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BEFORE THE LAND USE COMMISSION  
OF THE STATE OF HAWAII

In the Matter of the Petition of	)	DOCKET NO. A89-649
	)	
LANA'I RESORT PARTNERS	)	<b>OFFICE OF PLANNING'S TESTIMONY</b>
	)	
To consider an Order to Show Cause as to	)	
whether certain land located at Manele,	)	
Lana'i, should revert to its former	)	
Agricultural and/or Rural land use	)	
classification or be changed to a more	)	
appropriate classification due to Petitioner's	)	
failure to comply with Condition No. 10 of	)	
the Land Use Commission's Findings of	)	
Fact, Conclusions of Law, and Decision and	)	
Order filed April 16, 1991. Tax Map Key	)	
No.: 4-9-02: Por. 49 Formerly Tax Map	)	
Key No. 4-9-02: Por. 1	)	
	)	

**OFFICE OF PLANNING'S TESTIMONY**

The Office of Planning ("OP") recommends that the Land Use Commission ("Commission") find that the definition of "potable water" as used in Condition 10 excludes brackish water, that Petitioner Lana'i Resorts Partners ("Petitioner") uses brackish water to irrigate the Manele Golf Course, and that the Order to Show Cause should be dismissed as Petitioner has not violated Condition 10.

OP  
EXHIBIT NO. 2

**A. Definition of Potable Water**

There are different ways in which one may define the term “potable water.” For example, Miriam Webster defines “potable” as “suitable for drinking.” The Oxford Dictionaries define the term as “Safe to drink; drinkable.” These definitions in the abstract, however, simply replace words with other words, and are of limited help in understanding Condition 10 without examining Condition 10 in the context of the findings of fact in the Commission’s decision and order and the testimony given in the district boundary amendment hearings.

**B. Condition 10**

Condition 10 of the Decision and Order reads as follows:

10. Petitioner shall not utilize the potable water from the high-level groundwater aquifer for golf course irrigation use, and shall instead develop and utilize only alternative non-potable sources of water (e.g., brackish water, reclaimed sewage effluent) for golf course irrigation requirements.

In addition, Petitioner shall comply with the requirements imposed upon the Petitioner by the State Commission on Water Resource Management as outlined in the State Commission on Water Resource Management's Resubmittal – Petition for Designating the Island of Lana‘i as a Water Management Area, dated March 29, 1990.

It is clear from the language of Condition 10 that the Commission prohibited the use of potable water and required the use of alternative non-potable sources of water for golf course irrigation. It is equally clear that both brackish water and reclaimed sewage effluent are examples of alternative non-potable sources of water. The only reasonable reading of Condition 10, therefore, is that the term “potable water” excludes brackish water and reclaimed sewage effluent.

Lanaians for Sensible Growth (“LSG”) argues that the “Hearings Officer does not need to, and should go no further than Condition 10 to determine the intent of the 1991 Commission in using the term ‘potable water.’” Intervenor Lanaians For Sensible Growth’s Positional Statement,

page 8. Following these instructions, it is clear that brackish water is not potable as that term is used in Condition 10.

**C. The Findings of Fact**

According to Findings of Fact 46, 48, 89, and 91 of the 1991 Decision and Order granting the district boundary amendment, the Petitioner proposed irrigating the Manele Golf Course with non-potable water, and proposed using brackish water from Wells 1, 9, 10, and/or 12 to do so.

46. The proposed golf course at Manele of which the Property is to be a part, will be irrigated with nonpotable water from sources other than potable water from the high level aquifer.

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48. Petitioner proposes to provide alternate sources of water for golf course irrigation by developing the brackish water supply. According to petitioner, Well Nos. 9 and 12 which have capacities of about 300,000 gpd and 200,000 gpd, respectively, have been tested but are not yet operational. Well No. 10 which has a capacity of approximately 100,000 gpd with a possible potential of 150,000 gpd has also been tested and will be available. Currently available also is brackish water from Well No. 1 which is operational and which has a capacity of about 600,000 gpd.

Petitioner's civil, sanitary and environmental engineering consultant, James Kumagai, stated that it is only a matter of cost to develop wells for brackish water sources that are already there. The consultant also states that the brackish water sources necessary to develop enough water for golf course irrigation could be developed and be operational within a year.

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89. Petitioner is now in the process of developing the brackish water supply for irrigation of the proposed golf course. According to Petitioner, Well No. 1, which is operational and available, and Well Nos. 9, 10, and 12, which have been subjected to full testing, have aggregate brackish source capacity in excess of the projected requirements of 624,000 gpd to 800,000 gpd for the Manele golf course.

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91. Petitioner intends to irrigate the golf course with nonpotable water, leaving only the clubhouse which will use potable water, the requirement for which should be insignificant.

The findings of fact which are used to support the conditions imposed by the Commission demonstrate that Petitioner intended to use brackish water from Wells 1, 9, 10, and/or 12 to irrigate the Manele Golf Course, and that such water was considered to be non-potable. These findings support the conclusion that the term “potable water” as used in Condition 10 did not include brackish water.

**D. The District Boundary Amendment Hearings**

**1. The Adoption of Condition 10**

The language of Condition 10 was the result of a stipulation between Petitioner and OP. See Tr. 4/11/91, page 13, lines 5-6. As is done in all district boundary amendment cases, OP asked Petitioner to agree to a condition consistent with its representations. During the hearings in 1990, OP questioned Mr. Thomas Leppert of Lana‘i Resort Partners as to whether Petitioner would agree to utilize “only alternative sources of water, in other words, brackish or effluent for golf course irrigation purposes,” and Mr. Leppert gave an affirmative response. See Tr. 6/12/90 at page 82, line 25, through page 83, line 3. Condition 10 is also consistent with Petitioner’s representation that it concurred with the County of Maui’s written position “[t]hat unclaimed storm runoff, brackish water, reclaimed sewage effluent should be encouraged for use towards the irrigation of the golf course.” Tr. 3/9/90, page 27, line 25, through page 28, line 3.

If Condition 10 prohibited the use of brackish water, why would Petitioner stipulate to Condition 10 when the Findings of Fact explicitly state that Petitioner planned to use brackish water to irrigate the Manele Golf Course. In order to allow for consistency between the Findings of Fact and the stipulated condition, one must conclude that Condition 10 does not prohibit the

use of brackish water, and that Wells 1, 9, 10, and 12 can be used to irrigate the Manele Golf Course.

## **2. Testimony at the District Boundary Amendment**

The record of the initial district boundary amendment also demonstrates that people used the term “non-potable” and the term “brackish” interchangeably. For example, Thomas Leppert of Lana‘i Resort Partners indicated that it was their intention to use brackish water, and not potable water. Tr. 3/9/90, page 77, lines 1-6.

The Commission Chair, Renton Nip, equated the terms “non-potable” and “brackish” when asking: “With respect to the potential for using nonpotable sources, or brackish water, easier put, where else do they use brackish water, and to what success.” Tr. 7/13/90, page 31, lines 2-4.

Counsel for LSG, Arnold Lum, also used the terms “nonpotable” and “brackish” interchangeably when asking: “The statement that, in response to his question was something to the effect, statement by Dr. Kumagai, that with extraordinary effort, it would be possible to obtain a nonpotable or brackish water source for the golf course in time to use that water for the golf course when its built.” Tr. 7/13/90, page 35, lines 8-13.

A number of other references to brackish water being used for golf course irrigation also support this conclusion that brackish water could be used for golf course irrigation. Tr. 3/9/90, page 77, line 17, to page 78, line 4; page 141, lines 2-5; Tr. 6/12/90, page 113, lines 21-25; and Tr. 8/30/90, page 63, lines 11-21.

## **E. The Order to Show Cause Decision and Order**

On May 17, 1996, the Commission issued its Findings of Fact, Conclusions of Law, and Decision and Order on the Order to Show Cause (“OSC Order”). The OSC Order found that

brackish water or effluent was being used to irrigate the Manele Golf Course. In Findings of Fact 15 and 16, the Commission specifically found that Wells 1 and 9 provided non-potable, brackish water for golf course irrigation, and that Well 12 provided brackish water mixed with effluent for golf course irrigation. It stated as follows:

15. Irrigation for the (golf course) is currently being supplied primarily from brackish Wells No. 1 and 9, located in the Palawai Basin, which are within the high level aquifer. Treated waste water effluent and brackish Well No. 12 provide minor amounts of the irrigation supply.

16. Petitioner has completed an extended pump test of Wells No. 1 and 9, which are within the high level aquifer and provide non-potable, brackish water.

Petitioner has completed an extended pump test of Wells No. 1 and 9, which are within the high level aquifer and provide non-potable, brackish water. The extended pump test found no anomalous behavior in the wells, and no deterioration of the quality of the wells. Petitioner found no evidence of impact upon the quality or water level of the potable water wells located at a higher elevation within the high level aquifer.

**F. Terms Outside of the Commission**

If one looks outside the Commission hearings, one finds that there are several examples in which brackish water is distinguished from drinking water.

**1. EPA Secondary Guidelines**

The definition of brackish water as an example of alternative non-potable water is consistent with EPA secondary guidelines which recommend against using water above 250 milligrams per liter (mg/l) of chlorides for drinking water.

**2. Lanai's Water Use and Development Plan**

The definition of brackish water as an example of alternative non-potable water is also consistent with Lanai's Water Use and Development Plan which classifies Wells 1, 9, 14, and 15 as brackish water wells, and identifies them as sources for golf course irrigation.

3. **Commission on Water Resource Management's ("CWRM")  
Water Resource Protection Plan**

Pursuant to CWRM's Water Resource Protection Plan ("WRPP") (June 2008, page 10-1), "fresh water" has a chloride content limit up to 250 mg/L, which is based on the U.S. EPA secondary guideline and practices of the county department of water supplies. Brackish water has chloride concentrations between 250 – 16,999 mg/L. Seawater has chloride concentrations of 17,000 mg/L or greater. The WRPP states as follows:

While CWRM defers to DOH on most water quality related matters, CWRM management principles utilize operational water quality definitions based on chloride concentration as follows:

- Fresh Water: Chloride concentrations from 0 to 250 milligrams per liter (mg/L)
- Brackish Water: Chloride concentrations from 251 to 16,999 mg/L
- Seawater: Chloride concentrations of 17,000 mg/L and higher.

The WRPP also notes on page 3-11 in section 3.3.2.5 that brackish water with chloride concentrations above 250 mg/L is generally considered unacceptable for drinking purposes. The WRPP states:

Water exhibiting chloride concentrations greater than 250 milligrams per liter (mg/L) is generally considered unacceptable for drinking purposes. The county water departments generally limit chloride levels of water within their municipal system to less than 160 mg/L.<sup>1</sup>

**G. Leakage from Drinking Water Wells into Irrigation Water Wells**

LSG argues that the irrigation wells use water which leaked from the potable water wells. On a molecular level, because irrigation Wells 1, 9, 14, and 15 are all within the high level aquifer, these wells are by definition interconnected at some level with the drinking wells in other parts of the same aquifer. OP has seen no evidence, however, that the interconnection is

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<sup>1</sup> We will defer to the County of Maui regarding the applicability of County requirements to this case.

substantial or that the interconnection has negatively affected the functionality of the existing drinking water wells or that the interconnection threatens the viability of future growth of the drinking water system on Lana'i.<sup>2</sup>

In addition, this definition is inconsistent with the language of Condition 10 and the findings of fact and oral testimony from the district boundary amendment proceeding in which brackish water was described as non-potable, and in which brackish water from Wells 1, 9, 10, and 12 (all of which were within the high level aquifer) were proposed for irrigation of the Manele Golf Course.

Furthermore, the Hawaii Supreme Court specifically found that Condition 10 did not just prohibit water from the high level aquifer to be used for irrigation. It prohibited “potable water” from the high level aquifer to be used for irrigation. To accept LSG’s argument that Condition 10 is violated if even a molecule of water from the drinking water wells leaked into the irrigation wells is to conflate the high-level requirement with the potable water requirement. As this argument was already considered and rejected by the Hawaii Supreme Court, OP cannot agree with LSG on this issue.

**H. Brackish Water can be Drunk**

LSG argues that brackish water does not violate any Safe Drinking Water standards, and can be used for drinking water. This is correct, but ignores the language of Condition 10 explicitly defining alternative non-potable water as brackish water.

Furthermore, the Safe Drinking Water Branch (“SDW”) does not use the term “potable” in its regulatory activity, despite the existence of the term in one of its rules regarding cross-

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<sup>2</sup> LSG in its position statement makes assertions regarding changing chloride levels in the irrigation water wells. OP anticipates that this factual assertion will be discussed by Petitioner and its experts, and OP will not discuss this issue at this time. Nevertheless, LSG’s assertions do not change OP’s stand on the lack of evidence regarding the interconnection between the irrigation wells and drinking water wells.



connections. Water with pharmaceuticals also meets Safe Drinking Water standards because pharmaceutical contaminants are not (or at least not yet) among the criteria pollutants listed in chapter 11-21, Hawaii Administrative Rules. People may argue about whether such water is “potable.” SDW does not engage in this debate. SDW disavows the term in relation to its maximum contaminant level standards, and takes no position on the proper interpretation within Condition 10. Consequently, whether the water meets Safe Drinking Water standards is an insufficient basis to conclude that the water is “potable.”

**I. The Public Trust Doctrine**

LSG argues that if the term “potable water” is ambiguous, the Commission should define it in the way that protects the natural resource in order to be consistent with its public trust obligations.

First, the term is not ambiguous as described above. Second, if one interprets LSG’s comments as impliedly arguing for a modification of Condition 10 through an “interpretation,” the public trust obligation issues were required to be considered at the time Condition 10 was originally adopted. As argued in other cases, there is a value to finality, and OP generally disfavors relitigating issues long after the decision has been reached. The Commission issued a decision in 1991. OP, the Petitioners, the County, and the Intervenor need to abide by the decision reached and not try to relitigate for a better result decades later.

Most importantly, the public trust obligations are being met. Current water use on Lana‘i is 1.5 mgd. The sustainable yield is 6 mgd. The Lana‘i Water Use and Development Plan (“WUDP”) which was adopted after highly intensive public involvement identifies brackish water Wells 1, 9, and 14 for irrigation of the golf course. The WUDP represents the considered judgment of water use decision-makers as the appropriate sources and uses of water on Lana‘i.


Public trust doctrine considerations were necessarily high on the list of considerations for the adoption of the WUDP. Accordingly, the definition of “potable water” as excluding brackish water from Wells 1, 9, 14, and 15 is consistent with the WUDP and therefore consistent with the public trust doctrine.

**CONCLUSION**

For all the aforementioned reasons, OP believes “potable water” as used in Condition 10 excludes alternative water such as brackish water, that Condition 10 allows Petitioner to use brackish water to irrigate the Manele Golf Course, and that Petitioner is using brackish water consistent with Condition 10 to irrigate the Manele Golf Course.

DATED: Honolulu, Hawaii, September 2, 2016.

OFFICE OF PLANNING  
STATE OF HAWAII

  
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LEO R. ASUNCION  
Director