

IN THE SUPREME COURT OF THE STATE OF HAWAII

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In the Matter of the Water Use Permit Applications,
Petitions for Interim Instream Flow Standard Amendments, and Petitions
for Water Reservations for the Waihole Ditch Combined Contested Case
Hearing

NO. 21309

APPEAL FROM THE COMMISSION ON WATER RESOURCE MANAGEMENT
(CASE NO. CCH-OA95-1)

AUGUST 22, 2000

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MOON, C.J., LEVINSON, NAKAYAMA, RAMIL, JJ. AND
CIRCUIT JUDGE IBARRA, IN PLACE OF KLEIN, J.

OPINION OF THE COURT BY NAKAYAMA, J.

The present appeal arises from an extended dispute over the water distributed by the Waihole Ditch System, a major irrigation infrastructure on the island of Oahu supplying the island's leeward side with water diverted from its windward side. In 1995, this dispute culminated in a contested case hearing of heretofore unprecedented size, duration, and complexity before appellee Commission on Water Resource Management (the Commission). At the hearing, the Commission considered petitions to amend the interim instream flow standards for windward streams affected by the ditch, water use permit applications for various leeward offstream purposes, and water reservation petitions for both instream and offstream uses. The Commission issued its final findings of fact (FOFs), conclusions of law (COLs), decision and order (D&O) (collectively, final decision or decision) on December 24, 1997.

Parties on appeal include: the Commission; appellee/cross-appellant Estate of James Campbell (Campbell Estate); appellants City and County of Honolulu Planning Department and Board of Water Supply (collectively, the City); appellees/cross-appellants Department of Agriculture (DOA) and Department of Land and Natural Resources (DLNR), State of Hawaii (collectively, DOA/DLNR); appellee/cross-appellant Dole Food Company, Inc./Castle & Cooke, Inc. (Castle); appellee Hawaii Farm Bureau (HFB); appellant Hawaii's Thousand Friends (HTF); appellant Kamehameha Schools Bernice Pauahi Bishop Estate (KSBE); appellee/cross appellant Land Use Research Foundation (LURF); appellee Nihonkai Lease Co., Inc. (Nihonkai); appellee/cross-appellant Puu Makakilo, Inc. (PMI); appellee/cross-appellant Robinson Estate (Robinson); appellants Waihole-Waikne Community Association, Hakipuu Ohana, and Ka Lhui Hawaii (collectively, WWCA); and appellee United States Department of the Navy (USN). We have carefully reviewed their arguments in light of the entire breadth of this state's legal mandates and practical demands. For the reasons fully explained below, we affirm in part and vacate in part the Commission's decision and remand for further proceedings consistent with this opinion.

I. BACKGROUND

A. INTRODUCTION

The Waihole Ditch System collects fresh surface water and dike-impounded ground water⁽¹⁾ from the Koolau mountain range on the windward side of the island of Oahu and delivers it to the island's central plain. Beginning in Kahana Valley, the collection portion of the system proceeds along the windward side of the Koolaus, then passes under the Koolau crest to the leeward side at the North Portal. The section of the system known as the Waihole Main Bore or Tunnel extends from the North Portal to the Tunnel's leeward exit, South Portal Adit 8 (Adit 8). The delivery portion of the system begins at Adit 8 and winds through the plain of Central Oahu. Measured at Adit 8, the system develops approximately 27 million gallons a day (mgd).

The ditch system was built in significant part from 1913 to 1916 to irrigate a sugar plantation owned and operated by Oahu Sugar Company, Ltd. (OSCo). Until the plantation ceased operations in 1995, OSCo used much of the ditch's flow, in addition to a substantial supply of ground water pumped from the Pearl Harbor aquifer. At the time of this appeal, various leeward parties still retained, but were not using, well permits to pump approximately 53 mgd of leeward ground water.

Diversions by the ditch system reduced the flows in several windward streams, specifically, Waihole, Waianu, Waikne, and Kahana streams, affecting the natural environment and human communities dependent upon them. Diminished flows impaired native stream life and may have contributed to the decline in the greater Kneoe Bay ecosystem, including the offshore fisheries. The impacts of stream diversion, however, went largely unacknowledged until, in the early 1990s, the sugar industry on Oahu came to a close.

B. PROCEDURAL HISTORY

On July 15, 1992, the Commission designated the five aquifer systems of Windward Oahu as ground water management areas, effectively requiring existing users of Waihole Ditch water to apply for water use permits within one year of that date.⁽²⁾ In June 1993, the Waihole Irrigation Company (WIC), the operator of the ditch system, filed a combined water use permit application for the existing users of ditch water. In August 1993, OSCo announced that it would end its sugar operations, signaling the imminent availability of the ditch water used by OSCo and raising the question of its future allocation.

Conflict ensued. On November 4, 1993, DOA filed a petition to reserve⁽³⁾ the ditch flow for agricultural uses. The Office of Hawaiian Affairs (OHA), WWCA, KSBE, and the Department of Hawaiian Homelands also filed petitions to reserve water. On December 7, 1993, WWCA petitioned to amend upward the interim instream flow standards for the Windward Oahu streams affected by the ditch (WIIFS);⁽⁴⁾ OHA filed a similar petition on February 28, 1995. KSBE and Castle also filed separate water use permit applications specifically requesting water drawn by the ditch system from lands they owned. The petitions to amend the WIIFS and the permit applications collectively exceeded the entire flow of the ditch.

In May 1994, the Commission received complaints that, with the close of OSCo's sugar operations, WIC was discharging unused ditch water into Central Oahu gulches. After holding an investigation and several meetings and considering an order to show cause regarding WIC's continuing waste of water, the Commission requested the parties involved to enter into mediation. The mediation agreement and the Commission's subsequent order dated December 19, 1994 provided that WIC would continue to supply 8 mgd to the ditch, as measured at the North Portal, and release the surplus into the windward streams.

The interim restoration of windward stream flows had an immediate apparent positive effect on the stream ecology. The higher flows flushed out exotic fish species that were harming native species by carrying parasites and disease, competing for food and space, and interfering with spawning rituals. Experts saw excellent potential for the repopulation of native stream life such as oopu (goby), pae (shrimp), and hhwai (snail).⁽⁵⁾

On January 25, 1995, the Commission ordered a combined contested case hearing on the permit applications, reservation petitions, and petitions to amend the WIIFS. At a public hearing on April 18, 1995, the Commission received public testimony and requests to participate in the consolidated hearing. The Commission admitted a final total of twenty-five parties.

On July 14, 1995, the Commission's staff submitted a proposed order to bifurcate the contested case hearing. The proposed order recommended that the Commission decide in a separate proceeding the allocation of ground water drawn from KSBE's Waiawa lands in the Pearl Harbor aquifer sector on the leeward side of the Koolaus. On August 7, 1995, the Commission issued an order denying the proposed bifurcation order on the grounds that the interrelated nature of the applications for Waihole Ditch water favored the consolidated process.

The Commission also held hearings to determine the "existing uses" as of July 15, 1992, the date of the designation of Windward Oahu as a ground water management area, that would be allowed to continue pending a decision on the permit applications, see *supra* note 2. On August 15, 1995, the Commission issued "Order Number 8," identifying the existing uses and their respective interim allocations. "Order Number 10," dated October 16, 1995, amended and clarified Order Number 8, allowing 9.3698 mgd, as measured at the North Portal, to flow into the ditch until further order of the Commission.

The contested case hearing commenced on November 9, 1995. Opening statements and presentation of evidence continued until August 21, 1996, spanning fifty-two hearing days and four evening sessions. The Commission received written testimony from 161 witnesses, 140 of whom also testified orally, and admitted 567 exhibits into evidence. The parties presented closing arguments from September 18 to 20, 1996.

On July 15, 1997, the Commission released its proposed decision, to which the parties submitted written and oral exceptions. While the Commission was considering its final decision, the state governor and attorney general publicly criticized the proposed decision as inadequately providing for leeward interests. At about the same time, the deputy attorney general representing the Commission was summarily dismissed. The

Commission issued its final decision on December 24, 1997. The final decision differed from the proposed decision in various respects, most notably in its increasing the amount of water allocated to leeward permittees by 3.79 mgd.

C. THE FINAL DECISION

The Commission's final decision consisted of 1,109 FOFs, an extensive legal discussion section styled as COLs, and a D&O explaining at length the Commission's disposition. The following summary highlights the prominent elements of the Commission's analysis and decision; specifically contested FOFs and COLs appear in the relevant discussion sections of this opinion.

In its COLs, the Commission surveyed the law of water in Hawaii, as established in the Hawaii Constitution, State Water Code (the Code), and common law, focusing particularly on the "public trust doctrine." As a preface to its determination of the WIIFS, the Commission concluded that:

Under the State Constitution and the public trust doctrine, the State's first duty is to protect the fresh water resources (surface and ground) which are part of the public trust res. Haw. Const. Art. XI, § 7; *Robinson v. Ariyoshi*, 65 Haw. [641,] 674[, 658 P.2d 287, 310 (1982)]. The duty to protect public water resources is a categorical imperative and the precondition to all subsequent considerations, for without such underlying protection the natural environment could, at some point, be irrevocably harmed and the "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" could be endangered. *Id.* However, the duty to protect does not necessarily or in every case mean that all offstream uses must cease, that no new offstream uses may be made, or that all waters must be returned to a state of nature before even the first Hawaiians arrived in these islands and diverted stream water to grow taro. The particular level of protection may vary with circumstances and from time to time; but the primary duty itself remains.

COLs at 11. The Commission identified Windward Oahu ground water and streams and Kneoe Bay as "part of the public trust res . . . subject to review under the State's public trust responsibility as expressed in the State Water Code." *Id.* at 31.

The Commission acknowledged its duty under the Code to establish instream flow standards in instituting a program for instream use protection, see *supra* note 4. The Commission found that the interim restoration of windward stream flows had a "positive effect," FOFs at 17-18, and that "generally, the higher the volume of instream flow and closer the stream flow approaches its natural pre-diversion levels, the greater the support for biological processes in the stream and its ecosystem," COLs at 32. Thus, according to the Commission, "in general, it is expected that additional flows to the streams would increase the native biota habitat." FOFs at 17.

A more conclusive determination of the necessary instream flows, however, remained elusive. The Commission explained:

The Commission has found it difficult to quantify an instream flow that corresponds to a biological condition for a given flora or fauna. As a result, the methods used on the continental United States to determine an appropriate instream flow have proven unsuitable in Hawaii.

The Water Code provides for the establishment and modification of both interim and permanent instream flow standards on the assumption that scientific data will eventually provide firm knowledge about streams upon which to reach some permanent solution. Haw. Rev. Stat. § 174C-71. Unfortunately, such firm knowledge will require considerably more work and is years away. Until that scientific knowledge is available, stream management decisions will require a methodology that recognizes the preliminary and incomplete nature of existing evidence.

Given the long term work needed to define an ecologically necessary flow in a particular stream, the Commission will need to amend "interim" instream flow standards periodically until permanent standards can be adopted. . . .

From the long term vantage point of science, the biological and environmental evidence regarding streams is preliminary. The data collection is just beginning. The conclusions are tentative. In some areas, experts are

even hesitant to offer opinions. For the foreseeable future, it will be necessary to manage and protect streams through a system of working presumptions rather than on the basis of firm scientific knowledge.

COLs at 16. The Commission nonetheless maintained:

Where scientific evidence is preliminary and not yet conclusive regarding the management of fresh water resources which are part of the public trust, it is prudent to adopt "precautionary principles" in protecting the resource. That is, where there are present or potential threats of serious damage, lack of full scientific certainty should not be a basis for postponing effective measures to prevent environmental degradation. . . . In addition, where uncertainty exists, a trustee's duty to protect the resource mitigates in favor of choosing presumptions that also protect the resource.

Id. at 33 (emphasis added).

The Commission also reviewed the legal requirements for issuance of water use permits under the Code.⁽⁶⁾ Although the various requests for water collectively exceeded the flow of the ditch, the Commission concluded that, "[a]t least for the near term, water quantities in excess of the amended interim instream flow standard and subject to the conditions affecting supplemental flows⁽⁷⁾ are available at the present time to satisfy water use permit applicants for those existing and future offstream uses identified in the [D&O]" Id. at 23. Based on this conclusion, the Commission further ruled that the statutory requirement of "reasonable-beneficial use"⁽⁸⁾ could be fulfilled, particularly with respect to agricultural uses, by a "prima facie showing" of reasonableness and consistency with the public interest. Id. at 24-25. The Commission reasoned:

[I]n this case, a variety of management and legal factors postpone the need to fully analyze the affirmative "public interest" tests in the context of deciding "reasonable beneficial use." Among these factors are: 1) the obligation not to waste; 2) the release into windward streams of permitted, but not used, ground water; 3) the release into windward streams of unallocated ground water; 4) the ditch operation and management plan; 5) conservation measures; 6) the availability of alternative sources (ground water and reusable wastewater);⁽⁹⁾ 7) the four year non-use provisions of the Code (Haw. Rev. Stat. § 174C-58);⁽¹⁰⁾ 8) compliance review (Haw. Rev. Stat. § 174C-58 [sic]);⁽¹¹⁾ and 9) low near term demand. Thus, careful management may defer the need to consider a higher level of scrutiny in analyzing the "public interest" test until the time when there is inadequate water for competing demands.

Where, finally, there is inadequate supply for competing needs, both the "public interest" test and the examination of "reasonableness" will require more than a prima facie showing. As competition for water resources increases, the analysis of both the public interest and of reasonableness must become both more rigorous and affirmative. The counties will be required to articulate their land use priorities with greater specificity. For example, even at the present time, there is more land zoned for various uses than available water to supply those proposed uses. Thus, it is not sufficient to merely conclude that a particular parcel of land is properly zoned and that the use is "beneficial." That minimal conclusion may be inadequate to resolve situations in which competitive demand exceeds supply. Further analysis of public interest criteria relevant to water (e.g., conservation, alternative uses, comparative public costs and benefits) will be needed.⁽¹²⁾

Id. at 25.

Agricultural uses, the Commission concluded, were "generally" consistent with the public interest "where adequate water [wa]s available." Id. at 26. In times of scarcity and competition, however, "the standard of review [would] be higher." Id. at 26-27. Existing golf course and other nonagricultural uses were "already subject to this higher standard, in light of higher uses for windward surface water, including retaining the water in the streams." Id. at 27. The Commission subjected all permits to "conditions providing for stream restoration if the Commission determines that additional water should be returned to the streams." D&O at 30.

The Commission recognized its statutory duty, when considering competing water use permit applications, to approve the application that "best serves the public interest."⁽¹³⁾ In the Commission's view, an inherent conflict existed between the permit applications, reservation petitions, and petitions to amend the WIIFS, but

"[a]fter the evidence was weighed and reasonable beneficial uses evaluated, the scope of competition narrowed significantly." COLs at 28. The Commission, however, did indicate certain general priorities between types of uses. For example, because use of brackish water or treated effluent over the Ewa Plain would not harm the underlying caprock aquifer, and transporting water across the island "further reduces the protection afforded the stream ecosystem by keeping water in its area of origin," use of ditch water over the Ewa Plain caprock for new nonagricultural uses was "presumptively disfavored." Id. The Commission also stated:

Other non-agricultural uses in leeward Oahu for golf course and landscaping uses which could utilize available ground water or treated effluent also carry a heavy burden to show why stream water should be diverted out of its watershed of origin, even though central Oahu is closer to windward Oahu than the Ewa Plain. In the short term, uncertainty regarding the use of treated effluent over a potable aquifer, existing infrastructure to move Waiahole Ditch system water, and the need to study instream flow needs all mitigate in favor of continuing the use of Waiahole water for 1992 uses.

Likewise, the continued use of Waiahole Ditch water through the existing ditch system to preserve agriculture in central Oahu on lands in sugar production in 1992 ("footprint" lands) as well as on other lands in central Oahu suitable for agriculture has important value. If and until treated effluent or ground water is available, the State has a strong interest in retaining agriculture on these lands. Where instream flow values may be protected and offstream agricultural uses maintained, both "uses" are accommodated in the manner promoted by Haw. Rev. Stat. § 174C-54.

Id. at 28-29.

Having discussed the legal grounds for its decision, the Commission apportioned the Waihole Ditch water as follows. The Commission granted in part and denied in part WWCA's and OHA's petitions to amend the WIIFS, deeming it "practicable" to restore a total of 6.0 mgd to windward streams, id. at 19, "more than 25% of the average total Waiahole Ditch flow measured at the North Portal (23.3 mgd)," id. at 33. Specifically, the Commission added 4.0 mgd to the 3.9 mgd "Q90 base flow" ⁽¹⁴⁾ of Waihole Stream and 2.0 mgd to the 0.5 mgd Q90 base flow of Waianu Stream, a tributary of Waihole Stream. D&O at 3. The Commission thus increased the combined base flow of Waihole and Waianu Streams to 10.4 mgd. Id. The Commission neither mentioned, nor made any provision for, the instream flow of Waikne Stream.

The Commission set aside a total of 13.51 mgd for leeward offstream uses: 12.22 mgd for "agricultural" uses and 1.29 for "other" uses. Id. at 6-7, 22. Leeward water uses would be measured according to average use over a twelve-month period, or the "twelve month moving average" (12-MAV). Id. at 12. The 12-MAV, the Commission elaborated, "allows for seasonal fluctuation, and is generally used for all water use reporting requirements by the Commission." Id.

In calculating the 12.22 mgd "agricultural allowance," the Commission preliminarily found that "2,500 gallons per acre per day (gad) is a reasonable duty of water for diversified agriculture." Id. at 6. The Commission left the gad figure open to future evaluation and adjustment, noting that it tended towards "the lower end of the range of estimates" due to the incipient state of diversified agriculture operations and "a lack of data on actual uses." Id. "There was evidence for both higher and lower quantities," the Commission stated, but "the flexibility in operational requirements and the duty not to waste should provide the appropriate safeguards in either direction." COLs at 25.

The 12.22 mgd agricultural allowance consisted of 10.0 mgd for former OSCo sugarcane lands currently used for diversified agriculture (approximately 4,000 acres supplied at 2,500 gad), and 2.22 mgd for Castle's agricultural lands (approximately 1,552 acres supplied at the lesser of 2,500 gad or the amount requested). D&O at 6-7. Of the 12.22 mgd total, the Commission allocated 10.64 mgd in water use permits, calculated by multiplying the 4,915 acres in "existing use" under Orders Number 8 and 10 by the lesser of 2,500 gad or the amount requested. Id. at 7. The remaining 1.58 mgd was designated a "proposed agricultural reserve," which would become available for agricultural use permits if confirmed through the requisite rulemaking procedures, see *supra* note 3. D&O at 7. The Commission expressly prohibited unauthorized "double counting" of water allocations, or the use of Pearl Harbor ground water on the same lands to which permits to use Waihole Ditch water applied, and noted that it could suspend or revoke permits for ground water from the Waipahu-Waiawa aquifer system after four years of partial or total nonuse, see *supra* note 10. D&O at 8.

Nonagricultural or "other" uses, including uses by a state prison, a cemetery, and two golf courses, PMI and Mililani Golf Club, received 1.29 mgd in permit allocations. The Commission, however, granted PMI's use of 0.75 mgd "subject to special requirements including a duty to seek alternative sources where they are reasonably available in the near future." COLs at 25. The Commission likewise imposed on Mililani Golf Course the duty to use alternative sources when they became reasonably available. Id.

The Commission also created a "non-permitted ground water buffer" of 5.39 mgd, intended for initial release in the windward streams, but available for offstream uses as a secondary source after the 1.58 mgd proposed reserve. Id. at 33-34. Applicants for the buffer water would not be required to petition to amend the WIIFS. D&O at 11. The Commission, however, would take a "hard look" at the best available scientific and stream flow data and decide whether an amendment to the [WIIFS] is needed" before approving any application and would issue all permits subject to "conditions providing for stream restoration if the Commission determines that additional water should be returned to the stream." COLs at 34.

Preliminarily, therefore, the Commission released into windward streams, in addition to the 6.0 mgd added to the WIIFS, a "supplemental flow" of 6.97 mgd or more, consisting of the 5.39 mgd buffer, the 1.58 mgd proposed reserve, and any water authorized for use in water use permits but not actually used, which the Commission mandated would remain in windward streams "to avoid unlawful waste." Id. The Commission explained that "[t]hese supplemental flows will provide a field test to monitor and scientifically study the streams. As these supplemental flows may be permitted for offstream uses and the actual stream flow reduced from present levels, scientific studies will be conducted to examine the impact of reducing stream flows." Id.

The Commission announced its plan to establish technical advisory committees, representing a cross-section of interests, to undertake tasks such as assessing the implementation of the final decision, determining the feasibility of using treated wastewater over potable aquifers, and recommending studies, conservation measures, and monitoring plans. D&O 4-5. Parties receiving permits to use Waihole Ditch water on their lands would be required to "prepare, or contract for, a portion of the studies and monitoring activities resulting from this order," contributing funds on a pro rata basis according to the amount of water used. Id. at 10. The Commission would establish a committee "to recommend a reasonable amount for the funding and coordinate and set up the mechanism for the collection, accounting, and distribution of the funds." Id.

Several of the Commission's denials of water use requests are relevant to the present appeal. The Commission rejected DOA's 0.75 mgd permit application for a planned agricultural park "without prejudice to [reapplication] when DOA can demonstrate that actual use will commence within a reasonable time frame." Id. The Commission denied KSBE's requested allocation for golf-course and landscaping uses in connection with its planned Waiawa by Gentry residential development, stating that "[KSBE] may apply for additional water . . . [upon receiving] the proper land use classification, development plan approvals, and zoning changes and [demonstrating] that actual use of water will commence within a reasonable time frame for a proposed project." COLs at 27.

The Commission also declined to grant WIC's request for 2.0 mgd to compensate for the "operational losses" of the ditch system due to factors such as evaporation and leakage. D&O at 11. The Commission nonetheless observed that, until it designated the Kahana watershed as a surface water management area, the 2.1 mgd of "non-regulated" Kahana surface water drawn by the ditch would approximately cover such losses. Id. at 12. The Commission proffered that, after designating Kahana as a surface water management area and receiving water use permit applications for the water, it "may consider deducting the operational losses from the non-permitted ground water." Id.

In all, of the 27 mgd total flow of the ditch, as measured at Adit 8, the Commission assigned 14.03 mgd to permitted leeward agricultural and nonagricultural uses and "system losses." For the near term, the Commission released 12.97 mgd in windward streams. However, 6.97 mgd of this 12.97 mgd remained available for offstream leeward uses as a "proposed agricultural reserve" or "non-permitted ground water buffer." The present appeal followed.

II. STANDARD OF REVIEW

Hawaii Revised Statutes (HRS) § 174C-12 (1993) provides: "Judicial review of rules and orders of the commission under this chapter shall be governed by [HRS] chapter 91 [the Hawaii Administrative Procedures

Act, or HAPA]. Trial de novo is not allowed on review of commission actions under this chapter." Regarding appeals from agency decisions generally, this court has stated:

This court's review is . . . qualified by the principle that the agency's decision carries a presumption of validity and appellant has the heavy burden of making a convincing showing that the decision is invalid because it is unjust and unreasonable in its consequences. *Konno v. County of Hawaii*, 85 Hawaii 61, 77, 937 P.2d 397, 413 (1997) (citations omitted).

HRS § 91-14(g) (1993) enumerates the standards of review applicable to an agency appeal and 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.

GATRI v. Blane, 88 Hawaii 108, 112, 962 P.2d 367, 371 (1998) (citing *Poe v. Hawaii Labor Relations Board*, 87 Hawaii 191, 194-95, 953 P.2d 569, 572-73 (1998)).

[FOFs] are reviewable under the clearly erroneous standard to determine if the agency decision was clearly erroneous in view of reliable, probative, and substantial evidence on the whole record. *Alvarez v. Liberty House, Inc.*, 85 Hawaii 275, 277, 942 P.2d 539, 541 (1997); HRS § 91-14(g)(5).

[COLs] 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. *Hardin v. Akiba*, 84 Hawaii 305, 310, 933 P.2d 1339, 1344 (1997) (citations omitted); HRS §§ 91-14(g) (1), (2), and (4).

"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." *Price v. Zoning Bd. of Appeals of City and County of Honolulu*, 77 Hawai'i 168, 172, 883 P.2d 629, 633 (1994). When mixed questions of law and fact are presented, an appellate court must give deference to the agency's expertise and experience in the particular field. *Dole Hawaii Division-Castle & Cooke, Inc. v. Ramil*, 71 Haw. 419, 424, 794 P.2d 1115, 1118 (1990). "[T]he court should not substitute its own judgment for that of the agency." *Id.* (citing *Camara v. Agsalud*, 67 Haw. 212, 216, 685 P.2d 794, 797 (1984)).

Poe, 87 Hawai'i at 197, 953 P.2d at 573.

Curtis v. Board of Appeals, 90 Hawai'i 384, 392-93, 978 P.2d 822, 830-31 (1999).

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. See *Leslie v. Estate of Tavares*, 91 Hawai'i 394, 399, 984 P.2d 1220, 1225 (1999). "We have defined 'substantial evidence' as credible evidence which is of sufficient quality and probative value to enable a person of reasonable caution to support a conclusion." *Id.* (quoting *State v. Kotis*, 91 Hawai'i 319, 328, 984 P.2d 78, 87 (1999)).

III. DISCUSSION-(15)

A. PROCEDURAL DUE PROCESS

As its first point on appeal, WWCA alleges a violation of its constitutional right to procedural due process, specifically, its right to a fair tribunal. In *Sussel v. City & County of Honolulu Civil Service Commission*, 71 Haw. 101, 107, 784 P.2d 867, 870 (1989), we recognized:

"There are certain fundamentals of just procedure which are the same for every type of tribunal and every type of proceeding." R. Pound, *Administrative Law* 75 (1942). "Concededly, a 'fair trial in a fair tribunal is a basic requirement of due process.' In *re Murchison*, 349 U.S. 133, 136 (1955). This applies to administrative agencies which adjudicate as well as to courts. *Gibson v. Berryhill*, 411 U.S. 564, 579 (1973)." *Withrow v. Larkin*, 421 U.S. 35, 46-47 (1975).

WWCA raises several grounds for its allegation of a denial of due process. We address each in turn.

1. *Dual Status of the Commission Chairperson*

WWCA accuses the chairperson of the Commission, Michael Wilson (Wilson), of having a "conflict of interest" due to his concurrent status as chairperson of the state Department of Land and Natural Resources (DLNR), an adverse party to WWCA in the instant contested case hearing before the Commission.-(16) We note at the outset that the positions of chairperson of the Commission and chairperson of the DLNR are not incompatible per se. The common law doctrine of incompatible offices prohibits an individual from serving in dual capacity "[i]f one office is subordinate to the other or the functions of the offices are inherently inconsistent and repugnant to each other." *State v. Villeza*, 85 Hawai'i 258, 270, 942 P.2d 522, 534 (1997); see also *Woods v. Treadway*, 31 Haw. 792, 794 (1931). The legislature may nevertheless override this rule as it deems appropriate or necessary. See *Schulman v. O'Reilly-Lando*, 545 A.2d 241, 243 (N.J. Super. Ct. 1988); *American Canyon Fire Protection Dist. v. County of Napa*, 190 Cal. Rptr. 189, 192 (Cal. Ct. App. 1983). In this case, the legislature has expressly decreed that "[t]he chairperson of the board of land and natural resources shall be the chairperson of the commission." HRS § 174C-7(b) (1993). The legislature has thus deemed it appropriate for one person to serve in both capacities.

We must still decide, however, whether any impermissible conflicts of interest prevented Wilson from presiding over the instant proceeding. See *Coyne v. State ex rel. Thomas*, 595 P.2d 970, 973 (Wyo. 1979) (distinguishing incompatibility of offices and conflict of interest). In arguing the negative, the Commission cites its own rule of disqualification, Hawaii Administrative Rules (HAR) § 13-167-61 (1988), which states in relevant part: "No commission member shall sit in any proceeding in which the member has any pecuniary or business interest in the proceeding or who is related within the first degree by blood or marriage to any party to the proceeding."

It is undisputed that Wilson had no personal financial or familial interest in this proceeding. WWCA nonetheless analogizes this case to the line of precedent relating to disqualification for "institutional" or "structural" bias. See *Tumey v. Ohio*, 273 U.S. 510 (1927) (reversing a conviction rendered by a mayor concurrently serving as village chief executive and judge, where the fines collected in the mayor's court provided a substantial part of his salary and the village's finances); *Alpha Epsilon Phi Tau Chapter Hous. Ass'n v. City of Berkeley*, 114 F.3d 840, 844-47 (9th Cir. 1997) (discussing the standards established by *Tumey* and its progeny). Unlike those cases, the procedural infirmity here lies less in the potential for incidental institutional benefit to either the Commission or DLNR than in the DLNR's institutional interest, as a party directly involved in this case, in a favorable decision by the Commission. In our view, therefore, the matter before us draws closer comparisons to precedent invalidating procedures whereby judges presided over nonsummary contempt proceedings that they played an instrumental role in bringing about.-(17) See, e.g., *Murchison*, supra (finding a due process violation where a judge who served as "one-man grand jury" also presided over the trial); *Brown*, supra (ruling that a judge indirectly responsible for the institution of a contempt charge for conduct of which he had no personal knowledge could not preside over trial); see also *White v. Board of Educ.*, 54 Haw. 10, 16, 501 P.2d 358, 363 (1972) (holding that, although the superintendent of education was the secretary of the decisionmaking board, he should have recused himself from a hearing regarding disciplinary action that he imposed). Here, Wilson similarly presided over a proceeding in which

he, by direct association, ⁽¹⁸⁾ assumed an active partisan role. He sat in judgment, on the one hand, of legal claims and factual representations he advanced, on the other.

Aside from any actual institutional bias on Wilson's part in this case,

"no one would argue seriously that the disqualification of [decision-makers] on grounds of actual bias . . . prevents unfairness in all cases." *State v. Brown*, 70 Haw. 459, 467, 776 P.2d 1182, 1187 (1989). So "our system of [justice] has always endeavored to prevent even the probability of unfairness." *In re Murchison*, *supra*.

The Supreme Court teaches us too that justice can "perform its high function in the best way [only if it satisfies] 'the appearance of justice.' *Offutt v. United States*, 348 U.S. 11, 14 [(1954)]." *In re Murchison*, *supra*. For in a popular government, "justice must not only be done but manifestly be seen to be done. . . ." *Rex v. Justices of Bodmin*, [1947] 1 K.B. 321, 325." *Joint Anti-Fascist Refugee Comm. v. McGrath*, 341 U.S. 123, 172 n.19 (Frankfurter, J., concurring) (1951).

Sussel, 71 Haw. at 107-08, 784 P.2d at 870 (brackets in original). See also *State v. Ross*, 89 Hawai'i 371, 379, 974 P.2d 11, 19 (1998) ("[A]side from the technical absence of bias or conflict of interest, certain situations may give rise to such uncertainty concerning the ability of the [adjudicator] to rule impartially that disqualification becomes necessary.").

We have held that "the test for disqualification due to the 'appearance of impropriety' is an objective one, based not on the beliefs of the petitioner or [adjudicator], but on the assessment of a reasonable impartial onlooker apprised of all the facts." *Ross*, 89 Hawaii at 380, 964 P.2d at 20. From this objective viewpoint, we fail to see how Wilson's dual status as adjudicator and litigant could not have reasonably cast doubt on his ability to rule with absolute impartiality. Indeed,

[h]aving been a part of [the advocacy] process a[n adjudicator] cannot be, in the very nature of things, wholly disinterested in [the result]. While he [or she] would not likely have all the zeal of a [party], it can certainly not be said that he [or she] would have none of that zeal.

Murchison, 349 U.S. at 137.

"[N]o [person] can be a judge in his [or her] own case" *Brown*, 70 Haw. at 466, 776 P.2d at 1187 (citing *Murchison*, 349 U.S. at 136). Wilson served in that exact capacity with respect to DLNR in the instant proceeding. We thus hold that, where DLNR was a party in the contested case before the Commission, the basic constitutional mandate that a tribunal be impartial and that "justice must satisfy the appearance of justice," *id.* at 467, 776 P.2d at 1188 (citing *Offutt*, 348 U.S. at 14), precluded the joint chairperson of the Commission and DLNR from presiding over the hearing.

The appropriate remedy for any bias, conflict of interest, or appearance of impropriety is the recusal or disqualification of the tainted adjudicator. See *Ross*, 89 Hawai'i at 376-77, 974 P.2d at 16-17; 2 Charles H. Koch, Jr., *Administrative Law & Practice* § 6.10[4], at 306 (1997). Nonetheless, although WWCA objected early to Wilson's dual status, at no point during the proceedings did it seek Wilson's disqualification. It instead filed a motion seeking to dismiss DLNR from the instant proceeding. WWCA has not cited, nor have we discovered, any precedent for such a measure. ⁽¹⁹⁾ WWCA's course of action suggests that it objects less to the chairperson's dual status than to the nature of DLNR's participation in this case. ⁽²⁰⁾

A party asserting grounds for disqualification must timely present the objection, either before the commencement of the proceeding or as soon as the disqualifying facts become known. See, e.g., *Honolulu Roofing Co. v. Felix*, 49 Haw. 578, 615-16, 426 P.2d 298, 322 (1967); *Yorita v. Okumoto*, 3 Haw. App. 148, 152, 643 P.2d 820, 824 (1982); *Capitol Transp. Inc. v. United States*, 612 F.2d 1312, 1325 (1st Cir. 1979) ("Contentions of bias should be raised as soon as practicable after a party has reasonable cause to believe that grounds for disqualification exist."). The unjustified failure to properly raise the issue of disqualification before the agency forecloses any subsequent challenges to the decisionmakers' qualifications on appeal. See *Power v. Federal Labor Relations Auth.*, 146 F.3d 995, 1002 (D.C. Cir. 1998) ("[I]t will not do for a claimant to suppress his misgivings regarding bias while waiting anxiously to see whether the decision goes in his favor." (citation and brackets omitted)); *In re Duffy*, 897 P.2d 1279, 1281 (Wash. Ct. App. 1995) ("A

litigant's assertion of the right to disqualify a judge, whether based upon statute or due process considerations, must be timely or the objection is waived.").

Despite its awareness of Wilson's dual status, WWCA, apparently as a matter of deliberate and strategic choice, never sought Wilson's disqualification. WWCA cannot now raise the matter as grounds for overturning the Commission's decision.

Additionally, even if WWCA had moved to disqualify Wilson, the long-recognized "rule of necessity" not only allows, but requires a decisionmaker to "act in a proceeding, when he [or she] would otherwise be disqualified, if jurisdiction is exclusive and no provision exists for substitution." *Yamada v. Natural Disaster Claims Comm'n*, 54 Haw. 621, 628, 513 P.2d 1001, 1006 (1973). See also *Schwab v. Ariyoshi*, 57 Haw. 348, 350, 555 P.2d 1329, 1331 (1976) ("[D]isqualification will not be permitted to destroy the only tribunal with power in the premises." (quoting *Brinkley v. Hassing*, 83 F.2d 351, 357 (10th Cir. 1936))).

HAR § 13-167-6 (1988) provides: "Four members of the commission shall constitute a quorum to transact business and the concurrence of a simple majority of the members of the commission shall be necessary to approve any action of the commission." No procedure exists for the appointment of substitute commissioners. (21) As stated previously, two commissioners withdrew from the case at the outset, reducing the six-member Commission charged with "exclusive jurisdiction and final authority in all matters relating to the implementation and administration of the state water code," HRS § 174C-7(a), to the four-member quorum required to conduct business. Consequently, where Wilson's disqualification would have prevented the Commission from acting on this case, the "rule of necessity" demanded that Wilson preside over the instant proceeding. Wilson's dual status as chairperson of the Commission and the DLNR, therefore, did not constitute a reversible due process violation under the facts of this case.

2. Improper Influence by the Governor and Attorney General

WWCA also argues that the state governor and attorney general exerted improper influence on the Commission during the period of deliberation between the proposed and final decisions. WWCA specifically refers to the governor's public criticism of the proposed decision, the attorney general's personal appearance before the Commission in order to argue DLNR/DOA's exceptions to the proposed decision, and the dismissal of the deputy attorney general assigned to the Commission.

Where an agency performs its judicial function, external political pressure can violate the parties' right to procedural due process, thereby invalidating the agency's decision. See generally *Sokagon Chippewa Comm. Ass'n v. Babbit*, 929 F.Supp. 1165, 1173-80 (D. Wis. 1996) (consolidating the case law); *Koch*, supra, at § 6.13. Such improper influence may issue from the legislature, see, e.g., *ATX, Inc. v. United States Dept. of Transp.*, 41 F.3d 1522, 1527 (D.C. Cir. 1994); *Pillsbury Co. v. Federal Trade Comm'n*, 354 F.2d 952, 963-64 (5th Cir. 1966), as well as from sources within the executive branch, see, e.g., *Portland Audubon Soc'y v. Endangered Species Comm.*, 984 F.2d 1534, 1543-48 (9th Cir. 1993); *Jarrott v. Scrivener*, 225 F.Supp. 827 (D.D.C. 1964). As the United States Court of Appeals for the D.C. Circuit explained in *ATX*:

[External political] interference in the administrative process is of heightened concern in a quasi-judicial proceeding, which is guided by two principles. First, "the appearance of bias or pressure may be no less objectionable than the reality." [*District of Columbia Fed'n of Civic Ass'ns v. Volpe*, 459 F.2d [1231,] 1246-47 [(D.C. Cir.), cert. denied, 405 U.S. 1030 (1972)] (emphasis added); see also *Koniag, Inc. v. Andrus*, 580 F.2d 601, 610 (D.C. Cir.), cert. denied, 439 U.S. 1052, 99 S.Ct. 733, 58 L.Ed.2d 712 (1978) (*Koniag*) (congressional letter "compromised the appearance of the Secretary's impartiality"). Second, judicial evaluation of the pressure must focus on the nexus between the pressure and the actual decision maker. As we have previously observed, "the proper focus is not on the content of . . . communications in the abstract, but rather upon the relation between the communications and the adjudicator's decisionmaking process." [*Peter Kiewit Sons' Co. v. United States Army Corps of Eng'rs*], 714 F.2d [163,] 169-70 [(D.C. Cir. 1983)].

41 F.3d at 1527 (footnote omitted). See also *Pillsbury*, 354 F.2d at 964 (holding that external pressure "focus[ing] directly and substantially upon the mental decisional processes" of an administrator in a pending case "sacrifice[d] the appearance of impartiality -- the sine qua non of American judicial justice").

WWCA first objects to the governor's public remarks concerning his opinions on the merits of this case. After the issuance of the proposed decision, the governor publicly announced his support for leeward interests,

criticizing the Commission's preliminary disposition.⁽²²⁾

The governor appoints all of the commissioners, two of whom, the chairperson of DLNR and the director of the Department of Health, serve in his cabinet. See HRS § 174C-7(b); Haw. Const. art. V., § 6. The governor thus occupies an obvious position of influence over the Commission. We do not take lightly the governor's legitimate supervisory interest and role with respect to the Commission. At the same time, we cannot emphasize strongly enough that all adjudicative proceedings conducted by the Commission must conform to the same exacting standards of fairness, impartiality, and independence of judgment applicable in any court of law. See *Sussel*, 71 Haw. at 107, 784 P.2d at 870.

In the instant case, however, the governor's public remarks fall short of the level of interference that courts have deemed violative of due process. In the leading case on improper influence, *Pillsbury*, the adjudicator was personally subjected to "searching examination as to how and why he reached his decision in a case still pending before him and . . . critici[sm] for reaching the 'wrong' decision." 354 F.2d at 964. Other cases involved, at minimum, some sort of direct contact with the decisionmaker regarding the merits of the dispute. See e.g., *Koniag*, 580 F.2d at 610; *Jarrott*, 225 F.Supp. at 831-33; see also *Gulf Oil Corp. v. Federal Power Comm'n*, 563 F.2d 588, 611 (3d Cir. 1977) (holding that intervention for the purpose of expediting the disposition, rather than affecting its merits, did not influence the agency); *ATX*, 41 F.3d at 1528 (recognizing that legislative hearings not focusing directly on the decisionmakers and the merits of the case did not invalidate the agency decision).

Here, the governor made several general statements about his own views of the case. Although they related directly to the dispute before the Commission, the comments arose in public forums apart from the instant proceeding and reached the Commission indirectly, if only through the windward parties' objections. WWCA provides no evidence of the type of direct and focused interference seen in the cases cited above.⁽²³⁾ In the absence of evidence of direct communication with the decisionmakers, WWCA fails to demonstrate the requisite "nexus between the pressure and the actual decision maker." *ATX*, 41 F.3d at 1527. As a result, we have no choice but to presume that the Commission upheld its duty to decide the case without taking the governor's remarks into consideration.

Regarding the complaint against the attorney general's personal participation in the hearing, we first note that, in contrast to the cases cited above, the attorney general expressed her objections not through any ex parte communications, but during the formal proceedings on the record. More significantly, all the cases of improper influence cited by WWCA and unearthed by our own research involved interference by an office having superior status or some control over the salary or tenure of the decisionmaker. See, e.g., *ATX*, supra (communications from members of Congress); *Pillsbury*, supra (same); *Portland Audubon*, supra (alleged interference from president and his staff); *Jarrott*, supra (high level state department officials contacted District of Columbia zoning board); *Barkey v. Nick*, 161 N.W.2d 445, 447 (Mich. Ct. App. 1968) (city commissioner appeared before zoning board); *Place v. Board of Adjustment*, 200 A.2d 601, 605 (N.J. 1964) (mayor appeared before zoning board). Unlike the governor, the attorney general wields no such authority over the Commission. The attorney general's personal intervention in the hearing, although direct, does not amount to the type and degree of political control that would normally violate due process.

WWCA argues that, because the office of the attorney general simultaneously represented the Commission, the resulting "conflict of interest" compromised WWCA's right to a fair hearing. The attorney general has a statutory duty, among others, to provide legal counsel to state agencies such as the Commission. See HRS § 26-7 (1993) (attorney general "shall administer and render state legal services"); HRS § 28-4 (1993) (attorney general "shall give advice and counsel"). Regarding potential conflicts in this duty, we have held that the office of the attorney general may represent a state employee in civil matters while investigating and prosecuting him in criminal matters, so long as the staff of the [department of the attorney general] can be assigned in such a manner as to afford independent legal counsel and representation in the civil matter, and so long as such representation does not result in prejudice in the criminal matter to the person represented.

[*State v. Klattenhoff*, 71 Haw. 598,] 605, 801 P.2d [548,] 552 [(1990)]. In other words, "separate units of a governmental agency, such as the office of attorney general, may undertake concurrent representation that would otherwise offend [the provisions of the Hawaii Rules of Professional Conduct (HRPC) governing conflicts of interest, including HRPC 1.7 (1995)], . . . so long as no prejudice is suffered by any of the clients." Comment [4] to HRPC 1.10 (1995) (emphasis added).

Chun v. Board of Trustees of Employees' Retirement System of State of Hawai'i, 87 Hawai'i 152, 173-74, 952 P.2d 1215, 1236-37 (1998) (some alterations in original); see also HAR § 13-167-29(b) (1988) (requiring state agencies appearing before the Commission as an applicant or in an adjudicative setting to use counsel independent of the Commission's).

In Klattenhoff, we allowed separate deputies or divisions of the attorney general's office to represent conflicting interests. See *id.* at 605, 801 P.2d at 552. In this case, however, the attorney general herself advocated on behalf of two state agencies, DLNR and DOA, while deputy attorneys general represented the Commission and another agency, DHHL. HRS § 28-8(a) (Supp. 1999) authorizes the attorney general to "appoint, and at [her] pleasure remove, a first deputy and such other deputies . . . [who] shall act under [her] direction and shall perform such duties as [she] may require." Given the attorney general's plenary authority over her department, we agree with WWCA that the attorney general's personal representation of DLNR/DOA necessarily prevented her department from affording independent legal counsel to other state parties, particularly the Commission.

The question remains, however, whether this conflict of interest deprived WWCA of its right to a fair hearing. In Chun, we recognized that the attorney general's obligations as counsel to state agencies may conflict with her common law duties as representative of the "public interest," see HRS § 26-7 (providing that the attorney general "shall . . . have such authority as heretofore provided by common law"). See Chun, 87 Hawai'i at 170, 952 P.2d at 1233.

Indeed, the legislature implicitly foresaw the likelihood of conflicts "eventuating" in connection with the Attorney General's multiple roles, duties, and functions when it enacted HRS § 28-8.3 in 1995, conferring upon the attorney general the prerogative, "for reasons deemed . . . good and sufficient," to decline "to employ or retain an attorney" to represent "any department, board, commission, agency, bureau, or officer of the State" and, in that event, authorizing the state instrumentality -- with the concurrence of the governor -- to retain legal counsel on its own initiative for the purpose of securing such representation. See HRS §§ 28-8.3(a)(16) and (b).

Id. at 174, 952 P.2d at 1237 (internal cross-reference omitted). We thus held that, where the attorney general "perceived herself to be in a conflict of interest with the [agency she represented], [she] was ethically obligated to recommend the retention of other counsel to represent the [agency] and to take such other action as, in her opinion, the circumstances required" *Id.* at 176, 952 P.2d at 1239.

Here, in personally advocating DOA/DLNR's interests, the attorney general evidently decided that her vision of the "public interest" diverged from the Commission's. At about the same time as her appearance at the hearing, however, the attorney general "terminated" her representation of the Commission by summarily dismissing the Commission's attorney. While the reason for the dismissal is disputed, its practical consequence was as the Commission described in the cover letter of the final decision: "The decision was rendered without the assistance of counsel after the Commission's attorney was dismissed." Momentarily setting other questions of its propriety aside, therefore, we hold that the dismissal effectively cured the conflict generated by the attorney general's representation of the Commission.

WWCA also protests the dismissal as an impropriety in itself. We indeed harbor doubts about the manner in which the attorney general withdrew as the Commission's counsel. HRPC 1.16(d) (1994), for example, requires attorneys, upon termination of representation, to "take steps to the extent reasonably practicable to protect a client's interests." The record affords little evidence of any consideration of the Commission's interests on the part of the attorney general.

WWCA suggests that the dismissal both impaired the competence of the Commission and induced the Commission to change its decision. As to the first contention, the Code vests final decisionmaking authority and responsibility in the commissioners, see HRS § 174C-7(a), and mandates that "[e]ach member shall have substantial experience in the area of water resource management," HRS § 174C-7(b). As to the second, WWCA fails to show how the dismissal could have served as an intelligible and effective means of swaying the Commission on the merits, even assuming that it was so intended. All told, we are not convinced that the dismissal impaired the Commission's ability to decide this case competently and impartially to such an extent that a violation of WWCA's due process rights occurred.

WWCA argues that the substantial changes in the final decision, all to WWCA's detriment, establish that external pressure in fact influenced the Commission. We agree that a sudden reversal in direction or a weakly supported decision may raise an inference of improper influence. See *ATX*, 41 F.3d at 1529. Given the tenuous nexus between the conduct of the governor and attorney general and the Commission's deliberations, however, we believe that the changes, though concededly oddly timed, did not amount to an appearance of impropriety warranting reversal.

Finally, WWCA attempts to combine the governor's comments with the attorney general's conduct as components of a larger concerted effort by the administration to undermine the Commission. WWCA offers no concrete proof of this alleged conspiracy. Without more, we have no alternative but to conclude that the whole does not exceed the sum of the parts. See *In re Bouslog*, 41 Haw. 270, 277 (1956) (maintaining that allegations of impropriety "must be based upon facts buttressed by reasons, and not a suppositious cumulative effect, which is at best a mere conclusion arguendo" (citation and internal quotation marks omitted)).

In sum, based on the foregoing facts and the relevant precedent, we cannot say that a violation of constitutional dimensions occurred in this case. This holding does not adequately convey, however, our serious misgivings regarding the events following the Commission's proposed decision. The question of timing is key to our concerns. The events in controversy occurred after months of painstaking hearings and deliberations -- during the final stage between the Commission's proposed and final decisions. In the end, the Commission did in fact substantially alter its decision, deleting language favorable to the windward parties and increasing the amount of water allocated to leeward permittees. These eleventh hour developments, while falling short of a constitutional violation, strongly suggest that improper considerations tipped the scales in this difficult and hotly disputed case.

We acknowledge the prerogative of public officials to advocate according to their views of the "public interest" and to voice their views on public policy in public forums. Yet public officials must also be mindful of the broader public interest in the fairness and integrity of the adjudicatory process. Along these lines, it is safe to say that the conduct of the public officials in this case did nothing to improve public confidence in government and the administration of justice in this state.

Notwithstanding our feeling of unease regarding the circumstances under which the Commission rendered its final decision, our assessment of the totality of the circumstances prevents us from concluding that the aforementioned conduct constitutes a violation of WWCA's due process rights. Furthermore, in reviewing the merits of this case, we have identified substantial problems with the Commission's decision that require further attention. Thus, for the reasons articulated below, we vacate and remand the decision for further proceedings. In so doing, we are confident that the intervening years, along with the changes in the Commission's personnel, have sufficiently removed any taint of impropriety created by the conflicts and political pressures present in the prior proceeding. See *Pillsbury*, 354 F.2d at 965; *Koniag*, 580 F.2d at 611. [\(24\)](#)

B. *THE PUBLIC TRUST DOCTRINE*

Substantial controversy arises from the Commission's discussion of the "public trust doctrine" in its decision. Before addressing the parties' arguments, we survey the historical development of the doctrine in this jurisdiction.

1. *History and Development*

The United States Supreme Court advanced the seminal modern expression of the public trust doctrine in *Illinois Central Railroad Co. v. Illinois*, 146 U.S. 387 (1892). [\(25\)](#) The case arose from a disputed conveyance of land submerged under the navigable waters of Lake Michigan by the state legislature to private interests. The Court characterized the state's interest in such lands as

title different in character from that which the State holds in lands intended for sale. . . . It is a title held in trust for the people of the State that they may enjoy the navigation of the waters, carry on commerce over them, and have liberty of fishing therein freed from the obstruction or interference of private parties.

Id. at 452 (emphasis added). "The control of the state for purposes of the trust," the Court continued,

can never be lost, except as to such parcels as are used in promoting the interests of the public therein, or can be disposed of without any substantial impairment of the public interest in the lands and waters remaining. . . . The State can no more abdicate its trust over property in which the whole people are interested, like navigable waters and soils under them, so as to leave them entirely under the use and control of private parties, . . . than it can abdicate its police powers in the administration of government and the preservation of the peace. In the administration of government the use of such powers may for a limited period be delegated to a municipality or other body, but there always remains with the State the right to revoke those powers and exercise them in a more direct manner, and one more conformable to its wishes. So with trusts connected with public property, or property of a special character, like lands under navigable waters, they cannot be placed entirely beyond the direction and control of the State.

Id. at 453-54 (emphases added).⁽²⁶⁾ Because the wholesale surrender of state authority over the lands in question was "not consistent with the exercise of that trust which requires the government of the State to preserve such waters for the uses of the public," id. at 453, the disputed grant was "necessarily revocable, and the exercise of the trust by which the property was held by the State can be resumed at any time," id. at 455.

This court endorsed the public trust doctrine in *King v. Oahu Railway & Land Co.*, 11 Haw. 717 (1899). Quoting extensively from *Illinois Central*, we agreed that "[t]he people of Hawaii hold the absolute rights to all its navigable waters and the soils under them for their own common use. The lands under the navigable waters in and around the territory of the Hawaiian Government are held in trust for the public uses of navigation." Id. at 725 (citation omitted). Later decisions confirmed our embrace of the public trust doctrine. See *County of Hawaii v. Sotomura*, 55 Haw. 176, 183-84, 517 P.2d 57, 63 (1973) ("Land below the high water mark . . . is a natural resource owned by the state subject to, but in some sense in trust for, the enjoyment of certain public rights." (citation and internal quotation marks omitted)), cert. denied, 419 U.S. 872 (1974); *In re Sanborn*, 57 Haw. 585, 593-94, 562 P.2d 771, 776 (1977) (observing that any purported land court registration of lands below the high water mark was ineffective under the public trust doctrine); *State v. Zimring*, 58 Haw. 106, 121, 566 P.2d 725, 735 (1977) (holding that lava extensions "vest when created in the people of Hawaii, held in public trust by the government for the benefit, use and enjoyment of all the people.").

In *McBryde Sugar Co. v. Robinson*, 54 Haw. 174, 504 P.2d 1330, aff'd on reh'g, 55 Haw. 260, 517 P.2d 26 (1973), appeal dismissed and cert. denied, 417 U.S. 962 (1974), we contemplated the public interest in water resources. Consulting the prior laws and practices of this jurisdiction, we observed that, in granting land ownership interests in the Mhele,⁽²⁷⁾ the Hawaiian Kingdom expressly reserved its sovereign prerogatives " [t]o encourage and even to enforce the usufruct of lands for the common good." See id. at 184-86, 504 P.2d at 1337-39 (quoting *Principles Adopted By The Board of Commissioners To Quiet Land Titles In Their Adjudication Of Claims Presented To Them*, 2 Statute Laws of His Majesty Kamehameha III (SLH) 81, 85 (1847), reprinted in 2 Revised Laws of Hawaii (RLH) 2124, 2128 (1925) [hereinafter *Land Commission Principles*]). "The right to water," we explained,

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 of Hawaii for their common good in all of the land grants.

Thus by the Mahele and subsequent Land Commission Award and issuance of Royal Patent right to water was not intended to be, could not be, and was not transferred to the awardee, and the ownership of water in natural watercourses and rivers remained in the people of Hawaii for their common good.

Id. at 186-87, 504 P.2d 1338-39 (footnote omitted) (emphases added). In *Robinson v. Ariyoshi*, 65 Haw. 641, 658 P.2d 287 (1982), we elaborated on our *McBryde* decision, comparing the retained sovereign "prerogatives, powers and duties" concerning water to a "public trust":

[W]e believe that by [the sovereign reservation], a public trust was imposed upon 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. This is not ownership in the corporeal sense where the State may do with the property as it pleases; rather, we

comprehend the nature of the State's ownership as a retention of such authority to assure the continued existence and beneficial application of the resource for the common good.

Id. at 674, 658 P.2d at 310 (emphases added).

In the footnote accompanying this passage, we added:

The State unquestionably has the power to accomplish much of this through its police powers. *Hudson County Water Co. v. McCarter*, 209 U.S. 349, 28 S.Ct. 529, 52 L.Ed. 828 (1908). We believe however that the king's reservation of his sovereign prerogatives respecting water constituted much more than restatement of police powers, rather we find that it retained on behalf of the people an interest in the waters of the kingdom which the State has an obligation to enforce and which necessarily limited the creation of certain private interests in waters. See, Sax, *The Public Trust Doctrine in Natural Resource Law: Effective Judicial Intervention*, 68 Mich. L. Rev. 471 (1970); Maloney, Ausness & Morris, *A Model Water Code*, [at 81 (1972).

Id. at 674 n.31, 658 P.2d at 310 n.31 (emphasis added). The trust over the water resources of this state, we observed, was "akin to the title held by all states in navigable waterways which was recognized in [Illinois Central]." *Robinson*, 65 Haw. at 674, 658 P.2d at 310. Insofar as the two trusts differ in origin⁽²⁸⁾ and concern, however, we recognized that "the extent of the state's trust obligation of course would not be identical to that which applies to navigable waterways." Id. at 675, 658 P.2d at 310.

In 1978, this state added several provisions to its constitution specifically relating to water resources. Article XI, section 1 of the Hawaii Constitution states:

CONSERVATION AND DEVELOPMENT OF RESOURCES

Section 1. For the benefit of present and future generations, the State and its political subdivisions shall conserve and protect Hawaii's natural beauty and all natural resources, including land, water, air, minerals and energy sources, and shall promote the development and utilization of these resources in a manner consistent with their conservation and in furtherance of the self-sufficiency of the State.

All public natural resources are held in trust by the State for the benefit of the people.

(Emphases added.) Article XI, section 7 further provides:

WATER RESOURCES

Section 7. The State has an obligation to protect, control and regulate the use of Hawaii's water resources for the benefit of its people.

The legislature shall provide for a water resources agency which, as provided by law, shall set overall water conservation, quality and use policies; define beneficial and reasonable uses; protect ground and surface water resources, watersheds and natural stream environments; establish criteria for water use priorities while assuring appurtenant rights and existing correlative and riparian uses and establish procedures for regulating all uses of Hawaii's water resources.

(Emphasis added.) In 1987, pursuant to the constitutional mandate of article XI, section 7, the legislature enacted the State Water Code, HRS chapter 174C.

2. Relationship to the State Water Code

Several parties, most notably LURF, contend that the Commission erred by relying upon the public trust doctrine as a legal authority in addition to the State Water Code. According to LURF, the Code "subsumes and supplants whatever common law doctrine of public trust may previously have existed in Hawaii." By invoking the public trust, LURF argues, the Commission improperly expanded its statutory powers, upsetting the Code's "balance of interests."

The public trust in the water resources of this state, like the navigable waters trust, has its genesis in the common law. See generally HRS § 1-1 (1993); *Housing Fin. & Dev. Corp. v. Ferguson*, 91 Hawaii 81, 89-90, 979 P.2d 1107, 1115-16 (1999) (recognizing that "[t]he common law . . . includes the entire wealth of received tradition and usage"). The legislature may, subject to the constitution, modify or abrogate common law rules by statute. See *Fujioka v. Kam*, 55 Haw. 7, 10, 514 P.2d 568, 570 (1973). Statutes in derogation of the common law, however, must be strictly construed. *Burns Int'l Sec. Servs., Inc. v. Department of Transp.*, 66 Haw. 607, 611, 671 P.2d 446, 449 (1983). "Where it does not appear there was legislative purpose in superseding the common law, the common law will be followed." *Id.*; see also *Watson v. Brown*, 67 Haw. 252, 256, 686 P.2d 12, 15 (1984) (holding that a statutory remedy is "merely cumulative and does not abolish an existing common law remedy unless so declared in express terms or by necessary implication"). The Code does not evince any legislative intent to abolish the common law public trust doctrine. To the contrary, as discussed in Part III.D.2., *infra*, the legislature appears to have engrafted the doctrine wholesale in the Code.

As LURF points out, statutes establishing comprehensive regulatory schemes form an exception to the rule of strict construction. See *Department of Transp. v. Transportation Comm'n*, 330 N.W.2d 159, 164-65 (Wis. 1983); Norman J. Singer, 3 *Sutherland Statutory Construction* § 61.03, at 190 (rev. 5th ed. 1999). The Code certainly displaces common law rules of water use where effective. See *Koolau Agric. Co., Ltd. v. Commission on Water Resource Management*, 83 Hawaii 484, 491, 927 P.2d 1367, 1374 (1996) ("In [water management areas], the permitting provisions of the Code prevail; water rights in non-designated areas are governed by the common law."). The further suggestion that such a statute could extinguish the public trust, however, contradicts the doctrine's basic premise, that the state has certain powers and duties which it cannot legislatively abdicate. See *Illinois Central*, 146 U.S. at 453-54. This court has held that the doctrine would invalidate such measures, sanctioned by statute but violative of the public trust, as: the use of delegated eminent domain powers by a private party to condemn a public harbor, see *Oahu Railway*, *supra*; the land court's registration of tidelands below the high water mark, see *Sanborn*, *supra*; and a sale of lava extensions that did not promote a "valid public purpose," see *Zimring*, *supra*. Regarding water resources in particular, history and precedent have established the public trust as an inherent attribute of sovereign authority that the government "ought not, and ergo, . . . cannot surrender." See *McBryde*, 54 Haw. at 186, 504 P.2d at 1338 (quoting *Land Commission Principles*); cf. *Illinois Central*, 146 U.S. at 455 ("[S]uch property is held by the State, by virtue of its sovereignty, in trust for the public.").

Most importantly, the people of this state have elevated the public trust doctrine to the level of a constitutional mandate. In interpreting constitutional provisions:

"[W]e have long recognized that the Hawaii Constitution must be construed with due regard to the intent of the framers and the people adopting it, and the fundamental principle in interpreting a constitutional provision is to give effect to that intent." *Hirono v. Peabody*, 81 Hawai'i 230, 232, 915 P.2d 704, 706 (1996) (citation omitted). "This intent is to be found in the instrument itself." *State v. Kahlbaun*, 64 Haw. 197, 201, 638 P.2d 309, 314 (1981).

As we recently reiterated in *State of Hawai'i, ex rel. Bronster v. Yoshina*, 84 Hawai'i 179, 932 P.2d 316 (1997), "[t]he general rule is that, if the words used in a constitutional provision . . . are clear and unambiguous, they are to be construed as they are written." *Id.* [at 186], 932 P.2d at 323 (quoting *Blair v. Cayetano*, 73 Haw. [536,] 543, 836 P.2d [1066,] 1070 [(1992)] (citation omitted)). "In this regard, the settled rule is that in the construction of a constitutional provision the words are presumed to be used in their natural sense unless the context furnishes some ground to control, qualify, or enlarge them." *Pray v. Judicial Selection Comm'n*, 75 Haw. 333, 342, 861 P.2d 723, 727 (1993) (citation, internal quotation marks, brackets, and ellipses omitted).

Moreover, "a constitutional provision must be construed in connection with other provisions of the instrument, and also in the light of the circumstances under which it was adopted and the history which preceded it[.]" *Carter v. Gear*, 16 Haw. 242, 244 (1904), affirmed, 197 U.S. 348, 25 S.Ct. 491, 49 L.Ed. 787 (1905).

Hawaii State AFL-CIO v. Yoshina, 84 Hawai'i 374, 376, 935 P.2d 89, 91 (1997).

Article XI, section 1 of the Hawai'i Constitution mandates that, "[f]or the benefit of present and future generations, the State and its political subdivisions shall protect and conserve . . . all natural resources, including . . . water . . . and shall promote the development and utilization of these resources . . . in a manner

consistent with their conservation" and further declares that "[a]ll public natural resources are held in trust for the benefit of the people." (Emphases added.) Article XI, section 7 reiterates the State's "obligation to protect, control and regulate the use of Hawaii's water resources for the benefit of its people." (Emphases added.) The plain reading of these provisions manifests the framers' intent to incorporate the notion of the public trust into our constitution. The intensive deliberations on the subject in the convention record substantiate this interpretation. See *Debates in Committee of the Whole on Conservation, Control and Development of Resources* [hereinafter *Debates*], in 2 *Proceedings of the Constitutional Convention of Hawaii of 1978*, at 855-81 (1980) [hereinafter *Proceedings*].⁽²⁹⁾ We therefore hold that article XI, section 1 and article XI, section 7⁽³⁰⁾ adopt the public trust doctrine as a fundamental principle of constitutional law in Hawaii. See *Payne v. Kassab*, 361 A.2d 263, 272 (Pa. 1976) ("There can be no question that the [constitution] declares and creates a public trust of public natural resources for the benefit of all people (including future generations as yet unborn)"); *State v. Bleck*, 338 N.W.2d 492, 497 (Wis. 1983) (grounding the public trust doctrine in the state constitution); *Save Ourselves v. Louisiana Env't Control Comm'n*, 452 So.2d 1152, 1154 (La. 1984) (recognizing a public trust based on the state constitution); *Owsicheck v. State, Guide Licensing and Control Bd.*, 763 P.2d 488, 493-96 (Alaska 1988) (holding that the constitutional "common use" clause adopted common law trust principles in relation to fish, wildlife, and water resources).

Other state courts, without the benefit of such constitutional provisions, have decided that the public trust doctrine exists independently of any statutory protections supplied by the legislature. See, e.g., *National Audubon Soc'y v. Superior Ct. Of Alpine Cty.*, 658 P.2d 709, 728 n.27 (Cal.) ("Aside from the possibility that statutory protections can be repealed, the noncodified public trust doctrine remains important both to confirm the state's sovereign supervision and to require consideration of public trust uses in cases filed directly in the courts"), cert. denied, 464 U.S. 977 (1983); *Kootenai Envtl. Alliance v. Panhandle Yacht Club, Inc.*, 671 P.2d 1085, 1095 (Idaho 1983) ("[M]ere compliance by [agencies] with their legislative authority is not sufficient to determine if their actions comport with the requirements of the public trust doctrine. The public trust doctrine at all times forms the outer boundaries of permissible government action with respect to public trust resources."). This view is all the more compelling here, in light of our state's constitutional public trust mandate. See *San Carlos Apache Tribe v. Superior Court ex rel. Maricopa County*, 972 P.2d 179, 199 (Ariz. 1999) ("The public trust doctrine is a constitutional limitation on legislative power The Legislature cannot order the courts to make the doctrine inapplicable to these or any proceedings."). To the extent that other courts have held otherwise, their decisions are neither controlling nor, for the reasons stated above, applicable in this state. See, e.g., *R.D. Merrill Co. v. State of Wash. Pollution Control Hearings Bd.*, 969 P.2d 458 (Wash. 1999).

The Code and its implementing agency, the Commission, do not override the public trust doctrine or render it superfluous. Even with the enactment and any future development of the Code, the doctrine continues to inform the Code's interpretation, define its permissible "outer limits," and justify its existence. To this end, although we regard the public trust and Code as sharing similar core principles, we hold that the Code does not supplant the protections of the public trust doctrine.

3. *The State Water Resources Trust*

Having established the public trust doctrine's independent validity, we must define its basic parameters with respect to the water resources of this state. In so doing, we address: 1) the "scope" of the trust, or the resources it encompasses; and 2) the "substance" of the trust, including the purposes or uses it upholds and the powers and duties it confers on the state.

a. *Scope of the Trust*

The public trust doctrine has varied in scope over time and across jurisdictions. In its ancient form, the public trust included "the air, running water, the sea, and consequently the shores of the sea." J. Inst. 2.1.1. Under the English common law, the trust covered tidal waters and lands. See *Shively v. Bowlby*, 152 U.S. 1, 11 (1892). Courts in the United States have commonly understood the trust as extending to all navigable waters and the lands beneath them irrespective of tidality. See *Illinois Central*, *supra*; *Phillips Petroleum*, 484 U.S. 469 (1988) (confirming that the public trust still applies to tidal waters, whether navigable or not). In Hawaii, this court has recognized, based on founding principles of law in this jurisdiction, a distinct public trust encompassing all the water resources of the state. See *Robinson*, 65 Haw. at 674, 658 P.2d at 310. The Hawaii Constitution declares that "all public resources are held in trust by the state for the benefit of its people," Haw.

Const. art. XI, § 1, and establishes a public trust obligation "to protect, control, and regulate the use of Hawaii's water resources for the benefit of its people," Haw. Const. art. XI, § 7.

We need not define the full extent of article XI, section 1's reference to "all public resources" at this juncture. For the purposes of this case, however, we reaffirm that, under article XI, sections 1 and 7 and the sovereign reservation, the public trust doctrine applies to all water resources without exception or distinction. KSBE and Castle advocate for the exclusion of ground waters from the public trust. Their arguments, first, contradict the clear import of the constitutional provisions, which do not differentiate between categories of water in mandating the protection and regulation of water resources for the common good.⁽³¹⁾ The convention's records confirm that the framers understood "water resources" as "includ[ing] ground water, surface water and all other water." Debates, in 2 Proceedings, at 861 (statement by Delegate Fukunaga).

We are also unpersuaded by the contention of KSBE and Castle that the sovereign reservation does not extend to ground waters. Their argument rests almost entirely on one decision, *City Mill Co., Ltd. v. Honolulu Sewer & Water Comm'n*, 30 Haw. 912 (1929). Discussing the effect of the Mhele, the City Mill court observed that "'all mineral or metallic mines' were reserved to the Hawaiian government, but there was no reservation whatever of the subterranean waters." *Id.* at 934. Nowhere in the opinion, however, does the court address the reservation of sovereign prerogatives and its surrounding historical and legal context. This fatal oversight, common to other cases subsequently invalidated by this court, discounts the precedential value of *City Mill* concerning the public trust. See *Robinson*, 65 Haw. at 667-68 & n.25, 658 P.2d at 306 & n.25.⁽³²⁾

KSBE and Castle also repeat the observation in several decisions, including *City Mill*, that "[t]here was no ancient law or usage in Hawaii relating to artesian waters. The first artesian well ever drilled in these islands was bored in 1879." *Id.* at 938; see also *Territory v. Gay*, 31 Haw. 376, 403 (1930). Even if true, this point sheds little light on our analysis. First, according to the former, now defunct ground water categories employed in those cases, see *infra* note 93, the dike-impounded "percolating" waters in question would not qualify as "artesian" water. Moreover, assuming that the ancient Hawaiians had no custom with respect to "ground water," at least in terms of water actually drawn from under the surface by artificial wells or tunnels,⁽³³⁾ it does not follow that the sovereign reservation must exclude such water. Indeed, if the precise extent of ancient usage always determined the effect of the reservation, diversions impairing the "natural flow" of surface streams and transfers of water outside watershed boundaries would still be largely prohibited. See *McBryde*, 54 Haw. 191-98, 504 P.2d at 1341-44 (interpreting law of kingdom as a codification of natural flow riparianism). But see *Reppun v. Board of Water Supply*, 65 Haw. 531, 552-54, 656 P.2d 57, 71-72 (1982) (modifying the natural flow rule to one of reasonable use), cert. denied, 471 U.S. 1014 (1985). This argument would hardly assist Castle, which uses water diverted from windward streams and transported to distant leeward lands.

Even more fundamentally, just as ancient Hawaiian usage reflected the perspectives of that era, the common law distinctions between ground and surface water developed without regard to the manner in which "both categories represent no more than a single integrated source of water with each element dependent upon the other for its existence." *Id.* at 555, 656 P.2d at 73. Modern science and technology have discredited the surface-ground dichotomy. See *id.* (describing the "modern scientific approach" of acknowledging "the unity of the hydrological cycle"); A. Dan Tarlock, *Law of Water Rights and Resources* § 4:5 (2000). Few cases highlight more plainly its diminished meaning and utility than the present one, involving surface streams depleted by ground water diversions and underground aquifers recharged by surface water applications. In determining the scope of the sovereign reservation, therefore, we see little sense in adhering to artificial distinctions neither recognized by the ancient system nor borne out in the present practical realities of this state.

Water is no less an essential "usufruct of lands" when found below, rather than above, the ground. In view of the ultimate value of water to the ancient Hawaiians, it is inescapable that the sovereign reservation was intended to guarantee public rights to all water, regardless of its immediate source. Whatever practices the ancients may have observed in their time, therefore, we must conclude that the reserved trust encompasses any usage developed in ours, including the "ground water" uses proposed by the parties in the instant case. The public trust, by its very nature, does not remain fixed for all time, but must conform to changing needs and circumstances. See, e.g., *Reppun*, 65 Haw. at 553, 656 P.2d at 72 (acknowledging that "the continued satisfaction of the framers' intent requires that the [riparian] doctrine be permitted to evolve in accordance with changing needs and circumstances"); *Matthews v. Bay Head Improvement Ass'n*, 471 A.2d 355 (N.J.)

(extending the trust to privately owned beaches, in recognition of the "increasing demand for our State's beaches and the dynamic nature of the public trust doctrine"), cert. denied, 469 U.S. 821, 365 (1984); *People ex rel. Baker v. Mack*, 97 Cal. Rptr. 448, 451-53 (Cal. Ct. App. 1971) (expanding the "narrow and outmoded" definition of "navigability" in recognition of modern recreational uses); cf. *Phillips Petroleum*, 484 U.S. at 483 (noting, with respect to the tidelands trust, that "there is no universal and uniform law on the subject; but . . . each State has dealt with the lands under the tide waters within its borders according to its own views of justice and policy" (quoting *Shively*, 152 U.S. at 26) (ellipsis in original))).

In sum, given the vital importance of all waters to the public welfare, we decline to carve out a ground water exception to the water resources trust. Based on the plain language of our constitution and a reasoned modern view of the sovereign reservation, we confirm that the public trust doctrine applies to all water resources, unlimited by any surface-ground distinction.

b. Substance of the Trust

The public trust is a dual concept of sovereign right and responsibility. See *Robinson*, 65 Haw. at 674, 658 P.2d at 310 (describing the trust as "a retention of authority and the imposition of a concomitant duty" (emphases added)); see also *Reppun*, 65 Haw. at 547-48 & n.14, 656 P.2d at 68-69 & n.14 (explaining the correlation of "right" and "duty" underlying the ancient Hawaiian system). Previous decisions have thoroughly reviewed the sovereign authority of the state under the trust. *McBryde*, 54 Haw. at 180-87, 504 P.2d at 1335-1339; *Robinson*, 65 Haw. at 667-77, 658 P.2d at 305-312; *Reppun*, 65 Haw. at 539-548, 656 P.2d at 63-69. The arguments in the present appeal focus on the state's trust duties. In its decision, the Commission stated that, under the public trust doctrine, "the State's first duty is to protect the fresh water resources (surface and ground) which are part of the public trust res," a duty which it further described as "a categorical imperative and the precondition to all subsequent considerations." COLs at 11. The public trust, the Commission also ruled, subjects offstream water uses to a "heightened level of scrutiny." *Id.* at 10.

In *Illinois Central*, the United States Supreme Court described the state's interest in its navigable waters as "title," not in a proprietary sense, but "title held in trust for the people of the State that they may enjoy the navigation of the waters, carry on commerce over them, and have liberty of fishing therein freed from the obstruction or interference of private parties." 146 U.S. at 452 (emphases added). The trust, in the Court's simplest terms, "requires the government of the State to preserve such waters for the use of the public." *Id.* at 453 (emphasis added).

Based on this formulation, other courts have sought to further define the requirements of the public trust doctrine. The rules developed in order to protect public water bodies and submerged lands for public access and use, however, see, e.g., *State v. Public Serv. Comm'n*, 81 N.W.2d 71, 74 (Wis. 1957) (prohibiting substantial destruction of navigable waters through land reclamation); *People ex rel. Webb v. California Fish Co.*, 138 P. 79, 88 (Cal. 1913) (holding that a grantee of submerged lands gains "naked title," subject to the "public easement" in the waters above), do not readily apply in the context of water resources valued for consumptive purposes, where competing uses are more often mutually exclusive. This court recognized as much in *Robinson*, stating that "[t]he extent of the state's trust obligation over all waters of course would not be identical to that which applies to navigable waters." 65 Haw. at 675, 658 P.2d at 310. Keeping this distinction in mind, we consider the substance of the water resources trust of this state, specifically, the purposes protected by the trust and the powers and duties conferred on the state thereunder.

i. Purposes of the Trust

In other states, the "purposes" or "uses" of the public trust have evolved with changing public values and needs. The trust traditionally preserved public rights of navigation, commerce, and fishing. See *Illinois Central*, 146 U.S. at 452. Courts have further identified a wide range of recreational uses, including bathing, swimming, boating, and scenic viewing, as protected trust purposes. See, e.g., *Neptune City v. Avon-By-The-Sea*, 294 A.2d 47, 54-55 (N.J. 1972).

As a logical extension from the increasing number of public trust uses of waters in their natural state, courts have recognized the distinct public interest in resource protection. As explained by the California Supreme Court:

[O]ne of the most important public uses of the tidelands -- a use encompassed within the tidelands trust -- is the preservation of those lands in their natural state, so that they may serve as ecological units for scientific study, as open space, and as environments which provide food and habitat for birds and marine life, and which favorably affect the scenery and climate of the area.

National Audubon, 658 P.2d at 719 (quoting *Marks v. Whitney*, 491 P.2d 374, 380 (Cal. 1971)) (emphasis added). Thus, with respect to the lake ecosystem involved in that case, the court held that the public trust protected values described as "recreational and ecological -- the scenic views of the lake and its shore, the purity of the air, and the use of the lake for nesting and feeding by birds." *Id.*

This court has likewise acknowledged resource protection, with its numerous derivative public uses, benefits, and values, as an important underlying purpose of the reserved water resources trust. See *Robinson*, 65 Haw. at 674-76, 658 P.2d at 310-11 (upholding the public interest in the "purity and flow," "continued existence," and "preservation" of the waters of the state). The people of our state have validated resource "protection" by express constitutional decree. See Haw. Const. art. XI, §§ 1 & 7. We thus hold that the maintenance of waters in their natural state constitutes a distinct "use" under the water resources trust. This disposes of any portrayal of retention of waters in their natural state as "waste." See *Reppun*, 65 Haw. at 560 n.20, 656 P.2d at 76 n.20 (citing article XI, section 1 as an acknowledgment of the public interest in "a free-flowing stream for its own sake").

Whether under riparian or prior appropriation systems, common law or statute, states have uniformly recognized domestic uses, particularly drinking, as among the highest uses of water resources. See, e.g., Restatement (Second) of Torts § 850A cmt. c (1979) [hereinafter Restatement (Second)] (preference for domestic, or "natural," uses under riparian law); Cal. Water Code § 1254 (West 1971) ("domestic use is the highest use"); Minn. Stat. Ann. § 103G.261(a)(1) (West 1997) (domestic use given first priority). This jurisdiction presents no exception. In granting individuals fee simple title to land in the Kuleana Act, the kingdom expressly guaranteed: "The people shall . . . have a right to drinking water, and running water" Enactment of Further Principles of 1850 § 7, Laws of 1850 at 202 (codified at HRS § 7-1 (1993)). See also *McBryde*, 54 Haw. at 191-98, 504 P.2d at 1341-44 (comparing section 7 of the Kuleana act with authority in other jurisdictions recognizing riparian rights to water for domestic uses); *Carter v. Territory*, 24 Haw. 47, 66 (1917) (granting priority to domestic use based on riparian principles and section 7 of the Kuleana Act). And although this provision and others, including the reservation of sovereign prerogatives, evidently originated out of concern for the rights of native tenants in particular, we have no doubt that they apply today, in a broader sense, to the vital domestic uses of the general public. Accordingly, we recognize domestic water use as a purpose of the state water resources trust. Cf. *Clifton v. Passaic Valley Water Comm'n*, 539 A.2d 760, 765 (N.J. Super. Ct. Law Div. 1987) (holding that the public trust "applies with equal impact upon the control of drinking water reserves").

In acknowledging the general public's need for water, however, we do not lose sight of the trust's "original intent." As noted above, review of the early law of the kingdom reveals the specific objective of preserving the rights of native tenants during the transition to a western system of private property. Before the Mhele, the law "Respecting Water for Irrigation" assured native tenants "their equal proportion" of water. See Laws of 1942, in *Fundamental Laws of Hawaii* 29 (1904). Subsequently, the aforementioned Kuleana Act provision ensured tenants' rights to essential incidents of land beyond their own kuleana, including water, in recognition that "a little bit of land even with allodial title, if they be cut off from all other privileges would be of very little value," 3B Privy Council Records 713 (1850). See also *Reppun*, 65 Haw. 549-50, 656 P.2d at 69-70 (analogizing riparian rights under section 7 of the Kuleana Act to water rights of Indian reservations in *Winters v. United States*, 207 U.S. 564 (1908)); cf. *Peck v. Bailey*, 8 Haw. 658, 661 (1867) (recognizing "appurtenant rights" to water based on "immemorial usage").⁽³⁴⁾ In line with this history and our prior precedent, see *Kalipi v. Hawaiian Trust Co.*, 66 Haw. 1, 656 P.2d 745 (1982); *Public Access Shoreline Hawaii v. Hawaii Planning Comm'n*, 79 Hawaii 425, 438-447, 903 P.2d 1246, 1259-68 (1995), cert. denied, 517 U.S. 1163 (1996) [hereinafter PASH], and constitutional mandate, see Haw. Const. art. XII, § 7, we continue to uphold the exercise of Native Hawaiian and traditional and customary rights as a public trust purpose.⁽³⁵⁾ See generally Elizabeth Ann Hooipo Klaenaauao Pa Martin et al., *Cultures in Conflict in Hawaii: The Law and Politics of Native Hawaiian Water Rights*, 18 U. Haw. L. Rev. 71, 147-79 (1996) (surveying various rights).

LURF asserts that the public trust in Hawaii encompasses private use of resources for "economic development," citing, *inter alia*, *Territory v. Liliuokalani*, 14 Haw. 88 (1902) (grants of tidal lands to private individuals), *Haalelea v. Montgomery*, 2 Haw. 62 (1858) (konohiki fishing rights), and the Admissions Act, Act of Mar. 18, 1959, Pub. L. 83-3, 73 Stat. 4, § 5(f) (designating "development of farm and home ownership" as one of the purposes of the state ceded lands trust). While these examples generally demonstrate that the public trust may allow grants of private interests in trust resources under certain circumstances, they in no way establish private commercial use as among the public purposes protected by the trust.

Although its purpose has evolved over time, the public trust has never been understood to safeguard rights of exclusive use for private commercial gain. Such an interpretation, indeed, eviscerates the trust's basic purpose of reserving the resource for use and access by the general public without preference or restriction. See, e.g., HRS § 7-1 (codifying law of kingdom providing, *inter alia*, that "[t]he springs of water, running water, and roads shall be free to all"); *Illinois Central*, 146 U.S. at 456 (observing that the trust's limitation on private rights "follows necessarily from the public character of the property, being held by the whole people for purposes in which the whole people are interested"); see generally Carol Rose, *The Comedy of the Commons: Custom, Commerce, and Inherently Public Property*, 53 U. Chi. L. Rev. 711 (1986) (discussing the history and underlying policies of the concept of "inherently public property"). In considering a similar argument, the California Supreme Court stated:

Since the public trust doctrine does not prevent the state from choosing between trust uses, the Attorney General of California, seeking to maximize state power under the trust, argues for a broad concept of trust uses. In his view, "trust uses" encompass all public uses, so that in practical effect the doctrine would impose no restrictions on the state's ability to allocate trust property. We know of no authority which supports this view of the public trust, except perhaps the dissenting opinion in *Illinois Central* The tideland cases make this point clear; . . . no one could contend that the state could grant tidelands free of the trust merely because the grant served some public purpose, such as increasing tax revenues, or because the grantee might put the property to a commercial use.

Thus, the public trust is more than an affirmation of state power to use public property for public purposes. It is an affirmation of the duty of the state to protect the people's common heritage of streams, lakes, marshlands and tidelands, surrendering that right of protection only in rare cases when the abandonment of that right is consistent with the purposes of the trust.

National Audubon, 658 P.2d at 723-24 (citations omitted).

We hold that, while the state water resources trust acknowledges that private use for "economic development" may produce important public benefits and that such benefits must figure into any balancing of competing interests in water, it stops short of embracing private commercial use as a protected "trust purpose." We thus eschew LURF's view of the trust, in which the "'public interest' advanced by the trust is the sum of competing private interests" and the "rhetorical distinction between 'public trust' and 'private gain' is a false dichotomy." To the contrary, 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. See *Robinson*, 65 Haw. at 677, 658 P.2d at 312 ("[U]nderlying every private diversion and application there is, as there always has been, a superior public interest in this natural bounty.").

ii. *Powers and Duties of the State under the Trust*

This court has described the public trust relating to water resources as the authority and 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 674, 658 P.2d at 310 (emphases added). Similarly, article XI, section 1 of the Hawaii Constitution requires the state both to "protect" natural resources and to promote their "use and development." The state water resources trust thus embodies a dual mandate of 1) protection and 2) maximum reasonable and beneficial use.

The mandate of "protection" coincides with the traditional notion of the public trust developed with respect to navigable and tidal waters. As commonly understood, the trust protects public waters and submerged lands against irrevocable transfer to private parties, see, e.g., *Illinois Central*, *supra*, or "substantial impairment," whether for private or public purposes, see, e.g., *State v. Public Serv. Comm'n*, *supra*. In this jurisdiction, our

decisions in *McBryde* and its progeny and the plain meaning and history of the term "protection".⁽³⁶⁾ in article XI, section 1 and article XI, section 7 establish that the state has a comparable duty to ensure the continued availability and existence of its water resources for present and future generations.

In this jurisdiction, the water resources trust also encompasses a duty to promote the reasonable and beneficial use of water resources in order to maximize their social and economic benefits to the people of this state. Post-Mhele water rights decisions ignored this duty, treating public water resources as a commodity reducible to absolute private ownership, such that "no limitation . . . existed or was supposed to exist to [the owner's] power to use the . . . waters as he saw fit," *Hawaiian Commercial & Sugar Co. v. Wailuku Sugar Co.*, 15 Haw. 675, 680 (1904). See *Reppun*, 65 Haw. at 539-48, 656 P.2d at 63-69. Based on founding principles of the ancient Hawaiian system and present necessity, this court subsequently reasserted the dormant public interest in the equitable and maximum beneficial allocation of water resources. See *id.*; *Robinson*, 65 Haw. at 673-77, 658 P.2d 310-12.

This state has adopted such principles in its constitution. The second clause of article XI, section 1 provides that the state "shall promote the development and utilization of [water] resources in a manner consistent with their conservation and in furtherance of the self-sufficiency of the State." (Emphasis added.) The framers deemed it necessary to define "conservation" and agreed on the following: "the protection, improvement and use of natural resources according to principles that will assure their highest economic or social benefits." See *Stand. Comm. Rep. No. 77*, in 1978 Proceedings, at 685-86 (emphases added). The second clause of article XI, section 1 thus resembles laws in other states mandating the maximum beneficial or highest and best use of water resources. See, e.g., Cal. Const. art. X, § 2; N.M. Const. art. 16, § 3; N.D. Cent. Code § 61-04-01.1.1 (Supp. 1999). Unlike many of the traditional water rights systems governed by such provisions, however, article XI, section 1's mandate of "conservation"-minded use recognizes "protection" as a valid purpose consonant with assuring the "highest economic and social benefits" of the resource. See *Owen L. Anderson et al.*, *Prior Appropriation*, in 2 *Waters and Water Rights* § 12.03(c)(2), at 114 (Robert E. Beck ed., 1991) [hereinafter *Water Rights*] (noting early proscriptions against "nonuse" as "the perceived biggest waste of all"). But see *id.* § 13.05(a) (explaining the modern trend towards providing for instream flows and uses). In short, the object is not maximum consumptive use, but rather the most equitable, reasonable, and beneficial allocation of state water resources, with full recognition that resource protection also constitutes "use."

As the foregoing discussion suggests, the conventional notion of the public trust fashioned in the context of navigable and tidal waters offers only a partial picture of the water resources trust of this state. With this understanding, we turn to the leading decision applying the public trust to water resources, *National Audubon Society v. Superior Court of Alpine County*, 658 P.2d 709 (Cal.), cert. denied, 464 U.S. 977 (1983), otherwise known as the "Mono Lake" case.

In *National Audubon*, the California Supreme Court confronted two legal systems "on a collision course": the public trust and appropriative rights. See *id.* at 711-12. The public water utility of the City of Los Angeles had obtained permits to appropriate, for domestic purposes, nearly the entire flow of four of the five streams flowing into Mono Lake, the second largest lake in California. The diversions had resulted in a precipitous decline in the level of the lake, thereby imperilling the lake's scenic beauty and ecological values. Seeking an "accommodation" between the public trust and appropriative rights, the court initially held that the state's "[continuing supervisory control] prevents any party from acquiring a vested right to appropriate water in a manner harmful to the interests protected by the public trust." *Id.* at 727. The court acknowledged that, "[a]s a matter of current and historical necessity," the state may permit an appropriator to take water from flowing streams, "even though this taking does not promote, and may unavoidably harm, the trust uses at the source stream." *Id.* The court nonetheless maintained that, in so doing, "the state must bear in mind its duty as trustee to consider the effect of the taking on the public trust and to preserve, so far as consistent with the public interest, the uses protected by the trust." *Id.* at 728 (citation omitted).

Many of the parties, primarily those advocating offstream uses, attempt to distinguish the Mono Lake case from the present one. The two cases indeed differ in important respects. First, *National Audubon* involved diversions for a public purpose, the domestic uses of the City of Los Angeles. No comparable offstream public needs are advanced here.⁽³⁷⁾ Second, the *National Audubon* court sought to assert the public trust against a water rights system equating nonconsumptive use with "waste." See, e.g., *In re Waters of Long Valley*, 599 P.2d 656, 664 (Cal. 1979) (noting that article X, section 2 of the California constitution "prevents waste of waters of the state resulting from an interpretation of our law which permits them to flow unused,

unrestrained and undiminished to the sea"). Our common law riparian system does not share such a view; moreover, the mandate of "conservation"-minded use subsumed in our state's water resources trust contemplates "protection" of waters in their natural state as a beneficial use. Finally, unlike California, this state bears an additional duty under Article XII, section 7 of its constitution to protect traditional and customary Native Hawaiian rights. If one must distinguish the two cases, therefore, National Audubon appears to provide less, rather than more, protection than arguably justified in this case.

Despite these differences, we recognize that the dichotomy between the public trust and appropriative system in California roughly approximates the dual nature of the public trust in the water resources of this state. Consequently, National Audubon provides useful guidance on the manner in which this state may balance the potentially conflicting mandates of the trust. Drawing from this source and others, we seek to define the trust's essential parameters in light of this state's legal and practical requirements and its historical and present circumstances. To this end, we hold that the state water resources trust embodies the following fundamental principles:

Under the public trust, the state has both the authority and duty to preserve the rights of present and future generations in the waters of the state. See Robinson, 65 Haw. at 674, 658 P.2d at 310; see also State v. Central Vt. Ry., 571 A.2d 1128, 1132 (Vt. 1989) ("[T]he state's power to supervise trust property in perpetuity is coupled with the ineluctable duty to exercise this power."), cert. denied, 495 U.S. 931 (1990). The continuing authority of the state over its water resources precludes any grant or assertion of vested rights to use water to the detriment of public trust purposes. See Robinson, 65 Haw. at 677, 658 P.2d at 312; see also National Audubon, 658 P.2d at 727; Kootenai, 671 P.2d at 1094 ("[T]he public trust doctrine takes precedent even over vested water rights."); cf. Karam v. Department of Env'tl. Protection, 705 A.2d 1221, 1228 (N.J. Super. Ct. App. Div. 1998) ("[T]he sovereign never waives its right to regulate the use of public trust property."), aff'd, 723 A.2d 943, cert. denied, ___ U.S. ___, 120 S.Ct. 51 (1999).⁽³⁸⁾ This authority empowers the state to revisit prior diversions and allocations, even those made with due consideration of their effect on the public trust. See National Audubon, 658 P.2d at 728.

The state also bears 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[⁽³⁹⁾]." Id. (emphasis added). Preliminarily, we note that this duty may not readily translate into substantive results.⁽⁴⁰⁾ The public has a definite interest in the development and use of water resources for various reasonable and beneficial public and private offstream purposes, including agriculture, see generally Haw. Const. art. XI, § 3.⁽⁴¹⁾ Therefore, apart from the question of historical practice,⁽⁴²⁾ 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. See National Audubon, 658 P.2d at 727. As discussed above, by conditioning use and development on resource "conservation," article XI, section 1 does not preclude offstream use, but merely requires that all uses, offstream or instream, public or private, promote the best economic and social interests of the people of this state. In the words of another court, "[t]he result . . . is a controlled development of resources rather than no development." Payne v. Kassab, 312 A.2d 86, 94 (Pa. Cmwlth. Ct. 1973), aff'd, 323 A.2d 407 (1974), aff'd, 361 A.2d 263 (Pa. 1976).

We have indicated a preference for accommodating both instream and offstream uses where feasible. See Reppun, 65 Haw. at 552-54, 556-63 & n.20, 656 P.2d at 71-72, 73-78 & n.20 (allowing ground water diversions short of "actual harm" to surface uses); Robinson, 65 Haw. at 674, 658 P.2d at 310 (describing the trust as "authority to assure the continued existence and beneficial application of the resource for the common good" (emphasis added)). In times of greater scarcity, however, the state will confront difficult choices that may not lend themselves to formulaic solutions. Given the diverse and not necessarily complementary range of water uses, even among public trust uses alone, we consider it neither feasible nor prudent to designate absolute priorities between broad categories of uses under the water resources trust. Contrary to the Commission's conclusion that the trust establishes resource protection as "a categorical imperative and the precondition to all subsequent considerations," we hold 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. See Robinson, 65 Haw. at 677, 658 P.2d at 312; see also Save Ourselves, 452 So.2d at 1152 (reading the constitution to establish a "rule of reasonableness" requiring the balancing of environmental costs and benefits against economic, social, and other factors).

Having recognized the necessity of a balancing process, we do not suggest that the state's public trust duties amount to nothing more than a restatement of its prerogatives, see Robinson, 65 Haw. at 674 n.31, 658 P.2d at 310 n.31, nor do we ascribe to the constitutional framers the intent to enact laws devoid of any real substance and effect, see supra notes 29, 36 & 40. Rather, we observe that the constitutional requirements of "protection" and "conservation," the historical and continuing understanding of the trust as a guarantee 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. See, e.g., Zimring, 58 Haw. at 121, 566 P.2d at 735 ("[T]he State as trustee has the duty to protect and maintain the trust [resource] and regulate its use. Presumptively, this duty is to be implemented by devoting the [resource] to actual public uses, e.g., recreation."). 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.⁽⁴³⁾ 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. Cf. *Macron, Inc. v. Commonwealth Dep't of Env'tl. Resources*, 462 A.2d 969, 971 (Pa. Cmwlth. Ct. 1983) (maintaining that, given the "special concerns involved in this area of the law," i.e., the public trust, the petitioner and the agency had the duty to justify the permit); *Commonwealth Dep't of Env'tl. Resources v. Commonwealth Pub. Util. Comm'n*, 335 A.2d 860, 865 (Pa. Cmwlth. Ct. 1975) (holding that, once adverse impact to the constitutional public trust is raised, "the applicant's burden is intensified," and the agency and reviewing court "must be satisfied that the [relevant constitutional test] is met"); *Superior Public Rights, Inc. v. State Dep't of Natural Resources*, 263 N.W.2d 290, 294 (Mich. Ct. App. 1977) (deciding, in the absence of direction from the relevant statutes or rules, that party applying for use of public trust lands for private commercial purposes bore the burden of proof); cf. Robinson, 65 Haw. at 649 n.8, 658 P.2d at 295 n.8 (noting that, under the common law, "[t]he burden of demonstrating that any transfer of water was not injurious to the rights of others rested wholly upon those seeking the transfer").

The constitution designates the Commission as the primary guardian of public rights under the trust. Haw. Const. art. XI, section 7. As such, the Commission must not relegate itself to the role of a mere "umpire passively calling balls and strikes for adversaries appearing before it," but instead must take the initiative in considering, protecting, and advancing public rights in the resource at every stage of the planning and decisionmaking process. See *Save Ourselves*, 452 So.2d at 1157 (citing *Calvert Cliffs' Coordinating Comm. v. United States Atomic Energy Comm'n*, 449 F.2d 1109, 1119 (D.C. Cir. 1971); *Scenic Hudson Preservation Conference v. FPC*, 354 F.2d 608, 620 (2d Cir. 1965)); see also *Debates*, in 2 *Proceedings*, at 857 (statement by Delegate Fukunaga) ("Thus, under [article XI, section 7], the State must take an active and affirmative role in water management."). Specifically, the 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. See, e.g., *Save Ourselves*, 452 So.2d at 1157-58; *Payne*, 312 A.2d at 94; *Kootenai*, 671 P.2d at 1092-93; *Hamilton v. Diamond*, 349 N.Y.S.2d 146, 148-49 (N.Y. App. Div. 1973), appeal denied, 34 N.Y.2d 516 (1974). The trust also requires planning and decisionmaking from a global, long-term perspective. See *United Plainsmen Ass'n v. North Dakota State Water Comm'n*, 247 N.W.2d 457, 462-64 (N.D. 1976). In sum, the state may compromise public rights in the resource pursuant only to a decision made with a level of openness, diligence, and foresight commensurate with the high priority these rights command under the laws of our state.

c. Standard of Review under the Trust

Finally, the special public interests in trust resources demand that this court observe certain qualifications of its standard of review, see Part II, supra. As in other cases, agency decisions affecting public trust resources carry a presumption of validity. The presumption is particularly significant where the appellant challenges a substantive decision within the agency's expertise as "clearly erroneous," HRS § 91-14(g)(5), "arbitrary," "capricious," or an "abuse of discretion," HRS § 91-14(g)(6). See *Save Ourselves*, 452 So.2d at 1159.

The public trust, however, is a state constitutional doctrine. As with other state constitutional guarantees, the ultimate authority to interpret and defend the public trust in Hawaii rests with the courts of this state. See *State v. Quitog*, 85 Hawaii 128, 130 n.3, 938 P.2d 559, 561 n.3 (1997) (recognizing the Hawaii Supreme Court as the "ultimate judicial tribunal with final, unreviewable authority to interpret and enforce the Hawaii Constitution").

Judicial review of public trust dispensations complements the concept of a public trust. [The Arizona Supreme Court] said . . . , "The duties imposed upon the state are the duties of a trustee and not simply the duties of a good business manager." *Kadish v. Arizona State Land Dep't*, 155 Ariz. 484, 487, 747 P.2d 1183, 1186 (1987), *aff'd*, 490 U.S. 605, 109 S.Ct. 2037, 104 L.Ed.2d 696 (1989). Just as private trustees are judicially accountable to their beneficiaries for dispositions of the res, so the legislative and executive branches are judicially accountable for the dispositions of the public trust. The beneficiaries of the public trust are not just present generations but those to come. The check and balance of judicial review provides a level of protection against improvident dissipation of an irreplaceable res.

Arizona Cent. for Law in Pub. Interest v. Hassel, 837 P.2d 158, 168-69 (Ariz. Ct. App. 1991), review dismissed, 837 P.2d 158 (Ariz. 1992) (brackets and citation omitted).

Nevertheless, as the Idaho Supreme Court elaborated:

This is not to say that this court will supplant its judgment for that of the legislature or agency. However, it does mean that 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.

Kootenai, 671 P.2d at 1092 (emphasis added). See also *Owsicheck*, 763 P.2d at 494 (holding that grants of exclusive rights to harvest natural resources should be subjected to "close scrutiny"); *Weden v. San Juan County*, 958 P.2d 273, 283 (Wash. 1998) (observing that, even absent a constitutional mandate, "courts review legislation under the public trust doctrine with a heightened degree of judicial scrutiny, as if they were measuring that legislation against constitutional protections" (citation and internal quotation marks omitted)).

C. INTERPRETATION OF THE WATER CODE

1. *Basic Principles of Statutory Construction*

A significant number of issues on appeal require interpretation of the State Water Code. In construing statutes, we have recognized that

our foremost obligation is to ascertain and give effect to the intention of the legislature, which is to be obtained primarily from the language contained in the statute itself. And we must read statutory language in the context of the entire statute and construe it in a manner consistent with its purpose.

When there is doubt, doubleness of meaning, or indistinctiveness or uncertainty of an expression used in a statute, an ambiguity exists. . . .

In construing an ambiguous statute, "[t]he meaning of the ambiguous words may be sought by examining the context, with which the ambiguous words, phrases, and sentences may be compared, in order to ascertain their true meaning." HRS § 1-15(1) [(1993)]. Moreover, the courts may resort to extrinsic aids in determining legislative intent. One avenue is the use of legislative history as an interpretive tool.

Gray [v. Administrative Dir. of the Court], 84 Hawaii [138,] 148, 931 P.2d [580,] 590 [(1997)] (quoting *State v. Toyomura*, 80 Hawaii 8, 18-19, 904 P.2d 893, 903-04 (1995)) (brackets and ellipsis points in original) (footnote omitted). This court may also consider "[t]he reason and spirit of the law, and the cause which induced the legislature to enact it . . . to discover its true meaning." HRS § 1-15(2) (1993). "Laws in *pari materia*, or upon the same subject matter, shall be construed with reference to each other. What is clear in one statute may be called upon in aid to explain what is doubtful in another." HRS § 1-16 (1993).

Barnett v. State, 91 Hawaii 20, 31, 979 P.2d 1046, 1057 (1999) (quoting *State v. Davia*, 87 Hawaii 249, 254, 953 P.2d 1347, 1352 (1998)).

If we determine, based on the foregoing rules of statutory construction, that the legislature has unambiguously spoken on the matter in question, then our inquiry ends. See, e.g., *Chevron U.S.A., Inc. v. Natural Resources Defense Council, Inc.*, 467 U.S. 837, 842-43 (1984)). When the legislative intent is less than clear, however, this court will observe the "well established rule of statutory construction that, where an administrative agency is charged with the responsibility of carrying out the mandate of a statute which contains words of broad and indefinite meaning, courts accord persuasive weight to administrative

construction and follow the same, unless the construction is palpably erroneous." *Brown v. Thompson*, 91 Hawaii 1, 18, 979 P.2d 586, 603 (1999) (quoting *Keliipuleole v. Wilson*, 85 Hawaii 217, 226, 941 P.2d 300, 309 (1997)). See also *Government Employees Ins. Co. v. Hyman*, 90 Hawaii 1, 5, 975 P.2d 211, 215 (1999) ("[J]udicial deference to agency expertise is a guiding precept where the interpretation and application of broad or ambiguous statutory language by an administrative tribunal are the subject of review." (quoting *Richard v. Metcalf*, 82 Hawaii 249, 252, 921 P.2d 169, 172 (1996))).⁽⁴⁴⁾ Such deference "reflects a sensitivity to the proper roles of the political and judicial branches," insofar as "the resolution of ambiguity in a statutory text is often more a question of policy than law." *Pauley v. BethEnergy Mines, Inc.*, 501 U.S. 680, 696 (1991).

The rule of judicial deference, however, does not apply when the agency's reading of the statute contravenes the legislature's manifest purpose. See *Camara v. Aagsalud*, 67 Haw. 212, 216, 685 P.2d 794, 797 (1984) ("To be granted deference, . . . the agency's decision must be consistent with the legislative purpose."); *State v. Dillingham Corp.*, 60 Haw. 393, 409, 591 P.2d 1049, 1059 (1979) ("[N]either official construction or usage, no matter how long indulged in, can be successfully invoked to defeat the purpose and effect of a statute which is free from ambiguity . . ."). Consequently, we have not hesitated to reject an incorrect or unreasonable statutory construction advanced by the agency entrusted with the statute's implementation. See, e.g., *Government Employees Ins. Co. v. Dang*, 89 Hawaii 8, 15, 967 P.2d 1066, 1073 (1998); *In re Maldonado*, 67 Haw. 347, 351, 687 P.2d 1, 4 (1984).

2. *Water Code Declaration of Policy*

Our analysis of the Code begins with its "declaration of policy," set forth in HRS § 174C-2 (1993 & Supp. 1999) as follows:

(a) It is recognized that the waters of the State are held for the benefit of the citizens of the State. It is declared that the people of the State are beneficiaries and have a right to have the waters protected for their use.

(b) There is a need for a program of comprehensive water resources planning to address the problems of supply and conservation of water. The Hawaii water plan, with such future amendments, supplements, and additions as may be necessary, is accepted as the guide for developing and implementing this policy.

(c) The state water code shall be liberally interpreted to obtain maximum beneficial use of the waters of the State for purposes such as domestic uses, aquaculture uses, irrigation and other agricultural uses, power development, and commercial and industrial uses. However, adequate provision shall be made for the protection of traditional and customary Hawaiian rights, the protection and procreation of fish and wildlife, the maintenance of proper ecological balance and scenic beauty, and the preservation and enhancement of waters of the State for municipal uses, public recreation, public water supply, agriculture, and navigation. Such objectives are declared to be in the public interest.

(d) The state water code shall be liberally interpreted to protect and improve the quality of waters of the State and to provide that no substance be discharged into such waters without first receiving the necessary treatment or other corrective action. The people of Hawaii have a substantial interest in the prevention, abatement, and control of both new and existing water pollution and in the maintenance of high standards of water quality.

(e) The state water code shall be liberally interpreted and applied in a manner which conforms with intentions and plans of the counties in terms of land use planning.

(Emphases added.)

This policy statement generally mirrors the public trust principles outlined above. Cf. *Caminiti v. Boyle*, 732 P.2d 989, 995 (Wash. 1987) (noting that the state Shoreline Management Act complied with the requirements of the constitutional public trust), cert. denied, 484 U.S. 1008 (1988); *Save Ourselves*, 452 So.2d at 1157 (concluding that the statute "implement[s] and perpetuate[s] the constitutional rule"). HRS § 174C-2(a) reiterates the decree in our constitution and case law that the state holds water resources for the benefit of the public and emphasizes the essential feature of the public trust, i.e., the right of the people to have the waters protected for their use. HRS § 174C-2(b) recognizes the policy of comprehensive resource planning intrinsic to the public trust concept. In line with the dual nature of the state water resources trust, HRS § 174C-2(c)

mandates liberal interpretation in favor of maximum beneficial use, but also demands adequate provision for traditional and customary Hawaiian rights, wildlife, maintenance of ecological balance and scenic beauty, and the preservation and enhancement of the waters for various uses in the public interest.

DOA/DLNR asserts that the provision promoting "maximum beneficial use" in HRS § 174C-2(c) expresses a preference for "consumptive uses such as agriculture" over instream uses. On the contrary, this provision does not dictate maximum consumptive use, but instead requires maximum beneficial use for the range of purposes described, with the condition that "adequate provision shall be made" for various protective purposes. See A Model Water Code § 1.02(3) commentary at 85 (Frank E. Maloney et al. 1972) [hereinafter Model Water Code].⁽⁴⁵⁾ WWCA argues the opposite of DOA/DLNR's view, namely, that HRS § 174C-2(c)'s "adequate provision" mandate grants an absolute priority to resource protection. At first blush, this provision appears more protective than the constitution. See Douglas W. MacDougal, Private Hopes and Public Values in the "Reasonable Beneficial Use" of Hawaii's Water: Is Balance Possible?, 18 U. Haw. L. Rev. 1, 46-47 n.222 (1996);⁽⁴⁶⁾ cf. California Trout, Inc. v. Water Resources Control Bd., 255 Cal. Rptr. 184, 190-94 (Cal. Ct. App. 1989) (construing statutory requirement of "sufficient water" for the preservation of fish to establish a categorical priority). We do not believe, however, that the legislature intended to adopt the unconditional rule proposed by WWCA. Viewing the Code in its entirety, see, e.g., HRS § 174C-71(1)(E), (2)(D) (1993) (requiring balancing between instream and offstream purposes), we read HRS § 174C-2(c) to describe a statutory public trust essentially identical to the previously outlined dual mandate of protection and "conservation"-minded use, under which resource "protection," "maintenance," and "preservation and enhancement" receive special consideration or scrutiny, but not a categorical priority.

D. *INSTREAM FLOW STANDARDS*

In its decision, the Commission acknowledged the "positive effect" of the partial restoration of Waihole and Waianu streams. FOFs at 17-18. In the Commission's view, "generally, the higher the volume of instream flow and closer the streamflow approaches its natural pre-diversion levels, the greater the support for biological processes in the stream and its ecosystem." COLs at 32. Thus, "in general, it is expected that additional flows to the streams would increase the native biota habitat."⁽⁴⁷⁾ FOFs at 17.

The Commission, however, found calculating the exact relationship between instream flows and ecological benefit "difficult" due to a lack of sufficient scientific knowledge. COLs at 16. Still, for the time being, the Commission deemed it "practicable" to increase the interim instream flow standards for windward streams (WIIFS) by 6.0 mgd. Id. at 19. It also assigned to the streams a 5.39 mgd "non-permitted ground water buffer" and 1.58 proposed agricultural reserve. Id. at 33.

DOA/DLNR, the City, and KSBE raise several procedural challenges to the Commission's amendment of the WIIFS. They also allege that the Commission erred by amending the WIIFS absent sufficient evidence of the exact quantity of water required for instream uses. WWCA and HTF argue that the Commission wrongfully allocated water for offstream use before determining the quantity actually needed for the streams; in particular, they contest the designation of the buffer flows. We first review the general design and operation of the Code's instream use protection provisions, and then consider the parties' specific objections.

1. *Overview of the Statutory Framework for Instream Use Protection*

Instream flow standards⁽⁴⁸⁾ are an integral part of the regulatory scheme established by the Code. HRS § 174C-71 (1993) provides at the outset that "[t]he commission shall establish and administer a statewide instream use protection program." In furtherance of this mandate, the Code states that the Commission "shall," *inter alia*: "[e]stablish instream flow standards on a stream-by-stream basis whenever necessary to protect the public interest in the waters of the state," HRS § 174C-71(1);⁽⁴⁹⁾ "[e]stablish interim instream flow standards," HRS § 174C-71(2); and "[e]stablish an instream flow program to protect, enhance, and reestablish, where practicable, beneficial instream uses of water," HRS § 174C-71(4); see also HRS § 174C-5(3) (1993) (same); HRS § 174C-31(i)(1) (Supp. 1999) (requiring the Commission to establish, within each hydrologic unit, "[a]n instream use and protection program for the surface watercourses in the area"). Under the Code, therefore, 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.

In its decision, the Commission weighed instream and offstream uses under the provision addressing "competing applications" for water use permits, HRS § 174C-54 (1993), see *supra* note 13. The Commission concluded that, "[w]here instream flow values may be protected and offstream agricultural uses maintained, both 'uses' are accommodated in the manner promoted by [HRS § 174C-54]." COLs at 29. This analysis misconstrues the Code's framework for water resource management. Petitions for interim instream flow standard amendments are not among the water use permit applications "competing" under HRS § 174C-54. The statute relating to instream use protection, HRS chapter 174C, part VI, or HRS § 174C-71, operates independently of the procedures for water use regulation outlined in HRS chapter 174C, part IV (1993 & Supp. 1999).

The last paragraph of HRS § 174C-71 provides that "[t]he commission shall implement its instream flow standards when disposing of water from state watersheds, including that removed by wells or tunnels where they may affect stream flow" The Code's comprehensive planning provisions, HRS chapter 174C, part III (1993 & Supp. 1999) ("Hawaii Water Plan"), require the Commission to complete its "water resource protection and quality plan" before the adoption of the "water use and development plans" by each county, see HRS § 174C-31(d) (Supp. 1999), and mandate that "[t]he commission shall condition permits under part IV of this chapter in such a manner as to protect instream flows and sustainable yields . . . ," HRS § 174C-31(j)(Supp. 1999). These provisions confirm what the Commission recognized in its decision, that the Code contemplates the instream flow standard as the "surface water corollary to the ground water 'sustainable yield.'" ⁽⁵⁰⁾ COLs at 32. Both instream flow standards and sustainable yields perform the same function of guiding water planning and regulation by prescribing responsible limits to the development and use of public water resources. Cf. The Regulated Riparian Model Water Code § 3R-2-01 & commentary at 82 (Joseph W. Dellapenna ed. 1997) (mandating the establishment of minimum flows and levels in a consolidated section "central to achieving the goal of sustainable development and protecting the public interest in the waters of the State").

The Commission, obviously, cannot "implement" or "protect" standards that do not exist. In order for the "instream use protection" framework to fulfill its stated purpose, therefore, the Commission must designate instream flow standards as early as possible, during the process of comprehensive planning, and particularly before it authorizes offstream diversions potentially detrimental to public instream uses and values. See Conf. Comm. Rep. No. 119, in 1987 House Journal, at 1069; Conf. Comm. Rep. No. 118, in 1987 Senate Journal, at 886 ("To the fullest extent possible, it is the intent of the Legislature that interim instream flow standards be established prior to either new or expanded diversions of water from a stream."); MacDougal, *supra*, at 60-63.

Early designation of instream flow standards furthers several important objectives. First, it fulfills the Commission's duty of protection under constitution and statute, ensuring that instream uses do not suffer inadvertent and needless impairment. ⁽⁵¹⁾ It also preserves the integrity of the Commission's comprehensive planning function. If the Commission decides instream flow standards and permit applications at the same time, private interests in offstream use will have already become "highly particularized," risking an ad hoc planning process driven by immediate demands. See MacDougal, *supra*, at 66 & n.302 (citing *United States v. State Water Resources Control Bd.*, 227 Cal. Rptr. 161, 180 (Cal. Ct. App. 1986)). Finally, initial designation of instream flow standards relieves the Commission, as well as existing and potential offstream users, of the complexity and uncertainty presented by the unsettled question of instream flow requirements. See *id.* 58-59, 66. Once the Commission translates the public interest in instream flows into "a certain and manageable quantity[, t]he reference to consistency with the public interest in the definition of reasonable beneficial use likewise becomes a reference to that quantity." *Id.* at 62. The tentative grant of water use permits without any determination of instream flow standards, conversely, presents the least desirable scenario: no assurance that public rights are receiving adequate provision, no genuine comprehensive planning process, and no modicum of certainty for permit applicants and grantees. Cf. *Concerned Citizens of Putnam County for Responsive Gov't v. St. John's River Water Management Dist.*, 622 So.2d 520, 523 (Fla. Ct. App. 1993) ("[I]t is difficult . . . to imagine how the water supply can be managed without the establishment of minimums.").

We recognize, as several leeward parties point out, that this case largely involves "existing" diversions predating the Code. But this does not relieve the Commission of its duty to consider and support the public interest in instream flows. Here, the close of sugar operations in Central Oahu has provided the Commission a unique and valuable opportunity to restore previously diverted streams while rethinking the future of Oahu's water uses. The Commission should thus take the initiative in planning for the appropriate instream flows

before demand for new uses heightens the temptation simply to accept renewed diversions as a foregone conclusion.

Furthermore, we agree with the Commission that existing uses are not automatically "grandfathered" under the constitution and the Code, especially in relation to public trust uses.⁽⁵²⁾ As stated above, the public trust authorizes the Commission to reassess previous diversions and allocations, even those made with due regard to their effect on trust purposes. Consistently with this principle, the Code calls for "an instream flow program to protect, enhance, and reestablish, where practicable, beneficial instream uses of water." HRS §§ 174C-5(3), -71(4) (emphasis added). The Code's instream flow standard provisions also mandate:

In order to avoid or minimize the impact on existing uses of preserving, enhancing, or restoring instream values, the commission shall consider physical solutions, including water exchanges, modifications of project operations, changes in points of diversion, changes in time and rate of diversion, uses of water from alternative sources, or any other solution

HRS § 174C-71(1)(E) (emphases added). The clear implication of these provisions is that the Commission may reclaim instream values to the inevitable displacement of existing offstream uses. Cf. Comm. Whole Rep. No. 18, in 1 Proceedings, at 1026 ("[T]he agency should have the flexibility to regulate existing as well as future water usage of Hawaii's water resources").

The constitution and Code, therefore, do not differentiate among "protecting," "enhancing," and "restoring" public instream values, or between preventing and undoing "harm" thereto. To be sure, in providing for instream uses, the Commission must duly consider the significant public interest in continuing reasonable and beneficial existing offstream uses. See HRS § 174C-71(1)(E), (2)(D); Debates, in 2 Proceedings, at 870 (statement by Delegate Waihee) (explaining that the language in article XI, section 7 requiring the legislature to "assur[e] appurtenant rights and existing riparian and correlative uses" enunciates a policy of protecting existing uses of, among others, "the small taro farmer as well as the agricultural users"). By the same token, the Commission's duty to establish proper instream flow standards continues notwithstanding existing diversions.

2. Procedural Objections to the WIIFS Amendment

Having found that "firm knowledge about streams upon which to reach some permanent solution will require considerably more work and is years away," the Commission announced its intention, beginning with this case, "to amend 'interim' instream flow standards periodically until permanent standards can be adopted." COLs at 16. The Commission previously adopted interim standards for windward streams when, effective May 4, 1992, it promulgated a rule designating the WIIFS as the amount of water flowing in each stream at that time, see HAR § 13-169-49.1.⁽⁵³⁾ As the Commission admitted in its present decision, the 1992 standards did nothing more than ratify the major diversions already existing.⁽⁵⁴⁾ DOA/DLNR, however, asserts that the Commission lacks the authority to alter the 1992 standards pending the establishment of "permanent" standards pursuant to HRS § 174C-71(1).

HRS § 174C-71(2) states in relevant part:

(A) Any person with the proper standing may petition the commission to adopt an interim instream flow standard for streams in order to protect the public interest pending the establishment of a permanent instream flow standard;

(B) Any interim instream flow standard adopted under this section shall terminate upon the establishment of a permanent instream flow standard for the stream on which the interim standards were adopted

(Emphases added.) HRS § 174C-3 (1993 & Supp. 1999) defines "interim instream flow standard" as "a temporary instream flow standard of immediate applicability, adopted by the commission without the necessity of a public hearing, and terminating upon the establishment of an instream flow standard." (Emphases added.)

Because these provisions contemplate interim standards as a stopgap solution preceding the establishment of permanent standards, DOA/DLNR argues that allowing the Commission to amend interim standards would

render the permanent standard provisions "meaningless." We agree that the Code envisions the establishment of bona fide "permanent" instream flow standards as an ultimate objective in its mandated "instream use protection program," HRS §§ 174C-71(4), -5(3). We also share DOA/DLNR's concern that interim standard amendments may serve as a convenient means of circumventing this objective repeatedly and indefinitely. DOA/DLNR, however, misdirects its objection to the mere procedure of amending interim standards as the source of any such problem.

As the textual basis for its argument that the Code limits the Commission to only one interim standard per stream, DOA/DLNR relies on passing references to "modification" appearing in the instream flow standard provisions, see HRS § 174C-71(1)(D), (F), but not in the interim standard provisions. In certain situations, such reasoning may control, based on the rule of construction that "[w]here [the legislature] includes particular language in one section of a statute but omits it in another section of the same Act, it is generally presumed that [the legislature] acts intentionally and purposely in the disparate inclusion or exclusion." *Gozlon-Peretz v. United States*, 498 U.S. 395, 404 (1991) (quoting *Russello v. United States*, 464 U.S. 16, 23 (1983)). In this case, however, the argument bears little weight. First, the legislature mandated the adoption of the original interim standards in the same act in which it established the Code, see *supra* note 53. If the legislature intended to preclude the amendment of these standards, then it would not have included the provisions for the adoption of interim standards in the Code. More importantly, HRS § 174C-71(2)(A) calls for "petitions to adopt an interim instream flow standard for streams in order to protect the public interest." (Emphasis added.) Notwithstanding their temporary effect, therefore, interim standards must still provide meaningful protection of instream uses.⁽⁵⁵⁾ In light of the foregoing language and the general design of the Code, we see no sound basis for preventing the Commission from amending interim standards to provide further protection where, according to the Commission, the evidence generally demonstrates the need for increased flows, but nonetheless falls short of the desired showing for establishing permanent standards.

Interim standards must respond to interim circumstances. DOA/DLNR objects to the amendment of the interim standards based on less than conclusive evidence, but insists on keeping the 1992 standards, which lack any evidentiary basis. This proposition strains the overall purpose of the Code as well as the limits of reason. We thus affirm the Commission's determination that the Code allows the amendment of interim instream flow standards.

DOA/DLNR also argues that the Commission must establish interim standards through rulemaking procedures under HAPA, see HRS § 91-3 (Supp. 1999). The Code provides to the contrary, defining such standards as "temporary instream flow standard[s] . . . adopted by the commission without the necessity of a public hearing." HRS § 174C-3 (emphasis added). Indeed, the Code does not even require rulemaking for the establishment of permanent standards; HRS § 174C-71(1)(F) merely states that, "[b]efore adoption of an instream flow standard or modification of an established instream flow standard, the commission shall give notice and hold a hearing on its proposed standard or modification," see also HRS § 174C-71(1)(D) (specifying the notice requirements).

The rule adopted by the Commission in 1992 includes the following relevant caveats:

- (1) Based upon additional information or a compelling public need, a person may petition the commission on water resource management to amend the standard to allow future diversion, restoration, or other utilization of any streamflow.
- (2) The commission reserves its authority to modify the standard or new establish standards [sic], including area-wide or stream-by-stream standards, based on supplemental or additional information.

HAR § 13-169-49.1. These provisions make no reference to rulemaking; such a requirement would, in fact, render the rule a superfluous repetition of HRS § 91-3, which already allows amendment of rules by rulemaking. During the hearing, the Commission issued "Order No. 16," wherein it concluded that the foregoing provisions allowed the modification of instream flow standards without amendment of the underlying rule. Considering the ambiguity of the rule and the deference owed to agency readings of their own regulations, see, e.g., *Malama Mahaulepu v. Land Use Comm'n*, 71 Haw. 332, 339, 790 P.2d 906, 910 (1990), we cannot say that the Commission erred in its interpretation.

We also observe that, while one of the hallmarks of rulemaking is its "generality of effect," see *In re Hawaiian Elec. Co.*, 81 Hawaii 459, 466, 918 P.2d 561, 568 (1996), the decisions at hand concerned the instream flow standards of particular streams. In Order No. 16, the Commission explained:

A petition to modify instream flows at . . . specific locations is a fact-intensive, individualized determination at each site that may directly affect downstream and offstream interests. . . . [I]ndividual claims may need to be examined. The site-specific inquiry required in this case is not compatible with rule making, but with a method which provides the due process procedures necessary to assess individual interests.

We agree with the Commission's assessment and, thus, reject the contention that the Commission improperly amended the WIIFS via adjudication instead of rulemaking.

The City raises yet another procedural objection, arguing that the Commission improperly granted the petitions to amend the WIIFS after the expiration of the statutory time limit for action on such petitions. HRS § 174C-71(2)(E) provides:

The commission shall grant or reject a petition to adopt an interim instream flow standard under this section within one hundred eighty days of the date the petition is filed. The one hundred eighty days may be extended a maximum of one hundred eighty days at the request of the petitioner and subject to the approval of the commission

Although it escapes the City's attention, the Code also imposes a deadline on decisions regarding water use permit applications. HRS § 174C-50(d) (Supp. 1999), relating to "existing uses," and HRS § 174C-53(c) (1993), relating to "new uses," identically require action on an application "within ninety calendar days of an application not requiring a hearing, or within hundred eighty calendar days of an application requiring a hearing."

On July 13, 1995, the Commission issued Order No. 5, which extended the 180-day time limit in HRS §§ 174-71(2)(E), -50(d), and -53(c) "until such time as the commission is able to act on the merits of the applications and petitions." The City maintains that the Code does not authorize such extensions. We first note that, although the foregoing deadline provisions are phrased in the mandatory, they provide no indication of the consequences of noncompliance. One may just as easily surmise that the legislature intended the expiration of the statutory time period to operate as an automatic approval, rather than denial, of the pending application. See, e.g., HRS § 183-41 (1993) (repealed 1994) (automatically granting applicant's proposed use of conservation district land at expiration of 180-day statutory period); HRS § 91-13.5(c) (Supp. 1999) (requiring agencies to act on an application for a "business or development-related permit, license or approval" within the time limit provided, "or the application shall be deemed approved").

In any event, the City fails to point to any objection in the record to the Commission's extension of time. See Hawaii Rules of Appellate Procedure (HRAP) Rule 28(b)(4) (2000) (requiring the point of error to include where in the record the appellant objected to the alleged error). The City suggests no reason why we should depart from the general rule that issues not properly raised shall be deemed waived. See *Hill v. Inouye*, 90 Hawaii 76, 82, 976 P.2d 390, 396 (1998). Furthermore, it does not appear that the City objected to the Commission's prior decision to consolidate the proceedings for the petitions to amend the WIIFS and the water use permit applications, which should have placed all parties on notice that the respective time limits probably would not be met. The Commission granted the numerous parties it admitted in the hearing considerable latitude in presenting evidence and argument. The City showed little concern for time constraints in fully availing itself of this opportunity. For these reasons, we hold that the City waived its objections to the Commission's decision to extend the statutory deadlines in the instant proceeding.

3. *Substantive Objections to Instream Allocations*

In reviewing the Commission's designation of the WIIFS, it is instructive to distill the Commission's analysis. The Commission, first, considered the petitions to amend the WIIFS and the water use permit applications together in the same hearing. Regarding the windward stream and estuary ecosystem, the Commission acknowledged the generally beneficial effect of increased instream flows, but concluded that "a more definitive determination of the [WIIFS] depends on the collection of additional information and subsequent weighing of instream values and offstream uses" ⁽⁵⁶⁾ COLs at 31. Having conceded the lack of a firm scientific basis for its disposition, the Commission then allocated a quantity of water to windward streams

that it deemed "practicable" in light of immediate and near-term offstream demands. *Id.* at 19. At the same time, however, it granted permit applications for offstream uses based on a "prima facie" standard and the bare conclusion that "there is adequate water to meet the immediate water use needs as set forth in the [D&O]." *Id.* at 23-25. Close review of the Commission's reasoning, therefore, reveals the nature of its decisionmaking process: without any proper findings as to the actual requirements for instream purposes, or the reasonableness of offstream diversions relative to these requirements, the Commission effectively assigned to windward streams the water remaining after it had approved the bulk of the offstream use permit requests.

The City argues that WWCA failed to meet its burden of proving the actual amount required for instream uses. HRS § 174C-71(2)(C) requires that petitions to adopt interim standards "set forth data and information concerning the need to protect and conserve beneficial instream uses of water and any other relevant and reasonable information required by the commission." The statute, however, does not assign any burden of proof, and we do not believe that the ultimate burden of justifying interim standards falls on the petitioner. Apart from the adversarial process initiated by WWCA's petition, the Commission has an affirmative duty under the public trust to protect and promote instream trust uses. In accordance with this duty, the Commission must establish permanent instream flow standards of its own accord "whenever necessary to protect the public interest in the waters of the State." HRS § 174C-71(1); see also *supra* note 49. HRS § 174C-71(4) requires the Commission to "[e]stablish an instream flow program to protect, enhance, and reestablish, where practicable, beneficial instream uses of water" and to "conduct investigations and collect instream flow data including fishing, wildlife, aesthetic, recreational, water quality, and ecological information and basic stream flow characteristics necessary for determining instream flow requirements." The Code planning provisions mandate the Commission to "study and inventory the existing water resources of the State and the means and methods of conserving and augmenting such water resources," HRS § 174C-31(c)(1) (Supp. 1999), in formulating a "water resources protection and quality plan," which must include, among other information, "requirements for beneficial instream uses and environmental protection," HRS § 174C-31(d) (2).⁽⁵⁷⁾ The Code also obligates the Commission to ensure that it does not "abridge or deny" traditional and customary rights of Native Hawaiians. See HRS § 174C-101(c) (1993); see also HRS § 174C-63 (1993) (preserving appurtenant rights).

The Commission made numerous findings regarding the current lack of scientific knowledge and the inability of the experts to quantify the correlation between stream flows and environmental benefits. We decline to substitute our judgment for the Commission's concerning its ultimate ruling that there was insufficient evidence to support a more conclusive assessment of instream flow requirements.⁽⁵⁸⁾ Such a mixed determination of law and fact lies within the Commission's designated expertise and sound discretion, and the evidence in this case does not demonstrate it to be clearly erroneous. See *Koolau Agricultural*, 83 Hawaii at 493, 927 P.2d at 1376 (according deference to the Commission's expertise in the designation of water management areas); *Camara*, 67 Haw. at 216, 685 P.2d at 797 ("[I]n deference to the administrative agency's expertise and experience in its particular field, the courts should not substitute their own judgment for that of the administrative agency where mixed questions of fact and law are presented.").

We must emphasize, however, that the Commission's present disposition largely defeats the purpose of the instream use protection scheme set forth in HRS § 174C-71. Every concession to immediate offstream demands made by the Commission increases the risk of unwarranted impairment of instream values, *ad hoc* planning, and arbitrary distribution. A number of parties object to the Commission's conclusion that:

Where scientific evidence is preliminary and not yet conclusive regarding the management of fresh water resources which are part of the public trust, it is prudent to adopt "precautionary principles" in protecting the resource. That is, where there are present or potential threats of serious damage, lack of full scientific certainty should not be a basis for postponing effective measures to prevent environmental degradation. "Awaiting for certainty will often allow for only reactive, not preventive, regulatory action." *Ethyl Corp. v. EPA*, 541 F.2d 1, 25, 5-29 (D.C. Cir.), cert. denied, 426 U.S. 941 (1976). In addition, where uncertainty exists, a trustee's duty to protect the resource mitigates in favor of choosing presumptions that also protect the resource. *Lead Indus. Ass'n v. EPA*, 647 F.2d 1130, 1152-56 (D.C. Cir. 1976), cert. denied, 449 U.S. 1042 (1980).

COLs at 33 (emphasis added). The "precautionary principle" appears in diverse forms throughout the field of environmental law. See, e.g., *Ethyl Corp.*, 541 F.2d at 20-29;⁽⁵⁹⁾ *Lead Industries*, 647 F.2d at 1154-55

(relying on the statutory "margin of safety" requirement in rejecting argument that agency could only authorize standards designed to protect "clearly harmful health effects"); *Les v. Reilly*, 968 F.2d 985 (9th Cir. 1992)(confirming that agency has no discretion under statute to permit use of carcinogenic food additives, regardless of degree of risk), cert. denied, 507 U.S. 950 (1993); see generally Gregory D. Fullem, Comment, *The Precautionary Principle: Environmental Protection in the Face of Scientific Uncertainty*, 31 *Willamette L. Rev.* 495 (1995). As with any general principle, its meaning must vary according to the situation and can only develop over time. In this case, we believe the Commission describes the principle in its quintessential form: at minimum, the absence of firm scientific proof should not tie the Commission's hands in adopting reasonable measures designed to further the public interest.

So defined, the precautionary principle simply restates the Commission's duties under the constitution and Code. Indeed, the lack of full scientific certainty does not extinguish the presumption in favor of public trust purposes or vitiate the Commission's affirmative duty to protect such purposes wherever feasible. Nor does present inability to fulfill the instream use protection framework render the statute's directives any less mandatory. In requiring the Commission to establish instream flow standards at an early planning stage, the Code contemplates the designation of the standards based not only on scientifically proven facts, but also on future predictions, generalized assumptions, and policy judgments.⁽⁶⁰⁾ Neither the constitution nor Code, therefore, constrains the Commission to wait for full scientific certainty in fulfilling its duty towards the public interest in minimum instream flows.

In this case, a proper understanding of the Commission's mandate reveals the faulty logic of the arguments challenging the Commission's amendment of the WIIFS for lack of a concrete evidentiary basis. Uncertainty regarding the exact level of protection necessary justifies neither the least protection feasible nor the absence of protection. As stated above, although interim standards are merely stopgap measures, they must still protect instream values to the extent practicable. Here, the Commission determined 6.0 mgd to be available for instream purposes, even as it made substantial allocations for present and near-term offstream use and proposed to reserve more for future offstream agricultural uses, all under a "prima facie" standard, and set aside even more as a "buffer" for unspecified future offstream uses. We do not consider the Commission's decision to add the remaining 6.0 mgd to the WIIFS overly protective. Quite the opposite, it appears to provide close to the least amount of instream use protection practicable under the circumstances.

For similar reasons, we disagree with the Commission's designation of 5.39 mgd otherwise available for instream purposes as a "nonpermitted ground water buffer" that the Commission could use to satisfy future permit applications without amending the WIIFS. Nothing in the Code authorizes such a measure. More fundamentally, the notion of a buffer freely available for unidentified offstream uses, while instream flow standards still await proper designation, offends the public trust and the spirit of the instream use protection scheme. We have rejected the idea of public streams serving as convenient reservoirs for offstream private use. See *Robinson*, 65 Haw. at 676, 658 P.2d at 311 (maintaining that private parties do not have the unfettered right "to drain rivers dry for whatever purposes they [see] fit"). Nonetheless, the buffer achieves that very result, insofar as it reverses the constitutional and statutory burden of proof and establishes a working presumption against public instream uses.

The Commission portrayed the buffer as "one aspect of the precautionary principle. A buffer allows for margins of error in the estimates and for the delay in recognizing and measuring changes." COLs at 33. On the contrary, we do not believe that a "buffer," as a formal and distinct category of allocation, would fulfill a truly protective or precautionary purpose. As stated above, where the Commission has yet to designate proper instream flow standards, a buffer stands the constitution and Code on their heads, allowing diversions of instream flows before the completion of the requisite procedure and analysis for instream use protection. Even where the Commission sets out in earnest to determine the appropriate instream flow standards, we think that a formal "buffer" category serves less as an instrument of protection than as a distraction from the mandated task of establishing minimum instream flows and an invitation to understate this minimum in light of the temporary protection provided by the buffer. If the Commission determines the minimum instream flows first, as contemplated by the Code, it need not designate formal "buffer" flows for the sake of precaution. As the Commission recognized, the policy against waste dictates that any water above the designated minimum flows and not otherwise needed for use remain in the streams in any event.⁽⁶¹⁾ At best, therefore, a buffer is superfluous; at worst, it is a violation of the public trust and an end run around the instream use protection provisions. Since it serves no legitimate purpose, we refuse to let it stand.

We find no fault with the general principles underlying the Commission's reasoning. Thus, pursuant to its duties as trustee, and in the interest of precaution, the Commission should consider providing reasonable "margins of safety" for instream trust purposes when establishing instream flow standards. The Commission, however, should not concern itself with allocations to a "buffer" at the outset. Rather, the Commission should incorporate any allowances for scientific uncertainty into its initial determination of the minimum standard. Any flows in excess of this standard shall remain in the stream until permitted and actually needed for offstream use, in keeping with the policy against waste and in recognition that the standard merely states an absolute minimum required under any circumstances. These unallocated flows, however, will not constitute a distinct category or quantity, but will fluctuate according to variations in supply and demand.

Based on the foregoing, we vacate the Commission's designation of the WIIFS and "nonpermitted groundwater buffer" and remand for further proceedings consistent with this opinion. In order to effectuate the Water Code's framework for instream use protection, the Commission shall, with utmost haste and purpose, work towards establishing permanent instream flow standards for windward streams. In the meantime, the Commission shall designate an interim standard based on the best information presently available. Cf. *California Trout, Inc. v. Superior Court*, 266 Cal. Rptr. 788, 801 (Cal. Ct. App. 1990) (ordering the water board to establish flow rates based on available data while proceeding with more elaborate studies). We do not bar the Commission, pending the establishment of permanent standards, from setting the interim standard lower than the combined total of the previous "base" and "buffer" flows⁽⁶²⁾ or from amending the standard subsequently. See *infra* Part III.E. In this case, however, several factors suggest to us that the interim standard should, at least for the time being, incorporate much of the total present instream flows: 1) the lack of proper studies and adequate information on the streams; 2) the corresponding inability of the Commission presently to fulfill the instream use protection framework; 3) the substantial, largely uncontroverted expert testimony that the present instream flows represent the minimum necessary to sustain an adequate stream habitat; 4) the Commission's finding that, "in general, it is expected that additional flows to the streams would increase the native biota habitat"; and 5) the Commission's generous provision for immediate and near-term offstream demands under a "prima facie" standard. The Commission's assignment of the buffer flows to the windward streams, on its face, seems to amount to a determination that it is "practicable" to "protect, enhance, and reestablish" instream uses by that quantity, at least for the interim. If so, this would generally meet the definition and purpose of "interim" standards under the Code. We leave the final analysis of the foregoing factors and determination of the appropriate interim standard to the Commission on remand.

Finally, in providing for the release of the "buffer" and "proposed agricultural reserve" into windward streams, the Commission did not specify how it would apportion these "supplemental flows" among the specific streams. Such ambiguity hinders progress towards a rational instream use protection program. The Commission found that "[a] more suitable restoration of windward streams would involve the partitioning of flow among a number of stream systems such as [Kahana, Waikne, Waianu, and Waihole Streams]," FOF 172, and that "[i]t makes a difference how the water is distributed into the streams. Water should be more equally distributed This is an unnatural restoration," FOF 180. The Code grants the Commission discretion to adopt interim standards "on a stream-by-stream basis or . . . [as] a general instream flow standard applicable to all streams in a specified area." HRS § 174C-71(2)(F). In this case, the Commission amended the WIIFS on a general basis, but still identified which streams would receive the increased base flows. In accordance with its findings, the Commission should do the same with respect to the new minimum flows established on remand and any flows in excess of this minimum, including the proposed agricultural reserve.

4. Interim Standard for Waikne Stream

WWCA petitioned the Commission to amend the interim standard for particular windward streams. Waikne Stream was among the streams identified in the petition. The Commission nonetheless only amended the base flows of Waihole and Waianu Streams.

WWCA presented evidence of the need for increased flows in Waikne Stream, none of which the parties dispute.⁽⁶³⁾ The Commission, however, does not mention Waikne Stream at all in its allocation of instream flows. In its brief on appeal, the Commission states that "the gates available for water restoration cannot now put water in Waikane Stream. . . . Any physical reconstruction of the ditch system should await more in-depth studies." Whether valid or not, this justification appears nowhere in the Commission's decision. Nothing in the decision indicates that the Commission considered the practicability of restoring flows to Waikne Stream.

"[T]he agency must make its findings reasonably clear. The parties and the court should not be left to guess, with respect to any material question of fact, or to any group of minor matters that may have cumulative significance, the precise finding of the agency." *In re Kauai Elec. Div. of Citizens Utilities Co.*, 60 Haw. 166, 183, 590 P.2d 524, 537 (1978) (quoting *In re Terminal Transportation, Inc.*, 54 Haw. 134, 139, 504 P.2d 1214, 1217 (1972)). See also *Kilauea Neighborhood Ass'n v. Land Use Comm'n*, 7 Haw. App. 227, 230, 751 P.2d 1031, 1034 (1988) ("An agency's findings must be sufficient to allow the reviewing court to track the steps by which the agency reached its decision."); *Rife v. Akiba*, 81 Hawaii 84, 87-88, 912 P.2d 581, 584-85 (App. 1996) (reviewing the numerous practical reasons for requiring adequate findings and conclusions). 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." *Save Ourselves*, 452 So.2d at 1159-60.

In this case, the Commission has not provided any findings or conclusions that would enable meaningful review of its decision regarding Waikne Stream. We thus remand this matter for proper resolution by the Commission. See *Kauai Electric*, 60 Haw. at 185-86, 590 P.2d at 537-38 (recognizing remand as an appropriate remedy "where the agency has made invalid, inadequate, or incomplete findings"); see also 3 Kenneth C. Davis & Richard J. Pierce, Jr., *Administrative Law Treatise* § 18.1 (3d ed. 1994) (discussing the usual remedy of "set aside and remand").

E. INTERIM BALANCING OF INSTREAM AND OFFSTREAM USES

Our foregoing rulings concerning the WIIFS neither preclude nor permit any present and future allocations for offstream use. As the Commission recognized, "[g]iven the long term work needed to define an ecologically necessary flow in a particular stream, the Commission will need to amend [interim standards] periodically until permanent standards can be adopted." COLs at 16. Thus, even after the Commission designates the WIIFS on remand based on the best available information, it may amend the WIIFS in either direction as further information becomes available. On the other hand, in merely affirming the Commission's interim solution of effectively assigning to instream uses the water not otherwise allocated for immediate and near-term offstream uses, we have not yet addressed the validity of the present offstream allocations, let alone the possibility of additional diversions. The Commission correctly identified the investigation of the stream ecology and determination of the correlation between flow levels and instream values as the first steps in the "methodology" for determining the instream flow standards, see *supra* note 56, but admitted that the lack of "firm" scientific evidence prevented it from properly completing these preliminary inquiries. In sum, we are still left with the question of how the Commission should, presently and for the foreseeable future, balance competing instream and offstream interests as it proceeds to develop permanent instream flow standards.

In its decision, the Commission recognized the need for high base flows, stating:

High base flow is important to the estuary ecosystem as well as the stream itself. The flows generated during storm events perform a function different from that of base flows. The estuary does not assimilate a great deal of nutrients from flood events, because the water moves through the system so rapidly. Those flows flush out the estuarine system. The base flow carries the steady load of nutrients that is essential for estuarine productivity, and is essential to sustain the nutrient levels throughout the year.

FOF 262. Consistent long-term flows are also essential to conducting meaningful stream studies. The Commission found that, "to adequately evaluate any impacts on a change in flow regime, the study would need to be conducted over an extended period of time, starting with at least two (2) or three (3) years," FOF 167, and that "it is better to gather years of accumulated data before deciding whether there was an impact," FOF 200. See generally HAR §§ 13-169-20(2), -22(1), -23 (1988) (recognizing the "vital" importance of a "systematic program of baseline research" and requiring the Commission to conduct such research as part of the mandated instream use protection program).

Until adequate scientific information becomes available, therefore, ongoing or further offstream allocations not only subject instream values to unknown impairment and risk, but also undermine efforts at effective research. Conceivably, the Commission could drain a stream dry incrementally, or leave a diverted stream dry in perpetuity, without ever determining the appropriate instream flows. Needless to say, we cannot accept such a proposition.

The opposite alternative, however, does not appear very practicable. WWCA insists that the Commission bar the issuance of any permits for offstream uses until sufficient scientific information on instream requirements becomes available. We do not believe that the law mandates such a per se rule. The Commission can hardly be expected to suspend all offstream uses, however reasonable and beneficial, for an indefinite period of time that, according to the Commission, may amount to years.

This dilemma offers no simple solution. At the present time, we hold only that the Commission's inability to designate more definitive instream flow standards neither allows the prolonged deferral of the question of instream use protection nor necessarily precludes present and future allocations for offstream purposes. Accordingly, the Commission must apply, in its own words, "a methodology that recognizes the preliminary and incomplete nature of existing evidence," COLs at 16, and, indeed, incorporates elements of uncertainty and risk as part of its analysis. Such a methodology, by its nature, must rely as much on policy considerations as on hard scientific "facts." See *Ethyl Corp.*, 541 F.2d at 29 ("[The Commission] must act, in part on factual issues, but largely on choices of policy, on an assessment of risks, and on predictions dealing with matters on the frontiers of scientific knowledge" (quoting *Amoco Oil Co. v. EPA*, 501 F.2d 722, 741 (D.C. Cir. 1974)) (brackets and internal quotation marks omitted)); *Industrial Union Dept., AFL-CIO v. American Petroleum Inst.*, 448 U.S. 607, 706 (1980) (Marshall, J., dissenting) ("[W]hen the question involves determination of the acceptable level of risk, the ultimate decision must necessarily be based on considerations of policy as well as empirically verifiable facts.").

In furtherance of its trust obligations, the Commission may make reasonable precautionary presumptions or allowances in the public interest. The Commission may still act when public benefits and risks are not capable of exact quantification. At all times, however, the Commission should not hide behind scientific uncertainty, but should confront it as systematically and judiciously as possible -- considering every offstream use in view of the cumulative potential harm to instream uses and values and the need for meaningful studies of stream flow requirements. We do not expect this to be an easy task. Yet it is nothing novel to the administrative function or the legal process in general. See *Ethyl Corp.* 541 F.2d at 28 n.58 (explaining how "assessment of risk is a normal part of judicial and administrative fact-finding"). And it is no more and no less than what the people of this state created the Commission to do.

As a practical matter, the Commission may decide that the foregoing balance supports postponing certain uses, or holding them to a higher standard of proof, pending more conclusive evidence of instream flow requirements. See, e.g., HRS § 174C-31(d)(2) (requiring the Commission to include in the water resource protection plan "desirable uses worthy of preservation by permit, and undesirable uses for which permits may be denied"); HRS § 174C-31(k) (Supp. 1999) (mandating "careful consideration" of "the requirements of public recreation, the protection of the environment, and the procreation of fish and wildlife" and enabling the Commission to prohibit or restrict uses on certain streams which may be inconsistent with these objectives); HRS § 174C-31(l) (Supp. 1999) (allowing the Commission to designate certain uses in connection with a particular source as an "undesirable use," for which the Commission may deny a permit), HRS § 174C-31(m) (Supp. 1999) (allowing the Commission to designate certain uses in connection with a particular source that "shall be preferred over other uses" in the permitting process). Even if it tentatively decides to allow certain offstream uses to proceed, the Commission may still subject the uses to permit conditions designed to protect the public interest. See HRS § 174C-31(j). At the very least, the Commission should, as it did in this case, condition permits so as to confirm its constitutional and statutory authority to modify or revoke the permits should it later determine that present instream flows are inadequate. Cf. HAR § 13-171-22(a) (1988) ("The commission shall retain and continue to have jurisdiction for the purpose of reviewing and modifying every permit as may be necessary in fulfillment of its duties and obligations under [the Code].").

Under no circumstances, however, do the constitution or Code allow the Commission to grant permit applications with minimal scrutiny. Here, the Commission declared that "there is adequate water to meet the immediate water use needs," and made liberal allowances for offstream uses based on a mere "prima facie" standard, reasoning that "careful management may defer the need to consider a higher level of scrutiny in analyzing the [permit applications] until the time when there is inadequate water for competing demands." COLs at 25. In truth, the uncertainty regarding actual instream flow requirements prevented any determination as to the adequacy of the present water supply and did not justify any less rigorous analysis of the permit applications than would be required in any event.

We are troubled, therefore, by the Commission's permissive view towards stream diversions, particularly while the instream flow standards remained in limbo. Such an approach contradicts not only the Commission's own findings and conclusions, but also the law and logic of water resource management in this state. With these concerns in mind, we turn to the Code permitting provisions and the water use permits issued by the Commission in this case.

F. WATER USE PERMITS

WWCA and HTF contest the water use permits granted by the Commission. They argue that, as a general matter, the permit applicants failed to meet their burden of proof. WWCA also raises various specific objections to the permits issued.

1. *Permit Applicants' Burden of Proof*

Under the public trust and the Code, permit applicants have the burden of justifying their proposed uses in light of protected public rights in the resource. As stated above, the public trust effectively creates this burden through its inherent presumption in favor of public use, access, and enjoyment. The legislature supplied the specific procedure for potential users to meet this burden in the permitting provisions of the Code, HRS chapter 174C, part IV.

HRS § 174C-49(a) (1993) enumerates the conditions for water use permits under the Code, see *supra* note 6. Two of the conditions require the applicant, and the Commission in turn, to address the effect of the requested allocation on public instream values: "reasonable-beneficial use," HRS § 174C-49(a)(2); and "consistent with the public interest," HRS § 174C-49(a)(4). The two conditions overlap; the Code defines "reasonable-beneficial use" as "use of water in such quantity as is necessary for economic and efficient utilization, for a purpose, and in a manner which is both reasonable and consistent with the state and county land use plans and the public interest," HRS § 174C-3 (emphases added).

As discussed above, the Commission erroneously examined instream use as a "competing use" under HRS § 174C-54. Nevertheless, it properly construed public instream values as an intrinsic element of the inquiry involved in the permitting process. The Model Water Code, the source of the Code's definition of "reasonable-beneficial use," see *id.* § 1.03(4), states that the standard was intended to combine the "best features" of "reasonable use" under riparian law and "beneficial use" under prior appropriation law. See *id.* ch. 2 commentary at 171.⁽⁶⁴⁾ As one of the authors of the Model Water Code explained:

A standard of "reasonable beneficial use" which incorporates the "best features of both reasonable use and beneficial use" would thus be a standard which required an examination of the purpose of the use, its economic value, its value to society including consideration of possible harm to society through harm to the water body, and a balancing of any harm caused by the use against methods currently available to reduce or eliminate that harm.

Frank E. Maloney, Florida's "Reasonable Beneficial" Water Use Standard: Have East and West Met?, 31 U. Fla. L. Rev. 253, 274 (1979) (emphasis added); see also Model Water Code, *supra*, § 202 commentary at 179 (clarifying that, under the "consistent with the public interest" standard, "a proposed use, otherwise valid, which would have an unreasonably harmful effect on fish or wildlife might well be rejected as being inconsistent with the express statement of public interest in [the model provision for HRS § 174C-3(c)]"). We thus confirm and emphasize that the "reasonable-beneficial use" standard and the related criterion of "consistent with the public interest" demand examination of the proposed use not only standing alone, but also in relation to other public and private uses and the particular water source in question. Hence, permit applicants requesting water diverted from streams must duly take into account the public interest in instream flows. Cf. *Shokal v. Dunn*, 707 P.2d 441, 450 (Idaho 1985) ("[T]he burden of proof in all cases as to where the public interest lies . . . rests with the applicant . . .").

In the instant case, the prior unavailability of proper instream flow standards made the permit applicants' task of justifying their proposed uses more difficult. Had the Commission been able previously to establish more conclusive standards, the applicants would have only needed to show, with respect to public instream uses and values, that their allocations would not impair the designated instream flows. See HRS §§ 174C-31(j), -71 (last paragraph); Model Water Code, *supra*, § 1.07(6) commentary at 107 (explaining that the model provision for HRS § 174C-31(j) "prohibits the granting of any consumptive use permit that would adversely

affect the maintenance of minimum flows and levels"). Due to the continuing uncertainty regarding instream flow requirements, the Commission, by its own admission, could not fully apply and assess the results of the "reasonable-beneficial use" and "public interest" tests under the Code. The Commission was thus constrained to subject all permits to conditions "providing for stream restoration if the Commission determines that additional water should be returned to the streams." D&O at 30. Therefore, although many pro-leeward parties criticize the Commission's preliminary designation of the WIIFS, they fail to realize that the absence of a more conclusive determination of necessary instream flows predetermined every aspect of the Commission's decision, including the water use permits issued, to be tentative at best.

We explained above that the uncertainty created by the lack of instream flow standards modifies the nature of the Commission's analysis, but does not reduce the level of scrutiny it must apply. Similarly, such uncertainty does not excuse permit applicants from affirmatively justifying their proposed uses insofar as circumstances allow. At a very minimum, applicants must prove their own actual water needs. The Code's "reasonable-beneficial use" standard allows use only "in such a quantity as is necessary for economic and efficient utilization." HRS § 174C-3 (emphasis added). Furthermore, besides advocating the social and economic utility of their proposed uses, permit applicants must also demonstrate the absence of practicable mitigating measures, including the use of alternative water sources. Such a requirement is intrinsic to the public trust, the statutory instream use protection scheme,⁽⁶⁵⁾ and the definition of "reasonable-beneficial" use, cf. Restatement (Second), supra, § 850A(f) & cmt. h (considering the "practicality of avoiding harm by adjusting the use or method of use" as one factor in riparian "reasonable use" inquiry), and is an essential part of any balancing between competing interests, see, e.g., *Kahana Sunset Owners Ass'n v. County of Maui*, 86 Hawaii 66, 72, 947 P.2d 378, 384 (1997) (explaining that analysis under the Hawaii Environmental Policy Act must include mitigating measures and alternatives). Notwithstanding the present uncertain and tentative nature of the permitting process, therefore, permit applicants must still demonstrate their actual needs and, within the constraints of available knowledge, the propriety of draining water from public streams to satisfy those needs.

2. Diversified Agriculture, Generally, and the Allocation of 2,500 Gallons per Acre per Day

At the outset, we agree with the Commission that, as a general matter, water use for diversified agriculture on land zoned for agriculture is consistent with the public interest. Such use fulfills state policies in favor of reasonable and beneficial water use, diversified agriculture, conservation of agricultural lands, and increased self-sufficiency of this state. See Haw. Const. art. XI, §§ 1 & 3; HRS § 174C-2(c). Moreover, in this case, the Commission primarily considered and granted permit applications for agricultural uses already in existence, adding the caveat that it would "revisit and, if appropriate, reduce existing ground-water permits if reclaimed water becomes available and is allowable, subject to economic and health considerations." D&O at 8. For the time being, therefore, the Commission's disposition more or less maintains the interim solution reached during the contested case hearing and the positive effects on the windward streams resulting therefrom. Because the Commission must still determine the ultimate validity of the present allocations in relation to instream requirements, and depending on the availability of reclaimed water, nothing is settled from a long-term standpoint. For present purposes, however, apart from any yet unanswered questions regarding actual needs and practicable mitigating measures and alternatives, we cannot say that the Commission erred in accommodating existing agricultural uses while restoring instream flows.

In its decision, the Commission admitted to "a lack of data on actual uses for diversified agriculture." *Id.* at 6. This uncertainty appears to stem largely from the embryonic state of diversified agricultural operations. The Commission issued the permits based on approximate demand, but mandated the release of any unused permitted water into the windward streams, *id.* at 10, and conditioned the permits on a final determination of water use quantity in five years, *id.* at 30. Although these measures appear appropriate at this time, we reiterate that permits should reflect actual water needs.

WWCA specifically contests the Commission's provision of 2,500 gallons per acre per day (gad) for every acre of land in diversified agriculture, where only a fraction of such land is in actual cultivation at any given time. WWCA does not dispute the reasonableness of the 2,500 gad figure as applied to acreage actually in cultivation. Parties testified in support of lower and higher amounts, but the Commission selected this "more conservative" figure as a "starting point," noting that "it is an adjustable number and will be evaluated periodically or upon request, based on the best available data and field experience." *Id.* at 6. WWCA asserts, however, that the application of this per-acre figure to every acre of agricultural land, including those lying fallow, resulted in a "gross over-allocation" of water far exceeding actual need.

The uncontroverted evidence at the hearing establishes that leeward farmers cultivate only one-third to one-half of their land at any given time. This evidence includes the testimony of farmers Larry Jefts and Alec Sou, on which the Commission based its determination of the 2,500 gad figure. The Commission observed in its decision that, according to Sou, "at any one point, the maximum they have in actual crop on ground is one-third (1/3) of their land, while the other two-thirds (2/3) is in various stages of harvest, plow down and arid aeration to disrupt insect buildup." Id.

Campbell Estate proffers that the Commission's reliance upon Sou's testimony demonstrates that the Commission duly considered uncultivated land in allocating 2,500 gad for every acre. Nihonkai further cites Sou's direct written testimony that his estimated duty of 3,500 gad represented an average over all acres given all acres are not irrigated at one time. In actual practicality, as much as 2" of water (54,000 gallons/acre) is necessary when a crop is first planted. After the initial irrigation to germinate, water is set at a range of 15,000 gallons per day (gpd) and gradually reduced to 6,000 gpd. The amount of water used will vary depending upon the crop, season, weather, how long a field was fallow, and market factors.

There will be times when peak use is of vital importance. However, during certain seasons or months, we will average as much as 5,400 [gad]. During other periods we may be using as little as 1,800 [gad].

(Emphasis added.) At the hearing, Sou reiterated that "the average we are giving is an average on land, all land over a period of years." In questioning Sou about his estimates, Commissioner Miike stated: "I know across all your lands you're saying 3500 [gad] considering fallow land" Accordingly, Nihonkai asserts, the record evinces that the Commission included fallow land in its calculations.

On another occasion, however, Sou apparently acknowledged that the gad figure applied only to land actually in cultivation. The transcript reads in relevant part:

Q: Now, the lease that you signed with Nihonkai says that 2,325 [gad] will be reasonably sufficient for your cultivation purposes; isn't that right?

A: Yes.

Q: And the chart attached to your July 18th affidavit shows that you don't intend to have more than 80 acres in cultivation at any one time, correct?

A: Yes, exceeding that would run into a lot of trouble.

Q: Okay. So according to my math, 80 acres using 2,325 [gad] would total 186,000 gallons per day. So according to your figures in your affidavit and in your lease, 186,000 gallons per day is reasonably sufficient for your needs; is that right?

A: This would be sufficient provided that we accounted for every aspect of irrigation, having the best system in line, shutting it off exactly when it's at a peak

(Emphasis added.) Instead of the .186 mgd that Sou confirmed would be "sufficient" under efficient use conditions, Sou received 2,500 gad for every one of the 190 acres he leases from Nihonkai, or .48 mgd in total. D&O at 21.

Larry Jefts's lease with Campbell Estate states: "Average annual usage . . . is estimated to be 2,500 per day per acre of arable land being cultivated." (Emphasis added.) The Commission quoted this language in its decision, D&O at 6, but still allocated water for all 620 acres leased to Jefts, without regard to acreage actually in cultivation, id. at 21. Finally, the Commission noted that, because of the much lower per-acre water requirements of diversified agriculture, 1,800 to 5,400 gad, as compared to the previously grown sugar, 7,500 to 10,000 gad, water would become available for other purposes "even if the same acreage was planted." COLs at 19 (emphasis added). The Commission, nevertheless, assigned 2,500 gallons per day to as much as two or three times the acreage actually planted, resulting in a per-acre duty apparently approaching that of sugar and contradicting the Commission's description of 2,500 gad as a "more conservative figure."

"A reviewing court must judge the propriety of agency action solely by the grounds invoked by the agency, and that basis must be set forth with such clarity as to be understandable." Louisiana-Pacific Corp., Western

Div. v. NLRB, 52 F.3d 255, 259 (9th Cir. 1995) (quoting SEC v. Chenery Corp., 332 U.S. 194, 196-97 (1947)) (brackets and internal quotation marks omitted). Here, the record contains patent incongruities that the Commission's decision does not satisfactorily resolve. The failure of the Commission to address and explain these contradictions precludes effective review of its decision. See *Kauai Electric*, 60 Haw. at 183-86, 590 P.2d at 536-38. We do not demand from the Commission a written assessment of every piece of evidence or testimony. Nor do we foreclose the Commission from allocating more than 2,500 gallons per day per acre in cultivation if more is indeed necessary. But where the record demonstrates considerable conflict or uncertainty in the evidence, the agency must articulate its factual analysis with reasonable clarity, giving some reason for discounting the evidence rejected. See, e.g., *Green v. Shalala*, 51 F.3d 96, 101-02 (7th Cir. 1995); *Thompson v. Bowen*, 850 F.2d 346, 349 (8th Cir. 1988); *Vemco, Inc. v. NLRB*, 79 F.3d 526, 528 (6th Cir. 1996). Such articulation is especially crucial under circumstances such as those before us, in which small variations in the interpretation of evidence lead to vast differences in result. Because the Commission has failed to provide this minimal analysis, we vacate its adoption of the 2,500 gad figure and remand for further proceedings consistent with this opinion.

3. *Campbell Estate's Permits*

a. *Field Nos. 146 and 166 (ICI Seeds)*

WWCA contests the Commission's allocation of .86 mgd to Field Nos. 146 and 166 of Campbell Estate, leased to Zeneca, Inc., dba ICI Seeds (ICI Seeds). The Commission derived .86 mgd by multiplying the 344 total acres of both fields by 2,500 gallons per acre per day (gad). At the hearing, however, ICI Seeds testified that, during its peak season from November to February, it plants only 80 to 100 acres of seed corn and uses an average of only 300,000 gallons of water per day, or .3 mgd. During the summer months, ICI Seeds plants only "three or four" acres of corn and "some other crops, very small amounts."

Campbell Estate asserts that the .86 mgd allocation includes provision for sorghum and soy bean also cultivated by ICI Seeds. ICI Seeds actually stated: "We have grown sorghum and soy beans in the past and we still grow some sorghum, but our main focus is on corn." ICI Seeds did not express any intention of increasing its corn cultivation and, in fact, testified to a need for "isolation space" between its plots of corn. Thus, the Commission's year-round allocation of .86 mgd for Field Nos. 146 and 166, nearly three times its stated average demand during its four-month peak season, finds no basis in the record and is clearly erroneous. We vacate the allocation to ICI Seeds and remand for further proceedings consistent with this opinion.

b. *Field Nos. 115, 116, 145, and 161 (Gentry and Cozzens)*

Campbell Estate also received 1.19 mgd for Field Nos. 115, 116, 145, and 161, consisting of 145 total acres multiplied by 2,500 gad. The record reveals that, at least until 1995, Terry Cozzens's Circle "C" Ranch & Hay Co. (Cozzens) leased this land for forage production. In November 1995, Campbell Estate leased Fields Nos. 115, 116, and 145 to Gentry Development Co. (Gentry).

At the hearing, the Campbell Estate representative testified: "I have not been in discussion with [Gentry] on what they're doing, but my understanding is that they will be growing agricultural crops [on Fields Nos. 115, 116, and 145]." The record contains no evidence of the type or amount of crops Gentry intends to cultivate. As for Field No. 161, the record does not indicate whether Cozzens is still occupying the land, much less the nature and extent of his present and planned operations. Campbell Estate asserts that Del Monte owns the master lease and intends to grow agricultural crops. No direct evidence of this intent appears in the record.

Absent such basic information on current and projected use, the allocation of 1.19 mgd for diversified agriculture on these fields was clearly erroneous. We vacate the allocations to Field Nos. 115, 116, 145, and 161 and remand for further proceedings consistent with this opinion.

c. *Alternative Ground Water Sources*

At the time of the hearing, Campbell Estate held permits to pump 35 mgd of ground water from beneath its lands for agricultural purposes. WWCA argues that the Commission erred by not requiring Campbell Estate to use this water, no longer in use since OSCo concluded operations, in order to minimize diversions from windward streams.

Regarding the practicability of using pumped ground water, Campbell Estate merely cites testimony to the effect that "it would require millions of dollars to put infrastructure in place to pump water from the Pearl Harbor aquifer wells to the Campbell Estate fields which currently use Waiahole Ditch water." Even if true, this broad statement has little meaning without evidence and analysis of the actual per-unit breakdown of these costs relative to the cost of ditch water and other alternatives. The record, in fact, reveals that Campbell Estate could supply up to 6.16 mgd of its permitted ground water to certain agricultural fields for as little as 39 to 45 cents per thousand gallons. By comparison, leeward farmers pay 35 cents per thousand gallons for 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. OSCo used extensive amounts of ground water on Campbell Estate lands with little apparent difficulty, and Del Monte currently turns a profit using pumped ground water on Campbell Estate lands. Royal Oahu Resort decided that it could feasibly use ground water from its on-site well and, accordingly, withdrew its application for water from the ditch.

The Commission maintained that it "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." COLs at 19. We agree. 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. Unlike leeward offstream uses, windward instream uses have no alternatives at any cost to the windward ground water in question. Recognizing that such water "is the only source to supplement base stream flow . . . and [to] satisfy any riparian uses, appurtenant rights, potential offstream agriculture in the affected area . . . , and enhancement of the Kaneohe Bay estuary and fisheries," *id.* at 19, the Commission conditionally approved leeward agricultural uses "[i]f and until treated effluent or ground water is available," *id.* at 28-29. The Commission's decision, nonetheless, fails to discuss Campbell Estate's ground water permits beyond noting their existence and present nonuse. One finding states that "Campbell Estate has well permits for 35 mgd," FOF 788, and the COLs section mentions in a footnote that "[a]gricultural water use permits of approximately 53 mgd for Pearl Harbor ground water are still held by various parties and [are] not being used," *id.* at 19 n.10.⁽⁶⁶⁾ As Campbell Estate points out, the Commission did make various general findings on the effects of irrigation on leeward aquifers, the costs of developing other alternative sources, and future growth in water demand. None of these answer, with any reasonable degree of clarity, why it is not practicable for Campbell Estate to use ground water permitted to it and not otherwise in use as an alternative to diverting the sole source of water for windward streams, especially given the still unsettled state of the instream flow standards.

In neglecting to address the practicability of using pumped ground water as an alternative to stream diversion, the Commission failed to establish an adequate basis for the allocations granted to Campbell Estate. We thus vacate Campbell Estate's permit and remand for further proceedings consistent with this opinion.

4. *PMI's Permit*

WWCA also argues that the Commission erred by issuing PMI a .75 mgd permit for golf course use, contrary to its own legal conclusions regarding such use. PMI defends its permit allocation and challenges the validity of the Commission's conclusions in the first instance. PMI's objections require our initial attention.

a. *"Existing Use"*

As its first point of error, PMI contests the Commission's designation of PMI's water use as a "new," as opposed to "existing," use under the Code.⁽⁶⁷⁾ HRS § 174C-50(c) (1993) provides in relevant part:

An application for a permit to continue an existing use must be made within a period of one year from the effective date of designation [of the water management area]. Except for appurtenant rights, failure to apply within this period creates a presumption of abandonment of the use, and the user, if the user desires to revive the use, must apply for a permit under section 174C-51. If the commission determines that there is just cause for the failure to file, it may allow a late filing. However, the commission may not allow a late filing more than five years after the effective date of rules implementing this chapter.

(Emphases added). In this case, the Commission designated the windward aquifers as ground water management areas effective July 15, 1992. On June 3, 1993, Waihole Irrigation Company (WIC), the former operator of the ditch, filed a joint water use permit application on behalf of the parties using water from the

ditch at that time. The application made no mention of PMI. On June 14, 1994, WIC filed an amendment to the joint application. The amendment merely referred to PMI in the attached exhibits along with many other existing and proposed golf courses in Central Oahu, most of which did not seek water from the ditch. On October 24, 1994, WIC filed another amendment finally including PMI as an applicant; PMI filed its own application on February 3, 1995. Neither of these submissions requested an "existing use" permit for PMI.

PMI points out that it did not acquire the property in question until a foreclosure sale on November 21, 1994. PMI also cites the testimony of WIC's representative that the omission of PMI from the joint application in 1993 and the first amendment in July 1994 "was an oversight on my part." These exigencies do not compel the Commission to ignore the express statutory deadline for existing use permit applications.

HRS § 174C-50(c) allows the Commission to accept late filings based on "just cause," but precludes the Commission from accepting late applications "more than five years after the effective date of rules implementing this chapter." The Commission promulgated the rules implementing the Code on May 27, 1988 and, thus, could not accept any late applications after May 27, 1993. None of the applications in this case met this deadline.

PMI argues that the Commission's literal reading of HRS § 174C-50(c) leads to an absurd result insofar as it set the deadline for late filings before the expiration of the one-year filing period following designation of the water management area. To the contrary, we believe that the legislature could have rationally intended to allow late filings only during an initial period of transition to the regulatory system under the Code. We thus see no error in the Commission's adherence to HRS § 174C-50(c)'s express terms.

Finally, questions of timeliness aside, PMI's use does not constitute an "existing use" as contemplated by the Code. In identifying the "existing uses" in this case, the Commission proceeded from the premise that "the term 'existing use' as used in the Water Code, HRS chapter 174C, for purposes of water use permits, refers to those uses as of the date a particular area is designated as a water management area under HRS 174C, Part IV."⁽⁶⁸⁾ This underlying conclusion, however, contradicts the plain reading of the Code. HRS § 174C-50(a) (1993) states that "[a]ll existing uses of water in a designated water management area . . . may be continued after July 1, 1987, only with a permit issued in accordance with sections 174C-51, 174C-52, and 174C-53(b)." (Emphasis added.) HRS § 174C-50(b) (1993) further provides that "the commission shall issue a permit for the continuation of a use in existence on July 1, 1987, if the criteria in subsection (a) are met and the existing use is reasonable and beneficial." (Emphasis added.) These initial provisions in the Code's section on "existing uses" establish that the legislature intended the term "existing use" to refer to uses existing on July 1, 1987, the effective date of the Code, see 1987 Haw. Sess. L. Act 45, § 10 at 102; see also *infra* note 98 (listing analogous provisions in other jurisdictions).⁽⁶⁹⁾ We thus hold that the Commission erred in identifying July 15, 1992, the date of designation of the windward ground water management areas, as the relevant cut-off date for "existing uses" under the Code.

According to PMI, "[t]he prior owner of the PMI property began using Waiahole Ditch water in the late summer or fall of 1991." The water use on the PMI property entirely postdates July 1, 1987. Even apart from the untimeliness of PMI's "existing use" permit application, therefore, PMI's use did not meet the Code's definition of "existing use."⁽⁷⁰⁾

b. "Agricultural Use"

PMI also objects to the Commission's classification of water use for golf courses as "nonagricultural use." According to PMI, golf-course irrigation qualifies as an "agricultural use" under the Code.

PMI cites the Code's policy favoring "maximum beneficial use . . . for purposes such as . . . irrigation and other agricultural uses," HRS § 174C-2(c) (emphasis added), as support for its argument that "'irrigation' is and always was an 'agricultural' use." PMI reads too much into this provision. The language in question confirms that "agricultural uses" may entail irrigation, but does not render "irrigation" and "agricultural use" synonymous or coextensive.

The Code defines "change in use" as "any modification or change in water use from or to domestic, municipal, military, agricultural (including agricultural processing), or industrial uses." HRS § 174C-3; see generally HRS § 174C-57 (1993) (requiring permittees seeking a change in use to apply for a permit

modification). PMI contends that, because irrigation of a privately owned golf course meets neither the statutory definitions of "domestic use" ⁽⁷¹⁾ and "municipal use," ⁽⁷²⁾ nor the common meanings of "military" or "industrial" use, ⁽⁷³⁾ by process of elimination, it must constitute an "agricultural use." The instant case, however, does not involve any "change in use," and we do not believe, in any event, that the legislature intended to limit the universe of possible use classifications to those enumerated in this single provision. Indeed, golf courses fit the "agricultural" category no more readily than any of the others, the suggested comparisons between growing land cover and cultivating crops notwithstanding. The legislature appears to have agreed, recently amending the Code to clarify that "agricultural use" means "the use of water for the growing, processing, and treating of crops, livestock, aquatic plants and animals, and ornamental flowers and similar foliage," and that "existing agricultural use" means "replacing or alternating the cultivation of any agricultural crop with any other agricultural crop, which shall not be construed as a change in use." HRS § 174C-3 (Supp. 1999) (emphases added).

PMI points out that under the state land use law, agricultural districts may include "open area recreational facilities, including golf courses and golf driving ranges." HRS § 205-2(d) (Supp. 1999). State agricultural districts, however, also include "wind machines and wind farms" and "small-scale meteorological, air quality, noise and other scientific and environmental data collection and monitoring facilities." *Id.* The inclusion of a use in "agricultural districts" under a separate land use statute does not establish the use as "agricultural" for water allocation purposes.

In classifying golf course irrigation as "nonagricultural use," the Commission apparently decided that it raised different policy considerations than those uses typically associated with "agricultural use." PMI does not attempt to discredit this mixed determination of fact and law as clearly erroneous, but merely argues that the Commission is constrained by statute to designate golf course irrigation as an "agricultural use." Such an approach contradicts PMI's own objections to rigid use categories. It also finds little support in the Code. According due deference to the Commission's interpretation, we hold that the Commission did not err in excluding golf course irrigation from the category of "agricultural use."

c. Distinctive Treatment of "Nonagricultural Uses"

In its discussion of the legal requirements for water use permits, the Commission repeatedly expressed its intention to hold "nonagricultural uses" such as "golf course, parks and landscape irrigation" to different standards and conditions than other uses in this case. Having concluded that, in times of greater competition, the standard of review for agricultural uses would be higher, the Commission further stated that "existing golf course and other non-agricultural existing uses are already subject to this higher standard, in light of higher uses for windward surface water, including retaining water in the streams." COLs at 27. The Commission also concluded that "non-agricultural uses in Leeward Oahu for golf course and landscaping uses which could utilize available ground water or treated effluent . . . carry a heavy burden to show why stream water should be diverted out of its watershed of origin," *id.* at 28, and that "[t]he use of surface water outside the watershed to irrigate golf courses in an arid region will not be a reasonable beneficial use if alternatives, including reusable wastewater, are available and other needs dependent exclusively upon surface water would be frustrated," *id.* at 24. ⁽⁷⁴⁾ Based on these conclusions, the Commission decided that "[PMI] will be subject to special requirements including a duty to seek alternative sources when they are reasonably available in the near future" and that "Mililani Golf Course also has a duty to use alternative sources when they are reasonably available." *Id.* at 25.

PMI asserts that these rulings are arbitrary, capricious, and an abuse of discretion. They are nothing of the sort. First, although PMI asserts that it received different permit conditions than the allegedly similarly situated Mililani Golf Club (MGC), ⁽⁷⁵⁾ the Commission's decision in fact requires both PMI and MGC to use alternative sources when reasonably available. Moreover, even assuming that the Commission imposed exclusive restrictions on "nonagricultural use" not shared by other uses in this case, ⁽⁷⁶⁾ such measures lay squarely within the Commission's appointed function of weighing and negotiating competing interests in regulating the water resources of this state. See, e.g., HRS § 174C-31(d)(2), (k)-(m). PMI's bald allegations aside, nothing in the record suggests that the Commission's decision to subject golf course irrigation to different standards or conditions than other uses was arbitrary and capricious.

We also reject PMI's contention that the Commission engaged in illegal rulemaking in its distinctive treatment of "nonagricultural uses," see HRS § 91-1(4) (1993).⁽⁷⁷⁾ As we have previously recognized, the "line between [agency rulemaking and adjudication] is not always a clear one and in fact the two functions merge at many points." *Shoreline Transp., Inc. v. Robert's Tours & Transp., Inc.*, 70 Haw. 585, 591, 779 P.2d 868, 872 (1989) (citation omitted). In exploring this problematic distinction, therefore, we have adopted the general rule that "the choice between proceeding by general rule or by individual, ad hoc litigation is one that lies primarily in the informed discretion of the administrative agency." *Hawaiian Electric*, 81 Hawaii at 467, 918 P.2d at 569 (quoting *Chenery*, 332 U.S. at 203).

One useful distinction between rulemaking and adjudication is that "the former affects the rights of individuals in the abstract . . . [,] while [the latter] operates concretely upon individuals in their individual capacity." *Id.* at 466-67, 918 P.2d at 568-69 (quoting 1 Kenneth C. Davis, *Administrative Law Treatise* § 5.01 (1958)). In this case, the Commission was required by law to rule on the various competing permit applications, including that of PMI, by way of an adjudicative proceeding. See *Koolau Agricultural*, 83 Hawaii at 496, 927 P.2d at 1379 ("At the permitting stage, the Commission is required to determine the respective rights of water users; . . . contested case hearings pursuant to HRS chapter 91 are required."). Based on the evidence presented at the hearing, the Commission decided, in view of the particular water source in question and the specific competing interests involved, that it would hold certain uses to a higher standard than others. The Commission did not, as PMI and others allege, propose any general rules automatically applicable in all circumstances, but instead devised a principled solution to a specific dispute based on "facts applied to rules that have already been promulgated by the legislature," *Town v. Land Use Comm'n*, 55 Haw. 538, 548, 524 P.2d 84, 91 (1974) -- the definition of agency adjudication.

In rendering its decision, the Commission developed new policies and guidelines that may very well precedentially affect future cases involving the Waihole Ditch System and perhaps other water sources. Such a process does not constitute rulemaking. As we stated in *Hawaiian Electric*:

[I]n exercising its quasi-judicial function[,], an agency must frequently decide controversies on the basis of new doctrines, not theretofore applied to a specific problem, though drawn to be sure from broader principles reflecting the purposes of the statutes involved and from the rules invoked in dealing with related problems. If the agency decision reached under the adjudicatory power becomes a precedent, it guides future conduct in much the same way as though it were a new rule promulgated under the rule-making power

Shoreline, 70 Haw. at 591-92, 779 P.2d at 872 (citing *NLRB v. Wyman-Gordon Co.*, 394 U.S. 749, 770-71, 89 S.Ct. 1426, 1432, 22 L.Ed.2d 709 (1969) (Black, J., concurring)).

The United States Supreme Court also addressed this issue in *Chenery*, *supra*, and in its progeny, *Wyman-Gordon Co.*, *supra*, and *NLRB v. Bell Aerospace Co.*, 416 U.S. 267, 94 S.Ct. 1757, 40 L.Ed.2d 134 (1974). In *Chenery*, the Court explained:

[P]roblems may arise in a case which the administrative agency could not reasonably foresee, problems which must be resolved despite the absence of a relevant general rule. Or the agency may not have had sufficient experience with a particular problem to warrant rigidifying its tentative judgment into a hard and fast rule. Or the problem may be so specialized and varying in nature as to be impossible of capture within the boundaries of a general rule. In those situations, the agency must retain the power to deal with the problems on a case-to-case basis if the administrative process is to be effective. There is thus a definite place for the case-by-case evolution of statutory standards.

Chenery, 332 U.S. at 202-203, 67 S.Ct. At 1580.

As noted in subsequent Supreme Court decisions, "[a]djudicated cases may and do . . . serve as vehicles for the formation of agency policies, which are applied and announced therein," and such cases "generally provide a guide to action that the agency may be expected to take in future cases. Subject to the qualified role of stare decisis in the administrative process, they may serve as precedents." *Wyman-Gordon Co.*, 394 U.S. at 765-66, 89 S.Ct. at 1429 (emphasis in original). See *Bell Aerospace Co.*, 416 U.S. at 294, 94 S.Ct. at 1771.

Accordingly, we hold that giving precedential effect to prior commission decisions . . . does not constitute rule-making.

81 Hawaii at 467-68, 918 P.2d at 569-70 (some alterations in original) (footnote omitted).

The decisions cited by PMI, *Aluli v. Lewin*, 73 Haw. 56, 828 P.2d 802 (1992), and *Vega v. National Union Fire Ins. Co.*, 67 Haw. 148, 682 P.2d 73 (1984), are inapposite to this case. In *Aluli*, we invalidated air quality standards imposed by the Department of Health in an individual air pollution permit proceeding where the pertinent statute contemplated the development of the standards by rulemaking, and the matter in question, hydrogen sulfide emissions, was susceptible to "generalized" regulation. 73 Haw. at 58-59, 828 P.2d at 803-04. In *Vega*, we simply confirmed that a rule "touch[ing] the affairs of the entire public and delineat[ing] the future rights of an entire class of unnamed individuals" was indeed a "rule" subject to the rulemaking procedures of HAPA. 67 Haw. at 155-56, 682 P.2d at 78 (quoting *Aguiar v. Hawaii Hous. Auth.*, 55 Haw. 478, 485-86, 522 P.2d 1255, 1261 (1974)) (brackets and internal quotation marks omitted). Here, in contrast to *Aluli*, neither the Code nor the regulated subject matter favors the promulgation of universally applicable standards through rulemaking. Unlike the Insurance Commissioner in *Vega*, therefore, the Commission chose to develop the statutory standards on an ad hoc basis instead of "rigidifying its tentative judgment into a hard and fast rule." *Hawaiian Electric*, 81 Hawaii at 468, 918 P.2d at 570 (quoting *Chenery Corp.*, 332 U.S. at 202).

In this regard, the present case more closely parallels *Hawaiian Electric*, wherein we held that, in light of the uncertain health effects of electromagnetic fields, the Public Utilities Commission properly decided whether to place electric transmission lines underground by way of adjudication rather than rulemaking. See *id.* at 468-69, 471-72, 918 P.2d at 570-71, 573-74. Likewise, we do not believe that the Commission abused its discretion in pursuing the case-by-case evolution of water use policy through adjudicative proceedings such as the instant hearing. We thus hold that the Commission's distinctive treatment of "nonagricultural uses" in its decision did not constitute "illegal rulemaking."

d. Application of the Commission's Standards

Our affirmance of the distinct standards for nonagricultural uses developed by the Commission in this case leads us to WWCA's allegation that the Commission failed to apply these standards to PMI's permit application. The Commission required PMI and MGC to use alternative sources when "reasonably available," observing that the use of diverted stream water for golf course irrigation in an arid region would not be reasonable-beneficial if alternatives were available. As we previously stated, see *supra* Part III.F.1., and the Commission itself recognized, see *supra* note 76, all users have a duty to seek practicable alternatives when faced with conflicting public interests. Regarding PMI specifically, however, WWCA asserts that the Commission failed to consider alternative sources already available to PMI, namely, pumped ground water.

PMI adduced testimony, and the Commission found, that the original developers had planned to use caprock well water to irrigate the golf course under much "rosier" economic conditions than the present. FOF 462. This offers little insight regarding the current practicability of using such water. In its brief, PMI declares that requiring PMI to use the caprock well water "would render the PMI golf course economically unfeasible." Although we question the relevance of PMI's current ability to pay for water, the record demonstrates, in any event, that an alternative supply of ground water would cost a blended rate of 58 cents per thousand gallons to various leeward users, including PMI, as opposed to the \$1.20 per thousand gallons that PMI pays for Waihole Ditch water.

The grant of PMI's requested allocation without any reasoned discussion of the practicability of using ground water stands at odds with the Commission's own analysis and decision concerning nonagricultural uses. We vacate PMI's permit and remand for further proceedings in accordance with the decisions of the Commission and this court.

5. Twelve-Month Moving Average

WWCA objects to the Commission's use of the 12-Month Moving Average (12-MAV) to measure leeward uses. According to WWCA, the 12-MAV allows "almost unlimited" diversions at any given time, but especially during drier summer months, so long as these diversions are offset by below-average use over the rest of the year. This arrangement, WWCA argues, reduces the incentive to conserve water and frustrates efforts at instream use protection.

As noted previously, the Commission found that high, consistent base flows "throughout the year" was "essential" to the stream and estuary ecosystem. Despite this finding, the Commission did not address the practical effect of the 12-MAV on the base flows of windward streams, but simply observed: "The 12-MAV allows for seasonal fluctuation [in offstream demand], and is generally used for all water use reporting requirements." D&O at 12. This blanket rationale ignores the apparent differences between stream diversions and uses of water from other sources such as basal aquifers. ⁽⁷⁸⁾

The Commission and Campbell Estate argue that the release of unused water into the streams and the requirement that permittees pay for their water use provide adequate safeguards. Even if properly limited to actual need, however, offstream uses may still subject windward streams to extreme and potentially harmful fluctuations in base flow over the course of a year. No one disputes the variable nature of agricultural water demand and the corresponding need for flexibility. Nowhere in its decision, however, did the Commission fulfill its duty to consider the impact of fluctuating diversions on instream base flows and the practicability of adopting specific measures to mitigate this impact.

We vacate and remand this portion of the Commission's decision. In order to mitigate the impact of variable offstream demand on instream base flows, the Commission shall consider measures such as coordination of the times and rates of offstream uses, construction and use of reservoirs, and use of a shorter time period over which to measure average usage, see, e.g., HAR § 13-171-14(b) (1988) (requiring the Commission to consider a three-month average in measuring existing uses). ⁽⁷⁹⁾ If necessary, the Commission may designate the WIIFS so as to accommodate higher offstream demand at certain times of the year. See HRS § 174C-3 (defining "instream flow standard" as a quantity, flow, or depth of water "required to be present . . . at certain specified times of the year" (emphasis added)).

G. USE OF KAHANA STREAM SURFACE WATER TO COMPENSATE FOR DITCH "SYSTEM LOSSES"

WWCA also contests the Commission's use of 2.1 mgd from Kahana Stream to cover operational losses from the ditch system. In its proposed decision, the Commission denied the request of the ditch operator for 2.0 mgd "as recognition of system losses as a use" and ruled that such losses "shall be considered a part of each permitted use in the system, and shall be subject to the overall cap within each permit . . . [, and] shall be identified and addressed in the proposed implementation plan[, see supranote 79]." In the final decision, the Commission again formally denied the request application. D&O at 11. Conceding that "operational losses occur," however, the Commission declared: "Because there was no evidence presented concerning any present demand for the use of Kahana water, and because water should not be wasted, the Commission temporarily recognizes that 2.1 mgd Kahana surface water corresponds approximately to operational losses." Id. at 5-6. The Commission also asserted that it lacked jurisdiction over the permitting of Kahana surface water and announced its intention to initiate the process of designating the Kahana watershed as a surface water management area. Id. at 6.

We perceive several defects in the Commission's reasoning. First and most troublesome is the suggestion that retaining water in streams constitutes waste, contrary to the public trust mandate of protection. Second, apart from any water management area designation, the Commission has jurisdiction "to hear any dispute regarding water resource protection, water permits, or constitutionally protected water interests," see HRS § 174C-10 (1993), ⁽⁸⁰⁾ and to investigate and "take appropriate action" in response to WWCA's allegation that the ditch is wasting water due to deficient operation and upkeep, see HRS § 174C-13 (1993). ⁽⁸¹⁾ Third, in relying on a lack of evidence to justify inaction, the Commission ignores its own affirmative duty under the public trust and statutory instream use protection scheme to investigate, consider, and protect the public interest in the flow of Kahana stream. The Commission apparently recognized this duty when it considered the petition to designate Windward Oahu as a surface water management area in 1992. The Commission decided not to act on the petition at that time based on the staff recommendation that "designation of ground water protects surface waters and is essentially comparable to designation of surface water in [the Kahana, Koolau Poko, and Waimnalo] aquifer systems." In the present case, however, the Commission concluded that, without designating a surface water management area, it lacks "jurisdiction" to permit or otherwise regulate surface water diversions from Kahana stream.

The Commission's rationale would apply to any surface water diversion from windward watersheds; taken to its extreme, it would allow anyone to evade the permit requirement by simply diverting the same water from above, rather than below, the ground. Although the Code presumes the prior designation of a water

management area in its permit requirement, see HRS § 174C-48 (1993), and prescribes different criteria for the designation of surface and ground water management areas, see HRS §§ 174C-44, -45 (1993 & Supp. 1999), these provisions should not be construed so rigidly as to create an absurdity, or worse yet, to circumvent the Commission's constitutional and statutory obligations. The Commission recognized the integrated nature of the waters collected by the ditch in its present decision. See also HAR § 13-169-20(3) ("Recognition shall be given to the natural interrelationship between surface and ground waters."). This court has similarly looked beyond artificial surface-ground distinctions with the understanding that "all waters are part of a natural watercourse . . . constituting a part of the whole body of moving water." *Reppun*, 65 Haw. at 555, 656 P.2d at 73 (citation omitted); see also *supra* Part III.B.3.a. Given the undisputed direct interrelationship between the surface and ground waters in this case, therefore, we hold that the designation of Windward Oahu as a ground water management area subjects both ground and surface water diversions from the designated area to the statutory permit requirement.

WWCA argues that the allocation of water for operational losses is wasteful and discourages system repairs. Campbell Estate counters that such losses are necessary and inevitable and compare favorably with other systems nationwide.

We express no opinion on this issue at this time, but merely decide that the Commission must scrutinize such an allocation as it would any other proposed "use," pursuant to the permitting process. On remand, the Commission shall consider the permit application for 2.0 mgd to cover system losses and determine whether this request is appropriate given the still uncertain public interest in instream flows, and based on actual need and any practicable mitigating measures, including repairs to the ditch system.

H. KSBE'S POINTS OF ERROR⁽⁸²⁾

1. Zoning Requirement

In its permit application, KSBE requested 4.2 mgd for, *inter alia*, golf course and landscaping uses in connection with its proposed "Waiawa by Gentry" development. The Commission denied the request without prejudice to reapplication "at such time that [KSBE] obtains the proper land use classification, development plan approvals, and zoning changes, and when it may be determined that the actual use of water will commence within a reasonable time frame for a proposed project."⁽⁸³⁾ COLs at 27. KSBE asserts that the Commission erred in concluding that KSBE's proposed water uses must conform with zoning classifications in addition to other, more general land use plans and policies.

To begin, KSBE does not dispute the Commission's finding that, although Phase I of the development had received development plan approval, Phase II had not. FOF 496. Much of KSBE's requested 4.2 mgd allocation related to Phase II of the development.⁽⁸⁴⁾ With respect to that part of the application, therefore, KSBE's objection fails on its own terms.

HRS § 174C-49(a) requires permit applicants to establish that their proposed use, *inter alia*: "(5) is consistent with state and county general plans and land use designations; [and] (6) is consistent with county land use plans and policies" (Emphasis added.) Zoning is nothing other than a "land use designation." Although KSBE argues that zoning classifications merely "implement" the development plans, it cannot erase the practical, legally established distinction between the two. See Revised Charter of the City and County of Honolulu § 5-408 (1994) ("development plans"); *id.* § 6-907 ("zoning ordinances"); see also *GATRI v. Blane*, 88 Hawaii 108, 112-15, 962 P.2d 367, 371-74 (1998) (rejecting the argument that community general plan had no independent force and effect apart from zoning). Given the plain language of the statute, we cannot say that the Commission erred in requiring compliance with county zoning classifications.

2. Unified Regulation of the Ditch System

KSBE also objects to the Commission's treatment of the Waihole Ditch System as a single integrated unit for regulatory purposes.⁽⁸⁵⁾ As KSBE points out, the part of the system underlying its Waiawa lands on the leeward side of the Koolaus and the part collecting water from the windward side lie in separate hydrologic units: respectively, the Pearl Harbor ground water management area and the Koolau Poko and Kahana ground water management areas. KSBE contends that the Commission exceeded its statutory authority and the bounds of reason by collectively regulating water drawn from different hydrologic units.

All the lands in question lie within designated water management areas and, thus, fall under the Commission's general permitting authority, see HRS § 174C-48. KSBE, however, argues that the Commission, by regulating separate water management areas in one proceeding, effectively created a new, consolidated water management area without complying with the statutorily mandated procedures, see HRS §§ 174C-41 to -47 (1993 & Supp. 1999). We disagree. The cited provisions merely describe the procedures for water management area designation; in no way do they require the Commission, once it establishes water management areas, to regulate them on a compartmentalized basis. Indeed, the Code's abolition of any common law restrictions against water transfers and uses "beyond overlying land or outside the watershed," HRS § 174C-49(c) (1993), tends to belie such an approach. The Commission, of course, must designate water management areas based on specific findings relating to each particular area. See HRS §§ 174C-44, -45. But independent designation does not preclude consolidated regulation where, as here, a water delivery system draws water from several different water management areas.

Other provisions invoked by KSBE fail to support, or flatly contradict, its argument that the Commission must regulate water by hydrologic units. HRS § 174C-50(h) (1993) addresses competition arising between existing uses when "they draw water from the same hydrologically controllable area and the aggregate quantity of water consumed by the users exceeds the appropriate sustainable yield or instream flow standards established pursuant to law for the area." (Emphasis added.) The Code defines "hydrologic unit" as "a surface drainage area or a ground water basin or a combination of the two," HRS § 174C-3, but does not define "hydrologically controllable area." The plain reading of the latter term indicates that the area "controlled" by the ditch system qualifies, irrespective of "hydrologic units."

HRS § 174C-53(b) (1993) requires the Commission, in acting on a permit application, to consider only "those objections filed by a person who has some property interest in any land within the hydrologic unit from which the water sought by the applicant is to be drawn or who will be directly and immediately affected by the water use proposed in the application." (Emphases added.) Notwithstanding the alleged independence of the hydrologic units involved, allocations from the leeward portion of the ditch system "directly and immediately" affect the windward parties insofar as any allocation of the leeward supply proportionately reduces the amount of water otherwise demanded from windward streams. By its terms, therefore, HRS § 174C-53(b) allows the consolidated regulation of a single diversion works such as the Waihole Ditch System.

Finally, although KSBE insists that the Commission must manage the "source" of water, the very provision it cites states:

"Water source" means a place within or from which water is or may be developed, including but not limited to: (1) generally, an area such as a watershed defined by topographic boundaries, or a definitive ground water body; and (2) specifically, a particular stream, other surface water body, spring, tunnel, or well or related combination thereof."

HRS § 174C-3 (emphasis added).

HAR § 13-167-31 (1988) expressly authorizes the Commission to combine related proceedings, providing:

Consolidations. The commission, upon its own initiation or upon motion, may consolidate for hearing or for other purposes or may contemporaneously consider two or more proceedings which involve substantially the same parties or issues which are the same or closely related, if it finds that the consolidation or contemporaneous hearing will be conducive to the proper dispatch of its business and to the ends of justice and will not unduly delay the proceedings.

KSBE criticizes the Commission's unified treatment of the ditch system as "arbitrary, capricious and inconsistent with the laws of gravity," "patently absurd" and "fictitious." Initially, apart from pointing out that water flows leeward by force of gravity through the manmade tunnel underlying its lands, KSBE has not proven that the water developed in its lands would not, under natural conditions, find its way windward, thereby affecting windward stream flows. In any event, we believe that the Commission's consolidated approach in this case demonstrates due regard for the direct and inevitable interrelationship among the waters collected by the ditch system. Given the system's existence and continued operation, we consider it no more absurd or fictitious a unit of regulation than the various "aquifer systems" and "sectors," "hydrologic units," and "water management areas" it traverses.⁽⁸⁶⁾

For the foregoing reasons, we hold that the Commission did not err in regulating the Waihole Ditch infrastructure as a unified system. The consolidated regulation of a single diversion works comports entirely with the Commission's function of comprehensive water planning and management.

3. "*Alii Rights*"

KSBE alleges that the Commission wrongfully ignored and abridged its "alii rights" in denying its permit application. In essence, KSBE claims "sovereign prerogatives" over water along the lines recognized in *McBryde* and its progeny, by virtue of its status as "the legacy of the Kamehameha alii."⁽⁸⁷⁾

We have held that the state has a public trust duty to protect Native Hawaiian rights to water. We also acknowledge KSBE's unique background as a charitable trust founded by a Native Hawaiian alii. Whatever legal significance this legacy may carry, however, it certainly does not grant KSBE "absolute" or "undiminished" right to all the water connected with its lands. KSBE's claim of sovereign right, first of all, must ultimately yield to the sovereign to which it appeals. See Haw. Const. art. XII, § 7 (providing that traditional and customary rights are subject to "the right of the State to regulate such rights"). To the extent that the alii exercised sovereign authority over water, they received such authority by delegation from the sovereign.⁽⁸⁸⁾ Pursuant to constitutional and statutory mandate, final delegated authority presently resides in the Commission, to be exercised for the benefit of the people of the state. See Haw. Const. art. XI, § 7; HRS § 174C-7(a).

Moreover, as our prior case law makes clear, it is fruitless to speak of "sovereign rights" apart from "sovereign responsibilities." See, e.g., *Reppun*, 65 Haw. at 547-48, 656 P.2d at 68-69 (pointing out the "fundamental mistake" in the "separation of the 'right' to control water from its concomitant 'duty'").⁽⁸⁹⁾ KSBE undertakes no substantive discussion of any sovereign duties owed to the common good. See *supra* Part III.B. In this regard, KSBE does little more than revive the same claims of absolute right to water previously disapproved by this court. See, e.g., *McBryde*, 54 Haw. at 184-87, 504 P.2d at 1337-39; cf. *Peck*, 8 Haw. at 661-63 (rejecting the claim that the owner of the larger part of an ahupuaa had superior rights as "lord paramount"). We need not repeat the analysis ably presented in those decisions in disposing of KSBE's argument here.

4. *Correlative Rights*

Two parties to this appeal, KSBE and Castle, assert "correlative rights" to ground water collected by the ditch. Castle's predecessor originally applied for a permit as the "owner" of the Uwau Tunnel of the ditch system and the approximately 2.7 mgd of ground water derived therefrom. The Commission did not address the ownership claim in granting Castle a permit; on appeal, Castle merely defends its permitted allocation as a protected "existing correlative use." KSBE has gone further in maintaining throughout that it "owns" the ground water drawn by the ditch from its lands.

Castle and KSBE base their claims on this court's decision in *City Mill Co. v. Honolulu Sewer & Water Comm'n*, 30 Haw. 912 (1929). In that case, the appellant City Mill petitioned the Honolulu Sewer and Water Commission for a permit to drill an artesian well on its property. See *id.* at 918. The commission denied the application based on evidence that the new well would further threaten the already overburdened ground water supply. *Id.* at 921.

On appeal, the court first reviewed the common law rules governing ground waters:

Three doctrines have been advanced by courts and text writers which bear more or less directly on this subject. One referred to in the argument of this case and in some of the books as "the common-law doctrine" is that an individual owner of a piece of land, who has the good fortune to sink successfully an artesian well on his [or her] land, is the absolute owner of all the water that naturally flows from the well or that can be drawn therefrom by any pump, however powerful, and that he [or she] may use the water as he [or she] pleases and may conduct it to supply lands and communities at any distance from his [or her] own piece or parcel of land and may even waste it. Another, sometimes called "the reasonable use doctrine," is that an individual owner of land possessing such a well may use all of the waters flowing from the well by nature or obtainable therefrom by pumping, provided the water is used on his [or her] own land only, but that he [or she] may so use it either for domestic purposes or for irrigation or for the maintenance of factories or other

industrial purposes. Under this rule there is no limit to the quantity of water that may be used, provided it is used on the owner's land. The third is known as "the rule of correlative rights" and is to the effect that all of the owners of lands under which lies an artesian basin have rights to the waters of that basin; that each may use water therefrom as long as he [or she] does not injure thereby the rights of others and that in times when there is not sufficient water for all each will be limited to a reasonable share of the water. Under this third rule a diversion of water to lands other than that of origin might, perhaps, be permitted under some circumstances and not under others and certain larger uses, as for industrial purposes, might, perhaps, not be permitted on even the land of origin under some circumstances while being permitted under others.

Id. at 922-23 (emphasis added). After eschewing the "common-law rule" as "unsound" and inconsistent with the free-flowing nature of underground waters, the court adopted the "correlative rights rule," to the effect that:

Each [landowner] should so exercise his right as not to deprive others of their rights in whole or in part. In times of plenty greater freedom of use probably can be permitted and ordinarily would be permitted without question. In times of greater scarcity or of threatened scarcity or deterioration in quality of the waters, all would be required under this view to so conduct themselves in their use of the water as not to take more than their reasonable share.

Id. at 925.⁽⁹⁰⁾

Having determined the nature of plaintiff's rights to ground water, the court reversed the commission's denial of plaintiff's permit application for the construction of a new well. The police power, the court held, did not "justify, under the showing made in this case, the prohibition of the appellant's proposed well while at the same time permitting all existing wells to continue to be operated without diminution." Id. at 946.

This state continues to recognize the "correlative rights rule." See Haw. Const. art. XI, § 7 (referring to "correlative uses"); HRS § 174C-27(a) (1993) (same); Reppun, 65 Haw. at 555-56 n.16, 656 P.2d at 73 n.16 (citing City Mill).⁽⁹¹⁾ As this court noted in Reppun, however, "groundwater rights have never been defined with exactness and the precise scope of those rights have always remained subject to development." 65 Haw. at 556 n.16, 656 P.2d at 73 n.16. In City Mill, the court only decided that the state could not arbitrarily prevent one landowner's use while allowing other landowners' uses freely to continue and saw "no necessity, therefore, of stating with exactness the precise principles which should govern the admeasurement of the share of each [land]owner." 30 Haw. at 933.

As a preliminary matter, we affirm the Commission's conclusion that the rule of correlative rights applies to all ground waters of the state. COLs at 29.⁽⁹²⁾ As the Commission observed, although the facts of City Mill involved "artesian" waters specifically, the decision offers no sound basis for distinguishing "artesian" water from any other category of ground water, including the dike-impounded "percolating" waters involved in this case.⁽⁹³⁾ Modern hydrology has erased the traditional distinctions among ground water categories. See Tarlock, *supra*, § 4:5. Present knowledge and necessity have also compelled states to abandon the "absolute dominion" or "common law" rule, which imposed no limitation on a landowner to drain "percolating" water to the injury of his or her neighbors. See *id.* §§ 4:7 to 4:18; City Mill, 30 Haw. at 926-33 (recognizing the general trend away from the rule of absolute ownership). The City Mill court avoided the issue, stating that the common law rule "may, or it may not, be applicable to waters merely oozing in or seeping through soil." 30 Haw. at 924. Presented with it here, we adopt the correlative rights rule in City Mill in relation to all the ground water resources of our state. To the extent that previous cases may be construed as following the "absolute dominion rule" for certain ground water categories, see *Davis v. Afong*, 5 Haw. 216, 222-23 (1884); *Wong Leong v. Irwin*, 10 Haw. 265, 270 (1896), they are hereby overruled.

Turning to the instant case, we note that Castle and KSBE's "correlative rights" claims exceed the scope of such rights at common law. Castle asserts a right to use ground water drawn from its windward lands on distant leeward lands. Correlative rights, however, extend only to uses on lands overlying the water source. See *Katz v. Walkinshaw*, 74 P. 766, 772 (Cal. 1903). Parties transporting water to distant lands are deemed mere "appropriators," subordinate in right to overlying landowners. See *id.*; *Wright*, 219 Cal. Rptr. at 749; Tarlock, *supra*, § 4:14. Castle can thus claim no "correlative rights" in this case.

As for KSBE, the correlative rights rule grants overlying landowners a right only to such water as necessary for reasonable use. See *Katz*, 74 P. at 772; *City Mill*, 30 Haw. at 932 ("[E]ach landowner is restricted to a reasonable exercise of his [or her] own rights and a reasonable use of his [or her] own property, in view of the similar rights of others." (quoting *Meeker v. City of East Orange*, 74 A. 379, 380 (N.J. 1909))). Until overlying landowners develop an actual need to use ground water, nonoverlying parties may use any available "surplus." See *Katz*, 74 P. at 772; *Wright*, 219 Cal. Rptr. at 747. In this case, KSBE was asserting correlative rights to use water for landscaping purposes prior to obtaining the necessary land use approvals for its proposed development. The Commission thus properly denied KSBE's application as premature, without addressing the reasonableness of KSBE's proposed use.

Even apart from the correlative rights Castle and KSBE may have at common law, however, the Water Code establishes a different order of priority that governs this case. As currently structured, the Code establishes a "bifurcated system of water rights." *Koolau Agricultural*, 83 Hawaii at 491, 927 P.2d at 1374. "In [water management areas], the permitting provisions of the Code prevail; water rights in non-designated areas are governed by the common law." *Id.* In this case, the lands from which Castle and KSBE seek ground water lie in ground water management areas. Any determination of their rights, therefore, must proceed according to the relevant Code provisions, rather than the common law.

Article I, section 7 of the Hawaii Constitution mandates that the Commission "assur[e] appurtenant rights and existing correlative and riparian uses." (Emphases added.) The legislature preserved this distinction in the Code. HRS § 174C-27, for example, provides that the existing usage validated in certificates issued by the Commission "shall be recognized by the commission in resolving claims relating to existing water rights and uses including appurtenant rights, riparian and correlative use." (Emphases added.)

HRS § 174C-63 states in relevant part: "Appurtenant rights are preserved. Nothing in this part shall be construed to deny the exercise of an appurtenant right by the holder at any time. A permit for water use based on an existing appurtenant right shall be issued upon application." See also HRS § 174C-101(d) ("The appurtenant water rights of kuleana and taro lands, along with those traditional and customary rights assured in this section, shall not be diminished or extinguished by a failure to apply for or receive a permit under this chapter."). The Code contains no comparable provisions preserving riparian and correlative "rights." HRS § 174C-50(b) requires the Commission to issue permits for existing uses upon compliance with the proper procedures, see *supra* Part III.F.4.a (definition of "existing use"), provided that they are reasonable and beneficial. HRS § 174C-49(a)(3) conditions permits for "new" uses on the applicant showing that the use "will not interfere with any existing legal use of water." (Emphasis added.) When existing uses are "competing," however, the Code grants the Commission discretion, after a hearing, "to determine the quantity of water that may be consumed and the conditions to be imposed on each existing use." HRS § 174C-50(h).

Finally, although the common law rules of riparian and correlative rights impose certain restrictions on the export of water out of the watershed or to nonoverlying lands, the Code expressly provides:

The common law of the State to the contrary notwithstanding, the commission shall allow the holder of a use permit to transport and use surface or ground water beyond overlying land or outside the watershed from which it is taken if the commission determines that such transport and use are consistent with the public interest and the general plans and land use policies of the State and counties.

HRS § 174C-49(c).

The foregoing provisions, therefore, reflect the legislative purpose of substituting, in designated management areas, a comprehensive regulatory system based on permits issued by the Commission in place of the common law regime of water rights administered by the courts. See generally *Tarlock*, *supra*, §§ 3:89 to 3:100 (reviewing statutory modifications of common law riparian rights); *infra* note 98. Under the statutory permitting process, common law riparian and correlative rightholders receive priority 1) to the extent that they have established an "existing" use that a) comports with the common law rules and b) is reasonable and beneficial, but only 2) in relation to "new" uses. See *Conf. Comm. Rep. No. 119*, in 1987 House Journal, at 1069 ("Appurtenant rights may not be lost. Riparian and correlative uses are protected in designated areas." (emphases added)); *Koolau Agricultural*, 83 Hawaii at 492, 927 P.2d at 1375 ("Existing uses are given preferences under the Code; that preference is lost, however, if the existing user fails to apply for a permit to continue the existing use.").

Neither Castle nor KSBE have established an existing legal correlative use in the present case. Castle and KSBE thus cannot claim any superior right or entitlement to a permit in relation to any other permit applicant under the Code. Consequently, the Commission's conclusions that "the ability to transport water away from its overlying land or area of origin is . . . subject to other superior claims," COLs at 31, and that "[KSBE] has correlative rights to ground water underlying its land," *id.* at 30, have no bearing on the statutory permitting process and, in this case, amount to mere academic legal commentary.

To summarize, Castle and KSBE have not established any entitlement to water under the traditional scope of the common law rule of correlative rights. In any event, under the controlling Code permitting provisions, Castle and KSBE have no superior "right" to a permit because they have not established any "existing" correlative uses.

5. *KSBE's Takings Claim*

Having reviewed the legal foundation of KSBE's claims of right, we address KSBE's allegation that the Commission has effected an unconstitutional "taking" of KSBE's property without just compensation⁽⁹⁴⁾ by denying KSBE's request to use such water and allocating it to other leeward parties. First of all, we have held that the Commission properly denied KSBE's permit application for noncompliance with the statutory conditions, see Part III.I.1. KSBE's takings claim is thus entirely premature. See *PASH*, 79 Hawaii at 452, 903 P.2d at 1273 (citing *Williamson County Regional Planning Comm'n v. Hamilton Bank*, 473 U.S. 172, 185-86 (1984); *Robinson v. Ariyoshi*, 887 F.2d 215 (9th Cir. 1989)).

But KSBE's argument suffers from more fundamental flaws. KSBE relies on *City Mill* in insisting that it "owns all of the ground water underlying its lands." That case, in fact, expressly rejected the notion of absolute ownership advanced by KSBE. See 30 Haw. at 923-24. Moreover, contrary to KSBE's reading, *City Mill* stands for the narrow proposition that, all things being equal, the government cannot entirely prevent one landowner from using ground water while allowing the uses of other landowners to continue unabated.⁽⁹⁵⁾ It does not preclude the regulation of water uses pursuant to a comprehensive system designed to ensure the highest and best use of the state's water resources, or grant landowners absolute ownership of underlying ground water free from such regulation.⁽⁹⁶⁾

It is generally recognized that a simple private ownership model of property is conceptually incompatible with the actualities of natural watercourses. Rather, the variable and transient nature of the resource, as well as the necessity of preserving its purity and flow for others who are entitled to its use and enjoyment have led to water rights being uniformly regarded as usufruct[ua]ry and correlative in nature.

Robinson, 65 Haw. at 667, 658 P.2d at 305-06 (emphases added); see also *City Mill*, 30 Haw. at 925-27 (acknowledging the fluid and migratory nature of water in rejecting the rule of absolute ownership). In line with this understanding, the correlative rights rule of *City Mill* does not describe an unqualified right of ownership, but a limited, situational right of use contingent at all times on numerous variables. See *id.* at 931 (recognizing the "strong trend" away from the doctrine of "unlimited and irresponsible control" towards a rule considering various factors according to the maxim that one cannot exercise rights to the injury of others (quoting *Gagnon v. French Lick Springs Hotel Co.*, 72 N.E. 849, 852 (Ind. 1909))). KSBE emphasizes one aspect of the rule, the priority given to uses of overlying landowners. The rule, however, also includes an element of "reasonableness," which requires examination of the purpose, manner, and quantity of the proposed use both in the abstract and in relation to other uses, and with due regard to the available water supply and broad issues of public policy. See *id.* at 930 ("[E]ach landowner may use such water only in a reasonable manner and to a reasonable extent upon his [or her] own land and without undue interference with the rights of other landowners to a like use and enjoyment" (quoting *Patrick v. Smith*, 134 P. 1076, 1079 (Wash. 1913))).⁽⁹⁷⁾ Consequently, depending on the situation, a landowner could be entitled to certain uses of water but not others. Even established uses could later fall into disfavor. A severe shortage could foreclose use altogether. Usufructuary water rights, in sum, "have always been incomplete property rights, so the expectations of [rightholders] to the enjoyment of these rights are generally weaker than the expectation of the right to exploit the full value of dry land." *Tarlock*, *supra*, § 3:92, at 3-153. See also *Model Water Code*, *supra*, ch. 2 commentary at 165-68 (recognizing the uncertainty of riparian rights and the corresponding absence of a "property interest in those particular rules of distribution prevailing at any time"); Joseph L. Sax, *The Constitution, Property Rights and the Future of Water Law*, 61 U. Colo. L. Rev. 257, 267-69 (1990) [hereinafter *Sax, Water Law*] (explaining how "change is the unchanging chronicle of water jurisprudence").

In the interest of protection and maximum beneficial use of water resources, numerous states have enacted legislation replacing common law rights, particularly those not yet converted into actual reasonable and beneficial use, with "administrative rights" based on permit systems. See Model Water Code, *supra*, ch. 1 commentary at 78-79 (identifying three advantages of permit systems over common law rights regimes: 1) the agency makes its decisions before disputes have erupted into litigation; 2) the agency makes its decisions on a comprehensive, rather than piecemeal, basis; and 3) agency decisionmakers are experts and base their decisions on long-range plans).⁽⁹⁸⁾ Pursuant to article XI, section 7 of its constitution, this state has followed suit. Courts in other jurisdictions have sustained such regulation against constitutional challenge. See *Omernik v. State*, 218 N.W.2d 734 (Wis. 1974); *Omernick [sic] v. Department of Natural Resources*, 238 N.W.2d 114 (Wis.), cert. denied, 425 U.S. 941 (1976); *Village of Tequesta v. Jupiter Inlet Corp.*, 371 So.2d 663 (Fla.), cert. denied, 444 U.S. 965 (1979); *Town of Chino Valley v. City of Prescott*, 638 P.2d 1324 (Ariz. 1981) (en banc), appeal dismissed, 457 U.S. 1101 (1982); *Cherry v. Steiner*, 543 F. Supp. 1270 (D. Ariz. 1982), *aff'd*, 716 F.2d 687 (9th Cir. 1983), cert. denied, 466 U.S. 931 (1984).⁽⁹⁹⁾ They join many others that have validated statutes taking the seemingly more substantial step of abolishing unexercised common law riparian or ground water rights in order to accommodate the development of private appropriative rights.⁽¹⁰⁰⁾

The foregoing courts have primarily justified the disputed regulations based on the police power. See, e.g., *Omernik*, 218 N.W.2d at 743; *Tequesta*, 317 So.2d at 670; *Knight*, 127 N.W.2d at 711-14; *California-Oregon Power*, 73 F.2d at 567-69; cf. *Hudson County Water Co. v. McCarter*, 209 U.S. 349, 356 (1908) (averring that the public interest in substantially undiminished rivers is "omnipresent" and "fundamental" and that "private property . . . cannot be supposed to have deeper roots"). While this rationale is compelling in itself, the Code rests on the further principle that the state holds all waters of the state in trust for the benefit of its people. As stated previously, the reserved sovereign prerogatives over the waters of the state precludes the assertion of vested rights to water contrary to public trust purposes. This restriction preceded the formation of property rights in this jurisdiction; in other words, the right to absolute ownership of water exclusive of the public trust never accompanied the "bundle of rights" conferred in the Mhele. See *Robinson*, 65 Haw. at 677, 658 P.2d at 312; see also *PASH*, 79 Hawaii at 442-447, 903 P.2d at 1263-68; cf. *California-Oregon Power*, 295 U.S. 142 (holding that federal land patents issued after the enactment of the Desert Land Act carried with them no common law water rights); *State v. Valmont Plantations*, 346 S.W.2d 853 (Tex. Ct. App. 1961) (holding that Spanish and Mexican riparian land grants did not include appurtenant irrigation rights), *aff'd*, 355 S.W.2d 502 (Tex. 1962). Even beyond the police power, therefore, the original limitation of the public trust defeats KSBE's claims of absolute entitlement to water. See *PASH*, 79 Hawaii at 452, 903 P.2d at 1273 (acknowledging that "the government assuredly can assert a permanent easement that reflects a pre-existing limitation upon the landowner's title" (quoting *Lucas v. South Carolina Coastal Council*, 505 U.S. 1003, 1028-29 (1992)) (internal quotation marks, ellipsis, and brackets omitted)); cf. *Mississippi State Highway Comm'n v. Gilich*, 609 So.2d 367, 375 (Miss. 1992) (holding that landowners had no right to compensation with respect to beach land held in trust by the state for public use); *Wilson v. Commonwealth*, 583 N.E.2d 894, 901 (Mass. Ct. App. 1992) (noting that, if the public trust were found to apply, "plaintiffs, from the outset, have had only qualified rights to their shoreland and have no reasonable investment-backed expectations under which to mount a taking challenge"), *aff'd in part and rev'd in part*, 597 N.E.2d 43 (Mass. 1992); *State v. Slotness*, 185 N.W.2d 530, 533 (Minn. 1971) ("Riparian rights . . . are held subject to the stated public rights in navigable waters, and the mere exercise of those public rights does not constitute a taking of riparian property."). As such, neither the enactment of the Code nor the denial of KSBE's permit application thereunder effected an unconstitutional taking.⁽¹⁰¹⁾

6. *Ankersmit's Testimony*

KSBE finally contends that the Commission erred by refusing to qualify one of KSBE's witnesses, Barbara Ankersmit (Ankersmit), as an expert and by striking her testimony. At KSBE's request, Ankersmit had conducted a public opinion poll of approximately 1,600 adult Oahu residents regarding the direction of future growth on Oahu and the allocation of water from Waihole Ditch System. During the hearing, the Commission initially sustained an objection to Ankersmit's qualifications, allowing her to testify nonetheless about the survey, then struck her testimony in its entirety, stating that "this particular information is irrelevant."

We review determinations of expert qualifications under the abuse of discretion standard. See *State v. Rodriguez*, 67 Haw. 70, 73-74, 679 P.2d 615, 618 (1984). An abuse of discretion occurs when the decisionmaker "exceeds the bounds of reason or disregards rules or principles of law or practice to the

substantial detriment of a party." *Bank of Hawaii v. Kunimoto*, 91 Hawaii 372, 387 984 P.2d 1198, 1213 (1999).

Hawai'i Rules of Evidence (HRE) Rule 702 (1993) provides for the qualification of an expert "by knowledge, skill, experience, training, or education." KSBE proffered Ankersmit as a "public opinion" expert. Ankersmit testified regarding her extensive experience in the field of public opinion polling, spanning 23 years and "over 2000" surveys for various private and government organizations. The objecting party presented no specific rebuttal to her qualifications. Based on the record, we hold that the Commission abused its discretion by declining to qualify Ankersmit as an expert.

We do not believe, however, that the Commission erred in excluding Ankersmit's testimony as irrelevant. We review evidentiary rulings concerning admissibility based on relevance under the right/wrong standard. See *State v. Staley*, 91 Hawaii 275, 281, 982 P.2d 904, 910 (1999). KSBE asserts that the public opinion poll was relevant to whether its proposed water use was "consistent with the public interest," HRS § 174C-49(a)(4). Even assuming the accuracy of Ankersmit's findings, nothing in the constitution or Code identifies current public opinion as a relevant consideration in the comprehensive, long-term regulatory process implemented by the Commission. We agree with the Commission that a public opinion poll taken at random, without regard to the respondents' background or knowledge concerning the relevant issues, has no bearing on the Commission's constitutionally and statutorily appointed mission of comprehensive water resource planning and management. Cf. *Kaiser Hawaii Kai Dev. Corp. v. City & County of Honolulu*, 70 Haw. 480, 483-84, 777 P.2d 244, 246-47 (1989) (holding that the zoning enabling statute evinced legislative policy against land use zoning through the initiative process because "[z]oning by initiative is inconsistent with the goal of long range planning"). Accordingly, the Commission properly excluded Ankersmit's testimony from consideration in the hearing.

I. REQUIREMENT TO FUND STUDIES

Campbell Estate, joined by other leeward parties, (collectively, the leeward permittees) object to the requirement that they contribute to subsequent stream studies and monitoring activities. The relevant part of the Commission's decision reads:

The permittees on whose lands the water from the Waiahole Ditch system is used shall prepare, or contract for, a portion of the studies and monitoring activities resulting from this order (see, for example, *In re: Mono Lake*, Decision 1631, State of California Water Resources Control Board, 9/20/94, page 211, ¶8e). Funding shall be based on the amount of water used and shall be on a pro rata basis. The Commission shall establish a committee to recommend a reasonable amount for the funding, and coordinate and set up the mechanism for the collection, accounting, and distribution of the funds. The committee shall submit its findings and recommendations to the Commission for approval within eight (8) months from the date the Final [D&O] is issued.

D&O at 10.

The leeward permittees maintain that the Code requires the Commission to fund the studies. The provisions they cite simply mandate that the Commission conduct various investigations, studies, and inventories. They do not command the Commission to finance these activities on its own, or prohibit it from ordering appropriate alternative sources of funding. See HRS §§ 174C-5(1), -31(c), -41(a), -43, -71(1)(E), -71(4) (1993 & Supp. 1999).

HRS § 174C-31(j) mandates that the Commission "shall condition permits under Part IV of this chapter in such a manner as to protect instream flows." The Code includes numerous other references to permit conditions. See HRS § 174C-49(e) (1993) (stating that all permits shall be subject to the rights of the department of Hawaiian home lands "whether or not the condition is explicitly stated in the permit"); HRS § 174C-56 (1993) (requiring the Commission to conduct a comprehensive study of all issued permits once every twenty years to monitor compliance with permit conditions); HRS § 174C-57(a) (1993) (providing that "modification of one aspect or condition of a permit may be conditioned on the permittee's acceptance of changes in other aspects of the permit"); HRS § 174C-58(2) (1993) (allowing the Commission to suspend or revoke a permit for "any willful violation of any condition of the permit"); HRS § 174C-59 (Supp. 1999) (last paragraph) (stating that a transfer that "involves a change in any condition of the permit . . . is also invalid and constitutes a ground for revocation"); HRS § 174C-62(f) (1993) (requiring notice to permittees of any

change in permit conditions due to a declared water shortage). These provisions, expressly and by obvious implication, grant the Commission wide-ranging authority to condition water use permits in accordance with its mandate to protect and regulate water resources for the common good. Presumably, such authority encompasses the requirement that a permittee contribute to studies that will assist the Commission in determining the impact of the permitted use on the water source.

The leeward permittees assert, however, that this condition amounts to unconstitutional "regulatory leveraging" in violation of the fifth amendment to the United States Constitution and article I, section 20 of the Hawaii Constitution, see *supra* note 94. As the basis of their claim, they cite *Nollan v. California Coastal Commission*, 483 U.S. 825 (1987), in which the United States Supreme Court invalidated a building permit condition requiring the dedication of a public access easement, where the condition lacked an "essential nexus" to the purpose of the underlying building regulations. See *id.* at 834-37. See also *Dolan v. City of Tigard*, 512 U.S. 374 (1994) (requiring "rough proportionality" between the development condition and the impact of the proposed development). *Nollan* and *Dolan*, however, dealt with the regulation of fee simple interests in real estate under the police power. This case, by contrast, involves the management of usufructuary interests in water, a state public trust resource to which no individual can claim exclusive right. (102) Hence, the leeward permittees' argued analogy between the instant funding requirement and the land development exactions invalidated in *Nollan* and *Dolan* fails at the outset. See *Sax, Water Law, supra*, at 280 ("[A]n owner of a water right has a lesser property right than the landowner in *Nollan*. . . . The state is not 'taking' something belonging to an owner, but is asserting a right it always held as a servitude burdening owners of water rights."). (103)

The leeward permittees' contention that the funding requirement constitutes an illegal "tax" is closer to the point, but similarly unavailing. See *Kentucky River Auth. v. City of Danville*, 932 S.W.2d 374 (Ky. Ct. App. 1996), cert. denied, 520 U.S. 1186 (1997) (inquiring whether charge assessed by river authority for water use was an illegal tax or a legitimate user fee). We acknowledge that, while the Commission has the authority to condition permits on the payment of appropriate fees, it does not have any taxing power. See generally *Haw. Const. art. VIII, section 3*. In *State v. Medeiros*, 89 Hawaii 361, 973 P.2d 736 (1999), we addressed the question whether a charge imposed by a governmental entity is a "fee" instead of a "tax." We developed therein a three-part test "analyz[ing] whether the charge (1) applies to the direct beneficiary of a particular service, (2) is allocated directly to defraying the costs of providing the service, and (3) is reasonably proportionate to the benefit received." *Id.* at 367, 973 P.2d at 742.

The leeward permittees assert that "it is not fair to require [them] to pay for studies which primarily determine the effects of the decision on the general public or the windward users." In other words, with respect to the first prong of the *Medeiros* test, they argue that the studies do not directly benefit them in a manner "not shared by other members of a society." *Id.* at 366, 973 P.2d at 741 (quoting *National Cable Television Ass'n v. United States*, 415 U.S. 336, 341 (1974)). The leeward permittees fail to acknowledge, however, that the studies directly relate to their burden of proving that their uses are "reasonable-beneficial" and "consistent with the public interest," HRS § 174C-49(a). As previously discussed, the lack of any previous comprehensive studies precluded the permittees from proving, and the Commission from determining, the actual extent to which the diversions would sacrifice public values in the windward stream and estuary ecosystem. Rather than denying the permits for insufficient proof, the Commission decided to grant the permits with the condition that the permittees contribute to studies aimed at determining the effect of the diversions. The studies, therefore, "directly benefit" leeward permittees in two ways: not only by helping them to marshal their requisite proof, but also by allowing them exclusive use of public resources in the interim, despite the present absence of such proof. The public as a whole, to be sure, will also gain from the studies through enhanced knowledge and better informed regulation. Nevertheless, to the extent that the studies grant the leeward permittees benefits not shared by the public at large, perhaps even at the public's expense, we do not believe it unfair to require the permittees to provide a reasonable share of the costs.

The second prong of the *Medeiros* test is satisfied insofar as the Commission's decision provides that any contributions by the leeward permittees will help fund the studies. As for the last prong, we cannot determine at this time whether the funding requirement is "reasonably proportionate" to the benefits received by the permittees because the Commission has not yet settled how it will calculate the fees charged. The leeward permittees protest that "the fees to fund the studies are not set forth on a schedule and not applied uniformly; rather the fees are to be imposed on an individual basis without any defined monetary limit." Their objections are premature. Certainly, the Commission's decision to measure the fees imposed on a pro rata basis

according to amount of water used should answer many of their concerns. Cf. *Kentucky River*, 932 S.W.2d at 377 (upholding fee based on actual use of water in the regulated river basin). As for the remaining details, the Commission should adequately address them as it determines the final fee schedule based on the committee's recommendations and pursuant to the appropriate decisionmaking procedures. We observe, however, that the term "reasonably proportionate" describes a less exacting standard than that applicable to land use exactions. "[W]e do not demand precise equality between the value conferred and fee charged. To be valid, a fee need only bear a reasonable relationship to the cost of the services rendered by the agency." *National Cable Television Ass'n v. FCC*, 554 F.2d 1094, 1108 (D.C. Cir. 1976) (emphasis in original). See also *Massachusetts v. United States*, 435 U.S. 444, 463 n.19 (1978) (requiring only a "fair approximation of the cost of benefits supplied").

In conclusion, the Commission has the general authority to condition the permits upon compliance with the instant funding requirement, which more properly falls under the category of a regulatory fee, rather than a land development exaction. Under the standard applicable to such fees, we hold that, as a general matter, the funding requirement does not constitute an illegal tax. We reserve final resolution of this question, however, pending the determination of the appropriate fee schedule by the Commission.

J. DOA/DLNR's MISCELLANEOUS OBJECTIONS

In its proposed decision, the Commission denied DOA's water use permit application seeking 0.75 mgd for the DOA's agricultural park "without prejudice to reappl[ication] when DOA can demonstrate that actual use will commence within a reasonable time frame." D&O at 10. DOA objected, seeking clarification regarding the meaning of "reasonable time frame." The final decision affirmed the Commission's initial ruling without the requested clarification. On appeal, DOA/DLNR contends that the Commission's failure to clarify its decision was arbitrary and capricious.

The Commission concluded that "[DOA]'s proposed use of water for an agricultural park is still in the planning stage and not yet certain enough to assure actual use within a reasonable time frame." COLs at 26. In short, DOA's application was premature. DOA/DLNR does not dispute this ruling, but simply protests that the lack of clarification "leaves DOA, as well as other prospective [applicants], in great uncertainty" because "no one will risk making a legal or financial commitment for an agricultural venture without the assurance that water will be available." DOA/DLNR fails to explain, however, how mere clarification as to the proper time frame for reapplication would lessen the uncertainty surrounding the ultimate availability of water. Even if the Commission advised DOA when exactly to reapply, the Commission would still have to decide at that later date whether the application fulfilled the statutory permit criteria.

We acknowledge the need for assurances of water availability in the development planning process. The Code specifically addresses this need, however, in providing for water reservations. The Commission did not rule on any reservation petitions in the instant proceeding, but only decided that it could not yet issue DOA a water use permit. DOA, again, does not challenge this determination, and we do not deem it erroneous. Along the same lines, we cannot say that the Commission's denial of DOA's request for clarification as to the "reasonable time frame" for reapplication was arbitrary and capricious.

DOA/DLNR also contests the Commission's decision to set aside 1.58 mgd as a "proposed agricultural reservation," pending confirmation pursuant to the rulemaking procedures mandated by the Code, see HRS § 174C-49(d) (1993); *supra* note 3. According to DOA/DLNR, the Commission lacks the authority to designate a specified amount of water as a proposed reservation.

DOA/DLNR's objection is unfounded. The proposed reservation, as its name suggests, merely offers a suggested amount, contingent on proper approval through rulemaking. The Commission is not bound by this proposal. In this case, even as it ruled on the water use permit applications and petitions to amend the interim standard for windward streams, the Commission could anticipate the need to address the already pending petitions for reservations. By earmarking an estimated amount of water required in the subsequent proceedings, the Commission provided specific notice of its proposal for further diversions for agricultural use in the near future. See generally HRS § 91-3(1) (requiring the agency, prior to the hearing, to make available the proposed rule to be adopted). No error resulted from such action.

K. THE CITY'S MISCELLANEOUS OBJECTIONS

The City takes issue with the discussion in the Commission's final decision concerning the City's future water needs. The City first alleges that the Commission erroneously foreclosed the City from using Waihole Ditch water in the future where "no notice was given that the City's future use . . . would be considered and [the Commission] expressly precluded the City from presenting evidence on that issue." To begin, the City does not mention or contest the Commission's denial of the City's petition for a water reservation on grounds of untimeliness. The City, moreover, fails to point to a single adverse evidentiary ruling by the Commission. The Commission, in fact, granted the City ample opportunity during the hearing to present evidence on its future water demands. ⁽¹⁰⁴⁾

In any event, the City overstates the Commission's ruling. The portion of the decision contested by the City reads as follows:

At least for the near term, water quantities in excess of the amended interim instream flow standard and subject to the conditions affecting supplemental flows are available at the present time to satisfy water use permit applicants for those existing and future offstream uses identified in the [decision] . .

This determination does not mean that the [City]'s projected growth demands can be satisfied from Wai[hole] Ditch water; rather the [City]'s projected needs will require even greater analysis. The evidence presented in this case indicates that by the year 2020, water demand for Oahu's projected growth (an additional 90 mgd) will exceed the island's estimated remaining ground water supply (76 mgd) by at least 14 mgd.

COLs at 23 (emphases added). Contrary to the City's reading, this discussion suggests no prospective bar to the City's use of Waihole Ditch water. Rather, it simply states the inescapable reality that, in times of scarcity and competition, no one, be it the City or any other potential user, can expect to demand water in such quantities and from such sources as it sees fit.

The City apparently rejects even this latter proposition, however, inasmuch as it also opposes the requirement that it "prioritize" its future demands. The relevant portion of the Commission's decision states:

As competition for water resources increases, the analysis of both the public interest and of reasonableness must become both more rigorous and affirmative. The counties will be required to articulate their land use priorities with greater specificity. For example, even at the present time, there is more land zoned for various uses than available water to supply those proposed uses. Thus, it is not sufficient to merely conclude that a particular parcel of land is properly zoned and that the use is "beneficial." That minimal conclusion may be inadequate to resolve situations in which competitive demand exceeds supply. Further analysis of public interest criteria relevant to water (e.g., conservation, alternative uses, comparative public costs and benefits) will be needed.

Id. at 25 (emphasis added). Another portion of the decision states:

The Commission concludes that all of the proposed water use permit applicants have or propose uses that are "consistent with county land use plans and policies" except [KSBE] as noted above. While these applications are all "consistent" with such land use plans and policies, the lack of priority among the county plans and policies only provides a minimal standard by which to judge applications.

Id. at 27 (emphasis added).

The City asserts that requiring the counties to designate priorities among proposed uses usurps their land use planning and zoning authority. The Water Code expressly reserves the counties' authority with respect to land use planning and policy. The Code's "declaration of policy" states: "The state water code shall be liberally interpreted and applied in a manner which conforms with intentions and plans of the counties in terms of land use planning," HRS § 174C-2(e). HRS § 174C-4 (1993) further provides: "Nothing in this chapter to the contrary shall restrict the planning or zoning power of any county under [HRS] chapter 46." See also HRS § 46-4(a) (1993) (stating that the counties' powers "shall be liberally construed in favor of the county exercising them").

The City nonetheless fails to explain how any aspect of the Commission's decision actually interfered with the City's planning function. Insofar as the City formulated its present plans while OSCo was still using Waihole Ditch water, it can hardly claim that the plans depend on the availability of this water. More

fundamentally, we reject the City's suggestion that the Commission will illegally "restrict" the City's land use planning authority unless it accedes to any and all of the City's water demands. Such an expansive view of the counties' powers runs headlong into the express constitutional and statutory designation of the Commission as the final authority over matters of water use planning and regulation. See Haw. Const. art. I, § 7; HRS § 174C-7(a).

In alleging that the Commission imposed a "directive" to prioritize uses on the counties, the City misapprehends the Commission's position. The Commission has consistently acknowledged on appeal that it has neither the authority nor the inclination to force any such action by the City and that its discussion of priorities "is, in fact, a request for [the City's] help." As the Commission observed in its decision, the existing water supply is already insufficient to accommodate the land uses planned and zoned by the City. Thus, whether the City accepts it or not, this shortfall will compel the Commission to prioritize among proposed uses in making ultimate choices among them. Indeed, the City itself must, as a matter of sound planning policy, actively develop integrated water use plans addressing the contingencies arising from the limitations in supply, see, e.g., HRS § 174C-31(d). Such a process, if properly undertaken, will necessarily entail prioritizing among competing uses.⁽¹⁰⁵⁾ The City's objections, therefore, not only contradict the Code, but also disregard the need for priorities in managing any scarce resource. See, e.g., HRS §§ 174C-54 (competing applications); HRS § 174C-62(a) (1993) (requiring Commission to formulate plan for periods of water shortage, including a system of permit classification).⁽¹⁰⁶⁾

The Code contemplates coordination, rather than conflict, between the Commission and the counties. HRS § 174C-49(a)(6), for example, requires that water use permits issued by the Commission be "consistent with county land use plans and policies," ensuring consistency between water and land uses. Both the water use planning and instream use protection provisions mandate cooperation between the Commission and the counties. See HRS § 174C-31(d) ("the commission in coordination with the counties . . . shall formulate an integrated coordinated program for the protection, conservation, and management of the waters in each county"); HRS § 174C-71 ("In carrying out this part, the commission shall cooperate with . . . the county governments and any of their agencies."). The objectives of the Commission and the counties will not always converge. To the extent that their respective functions and duties permit, however, the Commission and counties should be seeking common ground. In this regard, we agree with the Commission that its prioritizing requirement is not a threat to the City's authority, but, rather, is a call for cooperation and mutual accommodation in keeping with the spirit of the Code. So understood, the City's allegation of error lacks merit.

IV. CONCLUSION

In the introduction to its decision and order, the Commission projected that, "by the year 2020, water demand for projected growth of Oahu will exceed the remaining ground-water resources on the island." *Id.* at 1. This forecast underscores the urgent need for planning and preparation by the Commission and the counties before more serious complications develop. The constitutional framers and the legislature designed the Commission as an instrument for judicious planning and regulation, rather than crisis management.⁽¹⁰⁷⁾ The Commission's decision reflects the considerable time and attention it devoted to this case; we commend its efforts. But much more work lies in the critical years ahead if the Commission is to realize its constitutionally and statutorily mandated purpose.

We have rendered our decision with utmost care, balancing due deference to the Commission's judgment with a level of scrutiny necessitated by the ultimate importance of these matters to the present and future generations of our state. For the reasons stated in this opinion, we vacate in part the Commission's decision and remand for additional findings and conclusions, with further hearings if necessary, consistent with this opinion, regarding the following: 1) the designation of an interim instream flow standard for windward streams based on the best information available, as well as the specific apportionment of any flows allocated or otherwise released to the windward streams, see *supra* Part III.D.3; 2) the merits of the petition to amend the interim standard for Waikane Stream, see *supra* Part III.D.4; 3) the actual need for 2,500 gallons per acre per day over all acres in diversified agriculture, see *supra* Part III.F.2; 4) the actual needs of Field Nos. 146 and 166 (ICI Seeds), see *supra* Part III.F.3.a., and Field Nos. 115, 116, 145, and 161 (Gentry and Cozzens), see *supra* Part III.F.3.b; 5) the practicability of Campbell and PMI using alternative ground water sources, see *supra* Parts III.F.3.c & III.F.4.d; 6) practicable measures to mitigate the impact of variable offstream demand on the streams, see *supra* Part III.F.5; and 7) the merits of the permit application for ditch "system losses," see

supra Part III.G. We affirm all other aspects of the Commission's decision not otherwise addressed in this opinion. [\(108\)](#)

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1. See generally *Reppun v. Board of Water Supply*, 65 Haw. 531, 533, 656 P.2d 57, 60 (1982) ("The geological structure of the Koolau mountains of Oahu enables parts thereof to act as natural reservoirs of fresh water; these natural storage compartments are called dike complexes or systems.").

2. See Hawaii Revised Statutes (HRS) ch. 174C, pt. IV (1993 & Supp. 1999) ("Regulation Of Water Use"). HRS § 174C-41(a) (1993) states:

When it can be reasonably determined, after conducting scientific investigations and research, that the water resources in an area may be threatened by existing or proposed withdrawals or diversions of water, the commission shall designate the area for the purpose of establishing administrative control over the withdrawals and diversions of ground and surface waters in the area to ensure reasonable-beneficial use of the water resources in the public interest.

HRS § 174C-48(a) (1993) provides that: "No person shall make any withdrawal, diversion, impoundment, or consumptive use of water in any designated water management area without first obtaining a permit from the commission." "Existing uses," however, may continue pending application for a water use permit. See *id.* HRS § 174C-50(c) (1993) requires that permit applications for "existing uses" be made within one year from the effective date of water management area designation.

3. HRS § 174C-49(d) (1993) states:

The commission, by rule, may reserve water in such locations and quantities and for such seasons of the year as in its judgment may be necessary. Such reservations shall be subject to periodic review and revision in the light of changed conditions; provided that all presently existing legal uses of water shall be protected.

4. See HRS ch. 174, pt. VI, § 174C-71 (1993) ("Instream Uses Of Water"). HRS § 174C-71 reads in relevant part:

Protection of instream uses. The commission shall establish and administer a statewide instream use protection program. . . . In the performance of its duties the commission shall:

(1) Establish instream flow standards on a stream-by-stream basis whenever necessary to protect the public interest in waters of the State;

. . . .

(2) Establish interim instream flow standards;

(A) Any person with the proper standing may petition the commission to adopt an interim instream flow standard for streams in order to protect the public interest pending the establishment of a permanent instream flow standard;

(B) Any interim instream flow standard adopted under this section shall terminate upon the establishment of a permanent instream flow standard for the stream on which the interim standards were adopted;

(C) A petition to adopt an interim instream flow standard under this section shall set forth data and information concerning the need to protect and conserve beneficial instream uses of water and any other relevant and reasonable information required by the commission;

(D) In considering a petition to adopt an interim instream flow standard, the commission shall weigh the importance of the present or potential instream values with the importance of the present or potential uses of water for noninstream purposes, including the economic impact of restricting such uses;

(E) The commission shall grant or reject a petition to adopt an interim instream flow standard under this section within one hundred eighty days of the date the petition is filed. The one hundred eighty days may be extended a maximum of one hundred eighty days at the request of the petitioner and subject to the approval of the commission;

(F) Interim instream flow standards may be adopted on a stream-by-stream basis or may consist of a general instream flow standard applicable to all streams within a specified area;

(3) Protect stream channels from alteration whenever practicable to provide for fishery, wildlife, recreational, aesthetic, scenic, and other beneficial instream uses;

. . . .

(4) Establish an instream flow program to protect, enhance, and reestablish, where practicable, beneficial instream uses of water. The commission shall conduct investigations and collect instream flow data including fishing, wildlife, aesthetic, recreational, water quality, and ecological information and basic streamflow characteristics necessary for determining instream flow requirements.

The commission shall implement its instream flow standards when disposing of water from state watersheds, including that removed by wells or tunnels where they may affect stream flow, and when regulating use of lands and waters within the state conservation district, including water development.

5. See Mary Kawena Pukui & Samuel H. Elbert, *Hawaiian Dictionary* 68, 290-91 (rev. ed. 1986)

6. HRS § 174C-49(a) (1993) mandates:

To obtain a permit pursuant to this part, the applicant shall establish that the proposed use of water:

(1) Can be accommodated with the available water source;

(2) Is a reasonable-beneficial use as defined in section 174C-3;

(3) Will not interfere with any existing legal use of water;

(4) Is consistent with the public interest;

(5) Is consistent with state and county general plans and land use designations;

(6) Is consistent with county land use plans and policies; and

(7) Will not interfere with the rights of the department of Hawaiian home lands as provided in section 221 of the Hawaiian Homes Commission Act.

7. As explained below, the Commission created a "buffer" of unallocated water for initial release in the streams and future allocation for offstream use.

8. HRS § 174C-3 (1993 & Supp. 1999) defines "reasonable-beneficial use" as "the use of water in such a quantity as is necessary for economic and efficient utilization, for a purpose and in a manner which is both reasonable and consistent with the state and county land use plans and the public interest."

9. The Commission acknowledged that various leeward parties had access to leeward ground water. Campbell Estate, for example, still held 35 mgd in well permits, FOF 788, and Del Monte was profitably using its own ground water wells to irrigate lands for which it sought ditch water, FOF 793-74. The Commission also noted the limited use of reclaimed water for irrigation, but concluded that reclaimed water was not presently available, in view of concerns regarding use of reclaimed water over potable aquifers and health regulations limiting such use to certain kinds of crops. FOF 677-786; D&O at 8. The Commission, nevertheless, stated that it would "revisit and, if appropriate, reduce existing ground-water permits if reclaimed water becomes available and is allowable, subject to economic and health considerations." D&O at 8.

10. HRS § 174C-58 (1993) provides in relevant part:

Revocation of permits. After a hearing, the commission may suspend or revoke a permit for:

. . . .

(4) Partial or total nonuse, for reasons other than conservation, of the water allowed by the permit for a period of four continuous years or more.

11. HRS § 174C-56 (1993) states in relevant part: "At least once every twenty years, the commission shall conduct a comprehensive study of all permits issued under this chapter to determine whether the conditions on such permits are being complied with."

12. Elsewhere in its decision, the Commission maintained that its determination of current water availability did not necessarily "mean that the [City's] projected growth demands [could] be satisfied from Waiahole Ditch water; rather, the [City's] projected needs will require even greater analysis." *Id.* at 23.

13. HRS § 174C-54 (1993) states:

Competing applications. If two or more applications which otherwise comply with section 174C-49 are pending for a quantity of water that is inadequate for both or all, or which for any other reason are in conflict, the commission shall first, seek to allocate water in such a manner as to accommodate both applications if possible; second, if mutual sharing is not possible, then the commission shall approve that application which best serves the public interest.

(Emphasis added.)

14. The "Q90 base flow" represents the minimum flow of a stream equaled or exceeded at least 90 percent of the time. D&O at 2. The Commission's use of the Q90 base flow stems from its observation that "[r]unoff dominates stream flow in Hawaii and is responsible for highly variable stream flows. . . . In Hawaii, streams exceed average flow just 10% of the time." COLs at 16.

15. As a threshold matter, we note that we have jurisdiction to entertain this appeal. See generally *Peterson v. Hawaii Elec. Light Co.*, 85 Hawaii 322, 326, 944 P.2d 1265, 1269 (1997) (recognizing the "obligation of appellate courts to insure that they have jurisdiction to hear and determine each case" (quoting *Housing Fin. & Dev. Corp. v. Castle*, 79 Hawaii 64, 76, 898 P.2d 576, 588 (1995))). Pursuant to HRS § 174C-12, HRS chapter 91 governs our review of the Commission's decision. See also HRS § 174C-60 (1993) ("Contested cases") ("Chapter 91 shall apply except where it conflicts with this chapter."). HRS § 91-14(a) (1993) allows judicial review of a "final decision and order in a contested case." "A contested case is an agency hearing that 1) is required by law and 2) determines the rights, duties, or privileges of specific parties." *Pele Defense Fund v. Puna Geothermal Venture*, 77 Hawaii 64, 67, 881 P.2d 1210, 1213 (1994); see HRS § 91-1(5) (1993).

In this case, the parties appeal the Commission's decision regarding permit applications for "existing" and "new" uses and petitions to amend interim instream flow standards. As to existing use applications, HRS § 174C-50(b) (1993) and Hawaii Administrative Rules (HAR) § 13-171-14(b) (1988) require a hearing where, as here, the quantity of water applied for exceeds 25,000 gallons per month and an objection to the application is filed by a person having standing to object. Furthermore, while the statutes and rules do not require a hearing with respect to petitions to amend interim instream flow standards, see HRS § 174C-3 (definition of interim standard); HAR § 13-169-40(e) (1988), or "new" use applications, see HRS § 174C-53 (1993); HAR §§ 13-171-12, -13, -16 to -19 (1988), constitutional due process mandates a hearing in both instances because of the individual instream and offstream "rights, duties, and privileges" at stake. See *Puna Geothermal*, 77 Hawaii at 68, 881 P.2d at 1214.

HRS § 174C-60 states in relevant part: "Any other law to the contrary notwithstanding, including chapter 91, any contested case hearing under this section shall be appealed upon the record directly to the supreme court for final decision." See also HAR §§ 13-167-65(b), 13-171-26 (1988). Although the referent of "this section" is unclear, see *Koolau Agric. Co. v. Commission on Water Resource Management*, 83 Hawaii 484, 492, 927 P.2d 1367, 1375 (1996) (noting the "inartful drafting" of the Water Code's review provisions), we discern no sound basis for demarcating decisions on certain matters for initial appeal to the circuit court under HRS § 91-14(a), particularly in cases such as this one, where the Commission consolidates various matters in a single hearing. Accordingly, we read HRS § 174C-60 to provide for direct appeal to the supreme court from

the instant combined contested case in its entirety. But cf. *Peterson*, 85 Hawaii at 331, 944 P.2d at 1274 (holding, pursuant to HRS § 269-16(f) (1993), that direct appeal from order of Public Utilities Commission lies to this court only when order pertains to "regulation of utility rates" or "ratemaking procedures").

16. DLNR joined in the leeward parties' joint application for a water use permit and in many of their motions during the hearing.

17. Other cases cited by DOA/DLNR, rejecting due process objections where the decisionmaker performed both investigative and adjudicative functions, see *Withrow*, 421 U.S. at 47-55, previously expressed a position on a policy issue related to the dispute, see *Hortonville Joint School Dist. v. Hortonville Educ. Ass'n*, 426 U.S. 482, 493 (1976), or shared a common employer with a party, see *McDonald v. Cline*, 455 S.E.2d 558, 560 (W. Va. 1995), are similarly inapposite.

18. We do not join DOA/DLNR in speculating as to how much authority the DLNR chairperson actually wields over DLNR. See HRS § 26-15 (1993) (designating the board of land and natural resources as the head of DLNR and allowing the board to delegate powers to the chairperson). Whether the DLNR chairperson is the leader or subordinate of the board, or something in between, the result is the same.

19. Even on appeal, WWCA does not seek the usual remedy of rehearing or reconsideration without the chairperson, see, e.g., *White*, 54 Haw. at 16, 501 P.2d at 363 (remanding for rehearing), but simply asks this court to set aside the Commission's final decision, see *infra* note 24.

20. As WWCA points out, HAR §§ 13-169-32 and -33 (1988) require DLNR to assist the Commission in investigating streams and developing instream flow standards.

21. HAR § 13-167-56(c) (1988) provides: "The chairperson of the commission shall be the presiding officer. However, the chairperson may designate another commission member, an appointed representative, or a master to be presiding officer unless prohibited by law." As explained in HAR § 13-167-56(b), the "presiding officer" performs mere administrative functions, such as giving notice of the hearing, administering oaths, issuing subpoenas, ruling on objections or motions, and "dispos[ing] of other matters that normally and properly arise in the course of a hearing authorized by law that are necessary for the orderly and just conduct of a hearing." HAR § 13-167-56 does not allow the grant of any ultimate decisionmaking authority to an alternate presiding officer. To the contrary, the Code mandates that the six-member Commission "shall have exclusive jurisdiction and final authority," HRS § 174C-7(a), and that "[t]he final decision on any matter shall be made by the commission," HRS § 174C-10 (1993).

22. The governor's comments do not appear in the record. None of the other parties, however, dispute WWCA's rendition of their general content.

23. In its written objection to the Commission, Hawaii's Thousand Friends demanded that the Commission disclose any *ex parte* communications between the governor or others on his behalf and the Commission "so that they can be dealt with to eliminate or minimize their impact on this case." The Commission apparently did not respond to this request.

24. In raising its various due process objections, WWCA specifically seeks the remedy of reinstatement of the Commission's proposed decision. In most cases, however, a remand for reconsideration or further proceedings will suffice to purge the taint of improper influence. But see *Koniag v. Kleppe*, 405 F.Supp. 1360, 1372-73 (D.D.C. 1975) (reinstating the last untainted authoritative ruling because the effect of the external pressure had not yet dissipated); *Jarrott*, 225 F.Supp. at 836 (remanding for rehearing by a specially constituted board).

25. The doctrine traces its origins to the English common law and ancient Roman law. See Lynda L. Butler, *The Commons Concept: A Historical Concept with Modern Relevance*, 23 Wm. & Mary L. Rev. 835, 846-67 (1982).

26. Courts and commentators have identified up to three separate interests in trust resources: the *jus privatum*, or private property right, the *jus regium*, otherwise known as the police power, and the *jus publicum*, the public trust. See, e.g., *id.* at 456-58; Butler, *supra*, at 861-62.

27. The Mhele and the subsequent Kuleana Act instituted the concept of private property in the Hawaiian Kingdom. For an overview of its operation, see *id.* at 184-85, 504 P.2d at 1337-38; Jon J. Chinen, *The Great Mahele* (1958); Lilikal Kameeleihiwa, *Native Lands and Foreign Desires* (1992).

28. Regarding the navigable waters trust, the United States Supreme Court has explained:

At common law, the title and dominion in lands flowed by the tide water were in the King for the benefit of the nation. . . . Upon the American Revolution, these rights, charged with a like trust, were vested in the original States within their respective borders, subject to the rights surrendered by the Constitution of the United States.

. . . .

The new States admitted into the Union since the adoption of the Constitution have the same rights as the original States in the tide waters, and in the lands under them, within their respective jurisdictions.

Phillips Petroleum Co. v. Mississippi, 484 U.S. 469, 473-74 (1988) (quoting *Shively v. Bowlby*, 152 U.S. 1, 57 (1894)).

29. The delegates discussed at length the proposal that produced the final version of article XI, section 7. Some notable comments include: "[T]he amendment and committee proposal go beyond the mere power to regulate--which is generally known as the police power of the State--and impose a duty upon the State to regulate and protect," *id.* at 857 (statement by Delegate Fukunaga); "[W]hat the amendment attempts to do, as I read it, is to define what 'public trust' means . . . [;] it's an attempt to clarify and put it in the Constitution," *id.* at 859 (statement by Delegate Waihee); "[T]his amendment recognizes . . . that water is a resource in Hawaii that needs to be protected for the use of all people," *id.* at 860 (statement by Delegate De Soto); "[The amendment] maintains the intent of the committee to establish a public trust doctrine for the State of Hawaii to protect the total water resources for the benefit of the people of Hawaii," *id.* (statement by Delegate Hoe); "I urge the passage of this amendment establishing a state water agency to act as trustee of all the water resources of Hawaii for the benefit of the people," *id.* (statement by Delegate Chong); "[T]he committee proposal as amended would make the State of Hawaii the trustee of the water of Hawaii for the benefit of the people of Hawaii," *id.* at 866 (statement by Delegate Hornick); "[T]his trust concept means that you go for the benefit of the people, and that's different from just mere regulation," *id.* at 876 (statement by Delegate Hanaike). See also *id.* at 862-68 (rejecting a proposed amendment stating merely that "[t]he State shall regulate and control all water").

The delegates deleted an express reference to the "public trust" in article XI, section 7 because of "[s]ome confusion generated by the [thought that] . . . 'trust' implies ownership." Comm. Whole Rep. No. 18, in 1 Proceedings, at 1026. Public rights under the trust do not constitute state "ownership." See *Illinois Central*, 146 U.S. at 452; *Robinson*, 65 Haw. at 674, 658 P.2d at 310. In any event, the delegates explained that they had used "public trust" to describe "the duty of the State to actively and affirmatively protect, control and regulate water resources" and, in place of that term, "substituted language [that they] believe[d] fully convey[ed] the theory of 'public trust.'" Comm. Whole Rep. No. 18, in 1 Proceedings, at 1026 (emphasis added).

30. Because article XI, section 7 also mandates the creation of an agency to regulate water use "as provided by law," LURF and HFB argue that it is not self-executing. See *State v. Rodrigues*, 63 Haw. 412, 629 P.2d 1111 (1981) (holding that the creation of the independent grand jury counsel position in article I, section 11 was not self-executing). Whereas review of the history of article I, section 11 in *Rodrigues* evidenced the intent to require further legislative action, the same inquiry here reveals that the framers intended to invoke the public trust in article XI, section 7. See *supra* note 29. Article XI, section 7 is thus self-executing to the extent that it adopts the public trust doctrine. See *Debates*, in 2 Proceedings at 863 (statement by Delegate Waihee) ("What the [amendment] attempts to do is, first of all, create a fiduciary duty to regulate and control the water. The second thing that it does is establish a coordinating agency to regulate all water."); Haw. Const. art XVI § 16 ("The provisions of this constitution shall be self-executing to the fullest extent that their respective natures permit."); cf. *Payne v. Kassab*, 361 A.2d 263, 272 (Pa. 1976) ("No implementing legislation is needed to enunciate these broad purposes and establish these relationships; the amendment does so by its own ipse dixit.").

31. With respect to article XI, section 1, KSBE contends that the provision's reference to "public natural resources" indicates an intent to exclude "privately owned" waters from the public trust. This argument misses the point; at least in the water resources context, we have maintained that, apart from any private rights that may exist in water, "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.

32. We need not retread the ground covered thoughtfully and exhaustively by McBryde and its progeny. Nonetheless, several basic errors in the City Mill court's reasoning deserve mention. The court characterizes the Mhele as a simple transfer of property from the King, as "sole owner . . . of all the land in the islands," to individuals. *Id.* at 934. The first constitution of the kingdom, however, expressly proclaimed that the land "was not [the King's] private property. It belonged to the Chiefs and the people in common, of whom [the King] was the head and had the management of landed property." Haw. Const. of 1840, reprinted in *Fundamental Laws of Hawaii* 3 (1904); see also Kameelehiwa, *supra*, at 10 ("In traditional Hawaii, in a [land] was not owned but was held in trust."); *infra* note 89. Moreover, the landscape of law and custom at the time of the Mhele compellingly demonstrates that, despite the transition to a private property regime, water remained a resource reserved to the community. See Reppun, 65 Haw. at 542-45, 656 P.2d at 65-67. All lands granted in the Mhele, even the King's retained private estate, passed into individual hands burdened with the reservation of this usufruct for the common good. See *id.*; see also Act of April 27, 1846, pt. I, ch. VII, art IV, § 7, 1 SLH 107, 109 (1845-46), reprinted in 2 RLH 2120, 2123 (statute creating the land commission) (mandating that the commission's decisions "be in accordance with the principles established by . . . native usages in regard to . . . water privileges"); Land Commission Principles, 1 SLH 81, 82, 2 RLH 2124, 2125-26 ("But even when such lord shall have received allodial title from the King . . . the rights of the tenants and sub-tenants must still remain unaffected . . .").

In response to the argument that the Territory "owned" all the artesian water, the City Mill court concluded: "If by the land commission awards and the patents in confirmation thereof the awardees and patentees became the owners of the subjacent waters, courts would not be justified, simply because of the supposed necessity, in announcing such a radical alteration in their views of the law . . ." *Id.* at 934-35. Beyond observing again that the public trust does not constitute "ownership," we disagree less with the foregoing logic than with its underlying premise. Having rectified the misconceptions concerning the origins of water rights in this jurisdiction in *McBryde* and its progeny, we reach the opposite conclusion that the City Mill court could not, by judicial fiat and *ipse dixit*, extinguish the public rights in water resources preserved by the sovereign reservation.

33. We note that the Commission's findings referenced testimony by an expert on Hawaiian custom regarding "evidence of the Hawaiians digging wells, like on the island of Kahoolawe." FOF 980. See also Richard H. Cox, *Groundwater Technology in Hawaii*, in *Groundwater in Hawaii* 16 (Faith Fujimura & Williamson B.C. Chang eds., 1981) (relating accounts of ancient Hawaiians excavating shallow wells). At a minimum, the historical record establishes that the ancient Hawaiians knew of the existence of water under the ground and made use of such water once it reached the surface. See David Malo, *Hawaiian Antiquities* 44 (2d ed. 1971) ("In Hawaii nei people drink either the water from heaven . . . or the water that comes from beneath the earth, which is (often) brackish."); E.S. Craighill Handy & Elizabeth G. Handy, *Native Planters in Old Hawaii* 61-67 (rev. ed. 1991) (documenting use of water from caves and from springs on land and under the sea).

34. The trust's protection of traditional and customary rights also extends to the appurtenant rights recognized in Peck.

35. Our holding with respect to the public trust does not supplant any other protections of these rights already existing.

36. In deleting a prior draft of article XI, section 1 merely stating that "[t]he legislature shall promote the conservation, development and utilization of . . . natural resources," and replacing it with the present language expressly mandating "protection," the committee noted:

Much testimony was received expressing the opinion that the current language of Section 1 is contradictory and places insufficient weight on the preservation or protection end of the balance that is implied in the word "conservation." Your Committee agreed with this testimony and amended Section [1] to recognize this concern. . . . [T]he language of this section mandates that the State and its political subdivisions provide for

the conservation and protection of natural beauty, as contrasted with the previous language which simply empowered the State to "conserve and develop its natural beauty."

Stand. Comm. Rep. No. 77, in 1 Proceedings, at 686 (emphases added). See also *id.* at 688 (explaining, with respect to a prior draft of article XI, section 7, that the "agency will also have the duty to protect groundwater resources, watersheds and natural stream environments because groundwater resources, watersheds and streams form the basis of our water resources system"); Debates, in 2 Proceedings, at 857 (statement by Delegate Hoe) ("[Article XI, section 7] strives to make clear that our obligations include the welfare of future generations and therefore in the use of our resources we must protect our natural resources against irreversible depletion, waste or destruction and safeguard the natural beauty of our State.").

37. We note that Waiawa Correctional Facility received a .15 mgd permit partially for "domestic" purposes, which no one challenges on appeal. D&O at 8-9. The recharge of leeward aquifers is an incidental effect of the permitted surface uses, the ultimate benefit of which remains in dispute. See FOF 915-23.

38. We agree with the National Audubon court that the few exceptions to the general rule against the abandonment of the public trust would not likely apply in the context of usufructuary water rights. See *id.* at 727 n.25.

39. Read narrowly, the term "feasible" could mean "capable of achievement," apart from any balancing of benefits and costs. See *Industrial Union Dept., AFL-CIO v. American Petroleum Inst.*, 448 U.S. 607, 718-19 (1980) (Marshall, J., dissenting). The National Audubon court apparently did not use "feasible" in this strict sense, and neither do we in this case.

40. But see Debates, in 2 Proceedings, at 866-67 (statement by Delegate Hornick) ("The public trust doctrine implies that the disposition and use of these resources must be done with procedural fairness, for purposes that are justifiable and with results that are consistent with the protection and perpetuation of the resource." (emphasis added)).

41. Article XI, section 3 states in relevant part: "The State shall conserve and protect agricultural lands, promote diversified agriculture, increase agricultural self-sufficiency and assure the availability of agriculturally suitable lands. The legislature shall provide standards and criteria to accomplish the foregoing."

42. Although this court has held that the "natural flow" theory of riparianism best approximated the ancient Hawaiian system, we note that diversions of water out of watershed boundaries were allowed in certain cases, insofar as the available technology permitted. See *Reppun* 65 Haw. at 547, 656 P.2d at 68. The Commission raised several historical examples in its findings. FOF 968-70.

43. It is widely understood that the public trust assigns no priorities or presumptions in the balancing of public trust purposes. See *National Audubon*, 658 P.2d at 723; Jan S. Stevens, *The Public Trust: A Sovereign's Ancient Prerogative Becomes the People's Environmental Right*, 14 U.C. Davis L. Rev. 195, 223-225 (1980). Such balancing, nevertheless, must be reasonable, see, e.g., *State v. Public Serv. Comm'n*, 81 N.W.2d at 73-74 (noting that no one public use would be destroyed or greatly impaired and that the benefit to public use outweighed the harm), and must conform to article XI, section 1's mandate of "conservation." The Commission, in other words, must still ensure that all trust purposes are protected to the extent feasible.

44. Several of our prior decisions contrarily suggest that agency interpretations of statutes are reviewed *de novo*. See, e.g., *Malama Mahaulepu v. Land Use Comm'n*, 71 Haw. 332, 336, 790 P.2d 906, 908 (1990); *In re Maldonado*, 67 Haw. 347, 351, 687 P.2d 1, 4 (1984). We reconcile this apparent disparity in the present discussion.

45. The commentary to section 1.02(3) of the Model Water Code, which, apart from the addition of Hawaiian rights, HRS § 174C-2(c) tracks verbatim, explains:

Subsection (3) sets out a list of water uses which are declared to be beneficial. A second class of water uses is declared to be in the public interest. These uses receive special protection under the Model Water Code. There is an affirmative duty upon the state and local boards to see that these uses are not adversely affected by the operation of the code. In particular, these uses shall be preferred to other beneficial uses

Id. (emphases added).

46. The cited commentator notes the reasonableness of this interpretation, to the effect that

proposed uses that would have the effect of polluting a stream or aquifer, or that would damage the resource through excessive pumping or diversion, should not be permitted, no matter how useful the application of that water might be to a given enterprise. . . . This would mean that, as a matter of law, no further balancing occurs at that extreme level of harm.

Id. (emphasis added).

47. The Commission also found: "Even small flow increases should be viewed as beneficial to the native biota because those incremental improvements could not only become substantial with time but we could also improve our knowledge base during the entire period, if appropriate simultaneous studies were undertaken." FOF 174.

48. The Code defines "instream flow standard" as: "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 instream uses." HRS § 174C-3. An "interim instream flow standard" is "a temporary instream flow standard of immediate applicability, adopted by the commission without the necessity of a public hearing, and terminating upon the establishment of an instream flow standard." Id.

In this opinion, we follow the parties' practice of referring to instream flow standards of more than "interim" applicability as "permanent" standards. Unless otherwise indicated, we use the term "instream flow standards" broadly to encompass both "interim" and "permanent" standards.

49. The permanent standard provisions further state that "[t]he commission, on its own motion, may determine that the public interest in the waters of the State requires the establishment of an instream flow standard for streams." HRS § 174C-71(1)(A) (emphasis added). This suggests that the directive to establish permanent standards may be nonmandatory.

"[I]n determining whether a statute is mandatory or directory, we may determine the intention of the legislature from a consideration of the entire act, its nature, its object, and the consequences that would result from construing it one way or the other." *State v. Medeiros*, 89 Hawaii 361, 367 n.5, 973 P.2d 736, 742 n.5 (1999) (citation and internal quotation marks omitted). We must also interpret statutes in accordance with any relevant constitutional requirements. See *id.* at 367-68 n.5, 973 P.2d at 742-43 n.5.

Construing HRS § 174C-71(1) in light of the general mandate and purpose of the Code's instream use protection provisions and the public trust, we believe that it affords the Commission limited discretion in determining whether permanent standards are required. If, for example, a stream offers minimal actual or potential instream values, or faces little foreseeable offstream demand, the Commission may choose not to establish permanent standards. The Commission has no such discretion, however, in situations involving substantial conflict between instream and offstream interests either presently or in the foreseeable future. Cf. HRS § 174C-41(a) (requiring water management area designation "when it can be reasonably determined . . . that the water resources in an area may be threatened by existing or proposed withdrawals or diversions of water"); *Concerned Citizens of Putnam County for Responsive Gov't v. St. John's River Water Management Dist.*, 622 So.2d 520, 523 (Fla. Ct. App. 1993) (reading the minimum flow statute as mandatory).

In this case, the Commission decided to postpone the establishment of permanent standards pending more conclusive scientific studies, but still clearly proceeded from the premise that such standards were necessary. We agree with this underlying appraisal.

50. The Code defines "sustainable yield" as "the maximum rate at which water may be withdrawn from a water source without impairing the utility or quality of the water source as determined by the commission." HRS § 174C-3.

51. The Commission recognized this purpose when it noted that, "[a]t a minimum, retaining the status quo [through adoption of the previous interim standards] helped to prevent any future harm to streams while the

scientific basis for determining appropriate instream flow standards is developed and an overall stream protection program put into place." COLs at 17.

52. The Commission explained:

Existing uses which are subject of a water use permit application must meet the Water Code requirements and be subject to permit conditions as any permit holder. While as a practical matter, most existing uses meet the law's requirements, prior uses are not automatically granted a water use permit (so called "grandfathering") . . . That could be inconsistent with constitutional requirements and the burden of proof established in the Water Code. In the future some existing uses may be subject to modification to satisfy superior claims (e.g., unexercised appurtenant rights).

COLs at 27-28. See also Advisory Study Commission on Water Resources, Report to the Thirteenth Hawaii Legislature 11 (1985) ("Grandfathering' all present riparian and correlative uses would have thwarted the conservation and efficiency goals of the proposed code."). We agree with the Commission and add that public instream uses are among the "superior claims" to which, upon consideration of all relevant factors, existing uses may have to yield.

53. In the same act in which it promulgated the Code, the legislature mandated the adoption of state-wide interim instream flow standards, beginning with Windward Oahu. See Haw. Sess. L. Act 45, § 4 at 101.

54. The Commission explained that it "established the [1992] interim flow on the basis of existing water diversion structures . . . rather than on the basis of the biological or ecological value of any given stream flow level." COLs at 17.

55. The Commission acknowledged as much, stating that "[t]he fact that the interim standard is adopted more quickly does not alter the Commission's duty to protect instream uses." COLs at 15.

56. The Commission summarized the "methodology" of establishing instream flow standards under HRS § 174C-71 as follows:

First, the Commission must investigate the ecology of the stream including the stream flows. Second, with this information, the Commission determines how different water flows affect different levels of protection (including partial restoration, if needed) that should be afforded the streams at issue by evaluating the water flows needed for instream values. Third, the Commission must determine the present and potential offstream uses, as well as the economic impact of restricting such uses. Fourth and finally, the Commission must weigh and decide what water, if any, may be removed from its source and effectively diverted from windward streams for offstream use both within the watershed and, as sought here, outside the watershed.

COLs at 13.

57. The Commission was required to have adopted the entire Hawaii water plan "not later than three years from July 1, 1987." HRS § 174C-32(c) (1993).

58. As the Commission explained:

The Instream Flow Standard ("IFS") requires a more rigorous investigation and consultation process than the Interim Instream Flow Standard ("IIFS") in part because a "permanent" IFS implies that after a comprehensive study, the conclusion is more certain and there will be less reason to revisit the situation absent compelling changes.

COLs at 15.

59. In the lodestar opinion of Ethyl Corp., the United States Court of Appeals for the D.C. Circuit upheld the Environmental Protection Agency's authority under the Clean Air Act, 42 United States Code (U.S.C.) § 7401-7626, to regulate in the face of scientific uncertainty. See *id.* at 20-29. Judge J. Skelly Wright's majority opinion includes an extensive policy discussion that, while specifically addressing human health concerns, is also illuminating in relation to the public interest in instream flows:

Regulators such as the [Commission] must be accorded flexibility, a flexibility that recognizes the special judicial interest in favor of protection of the health and welfare of people, even in areas where certainty does not exist.

Questions involving the environment are particularly prone to uncertainty. . . . Yet the statutes--and common sense--demand regulatory action to prevent harm, even if the regulator is less than certain that harm is otherwise inevitable.

Undoubtedly, certainty is the scientific ideal--to the extent that even science can be certain of its truth. . . . Awaiting certainty[, however,] will often allow for only reactive, not preventative, regulation. Petitioners suggest that anything less than certainty, that any speculation, is irresponsible. But when statutes seek to avoid environmental catastrophe, can preventative, albeit uncertain, decisions legitimately be so labeled?

Id. at 24-25 (citation and footnote omitted) (emphases added).

60. At this early planning stage, the Commission need only reasonably estimate instream and offstream demands. See MacDougal, *supra*, at 66 n.300 (citing State Water Resources Control Board, 227 Cal. Rptr. at 180); see also Model Water Code, *supra*, § 107(5) (requiring the state agency to calculate instream flows "using the best information available"); Joseph W. Dellapenna, Regulated Riparianism, in 1 Water Rights § 905(b), at 534 ("The minimum flow process, . . . like planning generally . . . , is to take place more in the abstract and will establish a benchmark on the basis of which competing users can make much more definite plans for the use and development of water."); cf. HRS § 174C-41(a) (requiring the Commission to designate water management areas "[w]hen it can be reasonably determined, after conducting scientific investigations and research, that water resources in an area may be threatened" (emphasis added)). The Commission's own regulations, for example, allows DLNR, in assessing instream uses, to "employ various methods to determine the significance of each use and its associated stream water requirements. Instream uses may be quantitatively or qualitatively rated, recognizing that instream uses may rely on factors other than streamflow to maintain their overall value." HAR § 13-169-33(b) (1988) (emphasis added).

61. We are also unconvinced by the Commission's reasoning that the buffer enables the Commission to study the effect of flow reductions on the streams. The Commission could just as easily accomplish this purpose by alternating flows among the streams, instead of diverting flows for offstream uses.

62. The Commission, for example, may designate the interim standard so as to allow for fluctuations in permitted uses. See *infra* Part III.F.5.

63. Aquatic biologist Marc Hodges, for example, testified that it would probably require a doubling of the current flow of Waikne Stream to create a good stream habitat. Denise Medeiros and Henry Roberts, part-Hawaiian farmers residing in Waikne Valley, testified that the diminished flows are insufficient to support their desired levels of taro cultivation.

64. See generally Restatement (Second), *supra*, § 850A (reasonable use); Anderson, *supra*, § 12.03(c)(2) (beneficial use).

65. As discussed above, HRS § 174C-71(1)(E) requires the Commission to consider various "physical solutions," including "uses of water from alternative sources," when determining instream flow standards. It is axiomatic that the Commission must also consider alternative sources in permitting existing or new uses in the first instance, as a part of its analysis of the "reasonable-beneficial" and "consistent with the public interest" conditions for a permit.

66. The same section in the Commission's proposed decision stated: "Agricultural water use permits of approximately 32 mgd for Pearl Harbor ground water are still held (and barely used) by the Campbell Estate. Campbell Estate has not explained why it retains these agricultural permits while seeking windward Oahu water for agriculture."

67. WWCA argues that the point is immaterial because "existing uses" enjoy no greater rights than "new uses." On the contrary, the Code gives "existing" legal uses priority over "new" uses in the permitting process. See HRS § 174C-49(a)(3) (requiring applicant for a new use to establish that the use "will not interfere with any existing legal use of water"). See also Koolau Agricultural, 83 Hawaii at 492, 927 P.2d at

1375 ("Existing uses are given preferences under the Code . . ."). Moreover, as WWCA itself points out, the Commission's decision ostensibly subjects "new uses" to higher standard than "existing uses."

68. The Commission originally advanced this interpretation of "existing use" in another case, *In re Board of Water Supply Water Use Permit Applications for Koolaupoko Ground Water Management Area (Oahu)*, Declaratory Ruling No. DEC-0A94-G3 (April 5, 1995).

69. The reporting provisions of the Code corroborate this reading, requiring "[a]ny person making a use of water in any area of the State [to] file a declaration of the person's use within one year from the effective date of the rules implementing this chapter," HRS § 174C-26(a) (1993), and mandating the Commission to issue "certificates" based on these declarations confirming the usage that "shall be recognized by the commission in resolving claims relating to existing water rights and uses including appurtenant rights, riparian and correlative use," HRS § 174C-27 (1993) (emphasis added). These provisions reflect the legislature's intent to limit the inventory of "existing rights and uses" to those existing at the time of the adoption of the Code, rather than at some unidentified future date such as the designation of a water management area.

70. We do not agree, however, with WWCA's contention that the Code necessarily prevented the Commission from allowing PMI to continue its use of Waihole Ditch water pending a final decision on its application. Although the Code prohibits "any withdrawal, diversion, impoundment, or consumptive use of water in any designated water management area" without a permit, HRS § 174C-48(a), it is silent regarding uses initiated after July 1, 1987 but before water management area designation. In this context, we cannot say that the Commission erred in allowing PMI's use to continue pending the Commission's final decision.

71. "'Domestic use' means any use of water for individual personal needs and for household purposes such as drinking, bathing, heating, cooking, noncommercial gardening, and sanitation." HRS § 174C-3.

72. "'Municipal use' means the domestic, industrial, and commercial use of water through public services available to persons of a county for the promotion and protection of their health, comfort, and safety, for the protection of property from fire, and for the purposes listed under the term 'domestic use'." *Id.*

73. The Code does not define these terms.

74. The Commission further ruled that "[a] proposed golf course use would have to show that no alternatives are available." *Id.* (emphasis added).

75. MGC is not party to this appeal.

76. The Commission evidently subjected agricultural uses to a similar requirement to seek alternative sources in concluding that it would "revisit and, if appropriate, reduce existing ground-water permits if reclaimed water becomes available and is allowable, subject to economic and health considerations," D&O at 8, and that, "[i]f and until treated effluent or ground water is available, the State has a strong interest in retaining agriculture on these lands," COLs at 28-29. The standard conditions attached to all issued permits include the proviso that: "This permit may be modified by the Commission and the amount of water initially granted to the permittee may be reduced if the Commission determines it is necessary to: . . . c. insure adequate conservation measures" D&O at 28.

77. HAPA defines a "rule" as

each agency statement of general or particular applicability and future effect that implements, interprets, or prescribes law or policy, or describes the organization, procedure, or practice requirements of any agency. The term does not include regulations concerning only the internal management of an agency and not affecting private rights of or procedures available to the public, nor does the term include declaratory rulings issued pursuant to section 91-8, nor intra-agency memoranda.

Id.

78. The storage characteristics of basal aquifers allow "draft rates in excess of the sustainable yield during periods of high demand and low recharge, so long as there is compensation by reducing draft rates less than

the sustainable yield during the other periods." Department of General Planning, City & County of Honolulu, Oahu Water Management Plan § 2.4.1 (1990).

79. Presumably, some such measures have already been adopted in the "Implementation Plan" that the Commission required the agricultural users, along with the ditch operator and DOA, to draft within six months of the Commission's decision in order to "coordinate and facilitate the delivery of water." D&O at 11.

80. HRS § 174C-10 states:

Dispute resolution. The commission shall have jurisdiction statewide to hear any dispute regarding water resource protection, water permits, or constitutionally protected water interests, or where there is insufficient water to meet competing needs for water, whether or not the area involved has been designated as a water management area under this chapter. The final decision on any matter shall be made by the commission.

(Emphasis added.)

81. HRS § 174C-13 provides in relevant part:

If any person files a complaint with the commission that any other person is wasting or polluting water or is making a diversion, withdrawal, impoundment, consumptive use of waters or any other activity occurring within or outside of a water management area, not expressly exempted under this code, without a permit where one is required, the commission shall cause an investigation to be made, take appropriate action, and notify the complainant thereof.

(Emphasis added.)

82. As one of its points of error, KSBE contends that the Commission erred by rejecting its proposed findings. KSBE, however, does not present any supporting argument, and our review of the record does not demonstrate the Commission's action to be clearly erroneous.

83. The Commission granted KSBE 0.17 mgd for existing agricultural uses. D&O at 8.

84. KSBE estimated its average use to be 1.88 mgd at the completion of Phase I and 2.92 mgd at full build-out.

85. KSBE specifically contests the denial of the Commission staff's proposed order, and KSBE's motion, to bifurcate the proceedings, the measurement of ditch flows at Adit 8, and the allocation of water drawn from KSBE's lands to other parties.

86. KSBE assigns particular significance to the representations by both leeward and windward parties during the proceeding that no one but KSBE was seeking water from KSBE's lands. We agree that, as a practical matter, the Commission has allocated water drawn from KSBE's lands to other leeward parties. The leeward permittees, however, do not object to this disposition, nor could they sensibly do so, given the indivisible nature of the ditch's flow. As for KSBE's objection, we have held that the Commission properly denied KSBE's permit application. As a result, we see nothing illegal or irrational in the Commission allocating water otherwise flowing into the ditch from KSBE's lands to permitted uses elsewhere.

87. See generally George S. Kanahale, Pauahi 164-66 (1986) (documenting the derivation of KSBE lands).

88. See Wells A. Hutchins, The Hawaiian System of Water Rights 21-22 (1946) ("Subject to the [sovereign] power, all persons from the king down were considered to have some rights in the lands or its products." (emphasis added)); FOF 981 ("Generally, water use and apportionment were highly controlled by the chiefs, . . . although ultimate authority rested with the king . . .").

89. As we observed in that case:

[The] paramount chief [alii nui or moi], born on the soil and hence first-born of the makaainana [commoners] of amoku (island or district), was a medium in whom was vested divine power and authority. But this investment, which was established ritualistically as well as by genealogical primacy, was instrumental in providing only a channeling of power and authority, not a vested right. The person of the alii nui was sacred

(kapu) as though he were a god (akua). His power and authority (mana) was complete. But this was not equivalent to our European concept of "divine right." The alii nui, in old Hawaiian thinking and practice, did not exercise personal dominion, but channeled dominion. In other words, he was a trustee. The instances in which analii nui was rejected and even killed because of his abuse of his role are sufficient proof that it was not personal authority but trusteeship that established right (pono).

Water, then, like sunlight, as a source of life to land and man, was the possession of no man, even the alii nui or moi.

Id. at 548 n.14, 656 P.2d at 68-69 n.14 (quoting Handy & Handy, *supra*, at 63).

90. As this description indicates, the correlative right of an overlying landowner is "analogous to that of a riparian owner's right [of reasonable use] in a stream." *Wright v. Goleta Water Dist.*, 219 Cal. Rptr. 740, 746 (Cal. Ct. App. 1985).

91. Based on the facts of City Mill, WWCA and the City argue that correlative rights only encompass use for domestic purposes. We find no reason or precedent for such a limitation on these rights.

92. None of the parties dispute this conclusion.

93. Ground water was traditionally classified as either "artesian," "percolating," or "underground watercourses." See Tarlock, *supra*, § 4:5. "Percolating" referred to diffuse water not flowing in any defined watercourse, see Earl F. Murphy, Quantitative Ground Water Law, in 3 Water Rights § 20.07(b)(1), and "artesian" referred to water confined under pressure, see Tarlock, *supra*, § 4:3. Today, all diffuse waters are known as "vadose" water, or water in the "vadose zone," and "artesian" denotes but one subset of a general category of water bodies known as "aquifers." See Murphy, *supra*, § 20.07(b)(1), at 101.

94. The fifth amendment to the United States Constitution states in relevant part: "[N]or shall private property be taken for public use, without just compensation." Article I, section 20 of the Hawaii Constitution states: "Private property shall not be taken or damaged for public use without just compensation."

95. Statutes in other states, by contrast, have preserved the right to initiate domestic uses not unlike those denied the plaintiff in City Mill. See, e.g., Kan. Stat. Ann. § 42-311 (1993); N.D. Cent. Code § 61-04-02 (1995).

96. This court's recognition that water rights have financial value for eminent domain purposes, see, e.g., *City & County of Honolulu v. Collins*, 42 Haw. 199, 210-14 (1957), is inapposite to any analysis under either the police power or the public trust.

97. KSBE cites dictum in City Mill speculating that "[i]f a person or other entity should purchase all of a large tract of land under which an artesian basin exists, it would be easy to take the view, we think, that that owner of the land would be the sole owner of the water underneath it." Id. at 924-25. KSBE has not demonstrated that it is the sole owner of the entire ground water basin in question. In any event, to the extent that the foregoing dictum suggests that a landowner may claim absolute ownership of ground water, we overrule it as contrary to the rule of reasonableness, the basic understanding of usufructuary rights, and the public trust.

98. Like the State Water Code, such statutes generally grant preferences or exemptions to uses in existence by a certain deadline, usually the effective date of the statute. See, e.g., Ala. Code § 9-10B-20(a), (b), (d) (Supp. 1999) (within 90 or 180 days of the promulgation of the implementing rules for certain public water systems, or Jan. 1, 1993 for certain irrigation uses); Conn. Gen. Stat. § 22a-368 (1999) (July 1, 1982); Fla. Stat. Ann. §§ 373.226, (West Supp. 2000) (April 25, 1972); Ga. Code Ann. §§ 12-5-31(a)(3), 12-5-105(a) (1996) (July 1, 1988); Ind. Code Ann. § 14-25-3-11 (Burns 1995) (date of restricted use area designation); Iowa Code Ann. § 455B.265(2) (West Supp. 1999) (July 1, 1985); Md. Code Ann., Envir. § 5-502(c) (Supp. 1999) (July 1, 1988 for agricultural uses); Mass. Gen. Laws Ann. ch. 21G, § 7 (West 1994) (effective date of the implementing regulations); Miss. Code Ann. § 51-3-5(2), (3) (1999) (April 1, 1985); N.J. Stat. Ann. § 58:1A-6 (West Supp. 1999) (August 13, 1981); N.Y. Env'tl. Conserv. Law § 15-1501 (McKinney 1997) (Sept. 1, 1979); N.C. Gen. Stat. § 143-215.16(e) (date of capacity use area designation) (1999); S.C. Code Ann. § 49-5-70(F)-(H) (Law Co-op. Supp. 1999) (date of declaration of capacity use area); Va. Code Ann. §§ 62.1-243

and 62.1-261 (Michie 1998) (July 1, 1989 for surface water, July 1, 1992 for ground water); Wis. Stat. Ann. § 30.18(6)(b) (West 1998) (Aug. 1, 1957).

99. *Lucas v. South Carolina Coastal Council*, 505 U.S. 1003 (1992), which found a taking where regulation deprived a landowner of all economically beneficial use of his land, provides little guidance here. KSBE has not shown that the denial of its request for water from this particular source and for the specific use proposed, even if final for takings purposes, would deprive it of all economic use of its land. See *Tequesta*, 371 So.2d at 669-70 (holding that restriction on landowner's water use "deprived [owner] of no beneficial use of the land itself" and, thus, did not constitute a taking); see also *Lucas*, 505 U.S. at 1017 n.7 (relying on the "rich tradition of protection" of the "fee simple interest" in land at common law and on the state court's finding of a loss of all economic use of the land in deciding that a "total taking" had occurred).

100. See, e.g., *In re Hood River*, 227 P. 1065 (Or. 1924), appeal dismissed, 273 U.S. 647 (1926); *California-Oregon Power Co. v. Beaver Portland Cement Co.*, 73 F.2d 555 (9th Cir. 1934), *aff'd* on other grounds, 295 U.S. 142 (1935); *Baumann v. Smrha*, 145 F. Supp. 617 (D. Kan.), *aff'd*, 352 U.S. 863 (1956); *Williams v. City of Wichita*, 374 P.2d 578 (Kan.), appeal dismissed, 375 U.S. 7 (1963); *Baeth v. Hoisveen*, 157 N.W.2d 728 (N.D. 1968); *Knight v. Grimes*, 127 N.W.2d 708 (S.D. 1964); *In re Deadman Creek Drainage Basin*, 694 P.2d 1071 (Wash. 1985); see also *Connecticut v. Massachusetts*, 282 U.S. 660, 670 (1931) ("[E]very State is free to change its laws governing riparian ownership and to permit the appropriation of flowing waters for such purposes as it may deem wise."). But see *Franco-American Charolaise, Ltd. v. Oklahoma Water Resources Bd.*, 855 P.2d 568 (Okla. 1990).

101. KSBE also alleges a taking of its "alii rights." See *supra* Part III.H.3. The withdrawal or limitation of delegated sovereign authority, however, does not amount to a taking of property. See, e.g., *United States ex rel. Tennessee Valley Auth. v. Powelson*, 319 U.S. 266, 276 (1943) (holding that the grant of the sovereign power of eminent domain to a private party "is a mere revocable privilege for which a state cannot be required to make compensation").

102. We need not address the additional question whether and to what degree *Nollan* and *Dolan* extend beyond land dedications to include monetary exactions such as those presently at issue. See, e.g., *Clajon Prod. Corp. v. Petera*, 70 F.3d 1566, 1578-79 & n.21 (10th Cir. 1995) (viewing *Nollan* and *Dolan* as an extension of the physical takings cases); *Garneau v. City of Seattle*, 147 F.3d 802, 812 (9th Cir. 1998) ("Assuming [*Nollan* and *Dolan*] apply outside the context of physical invasions, a plaintiff must still show in the first [instance] that government imposition of the exaction would constitute a taking.").

103. Even if we were to apply *Nollan*'s "essential nexus" test, the disputed funding requirement would readily pass muster. Here, the funding requirement directly relates to the public interest in investigating and protecting instream uses and values. The leeward permittees' insistence that the Commission must "measure the extent of any proven or anticipated harmful effects of granting the permits" before imposing such a condition misses the point; it is precisely because the permittees have received allocations even while falling short in their burden of proof that the studies are necessary. The Commission, of course, has yet to determine the actual fee rate. We note, in any event, that *Nollan* and *Dolan* do not require the level of mathematical precision demanded by the leeward permittees.

104. The City also argues that the Commission failed to consider the economic impact of stream restoration on potential municipal water uses. Nothing in the record or the Commission's decision substantiates this claim.

105. The Commission's decision includes an excellent description of this planning process:

The Commission believes that an integrated water resource plan must be developed in order to prepare for Oahu's water future. This plan must address how we will meet water demand given our dwindling supply and must prioritize competing demands. The plan would construct various planning scenarios to help decision-makers incorporate uncertainties, environmental externalities, and community needs into decision-making. The scenarios would assess ranges of population projections and commensurate water demands. An integrated water resource plan encompasses the concept of least-cost planning and considers all types of resources equally: new supply, conservation, reclaimed water, alternative rate structures, as well as other demand management methods. The planning process would assess and balance competing needs such as

urban, agricultural, appurtenant rights, traditional and customary gathering rights, Hawaiian Home Lands rights, and stream protection, and set priorities for allocation decisions.

D&O at 2.

106. The City wrongly alleges that the Commission seeks to institute a system of "fixed priorities" between uses contrary to the public trust and the Code. The Commission does not demand a rigid hierarchy of uses applicable in any situation, but merely acknowledges that, in future cases involving the Waihole Ditch System, it will be required to deny certain uses in favor of others and, thus, will need to prioritize among proposed uses.

107. See, e.g., Stand. Comm. Rep. No. 77, in 1 Proceedings, at 688 ("[The public trust] concept implies not only the power to protect the resources but the responsibility to do so long before any crisis develops."); Stand. Comm. Rep. No. 348, in 1987 House Journal, at 1262-63 ("[Y]our Committee is of the opinion that the water code should serve as a tool and an incentive for planning the wise use of Hawaii's water resources, rather than as a water crisis and shortage management mechanism.").

108. The dissent proposes a revolutionary theory of the public trust doctrine, in which the trust amounts to nothing more than what the present majority says it is, or in other words, "the sum of competing social and economic interests of the individuals that compose the public." Dissent at 16. While this view may suit the purposes of the dissent, it finds no basis in law. The dissent can cite no precedent applying the public trust doctrine in the expansive manner that it advocates (the Washington cases cited proceeded from the premise that the doctrine did not apply; Washington courts have recognized the doctrine as a substantive protection where applicable, see, e.g., *Caminiti*, supra; *Weden*, supra). The reason undoubtedly lies in the obvious reality that such an interpretation would render the public trust meaningless -- a result that the dissent seems all too ready to embrace, notwithstanding the rich common law heritage in this jurisdiction and others recognizing the public trust as a concrete guarantee of public rights and the manifest intent of the framers of our constitution to adopt the basic understanding of the trust, where "disposition and use of these resources [are] done with procedural fairness, for purposes that are justifiable and with results that are consistent with the protection and perpetuation of the resource." *Debates*, in 2 Proceedings, at 866-67.

Equally astonishing is the dissent's attempt to conform the Code to its views. The dissent can accuse us of "rewriting the Code" only because it ignores so many of the Code's express provisions. See, e.g., HRS § 174C-2 (condition that "adequate provision shall be made" for various protective purposes); HRS § 174C-5(3) (mandating the establishment of an instream flow program to protect, enhance, and reestablish, where practicable, beneficial instream uses); HRS § 174C-71 (last paragraph) ("[t]he commission shall implement its instream flow standards when disposing water"); HRS § 174C-31(j) ("[t]he commission shall condition permits . . . in such a manner as to protect instream flows and sustainable yields"); HRS § 174C-31(d) (requiring the completion of the "water resource protection plan" before the adoption of the "water use and development plans"); HRS § 174C-31(k) (mandating "careful consideration" of various protective purposes and allowing the Commission to prohibit other uses inconsistent with these purposes). If, as the dissent maintains, public instream uses receive no different treatment than other uses, then presumably the inchoate public, including generations yet unborn, should be required to advocate and prove its water needs in applying for water use permits. As the Code abundantly demonstrates, the legislature did not create such a system. The dissent insists that "the State" or "the people," i.e., the legislature, should determine water law and policy. See Dissent at 14-15. We generally share this sentiment, but, unlike the dissent, we duly follow it.

The dissent voices concern regarding our water future lying in the hands of "six persons, or in this case, the four persons who composed the Commission." See *id.* at 15. Ironically, after nullifying the protections of the public trust and dismantling the regulatory framework established by the legislature, the dissent would leave the people of this state with nothing but an agency unchecked in its discretion and a regulatory "free-for-all" guided by the mere reminder of the necessity of "balancing," see *id.* at 4-5.

The dissent's objections to the permit applicant's burden of proof prove our point, namely, that the legislature intended the Commission to investigate, plan, and provide for instream flows as soon as possible. That mandate remaining yet unfulfilled, we have recognized that the Commission's interim task entails the balancing of risks and the implementation of the Code based on the best information available. See supra Part III.E. We do not, as the dissent alleges, impose an insurmountable burden on permit applicants in the interim,

but neither do we allow applicants to disregard their burden of justifying their uses to the extent that circumstances allow.

Finally, in its repeated protests against "priorities" among uses, the dissent largely rails against a "straw man" of its own invention. Contrary to the Commission's designation of a categorical preference in favor of resource protection, we do not establish any "priorities" as that notion is commonly understood in water law and has been previously eschewed by the legislature. Rather, we simply reaffirm the basic, modest principle that use of the precious water resources of our state must ultimately proceed with due regard for certain enduring public rights. This principle runs as a common thread through the constitution, Code, and common law of our state. Inattention to this principle may have brought short-term convenience to some in the past. But the constitutional framers and legislature understood, and others concerned about the proper functioning of our democratic system and the continued vitality of our island environment and community may also appreciate, that we can ill-afford to continue down this garden path this late in the day.