfill that duty, and the Commission has not established such procedures by rulemaking.

The majority apparently believed that, if it refused to acknowledge the kuleana users' appurtenant rights, it was free to ignore their priority. Notwithstanding that virtually all of the kuleana users who appeared as witnesses testified that they do not receive sufficient water to satisfy their current needs for kalo cultivation, and were unable to grow as much kalo or other crops as they would if they had sufficient water, FOF 234, 296, 335, the majority concluded that the 6.84 mgd reportedly being provided to kuleana users is reasonable and sufficient not only for their current kalo cultivation, but also for the increased lo`i they would cultivate if there were enough water, COL 220. According to the majority, if 6.84 mgd is insufficient for current kalo cultivation, as the witnesses testified, it must be because there are "substantial losses," such that "much of the water reported by WWC as being delivered to the kuleana lands is being lost, and "the kuleana ditches must be leaking to such an extent that water is inefficiently being delivered to the kuleanas." FOF 336, COL 57, COL 111.

The majority's analysis is summarized as follows: (1) WWC reports delivering 6.16 mgd for kuleana use, and there are three known kuleana diversions directly from the streams, so the total available for kuleana users is probably 6.84 mgd, FOF 227, FOF 293; (2) kuleana users *who testified* at the contested case had a total of about 135 acres, of which about 45 acres were or were intended to be cultivated, primarily in wetland kalo, FOF 233, 294; (3) the estimated 6.84 mgd currently provided to kuleana users divided by the 45 acres that the *testifying witnesses* have, or plan to have, in kalo cultivation results in an average inflow of 152,000 gad, FOF 332; (4) the Community Groups' expert testified that an average wetland taro complex requires inflow of 100,000 gad to 300,000 gad to maintain water temperatures cool enough to prevent crop failure due to rot and pests, FOF 320; (5) "Watson and Grange assumed that, as a general average throughout Hawaii no water is required to flow into taro patches approximately 40 to 50 percent of the time," FOF 330;[24] therefore, (6) 152,000 gad is sufficient for current and planned kalo cultivation of *those who testified* and, since the calculation includes acreage that is not currently cultivated, the per acre

[24] FOF 330 is not a finding of fact, it recites an "assumption" stated in a document that is not in the record. As OHA pointed out in its exceptions, RA188:255 fn.29, Exhibit A-171, as admitted in evidence, does not have an Appendix A. *See* RA:122:28-38.

water delivery is even higher for current uses, FOF 332; and (7) if the current delivery is not sufficient, it must be because most of the water is lost through substantial leakage from the kuleana `auwai, FOF 336.

The logical flaw in the analysis is obvious – the 6.84 mgd reportedly being provided to kuleana users is *not* being provided just to the kuleana users *who testified*, it is being shared among *all the kuleana users* on WWC's Ditch System, which the majority identified on Tables 3 through 6 of its Decision, FOF 229-232; D&O, pp. 204-09, and likely others as well. The majority's analysis is based on the premise that the testifying kuleana users are receiving 6.84 mgd for their uses, but that is simply not the case; they are sharing 6.84 mgd with an unknown number of kuleana users who did not testify. Although the patent fallacy of the analysis was brought to the Commission's attention, *see* RA188:254-57; RA188:361-62, the majority, in violation of its obligation "to ensure that it does not 'abridge or deny' traditional and customary rights of Native Hawaiians," *Waiāhole I,* 94 Hawai`i at 153, 9 P.3d at 465, and its duty to hold the diverters to their burden "to demonstrate affirmatively that [their uses] would not affect native Hawaiian's rights," *Kukui (Molokai)*, 116 Hawai`i at 509, 174 P.3d at 438, declined to correct it. It maintains that 6.84 mgd is sufficient for all current and future kalo cultivation in Nā Wai `Ehā, COL 220, despite its acknowledgment of the undisputed evidence that it is not, FOF 234, 296, 335.

By failing to consider and protect the right to cultivate kalo, the majority has violated its duties under the public trust, the constitution, and the Code to protect the traditional and customary rights of Native Hawaiians.

3. The Majority's Failure to Restore Flow to `Īao and Waikapū Streams Abridged Native Hawaiian Rights and Violated the Public Trust

The majority declined to restore any flow to `Īao Stream or Waikapū Stream, in violation of its duty to protect traditional and customary Native Hawaiian rights, kuleana rights, and other public trust uses of these streams.[25] Nowhere does the majority explain the "reason and

[25] Indeed, in its unseemly eagerness to service HC&S, the majority actually *reduced* the IIFS from their 1988 "status quo" levels. The 1988 IIFS at least maintain the status quo, "without further amounts of water being diverted offstream through new or expanded diversions." HAR § 13-169-48. The majority's IIFS for `Īao and Waikapū Streams, on the other hand, are set "above all diversions," and therefore remove any limitation whatsoever on new or expanded diversions. D&O, pp. 186-87. Downstream of the uppermost diversion on each of these streams, every last drop can be diverted, including the meager flows used by kalo growers struggling to maintain their cultural traditions.

necessity" that requires these public trust resources "to accommodate offstream diversions inconsistent with the mandate of protection, to the unavoidable impairment of public instream uses and values."[26] *Waiāhole I,* 94 Hawai`i at 545, 9 P.3d at 142. The majority's only explanation for leaving these streams in their dewatered state not only unsupported by the record, it ignores entirely the deprivation of traditional and customary Native Hawaiian rights and kuleana rights exercised along these streams.

After concluding that "establishing continuous stream flow from mauka to makai provides the best conditions for re-establishing the ecological and biological health of the waters of Nā Wai `Ehā," COL 243, and that choosing one of the USGS's proposed controlled releases, the first phase of which would release 9.5 mgd to `Īao Stream, "offers the best approach" to establishing the IIFS, COL 246, the majority failed to restore any flow to `Īao Stream, explaining only that: "`Īao Stream's reproductive and full restorative potential is very limited or prohibited entirely due to the extensive channelization of the 2.5 miles of streambed above the mouth and the 20-foot vertical drop." COL 260. Nothing in the record supports that conclusion; indeed, the record supports the majority's contrary conclusion, that "`Īao Stream can be restored to enhance recruitment and increase stream life[.]" COL 245. It appears that the prohibition on `Īao Stream's "reproductive and full restorative potential" imagined by the majority derives from its conclusion that "[t]he channelized lower portion . . . *may not* support spawning in that area," COL 208 (emphasis added), which morphed into "the reproductive (spawning) potential of the channelized,

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[26] The majority certainly cannot be accused of being a slave to consistency. In rejecting the IIFS proposed by WWC, which would have restored only 1.4 mgd to `Īao Stream and 0.4 mgd to Waikapū Stream, the majority concluded that:

> while the Supreme Court has concluded that "reason and necessity dictate that the public trust may have to accommodate offstream diversions inconsistent with the mandate of protection, to the unavoidable impairment of public instream uses and values," . . . there is also a presumption in favor of the streams, whose maintenance in their natural states is a public trust purpose, and private commercial uses bear the burden of justifying their uses in light of the purposes protected by the trust. COL 15, supra. *WWC reverses this presumption and burden of proof by allocating only a minor portion of the lowest recorded stream flows to make up the entire amended IIFS, with the major portion and any flows above the lowest recorded stream flows available for offstream uses. And WWC advocates this course of action without explaining its "reason and necessity."*

COL 183 (citation omitted). The majority went on to conclude that "*even if WWC's reasoning were consistent with the law*, none of WWC's proposed IIFS would result in continuous mauka to makai flows." COL 184 (emphasis added). *See also* COL 199.

lower stretches is *minimal*," COL 216 (emphasis added), and then "[`Īao's] reproductive potential is *severely limited* because of extensive channelization," COL 245 (emphasis added), and finally, "`Īao Stream's *reproductive and full restorative potential is very limited or prohibited entirely,*" COL 260 (emphasis added). However, even if one were to assume that there would be no spawning of any native amphidromous species in the channelized section of `Īao Stream (and one could only assume, because the record is devoid of any evidence, and the majority made no findings of fact, regarding spawning), the majority has failed to explain how the lack of spawning habitat in a 2.5 mile section would prohibit the reproductive or full restorative potential in the entire stream, which is about 7.2 miles long. FOF 83. The majority concluded, for example, that with sufficient flow, "recruitment can occur through the channelized portion of the stream and the 20-foot vertical drop in the channelized area can be bypassed, COL 216, but offers no explanation for why the same flow that would allow recruitment of post-larvae up the stream would not also allow newly-hatched larvae from upstream of the channelized area to drift down to the mouth of the stream. *See, e.g.,* FOF 65 (describing life cycle of native Hawaiian amphidromous species); FOF 73.

With respect to Waikapū Stream, the majority concluded that "Waikapū Stream has *most likely not* had continuous flow except under flood conditions in the pre-diversion period, and even if it did, Kealia Pond and the delta would further inhibit recruitment." COL 259 (emphasis added). It is not clear how the majority reached that conclusion from its finding that "there is no definitive evidence that Waikapū Stream ever carried uninterrupted surface waters to the sea," FOF 590,[27] but in any event, the majority recognizes that it would be a relatively simple thing to find out if mauka to makai flow can exist in Waikapū Stream – it just requires adding water. FOF 596. However, while the majority did not rule that out, it concluded that, "such an assessment can be deferred until some future time when the balancing of instream values and offstream uses might be more favorable to such a controlled restoration," COL 259, without suggesting when that might be or what factors might change its purported "balancing."

[27] *But see* RA116:170- 74, 173 (1971 report stating that "Waikapū is a perennial stream at higher elevations. In its natural state, it was a continuous surface flowage throughout its course and is assumed to have had a complement of native faunal species. At least in the historic past, Waikapū represented a permanent and comparatively stable stream ecosystem").

Again, the Commission completely ignored the traditional and customary Native Hawaiian rights and kuleana rights that continue to be denied by the lack of flow in these streams.[28] Even assuming that restoration of flow to `Īao and Waikapū Streams would not result in any increase in the populations of native species (which even the majority concluded is not the case in `Īao Stream, *see* COL 245), there are kuleana users on these streams struggling to exercise their undisputed rights and preserve their culture. On `Īao Stream, for example, the Ornellas `ohana wants to restore 16 ancient lo`i on their kuleana land, which borders `Īao Stream and has been in their `ohana since time immemorial. RA58:43-6, ¶¶ 3, 7, 8. As Mr. Ornellas explained, "[g]rowing kalo is a central part of our culture and familial heritage. We will grow kalo to perpetuate the life of our people." *Id.,* ¶ 11. In its dewatered state, `Īao Stream flows are not high enough to reach the intake of the `auwai on the Ornellas kuleana. *Id.,* ¶ 9. If there were sufficient water in `Īao Stream, the Ornellas `ohana would use some for domestic purposes, such as growing fruits and vegetables and raising pigs, *id.,* ¶ 8, and would also like to be able to gather `o`opu, `ōpae, and hīhīwai, *id.,* ¶ 13. The Ornellas `ohana's kuleana land was in kalo at the time of the Māhele, and the documentation of their kuleana rights, RA58:101-05, was uncontested.

Other `ohana on `Īao Stream seek to exercise traditional and customary Hawaiian rights. The Duey `ohana owns six acres of land called Ho`olulāhui, located on `Īao Stream and its flood plain. RA 68:143-44, ¶ 3. As long-time residents and descendants of the ancient residents of `Īao Valley, the `ohana "has a deep sense of kuleana to mālama this `āina and ensure its life-giving waters in `Īao Stream flow from mauka to makai…" RA68:144, ¶ 4. Because of the diversions of `Īao Stream, the Duey `ohana can only "irrigate two small lo`i with water from `Īao Stream" on an area limited to one-twelfth of an acre of Ho`olulāhui. RA68:144, ¶ 5; 68:129, ¶ 14. The importance of kalo to the Duey `ohana had led them to "seek to reopen all our lo`i to restore the `āina and the stream, and strengthen the connection between our `ohana and our culture. As Hawaiians, growing kalo is central to our cultural identity and survival." RA68:145, ¶ 7. The `ohana would also like to gather `o`opu, `ōpae, and hīhīwai from the stream. *Id*., ¶ 9. Diversion of `Īao Stream "deprive[s] our `ohana's cultural practices of cultivating the ancient lo`i on our land and gathering stream resources, as well as our enjoyment of the community treasure of a flowing stream." RA68:146, ¶ 11.

[28] It also ignored the express admonition of the *Waiāhole I* Court that it would not accept the proposition that the Commission could "leave a diverted stream dry in perpetuity, without ever determining the appropriate instream flows." 94 Hawai`i at 158-59, 9 P.3d at 470-71.

On Waikapū Stream, the Pellegrino `ohana has restored four of the twelve ancient lo`i on Noho`ana Farm, which is kuleana land that has been in their `ohana since the time of the Māhale. RA58:50-58, ¶¶ 10, 11, 15. They would like to restore the remaining eight lo`i, but currently, they only have enough water to cultivate two lo`i. *Id.*, ¶ 17. The lo`i are watered by a traditional `auwai that takes water from Waikapū Stream. *Id.,* ¶ 16. The Pellgrino `ohana chose to grow kalo "because it is a way of life for kanaka maoli and from early times kalo was the principal food of the Hawaiian people. In addition, the significance of kalo to the maoli people is rooted in our culture and geneology." *Id.,* ¶ 20. The Pellegrino `ohana regularly invites school and community groups to Noho`ana Farm to help restore and work in the lo`i kalo, because "we believe it is important for Hawaiians to connect with their ancestors and their culture." *Id.,* ¶ 24. "We teach people of all ages the Hawaiian value of mālama i ka `āina, or protecting, restoring, caring for, and perpetuating all aspects of our land and natural resources." *Id.,* ¶ 20. Fresh water would enable the Pellegrino `ohana, as Hawaiians, to continue exercising their cultural and traditional practices in a culturally meaningful way, and pass these traditions to younger generations. *Id.,* ¶ 36. Evidence of the kuleana rights appurtenant to Noho`ana Farm, RA58:109-21, was uncontested.

To these and other `ohana on `Īao and Waikapū Streams, cultivating kalo is essential to "perpetuating their commitment to 'malama ka `aina,' which mandates the protection of their natural ecosystems from desecration and deprivation of their natural freshwater resources." *Wai`ola*, 103 Hawai`i at 439, 83 P.3d at 702. Their right to do so is protected by the Hawai`i Constitution, the State Water Code, and the public trust doctrine. By disregarding that right, the majority has violated its constitutional duties to the public trust and to Native Hawaiians.

B. The Majority Erred by Arbitrarily Restricting HC&S's Use of Well No. 7 as an Alternative to Draining Nā Wai `Ehā Streams

As the Hearings Officer pointed out in his dissent, the majority sacrificed the public interest in stream restoration to HC&S's private interest in maintaining its access to "free" irrigation water, using as its primary vehicle an arbitrary limitation on the practicability of using Well No. 7 as an alternative water source. *See* Dissent, pp. 2-4. "[T]he public trust compels the state duly to consider the cumulative impact of existing and proposed diversions on trust purposes and to implement reasonable measures to mitigate this impact, *including the use of alternative sources*." *Waiāhole I,* 94 Hawai`i at 143, 9 P.3d at 455 (emphasis added); *Wai`ola*, 103 Hawai`i at 442, 83 P.3d at 695 (same). *See also Kukui (Molokai),* 116 Hawai`i at 495, 174 P.3d at 334 (stating "[t]his court has, on multiple occasions, expounded on the necessity of considering alternative sources of

water in balancing the distribution of a scarce public trust resource"). It was HC&S's burden in this proceeding to "demonstrate the absence of practicable mitigating measures, including the use of alternative water sources." *Waiāhole I,* 94 Hawai`i at 161, 9 P.3d at 473. "Such a requirement is intrinsic to the public trust, the statutory instream use protection scheme, and the definition of 'reasonable-beneficial' use, *and is an essential part of any balancing between competing interests." In re Waiāhole Ditch Combined Contested Case Hearing,* 105 Hawai`i 1, 15, 93 P.3d 643, 657 (2004) ("*Waiāhole II*") (quoting *Waiāhole I,* 94 Hawai`i at 161, 9 P.3d at 473) (emphasis added).

Given its average use of 21 mgd of non-potable water from Well No. 7 as its primary irrigation source for the Waihe`e-Hopoi Fields for more than half a century, FOF 495, and its continuing use of that source when it so chooses, RA102:44-48, HC&S's attempts to demonstrate the impracticability of Well No. 7 as an alternative to diverting Nā Wai `Ehā streams were ultimately doomed to failure. On the record before it, the majority could not, and notably *did not*, find or conclude that HC&S had met its burden to demonstrate the absence of a practicable alternative water source; instead, with no basis in the evidence, it simply "deemed" Well No. 7 a practicable alternative for *only 9.5 mgd* of Nā Wai `Ehā water, COL 230, and only in extremely dry conditions when there is insufficient stream flow to meet HC&S's needs. COL 254. By failing to hold HC&S to its burden and arbitrarily putting Well No. 7 off limits as an alternative to stream diversion, "the majority has failed in its duties under the Constitution and the State Water Code as trustee of the state's public water resources." Dissent, p. 7.

1. HC&S Failed To Demonstrate That Well No. 7, Its Primary Irrigation Source For More Than Half a Century, Is Not A Practicable Alternative To Draining Nā Wai `Ehā Streams

"An alternative is practicable if it is available and capable of being used after taking into consideration cost, existing technology, and logistics." COL 31. In light of its long history of pumping Well No. 7, *see* RA102:44-48, HC&S was obviously hard-pressed to demonstrate that Well No. 7 is unavailable or incapable of being used considering existing technology or logistics. That did not keep it from trying, but its claims of impracticability were exactly that – naked claims, unsupported by evidence. Desperate to avoid having to use what was once its primary water source for the Waihe`e-Hopoi Fields, HC&S claimed that it does not have adequate electrical power to run the pumps for Well No. 7 on a consistent and sustained basis because of its power contract with

MECO and limitations on its capacity to generate electricity. FOF 499; COLs 106, 230.[29] Therefore, according to its Senior Vice President for Agricultural Operations, Rick Volner, if HC&S pumped from Well No. 7, it would have to reduce pumping elsewhere on the plantation. RA58:168-69, ¶ 21. HC&S's claim, however, was belied by the evidence, and Mr. Volner was forced to admit that it was not accurate.

From 1991 (the first full year of operation under the Amended and Restated Power Purchase Agreement between HC&S and MECO ("MECO PPA")) through 2003, the combined average pumping from all HC&S wells ranged from a low of 60.0 mgd (1998) to a high of 112.9 mgd (1996), and averaged 84.1 mgd. *See* RA130:111-123; *see also* RA116:24-27). For the years 2004, 2005 and 2006, HC&S cut its combined average pumping from all wells in half – to 40.5 mgd, 43.4 mgd, and 41.6 mgd, respectively. *See* RA58:108-110; *see also* RA116:27.[30]

HC&S's 2004 decision to cut its pumping in half was not because it suddenly lacked sufficient electrical power to continue pumping an average of 84.1 mgd; HC&S reduced its pumping to capitalize on the windfall of higher fuel costs, which increased the "avoided cost" that MECO was required to pay HC&S for electrical power. A&B's 10-K filing for 2004 reported that "HC&S limited irrigation pumping of well water during the second half of 2004 to sell additional power." RA108:55. In 2005, A&B reported that "management made a concerted effort to increase power sales in order to take advantage of higher power prices," RA108:58, and repeated that explanation in its 2006 10K filing. RA60:57. Indeed, Mr. Volner, the proponent of HC&S's "power constraint" testimony, admitted on cross-examination that "its not really the case" that HC&S is limited to its current reduced level of pumping by the available electric power. RA321:120, ll. 15-18. Rather, whether to pump from Well No. 7 is simply "an economic decision" -- there is a cost associated with operating Well No. 7. RA321:121, ll. 18-24.

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[29] Like many of the purported findings of fact in the D&O, FOF 499 is not actually a finding of fact. If "mere recapitulations of evidence do not constitute findings of fact," *Kilauea Neighborhood Ass'n v. Land Use Comm'n,* 7 Haw. App. 227, 232-233, 757 P.2d 1031, 1033 (1988), then *a fortiori,* recitations of unsupported, and ultimately disproven, arguments likewise do not constitute findings of fact. *See Dean v. Pelton,* 437 N.W.2d 762, 764 (Minn. App. 1989) (reciting the parties' claims "is not making true findings but merely reciting the parties' claims"). Nor, obviously, does repeating FOF 499 and calling it a conclusion of law make it such. *See* COL 106.

[30] There is no evidence in the record that, in the thirteen year period after entering the MECO PPA during which it had enough electrical power to pump an average of 84.1 mgd from all of its wells, HC&S was ever unable to meet its contractual obligations, or required to pay liquidated damages, to MECO. Nor, other than extensions of its term, has the MECO PPA ever been amended. RA322:133, ll. 4-13.

Given its inability to demonstrate the technical or logistical unavailability of Well No. 7, HC&S understandably focused on the cost, apparently hoping that if it provided cost estimates only as lump sums, the Commission would be impressed by the large numbers and fail to do the simple calculations required to convert those estimates to unit costs for comparison to what other farmers pay for water. *See, e.g., Waiāhole I,* 94 Hawai`i at 164-165, 9 P.3d at 476-77 (observing that lump sum cost estimates of "millions of dollars" have "little meaning without evidence and analysis of the actual per-unit breakdown of those costs relative to the cost of []other alternatives"). For example, HC&S claimed it would cost $1 million to add another booster pump and distribution piping to increase the capacity of Well No. 7 from 14 mgd to 28 mgd and to add a pipeline to Field 715. FOF 498; COL 105.[31] Even assuming that HC&S needed to add 14 mgd to the volume that could be pumped from Well No. 7,[32] the infrastructure cost of $1 million, amortized over ten years with an eight percent cost of money, amounts to only $0.0211, or just over two cents, per thousand gallons, for the additional 14 mgd increment.[33] With respect to the electrical power to pump Well No. 7, HC&S estimated that if it used internally generated power to pump Well No. 7, its lost revenue from foregoing the sale of that power to MECO would be $2,900 per day for each 14 mgd increment (based on 24 hours @ .5 MW per hour), RA114:26-27, ¶4; RA320:206, l. 21 to 207, l. 22, which amounts to $0.2071, or less than twenty-one cents, per thousand gallons.[34]

Accordingly, even assuming that HC&S would need to construct additional infrastructure to pump more than the 19 mgd that can currently be supplied to the Waihe`e-Hopoi

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[31] As set forth in FOF 498, HC&S claimed that it would cost a total of $1 million to increase the capacity of Well No. 7 from 14 mgd to 28 mgd, which included $525,000 to add another booster pump and additional distribution pipeline, and $475,000 for an additional pipeline to Field 715. RA114:26, ¶¶ 5, 7. The reference in COL 230 to a cost of $1 million for an additional booster pump and $475,000 more to reach Field 715 is in error, because it double counts the $475,000.

[32] Although he initially testified that "without adding a new booster pump and constructing a new pipeline, Well No. 7 can only supply 14 MGD to the Waihee Hopoi Fields," RA114: 25, ¶ 3, Mr. Volner admitted, and the Commission found and concluded, that Well No. 7, as currently configured, can supply substantially in excess of 14 mgd to the Waihe`e-Hopoi Fields, which include Fields 904, 908 and 909. *See, e.g.,* RA321:41-42; FOF 495-497; COLs 103-104, 230; Dissent, p.3.

[33] ($1,000,000 ÷ 10 yrs = $100,000/yr x 1.08 = $108,000/yr = $295.89/day ÷ 14,000 thousand gallons/day = $0.0211/thousand gallons.)

[34] ($2,900/day ÷ 14,000 thousand gallons/day = $0.2071/thousand gallons.)

Fields, the combined infrastructure and operating costs would be less than twenty-three cents per thousand gallons based on the amount MECO paid HC&S for power in the first quarter of 2008. That is substantially less than the Maui County agricultural water rates, *see* RA86:126, and less than the rates that other farmers and the Hawai`i Supreme Court have considered to be practicable from a cost perspective. *See, e.g., Waiāhole I,* 94 Hawai`i at 165, 9 P.3d at 477 (vacating allocation to offstream user who had an alternative that would cost "as little as 39 to 45 cents per thousand gallons" and observing that "leeward farmers pay 35 cents per thousand gallons for [Waiāhole] ditch water, and county rate schedules indicate that many other farmers dependent on municipal water supplies pay anywhere from 60 cents to $2.47 per thousand gallons"). Although pumping from Well No. 7 would obviously cost HC&S more than diverting "free" water from public trust uses in Nā Wai `Ehā, "stream protection and restoration need not be the least expensive alternative for offstream users to be 'practicable' from a broader, long-term social and economic perspective," and the Commission "is not obliged to ensure that any particular user enjoys a subsidy or guaranteed access to less expensive water sources when alternatives are available and public values are at stake." *Waiāhole I,* 94 Hawai`i at 165, 9 P.3d at 477.

HC&S also half-heartedly claimed that "[s]ustained pumping can, over time, increase the salinity of the pumped water which, in turn, will diminish the yields of fields irrigated with brackish water," RA86:37, ¶ 6, but failed to introduce evidence admittedly within its control to support that claim.[35] HC&S measures salinity, conductivity and mineral levels monthly for wells that are actively pumped, *see* RA321:109, ll. 8-19), and maintains records of salinity measurements from Well No. 7, RA325:97, ll. 17-20. If sustained pumping from Well No. 7 caused an increase in the salinity of the pumped water, that increase would be reflected in HC&S's monthly well test records from, for example, 1996, when it pumped an average of 33.54 mgd from Well No. 7 for the whole month of October, an average of 28.36 mgd over a five month period, and an average of 13.23 mgd for the year, RA102:46, and 2000, when it pumped an average of 31.35 mgd for the whole month of June, an average of 18.9 mgd over a six month period, and an average of 11.84 mgd for the year. RA102:46. HC&S chose not to introduce any well test records for Well No. 7, which gives rise to the inference that those records would not support its claim regarding increasing

[35] HC&S also admitted that it uses wells with higher salinity than Well No. 7 to drip irrigate sugar cane fields on a sustained basis. RA321:114, ll. 10-14.

salinity.[36] *See, e.g., Singh v. Gonzales,* 491 F.3d 1019, 1024 (9th Cir. 2007) (reciting the "well-accepted principle of law" that "[w]hen a party has relevant evidence in his control which he fails to produce, that failure gives rise to an inference that the evidence is unfavorable to him").

Given the uncontroverted evidence that Well No. 7 is available and capable of being used for irrigation of the Waihe`e-Hopoi Fields after taking into consideration cost, existing technology, and logistics, and that HC&S itself has treated it as a practicable alternative source since 1927, the majority could not and did not find or conclude that HC&S had met its burden to demonstrate the absence of a practicable alternative water source. "The Water Commission's analysis should have ceased when [HC&S] failed to meet its burden of establishing that no practicable alternative water sources existed." *Waiāhole II,* 105 Hawai`i at 658, 93 P.3d at 16. *See also, e.g., Kukui (Molokai), supra*, 116 Hawai`i 481, 496, 174 P.3d 320, 335 (2007) ("KMI's failure to demonstrate the absence of practicable alternatives should have terminated the inquiry"); *Wai`ola, supra,* 103 Hawai`i at 432, 83 P.3d at 695 (2004) ("[i]nasmuch as the Commission failed to render the requisite FOFs and COLs with respect to whether MR-Wai`ola had satisfied its burden as mandated by the Code, it violated its public trust duty to protect [a public trust use]"). In this case, the majority's analysis *did* cease, but unfortunately, its willingness to short-change the public interest in stream restoration did not. Without any cogent analysis, or any substantial basis in the record, the majority simply "deemed" Well No. 7 to be a practicable alternative for only 9.5 mgd, and only in extremely dry conditions. *See* COL 230.

2. The Majority's Restriction on the Practicability of Using Well No. 7 as an Alternative to Dewatering Nā Wai `Ehā Streams was Arbitrary and Capricious

As described by the Hearings Officer, "the majority without any credible foundation chose 9.5 mgd as the practicable alternative from Well No. 7 to protect HC&S's interests, to the detriment of stream resources." Dissent, p. 4. Examination of the majority's reasoning, to the extent it is discernible, confirms the Hearings Officer's observation. The majority first concluded,

[36] Indeed, that inference is consistent with the only evidence in the record of the salinity of water pumped from Well No. 7, which was from a 1942 U.S.G.S. report introduced by the Community Groups. A table included in the report shows that, despite sustained pumping, the salt content in Well No. 7 actually *decreased* by almost 50%, from 45 grains/gallon in 1927 to 31 grains/gallon in 1941. RA100:58. As the report explained, "[t]he average salt content in grains per gallon on the H. C. & S. Co. plantation rose with increased draft from a low of 59 in 1914 to a high of 83 in the dry year of 1926. It fell to an all time low of 39 in 1941, in spite of the fact that pumpage has been increased about six times since 1914 (fig. 20). This shows the success of the improved methods of recovering the water." RA100:54.

without having made any relevant findings of fact and with no citations to evidence, that Well No. 7 could not be pumped at its historical rates. COL 230. Considering the "uncertainties" that purportedly led to that conclusion, together with its decision to require HC&S to substantially remedy its unconscionable loss of more than 9 mgd of Nā Wai `Ehā which leaks through its unlined reservoirs, the majority concluded, with no articulated analysis, that "*the practical alternative from Well No. 7 is deemed to be 9.5 mgd*." *Id.* (emphasis added).

Unable to cite to evidence in the record or findings of basic fact to support its conclusion that Well No. 7 cannot be pumped practicably at its historical rates, the majority relied on "[t]he combined facts that the current sustainable yield of the aquifer is already being exceeded; that increased pumping from Well No. 7 may exacerbate that strain; and that the historically higher levels of pumping occurred during a period where furrow irrigation methods were affecting recharge rates for the aquifer." COL 230. Not only is this triad of purported "facts" unsupported, in the very next sentence these purported "facts" are more candidly referred to as "uncertainties." In actuality, they are unconvincing excuses for failing to hold HC&S to its burden to demonstrate that Well No. 7 is not a practicable alternative to draining Nā Wai `Ehā streams.

The majority's purported concern that the current sustainable yield of the Kahului Aquifer not be further exceeded might be more credible had it been raised at any time during the quarter-century preceding its decision in this matter. As HC&S itself pointed out to the Commission in January 2008, "[s]ince 1986, HC&S has filed monthly groundwater use reports with CWRM detailing the quantities withdrawn each month [from its non-potable wells in the Kahului and Pā`ia Aquifers]," which documented a daily average withdrawal "far in excess" of the sustainable yield. RA158:17. Indeed, the pumping reports submitted to the Commission indicate that, for the past twenty five years, HC&S's combined daily average withdrawal from its five non-potable, brackish wells in the Kahului Aquifer, *see id.* (identifying the wells), has been at least an order of magnitude higher than the current nominal sustainable yield of the Kahului Aquifer, which is 1 mgd. RA130:108-128; RA80:140. Nonetheless, the record is devoid of any evidence that the Commission, at any time since it began receiving HC&S's monthly pumping reports in 1986, has expressed the slightest concern with HC&S's withdrawals "far in excess" of the sustainable yield. Withdrawals at ninety percent of the sustainable yield would authorize the Commission to designate the Kahului Aquifer as a water management area ("WMA"), *see* HRS § 174C-44(1) (1993), which the Commission "shall" do "when the water resources in an area may be threatened by existing or proposed withdrawals or diversions of water," HRS § 174C-41 (1993).

The majority's conclusion that avoiding further exceedance of the sustainable yield of the Kahului Aquifer excuses HC&S from using Well No. 7 instead of diverting water from Nā Wai `Ehā streams cannot be reconciled with the Commission's failure to designate the aquifer, or with the majority's failure to impose any restrictions *at all* on HC&S's ability to continue to pump as much as it chooses from its wells in the Kahului Aquifer. Nor can it be reconciled with the Commission's public trust duty, and its obligation under the Code, to restore Nā Wai `Ehā streams to the extent practicable. Giving the Commission the benefit of the doubt, the only reasonable inference from its long-standing and continuing failure to designate the Kahului Aquifer, notwithstanding withdrawals far in excess of the sustainable yield, is that the Commission has never considered the non-potable aquifer, which is used solely by HC&S, to be threatened.

Tellingly, the majority was unable to cite any evidence whatsoever, and made no finding of fact, that HC&S's pumping put a "strain" on the aquifer; the purported "fact" that "increased pumping from Well No. 7 may exacerbate that strain," COL 230, is wholly without foundation or support in the record.[37] Indeed, HC&S itself has reassured the Commission that its excessive pumping *does not* threaten the Kahului Aquifer. HC&S's claim of increased salinity with sustained pumping was not only unsubstantiated and subject to an adverse inference, the proponent of that testimony, within just months of so testifying, represented to the Commission that "several of [HC&S's brackish wells in the Kahului and Pā`ia Aquifers, which pumped a combined average of 40 mgd to 112 mgd over the previous twenty years] have been in operation for more than a hundred years, *and all have been in place and operated for decades without any long term deterioration in water quality."* RA158:17 (emphasis added). Mr. Volner explained to the Commission that one of the reasons HC&S could pump "far in excess" of the sustainable yield of the Kahului Aquifer without any long term deterioration in water quality is that "there is down gradient water movement from the Makawao to the Paia and the Paia to the Kahului aquifers that also contributes to recharge of the Kahului aquifer," *Id.,*[38] which is consistent with the observations

[37] Although denominated a conclusion of law, much of COL 230, including the purported "fact" that increased pumping from Well No. 7 may exacerbate a "strain" on the Kahului Aquifer, is more in the nature of a finding of fact. An administrative agency's "findings of ultimate facts must be supported by findings of basic facts which in turn are *required to be supported by evidence in the record*." *Application of Hawaii Elec. Light Co.*, 60 Haw. 625, 642, 594 P.2d 612, 623 (Haw. 1979) (emphasis added).

[38] According to Mr. Volner, hydrologist Tom Nance was expected to provide a follow up letter expanding on the down-gradient water movement from other aquifers that contributes to recharge of

of the USGS.[39] In sum, there is no evidence in the record that pumping more than 9.5 mgd from the Kahului Aquifer either has caused, will cause, or "may exacerbate" a "strain" on the Kahului Aquifer. COL 230. If, in fact, there *were* evidence of a threat to the aquifer, the Commission would be duty-bound to designate it as a water management area pursuant to HRS § 174C-41 (1993).[40]

The third in the trilogy of "facts" cited by the majority as justification for drastically reducing the practicability of Well No. 7 from its undisputed capacity is the observation that "the historically higher levels of pumping occurred during a period where furrow irrigation methods were affecting recharge rates for the aquifer."[41] COL 230. The majority's point regarding

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the Kahului Aquifer. RA158:17. Mr. Nance testified as HC&S's hydrology expert at the contested case hearing and, notably, offered no testimony regarding any alleged "strain" on the Kahului Aquifer. *See* RA86:45-48; RA307:147-205.

[39] The USGS has documented regional flow of groundwater into the isthmus from *both* east and west. Its measurements suggested that "flow of groundwater is both from the east and the west[,]" which then "diverges in the isthmus toward Kahului Airport in the north and toward Kihei in the south[,]" and discharges to the sea "some distance offshore." RA102:5, 22. The USGS also observed that "[g]roundwater in the isthmus improves in quality toward west Maui, where there apparently is significant underflow of good quality water from west Maui." RA102:6.

[40] The majority's purported concern about the non-potable Kahului Aquifer, which only HC&S uses, is in striking contrast with its remarkable indifference to the strain on the `Īao Aquifer, which is the major source of drinking water for central Maui. RA80:41, ¶ 7. The `Īao Aquifer's sustainable yield is 20 mgd, *id,* ¶ 15, and the Commission designated it as a WMA in 2003 when the 12-month moving average pumping exceeded 90 percent of the sustainable yield. FOF 1-2. Ground water levels in the `Īao Aquifer have declined, the chloride concentrations in some wells have increased, and the brackish-water transition zone between the freshwater and the underlying saltwater has risen. RA62:122, ¶ 17

`Īao Stream, which overlies the `Īao Aquifer, *see* RA80:140, is a "losing" stream in its lower reaches, which means that stream water seeps from the stream bed to the underlying basal freshwater lens, *i.e.,* the `Īao Aquifer. FOF 90. In the absence of the controlled releases that were designed, in part, to measure seepage rates, RA303:46, l. 20 – 27, l. 20, the USGS estimated that the reach of `Īao Stream downstream of the diversion loses 6.3 mgd to the underlying basal freshwater lens. RA62:142-43, ¶¶ 62-64; FOF 129. Even though the diversion of `Īao Stream deprives `Īao Aquifer of an estimated 6.3 mgd in recharge, and even though `Īao Aquifer is central Maui's primary drinking water source and there is actual evidence of a "strain" on the aquifer, the majority refused to restore any water at all to `Īao Stream.

[41] Apparently this statement is related to the majority's comment that, "[a]lthough Well No. 7 historically had pumped approximately 19 mgd (14 mgd plus 4.77 mgd), it has been used only for two six month periods since the 1980s – in 1996 and in 2000, FOF 494-495," COL 230, which is contrary to the record. What the record shows, and what the Commission actually found, is that,

changing irrigation methods and their effect on recharge is far from self-evident; indeed, it is not obvious from the record (which it fails to cite) what, if any, effect HC&S's irrigation practices have had on recharge rates with respect to the Kahului Aquifer underlying the Waihe`e-Hopoi Fields. For example, during the period from 1980 through 1984, during which HC&S was still using flood irrigation on the Waihe`e-Hopoi fields, *see* RA58:164-165, ¶ 10A, HC&S pumped an average of 19.9 mgd from Well No. 7, RA102:44-45, which it combined with its historical "share" of the diverted Nā Wai `Ehā water (the amount of which HC&S chose not to disclose) to irrigate the Waihe`e-Hopoi Fields. During the period 2000 through 2004, it irrigated the same fields by drip irrigation with an average of only 4.0 mgd pumped from Well No. 7, *id.*, p. 4 (RA102: 47), together with an average of 35.3 mgd of the increased volume of Nā Wai `Ehā water HC&S received as a windfall when WWC ceased sugar cultivation. RA60:7, RA60:8. Modeling by the USGS, which HC&S itself introduced, actually demonstrates that there was *not* a substantial difference in the recharge rate in the specific area of the Waihe`e-Hopoi Fields[42] between the 1980-1984 period and the 2000-2004 period, notwithstanding the differences in both irrigation method and water source. *See* RA142:87, 91.

Having concluded that Well No. 7 cannot practicably provide water at its historic pumping rates based on a triad of purported but unsubstantiated "facts," the majority cited the same "facts," recharacterized as "uncertainties," to conclude that only 9.5 mgd could practicably be pumped from Well No. 7. Its complete "analysis" was as follows: "[c]onsidering these uncertainties in combination with the Commission's decision to place the full burden of remedying losses immediately upon HC&S, discussed intra [sic], the practical alternative from Well No. 7 is deemed 9.5 mgd. This alternative will not require capital costs, only the costs of pumping." COL 230. Nowhere does the majority explain why requiring HC&S to immediately stop squandering a portion of the average 9 mgd of Nā Wai `Ehā water that leaks through its unlined reservoirs

"[b]etween 1927 and 1985, HC&S pumped an average of *about 21 mgd* from Well No. 7. (Exh. A-148, pp. 1-2, 5)." FOF 495 (emphasis added). Moreover, HC&S's use of Well No. 7 has not been limited to "two six month periods" since then. HC&S's pumping reports show that there have been twenty-seven months since 1985 in which HC&S pumped in excess of 9.5 mgd averaged over an entire month; for twelve of those months, the average exceeded 20 mgd. RA102:45-47.

[42] The Waihe`e-Hopoi Fields are those identified as "Owned" and colored in light blue on RA98:17, and are the fields colored in grey on the east side of Kuihelani Highway on Exhibit E-2 (RA60:6).

(assuming, *arguendo*, that the majority had actually done so)[43] somehow justifies HC&S's continued diversion of Nā Wai `Ehā water, which is the only alternative available to supplement stream flow and to satisfy native Hawaiian rights, kuleana rights and other public trust uses, when it has a non-potable alternative source that it has practicably used for almost a century and for which there is no other use. Nor does the majority explain why these uncertainties (which exist, of course, only because HC&S failed to meet its burden of proof), together with the purported requirement that HC&S stop squandering precious Nā Wai `Ehā water, lead to the conclusion that only 9.5 mgd can practicably be pumped from Well No. 7, as opposed, for example, to the 14 mgd that the Proposed Decision would have determined to be practicable, RA188:178, or the 18.54 mgd that the Hearings Officer would find to be practicable, Dissent, pp. 2-5, or the 21 mgd that HC&S pumped on average for more than half a century, FOF 495, or the 21.75 mgd that the majority determined would satisfy the irrigation requirements of the Waihe`e-Hopoi Fields, COL 92; D&O Tables 13 & 18, or some other amount.

The Hawai`i Supreme Court has repeatedly admonished that "the Water Commission is duty-bound to articulate its analysis with reasonable clarity." *Waiāhole II,* 105 Hawai`i at 6*,* 93 P.3d at (citing *Waiāhole I,* 94 Hawai`i at 164, 9 P.3d at 476). "An agency's findings must be sufficient to allow the reviewing court to track the steps by which the agency reached its decision" and "it is important for administrative agencies to be complete in their factual findings to encourage confidence in 'reasoned decision making by the agency'." *Dupree v. Hiraga,* 121 Hawai`i 297, 309, n.14, 219 P.3d 1084, 1096, n.14 (2009) (quoting *Nakamura v. State,* 98 Hawai'i 263, 276, 47 P.3d 730, 743 (2002) (Acoba, J., joined by Ramil, J., concurring in part and dissenting in part)) (internal quotation marks omitted). The Commission's role as the "primary guardian of public rights under the trust" adds a substantive component to its duty to clearly articulate its analysis; as trustee of the water resources trust, the Commission "may compromise public rights in the resource pursuant *only to a decision made with the level of openness, diligence, and foresight commensurate with the high priority these rights command under the laws of our state*." *Waiāhole I,* 94 Hawai`i at

[43] Although the Decision initially stated that the result of implementation of the IIFS would be that "HC&S and WWC will have to immediately remedy significant system losses or face far greater reductions in water to meet their needs," the words "immediately remedy" were lined out and replaced with "aggressively address." D&O, p. 187, ll. 19-21. As a practical matter, the IIFS are, by conscious design, so minimal that, other than in record drought conditions, satisfying the IIFS will still leave more than enough Nā Wai `Ehā water available to satisfy HC&S's needs without requiring HC&S to do *anything* to eliminate its waste of this irreplaceable public trust resource. *See, e.g.,* D&O, COLs 248-253 and Tables 16 & 17.

143, 9 P.3d at 455 (emphasis added). "Clarity in the agency's decision is all the more essential in a case such as this where the agency performs as a public trustee and is duty bound to demonstrate that it has properly exercised the discretion vested in it by the constitution and the statute." *Waiāhole I,* 94 Hawai`i at 158, 9 P.3d at 469-70 (quoting *Save Ourselves, Inc. v. Louisiana Environmental Control Comm'n,* 452 So.2d 1152, 1159-60 (La. 1984)) (internal quotation marks omitted).

The majority's findings and conclusions (and more significantly, the lack thereof) in general, but particularly with regard to the practicability of Well No. 7 as an alternative source, fall far short of the level of the clarity, openness, diligence, and foresight demanded of the Commission, and require this Court, the parties, and the public to guess at the basis for its decision. Unfortunately, the majority's willingness to effectively eliminate Well No. 7 as a practicable alternative to draining Nā Wai `Ehā streams without any articulated basis in the record, based on "uncertainties" regarding issues on which HC&S had the burden of proof, lends considerable credence to the Hearings Officer's assertion that the majority, in stunning derogation of its duties as trustee of the State's public trust water resources, simply chose to sacrifice Native Hawaiian traditional and customary rights, kuleana rights, and other public trust uses in Nā Wai `Ehā to protect HC&S's private economic interests.

V.

CONCLUSION

The Hawai`i Constitution, the Code, and the public trust require the Commission to protect traditional and customary Hawaiian rights and appurtenant rights to the extent feasible. The majority acknowledge, but ultimately disregarded, the uncontroverted evidence that Native Hawaiians' ability to exercise their traditional and customary rights and practices in Nā Wai `Ehā are limited by the lack of freshwater flowing in the streams and into the nearshore waters. The majority's Decision not only violates its duty "to ensure that it does not 'abridge or deny' traditional and customary rights of Native Hawaiians," *Waiāhole I,* 94 Hawai`i at 153, 9 P.3d at 465, it gives no indication that the majority even considered these rights that are protected at every level of the law. The Decision should be reversed and the Commission instructed on remand to consider the effect of its actions on traditional and customary Hawaiian rights and practices, and to enter specific findings and conclusions regarding (1) the existence and quantification of traditional and customary Hawaiian rights, including appurtenant rights as mandated by HRS § 174C-5(15), (2) the effect on

or impairment of those rights by the diversions of Nā Wai `Ehā streams, and (3) the feasibility of protecting those rights in reestablishing IIFS for Nā Wai `Ehā streams.

Requiring the use of practicable alternative is "intrinsic to the public trust, the statutory instream use protection scheme, and the definition of 'reasonable-beneficial.'" *Waiāhole I,* 94 Hawai`i at 161, 9 P.3d at 473. The Hawai`i Supreme Court has repeatedly "expounded on the necessity of considering alternative sources of water in balancing the distribution of a scarce public trust resource," *Kukui (Molokai),* 116 Hawai`i at 495, 174 P.3d at 334, but the Commission, or at least a majority of the Commission, intransigently resists requiring offstream diverters to meet their burden to demonstrate the absence of practicable alternatives. The Commission should be directed on remand to require HC&S to use Well No. 7 to irrigate its Waihe`e-Hopoi Fields up to its historical average use of 21 mgd, subject to monitoring.

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STATEMENT OF RELATED CASES

OHA is aware of no related cases.