

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

October 22, 2021

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

STATEWIDE

Adoption of Guidance to Appraisers for the Determination of the Upset Rent for Public Auctions for Water Leases for Consumptive Use Purposes Pursuant to Section 171-58, Hawaii Revised Statutes.

BACKGROUND

Through efforts to establish a process for issuing water leases pursuant to Section 171-58, Hawaii Revised Statutes (HRS), the most significant challenge encountered by staff has been the valuation of the upset rent for the use of water. Under most circumstances, HRS 171-58 requires water leases to be issued via public auction. The public auction process, with its requirements codified in multiple sections throughout HRS Chapter 171, is an extensive, time consuming process. As required in HRS 171-17, the upset price for all public auctions shall be determined by appraisal, the result being the fair market value of the interest to be disposed.

This requirement has created an incongruity when considering the nature of water in Hawaii, which is a public trust resource. Unlike other markets in the country where water can be held and disposed as other private property interests, water rights in Hawaii are held by the State for the benefit of the public. This has posed a challenge for appraisers to determine a market value of an interest for which there is no market. Similar to the valuation of submerged lands and geothermal resources, other types of public trust resources entirely held by the State, guidance for the valuation of water rights needs to be developed by the State.

In researching historical water leases, staff determined that it would not be appropriate to adopt valuation methodologies that were used at the time. Such methodologies may not be appropriate as they were developed at a time when the current requirements in HRS 171-58 did not yet exist, less emphasis was given to resource management and sustainability, and the public trust obligations with respect to water use were not as clearly defined in law. Therefore, staff developed guidance for an appraiser to consider when determining the value of water that addresses the aforementioned priorities. Staff also determined that the guidance should be incorporated into HRS 171-58 and drafted proposed legislation to achieve that purpose.¹

¹ In addition to the valuation guidance, the proposed legislation included a process to allow water leases to be awarded by direct negotiation and other amendments to clarify the water leasing process.

The proposed legislation was included in the administrative package for both the 2020 and 2021 legislative sessions but failed to pass each time.² Although the Department intends to submit legislation for the 2022 session, staff believes that bringing this issue before the Board for their consideration and approval is appropriate. In the event the legislation fails to pass, provided that the Board approves this item, staff will be able to proceed in working with appraisers to determine the value of water without further delay. Given the significance of this issue, staff believes that the process of the valuation of water should be decided directly by the Board rather than left to staff discretion.

DISCUSSION

Proposed Guidance

Staff developed the following guidance consisting of multiple factors that could be used by an appraiser to determine the value of water. Acknowledging that this guidance is largely conceptual in nature, staff believes it would be appropriate to use the current revocable permit rent as a starting value, as it serves as an indication of the value of water for a particular disposition. The revocable permit rent would then be subject to adjustment via consideration of the factors discussed below. Staff notes that the guidance grants deference to an appraiser to exercise their professional expertise and judgment as to which factors may be applicable and how much weight should be accorded to each factor, based on the individual circumstances of prospective lessees.

The factors are not intended to serve as a strict formula to be applied unilaterally in all situations. The guidance is intended to apply primarily to consumptive uses of water. Certain non-consumptive uses, such as hydropower, may be valued using alternative methods that are limited to that particular use. However, the factors may be modified to apply to non-consumptive use if determined appropriate by an appraiser.

The first is the amount of water diverted or extracted, as allowed by the Commission on Water Resource Management (CWRM), and proposed use of water allowed under the lease. The greater the amount of water used and the private benefit the lessee receives from its use would increase the value of the water. For example, a lease that allows a use such as bottling water for commercial resale should be valued higher than a lease for hydropower.

The second is the amount of water diverted or extracted in proportion to the amount of water available from the surface or ground water source, the greater of which would increase the value of the water. As an example, a water lease that allows the lessee to use most or all the available water in excess of the instream flow standard would have a greater value than a lease that provides for a much smaller amount of the excess above the instream flow standard or sustainable yield.

The third is the cost of delivery. For example, the appraisal would consider the cost of maintenance and upgrades to mitigate system losses, the greater of which would decrease the

² For reference, House Bill 2357 and Senate Bill 2913 were introduced in the 2020 legislative session, and House Bill 1015 and Senate Bill 1169 were introduced in the 2021 legislative session.

value of water. Staff believes that this could provide the lessee incentive to include a commitment to maintain and upgrade the delivery system as part of the lease.

The fourth is the avoided cost to the lessee of obtaining water from practicable alternative water sources, the greater of which would increase the value of water. This would essentially be an analysis of replacement costs in the event no water lease was awarded. For example, a smaller agricultural water user could have relatively low replacement costs by transitioning to county service, implementing a catchment system or trucking in water. A higher volume user may need to resort to drilling one or more wells at a higher cost.

The fifth is the net economic benefit to the lessee, the greater of which would increase the value of water. This would be similar to the income approach analysis done in traditional appraisals. Staff believes that if the water use results in significant profits for a lessee, then the value of the water should reflect that accordingly. Conversely, if the water is used for a purpose that is not economically lucrative, then that should also be considered in the valuation.

The sixth is the value contributed by the lessee for watershed management pursuant to HRS 171-58(e), the greater of which would decrease the value of water. Staff believes that as the contribution by the lessee to the implementation of a watershed management plan is separate from the water lease rent, the amount of the contribution should be considered in the valuation. Staff does not envision this as a specific “dollar for dollar” adjustment but rather one of multiple factors in determining value. Staff believes that this could provide an incentive for the Department and the lessee to reach an agreement on the appropriate contribution for the watershed management plan implementation.

The seventh and final is the public benefit provided from the use of water. Such benefits include purposes such as domestic uses, traditional and customary practices such as taro cultivation, aquaculture uses, irrigation and other agricultural uses, power development, and commercial and industrial uses. Staff believes that it is appropriate for the valuation to consider public benefits or public purposes where water used for those purposes should not be valued as highly as purely commercial uses. The most significant priority with greater weight and accordingly a larger reduction in value should be given when public trust uses are included in the lease such as domestic use and activities such as taro cultivation. Secondary priorities would be uses of water that are consistent with State policies such as food sustainability and renewable energy. Finally, uses that primarily support economic development would receive minimal to no reduction in value.

Alternatives Considered

In developing the guidance, staff had numerous discussions with the CWRM and the Department of Hawaiian Home Lands (DHHL). DHHL has favored a valuation approach that would utilize a percentage of the avoided cost to the lessee of obtaining water from practicable alternative water sources. DHHL has justified this method as providing the most clarity and certainty in the appraisal process, which is lacking in staff’s proposed guidance. While staff appreciates DHHL’s position and the extensive time and effort DHHL staff contributed to addressing this issue, staff does not believe that the DHHL favored methodology is appropriate.

Staff believes that the DHHL methodology is more so a formula that is overly narrow and restricts an appraiser from relying on their knowledge and expertise in their determination of value. Additionally, applying such a strict, narrow criteria may result in significantly different valuations for similar uses of water. It is foreseeable that there could be parties that use equivalent amounts of water for similar purposes but have different alternative water sources due to a reliance on external factors that are not related to the actual use of water. For example, one user may be able to obtain water from a catchment system or by truck delivery while another user may have no option to drill a well, which would result in very different values for a similar water use.

DHHL has noted that a lessee could recoup costs by passing them on to consumers. Staff believes that this would negatively impact efforts to progress in priorities such as food sustainability and renewable energy. Smaller agricultural users with a limited customer base may exit the market if their customers opt not to pay a higher price for their products. Additionally, due to regulatory requirements, hydropower projects may not be able to simply pass the higher costs to ratepayers.

Another alternative staff considered was to establish a value for water that is consistent with other markets in the United States. This would require the Department to contract for the services of an appraisal firm outside of Hawaii with experience in the valuation of water rights in the mainland United States. During staff's preliminary research, it appears that the most active market for water is in the western United States, particularly California, as determined by the volume of water rights transactions. This has led to the establishment of the Nasdaq Veles Water Index, which sets a price for water in California as a commodity, independent of delivery costs. Aside from market transaction data, the index also considers conditions that affect supply. For example, drought conditions may result in raising the index price.

However, while this may be the most economically defensible alternative, implementing a similar approach in Hawaii may be problematic, as water is a public trust resource and not a private property interest subject to market conditions. Although the intent of HRS 171-58 may be to treat water as an economic unit for the purpose of a lease, there are public trust obligations and regulatory requirements that prohibit complete commodification as in other markets. Furthermore, the current index price for water, which is set per acre foot, is \$860.69, or approximately equivalent to \$2,641.36 per million gallons.³ This would likely price most if not all water users out of the market and require a statutory fix, resulting in an indefinite delay to staff's efforts to convert revocable permits to water leases.

In conclusion, staff believes that valuing water by considering multiple factors would provide the appraiser the flexibility to address the unique circumstances of a particular water use. While that may not provide the level of certainty and predictability favored by DHHL, staff's position is that this is the most comprehensive approach to valuing water that addresses obtaining a fair return to the State for the use of a public trust resource, supporting policy priorities and achieving sustainable resource management.

³ One acre foot is equal to 325,851 gallons.

RECOMMENDATION:

That the Board:

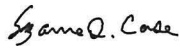
1. Approve staff's proposed guidance to appraisers to determine the upset rent for public auctions for water leases for consumptive use purposes pursuant to section 171-58, Hawaii Revised Statutes.

Respectfully submitted,



Ian Hirokawa
Special Projects Coordinator

APPROVED FOR SUBMITTAL:



Suzanne D. Case, Chairperson *RT*