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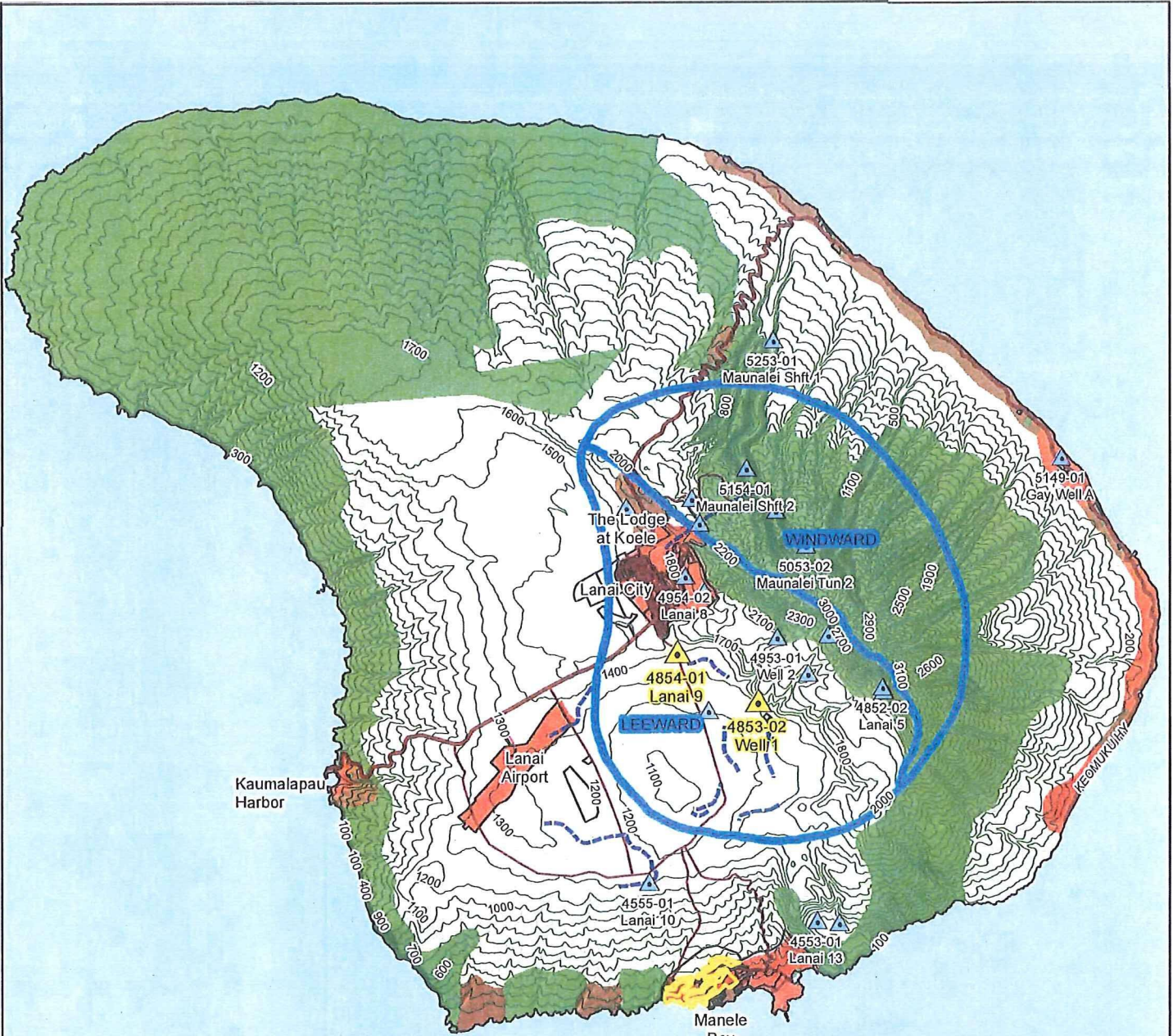
LAND USE COMMISSION
STATE OF HAWAII

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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 |
| |) | |
| LANAI RESORT PARTNERS |) | OFFICE OF PLANNING'S EXHIBITS |
| |) | 5-12; CERTIFICATE OF SERVICE |
| 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 EXHIBITS 5-12;
CERTIFICATE OF SERVICE

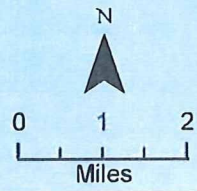


**LUC Docket A89-649
Lanai Resort Partners**

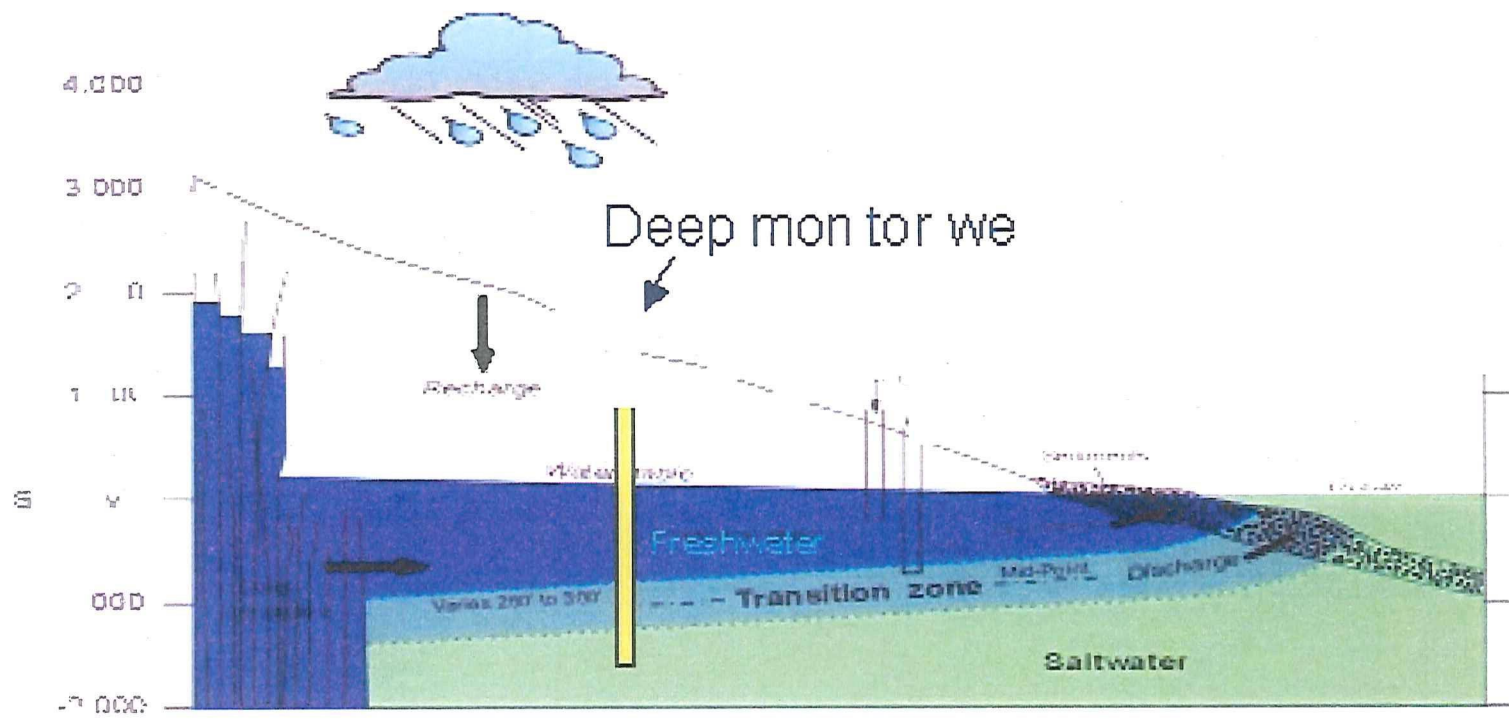
LUC Docket A89-649

State Land Use Districts

- Agricultural
- Conservation
- Rural
- Urban
- Central Aquifer Sector
- Wells
- Ditches
- TMK Parcels
- 100-ft Contours
- Roads



This map was produced by the Office of Planning (OP) for planning purposes. It should not be used for boundary interpretations or other spatial analysis beyond the limitations of the data. Information regarding compilation dates and accuracy of the data presented can be obtained from OP.
 Date: 05/26/06
 Map No: 20060526-01
 Sources:
 State Land Use Districts - State Land Use Commission, 2006.
 TMK Parcels, Roads - County of Maui, 2005.
 Aquifers, Ditches, Wells - DLNR.
 100-ft Contours - USGS, 1983



OP Exhibit 6

LIEUTENANT GOVERNOR

JOHN WAIHEE
GOVERNOR OF HAWAII

MAR 29 2 05 PM '90



STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT

P. O. BOX 621
HONOLULU, HAWAII 96809

WILLIAM W. PATY
CHAIRPERSON

JOHN C. LEWIN, M.D.
MICHAEL J. CHUN, Ph.D.
ROBERT S. NAKATA
RICHARD H. COX, P.E.
GUY K. FUJIMURA

MANABU TAGOMORI, P.E.
DEPUTY

AGENDA

FOR THE MEETING OF THE
COMMISSION ON WATER RESOURCE MANAGEMENT

DATE: March 29, 1990
TIME: 2:00 p.m.
PLACE: Lanai High School Cafeteria
Fraser Avenue
Lanai City, Lanai, Hawaii

1. Resubmittal: Y. Y. Valley Corporation Application for Stream Channel Alteration Permit, Maunawili Stream and Tributaries, Kailua, Oahu
- ✓ 2. Resubmittal: Petition for Designating the Island of Lanai as a Water Management Area

OP Exhibit 7

State of Hawaii
COMMISSION ON WATER RESOURCE MANAGEMENT
Department of Land and Natural Resources
Honolulu, Hawaii

March 29, 1990

Chairperson and Members
Commission on Water Resource Management
State of Hawaii
Honolulu, Hawaii

Gentlemen:

RESUBMITTAL
Petition for Designating the
Island of Lanai as a Water Management Area

Introduction

On March 2, 1989, the Commission on Water Resource Management received a written petition to designate the Island of Lanai as a Water Management Area for the purpose of regulating the use of ground-water resources. The petition was submitted by Mr. John D. Gray on behalf of the 168 residents of Lanai. This petition stated that resort development on Lanai in the future would cause water demand to exceed the available water supply.

On May 17, 1989 the Commission approved the continuance of the designation process for Lanai and subsequently held a public hearing on August 29, 1989 to receive oral and written testimony. Mr. Gray requested a contested case hearing, but the Office of the Attorney General has subsequently advised the Commission that the law does not provide for a contested case hearing in the designation process. A contested case could arise later in the permitting stage when individual rights, privileges, or duties are determined.

Pursuant to HRS §174C-46 Commission staff conducted an investigation of Lanai's hydrology, reviewed the public testimony and existing literature, and evaluated comments of other governmental agencies. Findings of Fact have been prepared which summarize that investigation. To allow sufficient time for public review of the Lanai Water Resources Findings of Fact, the Commission deferred action on the petition for designating Lanai as a water management area at its January 31, 1990 meeting.

Hawaii's Water Code, HRS §174C-44 establishes eight criteria which the Commission must consider in deciding whether to designate a ground water area as a water management area under the Code:

[§174C-44] Ground water criteria for designation. In designating an area for water use regulation, the Commission shall consider the following:

- (1) Whether an increase in water use or authorized use may cause the maximum rate of withdrawal from the ground water source to reach ninety percent of the sustainable yield of the proposed water management area;
- (2) There is an actual or threatened water quality degradation as determined by the department of health;
- (3) Whether regulation is necessary to preserve the diminishing ground water supply for future needs, as evidenced by excessively declining ground water levels;

- (4) Whether rates, times, spatial patterns, or depths of existing withdrawals of ground water are endangering the stability or optimum development of the ground water body due to upconing or encroachment of salt water;
- (5) Whether the chloride contents of existing wells are increasing to levels which materially reduce the value of their existing uses;
- (6) Whether excessive preventable waste is occurring;
- (7) Serious disputes respecting the use of ground water resources are occurring; or
- (8) Whether water development projects that have received any federal, state, or county approval may result, in the opinion of the Commission, in one of the above conditions.

Notwithstanding an imminent designation of a water management area conditioned on a rise in the rate of ground water withdrawal to a level of ninety per cent of the area's sustainable yield, the Commission, when such level reaches the eight per cent level of the sustainable yield, may invite the participation of water users in the affected area to an informational hearing for the purposes of assessing the ground water situation and devising mitigative measures. [L 1987, c45, pt of § 2]

Analysis

Staff has prepared a Findings of Fact to provide an objective assessment of the current and future water resource situation on Lanai. Staff analyzed recent hydrologic studies to determine the reasonableness of and consistency between hydrologic estimations presented, being cognizant of previous public testimony and Maui County comments. The report examines relevant references and adopts a conservative stance in its analysis of the water situation. The report makes no recommendations for Commission action.

The staff's updated proposed Findings of Fact reach the following ultimate factual determinations:

1) Hydrologic Assessment of High-Level Aquifer

| | |
|-----------------------------------|---------|
| Sustainable Yield of Aquifer | 6 mgd |
| Total Future Potable Water Demand | 4.5 mgd |
| % of Sustainable Yield | 75 % |

- 2) Non-potable water demands of planned land developments would be satisfied through basal aquifer sources and treated wastewater effluent which should provide a total of 1.4 mgd;

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- 3) Efforts are underway to upgrade the existing potable water distribution system. Wells 8 through 10 have been drilled in an effort to upgrade the existing water distribution system capacity to utilize the high-level water supply while existing pumps could also be lowered and/or existing wells could also be deepened to help prevent water shortages which have occurred in the past. Alternative sources consisting of non-potable treated wastewater are available, however, a basal ground-water source has yet to be discovered;
- 4) If planned alternative sources of supply do not materialize and full land development continues then future withdrawals could exceed 90% of the ultimate sustainable yield of the island's high-level aquifer.
- 5) None of the ground-water criteria cited in §174C-44, HRS, has been met to support the designation of the island as a water management area according to the following analysis:

Criterion 1.

Whether an increase in water use or authorized use may cause the maximum rate of withdrawal from the ground water source to reach ninety percent of the sustainable yield of the proposed water management area.

Discussion

From the analysis of existing data and methodology used by hydrologists in determining a sustainable yield for the island of Lanai, the estimate of 6 mgd for potable water from high-level dike aquifer is considered reasonable. A sustainable yield for the basal aquifer is unknown although it is anticipated that it can supply useful non-potable water.

Maximum future projected potable water demand on the high-level aquifer from all projects could reach 4.5 mgd. This demand is based on conservative estimates and consideration of maximum demands stated from all development related reports. In light of updated information regarding projected potable demand, the Findings of Fact total future demand on the high-level aquifer is sufficiently conservative.

Given a sustainable yield of 6 mgd and a total projected future demand of 4.5 mgd, the maximum annual average withdrawal from Lanai's high-level ground water source would be 75%. This condition would not warrant designation although the Commission, pursuant to 174C, HRS, may coordinate an informational meeting for all water users to devise mitigative measures.

Development of new and/or modification of existing well sources is necessary to increase the present potable water supply infrastructure's ability. Such efforts are presently underway while additional alternative non-potable sources are also being pursued. Once potable hardware is in place, it should not be ignored that if planned alternative non-potable water sources fail to materialize then withdrawals from the high-level aquifer could reach the 90% of its the sustainable yield.

Conclusion: NO DESIGNATION

Criterion 2.

There is an actual or threatened water quality degradation as determined by the Department of Health.

Discussion

There is no evidence of water quality degradation. Neither the Department of Health nor any individual has found or shown actual or threatened water quality degradation on Lanai.

Conclusion: NO DESIGNATION

Criterion 3.

Whether regulation is necessary to preserve the diminishing ground water supply for future needs, as evidenced by excessively declining ground water levels.

Discussion

Declining groundwater levels have been observed in wells with a significant drop in recent years. These water level reductions have been mainly due to the increase of pineapple irrigation from the introduction of full time drip irrigation combined with the recent drought conditions experienced throughout the state.

Future reductions in head levels will affect well configurations rather than the high-level ground water supply. If wells are modified then reduction in water table levels can be tolerated without harming the ground water supply for future needs.

Conclusion: NO DESIGNATION

Criterion 4.

Whether rates, times, spatial patterns, or depths of existing withdrawals of ground water are endangering the stability or optimum development of the ground water body due to upconing or encroachment of salt water.

Discussion

None of the existing wells have exhibited any evidence that upconing or salt water encroachment will be a problem. Recently drilled exploratory well Nos. 9 and 10 have yielded warm and brackish water from the Palawai basin but there is no reason to believe that, if developed, these wells would endanger other wells or the stability of the entire high-level ground water aquifer.

Conclusion: NO DESIGNATION

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Criterion 5.

Whether the chloride contents of existing wells are increasing to levels which materially reduce the value of their existing uses.

Discussion

There has not been any observable chloride concentration increases in existing wells over the past 50 years. Recently drilled wells 9 & 10 show high chloride contents which are due to geothermal activity isolated within the Palawai caldera.

Conclusion: NO DESIGNATION

Criterion 6.

Whether excessive preventable waste is occurring.

Discussion

No comment has been made through petitions or testimony regarding preventable waste and there is no evidence of excessive preventable water waste occurring on Lanai. However, the 180 gpd per capita on Lanai is slightly high compared to normal domestic use elsewhere in the state.

Conclusion: NO DESIGNATION

Criterion 7.

Serious disputes respecting the use of ground water resources are occurring.

Discussion

Since there is a single private purveyor and developer of water on Lanai, actual serious disputes are not now and have not occurred on the island in the sense that there are separate competing water wells drawing from a common aquifer. However, some dispute has arisen based on speculation that future water from the sole purveyor may be allocated to the disadvantage of the residents of Lanai should drought conditions or unforeseen events limit water withdrawals.

Conclusion: NO DESIGNATION

Criterion 8.

Whether regulation is necessary to preserve the diminishing ground water supply for future needs, as evidenced by excessively declining ground water levels.

Discussion

Ground water levels have declined since water development began on Lanai but at a relatively safe rates given the elevations of the water tables and their corresponding responses to region wide pumping. Recent increases in pumpages due to drip irrigation and development construction will lower water levels which should later stabilize at an equilibrium head. It is foreseen that future needs will be met without harm to the high-level aquifer according to the planning efforts of Lanai Company.

Conclusion: NO DESIGNATION

CONCLUSION:

None of the groundwater criteria cited in HRS §174C-44 has been met to support the designation of Lanai as a water management area.

RECOMMENDATIONS:

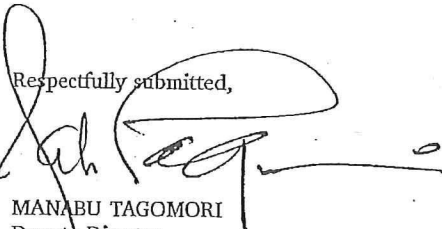
Given the findings of its investigation and the conclusions reached, the staff recommends that the island of Lanai not be designated as a water management area at this time. In light of present information staff further recommends that the Commission take the following actions to protect Lanai's water resources:

1. Require Lanai Company to immediately commence monthly reporting of water use to the Commission, under the authority of Chapter §174C-83, HRS, which would include pumpage, water level, temperature, and chloride measurements from all wells and shafts;
2. In addition to monthly water use reporting and pursuant to Secs. 174C-43 & 44, HRS, require Lanai Company to monitor the hydrologic situation so that if and when ground-water withdrawals reach the 80-percent-of-sustainable-yield rate, the Company can expeditiously institute public informational meetings in collaboration with the Commission to discuss mitigative measures;
3. Require Lanai Co. to formulate a water shortage plan that would outline actions to be taken by the Company in the event a water shortage situation occurs. This plan shall be approved by the Commission and shall be used in regulating water use on Lanai if the Commission should exercise its declaratory powers of a water emergency pursuant to Section 174C-62(g) of the State Water Code. A draft of this plan should be available for public and Commission review no later than the beginning of October 1990 and shall be approved by the Commission no later than January 1991;
4. That the Commission hold annual public informational meetings on Lanai during the month of October to furnish and receive information regarding the island's water conditions. The public shall be duly notified of such meetings;

Chairperson and Members
Commission on Water Resource Management

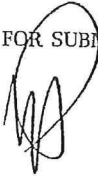
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5. Authorize the Chairperson to re-institute water-management-area designation proceedings and, hence, re-evaluations of ground-water conditions on the island if and when:
 - a. The static water-level of any production well falls below one-half its original elevation above mean sea level, or
 - b. Any non-potable alternative source of supply contained in the Company's water development plan fails to materialize and full land development continues as scheduled.
 - c. Items 1, 2, and 3 are not fulfilled by Lanai Company.

Respectfully submitted,

MANABU TAGOMORI
Deputy Director

Attach.

APPROVED FOR SUBMITTAL



WILLIAM W. PATY, Chairperson

State of Hawaii
COMMISSION ON WATER RESOURCE MANAGEMENT
Department of Land and Natural Resources
Honolulu, Hawaii

March 29, 1990

Chairperson and Members
Commission on Water Resource Management
State of Hawaii
Honolulu, Hawaii

Gentlemen:

RESUBMITTAL
Y. Y. Valley Corporation
Application for Stream Channel Alteration Permit
Maunawili Stream and Tributaries, Kailua, Oahu

Y. Y. Valley Corporation proposes to construct the Royal Hawaiian Country Club and golf course in Maunawili Valley in two phases. The golf course design in Phase 1 will require the installation of seven bridges and three pipe culvert crossings over perennial and intermittent streams, three concrete ford crossings, and twenty single culverts in drainageways (gulches that carry water only during storms). Two offstream ponds are also proposed. Only Phase 1 channel alterations, shown on Exhibit A, are being considered at this time.

PROJECT DESCRIPTION

The seven proposed bridges will have clear spans over perennial and intermittent stream channels to minimize disturbance to the existing streambeds. Concrete abutments will be located above and away from the stream banks. The three 48- or 54- inch pipe culvert crossings will be embedded in to streambed to a depth of 6 to 9 inches and will be constructed below the normal flow line with gravel and stones epoxied to simulate natural substrate. The culverts will drain a small area of 54 acres and will be sized to pass the peak discharge of a 10-year storm with provisions for overflow. Three concrete fords are also proposed to provide stable at-grade crossings for carts and maintenance vehicles.

Pond 1 will be designed for sediment control and irrigation purposes. Pond 2 will be utilized for irrigation. Construction adjacent to the bank of Makawao Stream for Pond 1 will include a concrete headwall and a 4-foot wide by 70-foot long concrete-rubble-masonry (CRM) spillway along the northern tip of Pond 1. In addition, a CRM riprap about 135 feet long and 20-foot wide will protect the Makawao stream bank along the southwest side. Pond 2 will have construction similar to Pond 1, including two concrete headwalls along its eastern side abutting the Makawao stream bank, a CRM riprap about 140 feet long by 20 feet wide to protect the bank - fill, and a 4-foot wide by 40-foot long CRM spillway along the pond's northern tip.

To eliminate pumping at Pond 1, a 12-inch diameter inverted siphon about 300 feet long will be installed between the two ponds to regulate water level. Four electrical conduits encased in a concrete jacket and one irrigation line about 4-inches in diameter will be installed alongside the siphon in Makawao Stream.

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To provide stable crossings for grading equipment and minimize disturbance to the streams during construction, temporary pipe culverts will be installed adjacent to all proposed bridge locations. These culverts will be removed after bridge construction has been completed and streambeds will be restored to their natural condition.

Although the golf course was designed to largely conform to existing site conditions, twenty single culverts would be installed within existing swales.

AGENCY REVIEW

The Corps of Engineers has no objection to the applicant's proposal to use pipe culverts in lieu of bridges at crossings B-2, B-3 and B-3A and the installation of the siphon and utility crossing. The Corps requires that the activity not significantly disrupt the movement of indigenous aquatic life. The applicant in this instance has consulted informally with the Corps and the U.S. Fish and Wildlife Service to assure that his culvert and pond designs do not impede the migration of aquatic species.

The City and County of Honolulu Department of Land Utilization confirms that the proposed improvements lie outside the Special Management Area. The Department asked to what extent the proposed storage ponds would (a) alter flows in Makawao and Maunawili streams or (b) impound waters which would otherwise inundate the wetland at the base of the valley. If stream flows or the quantity of waters reaching the wetland are changed, what effects would this have on existing flora and fauna? What long-term effect would it have on the wetland system?

The University of Hawaii Environmental Center commented on the design of the culvert structures, noting that the loose fill overlying culverts should be compacted to withstand possible overtopping. The Center urged the careful design of antiseep collars on the culverts and the use of hooded culverts to enhance flow at intermediate stages it asked if consideration had been given to spillway design, grassed slopes, and maintenance of slopes to adequately carry the overflow from a major storm. Also, were measures to prevent blockage of culvert inlets included in the design and was an estimate made on the life of the ponds, including provisions for sediment removal to maintain storage capacity? (A copy of the agency's comments was forwarded the applicant.)

The Division of Aquatic Resources states that the tributaries are not known to provide significant aquatic habitat and, from the aquatic resources standpoint, it has no objections to the project.

The Division of Forestry and Wildlife states that Maunawili Stream and its tributaries flow into Kawainui Marsh, an important habitat for waterbirds and related marsh flora and fauna. The stream alterations should not restrict water movement to the Marsh, and that precautionary measures must be taken to prevent the in flow of silt and pollutants.

The Division of Historic Preservation notes that the archaeological contract for this project includes monitoring of the construction of culvert crossings. Therefore, the issuance of a permit should have no adverse effect on significant historic sites.

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The Division of State Parks, the Natural Area Reserve System and the County Department of Public Works had no comments or objections to the proposed project. The Office of Conservation and Environmental Affairs indicates the project is not located within the Conservation District.

The 90-day deadline for Commission action on this application is April 9, 1990.

ANALYSIS

The project site is drained by several perennial and intermittent streams. The streams can be described as shallow riffle-pool systems with heavy riparian overgrowth. Maunawili Stream serves as the major collector stream for numerous tributary streams and unnamed drainageways. Maunawili Stream crosses Kalaniana'ole Highway, discharges into Kawainui Marsh, and ultimately flows into Kailua Bay. Portions of Maunawili Stream have been channelized and existing culverts at some road crossings impede the movement of native species upstream. Average flow for Makawao Stream is 4.93 cubic feet per second. Makawao Stream is partially diverted by the Maunawili Ditch system for irrigation in Waimanalo.

Aquatic Species. Between 1975 and 1984, aquatic species have been sampled at 24 different stations within the Maunawili Stream system. Within and downstream of the Phase 1 project area there are 4 stations on Maunawili Stream, 7 stations on Makawao Stream and 3 more stations on Ainoni Stream. The following species have been observed:

| | |
|-----------------|--|
| Lower Reaches: | crayfish, pond snail (<i>Melanoides</i> sp.), chinese catfish, carp, smallmouth bass, guppies/mollies and tilapia |
| Middle Reaches: | crayfish, pond snail, chinese catfish, smallmouth bass, guppies/mollies, tilapia and swordtails |
| Upper Reaches: | o'pae kala'ole, Tahitian prawn, crayfish, pond snail, guppies/mollies and swordtails |

On July 30, 1986, staff accompanied a US Fish and Wildlife Service biologist and the applicant's consultant on a survey of the stream. The Service, in its letter of August 11, 1986, reported that no endemic o'opu, hihiwai, or o'pae were observed. The only abundant native species observed throughout the stream was the native snail *Melanoides* sp. Introduced species such as the crayfish, swordtails, guppies and tilapia were also observed.

Potential Impact to Instream Uses. The use of clear span bridges will not alter the bed and banks of the streams they cross nor impede the migration of aquatic species within the stream system. By embedding the 48- or 54- inch culverts in the streambed and grouting the culvert invert with gravel and stones, the culverts will simulate the natural substrate thereby decreasing flow velocities within the pipe and providing a surface native species can utilize to move upstream. Ford crossings and pipe culverts will be installed at swales and minor drainageways with minimal flow and, as such, will not affect aquatic species habitat. Water for the ponds will be obtained from on-site wells and

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runoff; no diversion of streamflow is proposed. Therefore, Kawainui Marsh will not be affected. The streambed at the inverted siphon will be restored to its natural condition following construction. Silt fences will be utilized during pond construction to minimize the movement of silt into Makawao Stream.

The project developer has retained a firm to provide continuous stream water quality monitoring to insure that the State water quality standards are met. The applicant has utilized bridge and culvert designs that are sensitive to instream needs.

RECOMMENDATION

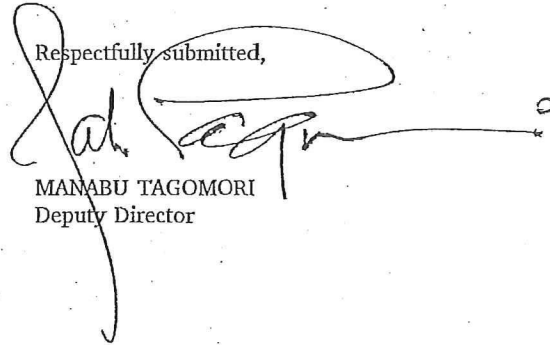
That the Commission approve the issuance of a stream channel alteration permit to Y. Y. Valley Corporation for the construction of seven bridges, three culvert crossings, three concrete fords, twenty pipe culverts within drainageways, and two ponds with siphon and utility lines buried under Makawao Stream with supporting facilities at Maunawili Stream and tributaries at TMK: 4-2-08: por. 1 and 4-2-09: por. 1, Kailua, Oahu, Hawaii. This permit shall be valid for a period of two years from the date of approval, March 15, 1990, and subject to the following conditions:

1. The applicant shall comply with all other applicable statutes, ordinances, and regulations of the Federal, State, and City and County of Honolulu governments.
2. The applicant, his successors, and his assigns shall indemnify, defend, and hold the State of Hawaii harmless from and against any loss, liability, claim for property damage, personal injury, or death arising out of any act or omission of the applicant or his successors, assigns, officers, employees, contractors, and agents under these permits or related to the granting of this permit.
3. The applicant shall notify the Department, by letter, of the actual dates of project initiation and completion.
4. Before proceeding with any work authorized by the Commission, the applicant shall submit two copies of the construction plans and specifications to the Department for approval as to consistency with the conditions of the permit and the declarations set forth in the permit application.
5. The applicant shall utilize erosion control measures during construction to minimize turbidity (such as scheduling of work during periods of low streamflow) and prevent debris, construction materials, including cement, petroleum products, and other pollutants, from entering the stream. Wash and dust control water shall be properly disposed of.

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6. In the event that subsurface cultural remains such as artifacts, burials or deposits of shells or charcoal are encountered during excavation work, the applicant shall stop work in the area of the find and contact the Department's Division of Historic Preservation (548-6408) immediately. This office will assess the situation and recommend mitigation, if necessary.

Respectfully submitted,



MANABU TAGOMORI
Deputy Director

Attach.

APPROVED FOR SUBMITTAL:



WILLIAM W. PATY, Chairperson

MINUTES OF THE MEETING OF THE
COMMISSION ON WATER RESOURCE MANAGEMENT

DATE: March 29, 1990
TIME: 2:00 p.m.
PLACE: Lanai High School Cafeteria
Fraser Avenue
Lanai City, Lanai, Hawaii

ROLL Chairperson Paty called the meeting of the Commission on Water Resource Management to order at 2:10 p.m.

The following were in attendance:

MEMBERS: Mr. William Paty
Dr. John Lewin
Mr. Richard Cox
Mr. Robert Nakata
Mr. Guy Fujimura
Dr. Michael Chun

STAFF: Mr. Manabu Tagomori
Mr. George Matsumoto
Mr. Eric Hirano
Mr. Roy Hardy
Ms. Sharon Kokubun

COUNSEL: Mr. William Tam

OTHERS:

| | |
|----------------------|---------------------|
| Mr. Bradley Mossman | Mr. Robert Sarac |
| Mr. Arnold Lum | Mr. Ron McOmber |
| Mr. Thomas Mitsunaga | Mr. Philip Ohta |
| Mr. Ralph Masuda | Mr. Rik Hokama |
| Mr. John Walker | Mr. James E. Pierce |
| Ms. Joana Varawa | Mr. Tom Leppert |
| Mr. Al Parker | Mr. Sol Kaopuiki |

ITEM 1 RESUBMITTAL: Y.Y. VALLEY CORPORATION APPLICATION FOR A
STREAM CHANNEL ALTERATION PERMIT, MAUNAWILI STREAM AND
TRIBUTARIES, KAILUA, OAHU

Comments from the Hui Malama Aina O Maunawili, Kawai Nui Heritage Foundation, and Maunawili Community Association were taken point by point by Mr. Matsumoto (although copies of the comments were given to the Commission, because of the length, he summarized the items).

Hui Malama Aina O Maunawili:

1. Page 1, Paragraph 1: Objection to conducting the hearing on another island.

This was answered earlier by Mr. Tagomori's statement that at the March 14th meeting in Kona the Commission deferred action on this item to give the public more time for comments. The April meeting on Oahu would not meet the deadline, so it was agreed that the matter would be taken up at the Lanai special meeting.

2. Paragraph 2: Statement that the applicant was incorrect in saying that the principal access to the project site is through Auloa Road when the Royal Hawaiian Country Club is constructing a new access road to the golf course.

The misunderstanding is that access to the golf course is through Auloa Road, but the applicant must gain access to the project through the road being constructed.

3. Paragraph 3: Authenticity of the applicant's quad map which does not show the old government road and which the applicant used in making his project description.

The copying process did not show the road, although the road is still there. The original map, a colored Geological Survey topographic map, shows the road.

4. Paragraph 4: Concern that the golf course is not being built in conformance with the topography of the site.

The applicant worked together with the City and County to minimize as much grading as possible and the final configuration was something that the County has accepted.

5. Page 2, Paragraph 1: Concern regarding streamflow diversion.

The applicant has stated that he will not be diverting any streamflows. Despite all the construction work that is to take place in the streams, the water to be used will come from wells and not from the streams.

6. Paragraph 2: Concern regarding management or monitoring so the work along Makawao Stream would not affect the aquatic life.

The applicant must comply with the grading plan and the approved erosion control plan from the County, which would address the sediment flow into the streams from the project.

7. Paragraph 3: Concern on the amount and length of time temporary culverts will be needed and the effect on the flora, fauna and water movement.

The applicant states that the culverts will be located at the sites of the seven bridges to get to the other side of the stream. Once the bridges are constructed, the culverts will be removed.

8. Paragraph 4: Reference to water monitoring and findings.

The applicant must adhere to the water quality monitoring requirement imposed by the County. The applicant has complied with the County's requirement that he hire a consultant and have the Dept. of Health (DOH) approve the consultant's erosion control/water quality monitoring plan. AECOS, Inc. met with DOH personnel to work out the monitoring plan.

9. Paragraph 5: Concern on transformation of the wetlands near ponds 1 and 2.

The applicant worked with the Corps of Engineers and a site visitation was also done by the Corps. The Corps identified several locations that should be avoided because they were considered wetlands.

The Corps did not identify as wetlands the area where ponds 1 and 2 were located.

10. Paragraph 6 and Page 3, Paragraphs 1-4: Regarding DLNR monitor the design of the Marsh and flood plain enforcement/requirements.

The Corps and the County are presently working on the design of the marsh levee. As soon as the design is approved, DLNR will review the plans for acceptability. The project site is not a flood plain as determined by the flood insurance rate maps. It is outside the floodplain; therefore, the work is exempt from the requirements of the city flood ordinance.

11. Paragraph 5: Reference to four pages of text regarding drainage.

The applicant has stated that while only four pages of his application relate to erosion control, his drainage study report is voluminous, the County has accepted the study report.

Maunawili Community Association

1. Item 1: Comment that old government road is not shown on the map.

Mr. Matsumoto answered this as he had earlier under Hui Malama Aina O Maunawili Comment 3.

2. Item 2: Absence of certain information in the area of Makawao Stream.

The Korean Tunnel the association refers to does exist, and it leads to Makawao Stream, but lies outside of the project area.

3. Item 4: Reference to Mr. Carter's declaration of water use.

Mr. Carter diverts some water for domestic purposes mauka of the project site. A copy of Mr. Carter's water use declaration, attached to the handout for the Commission, is a matter handled under the State's registration program.

4. Item 5: Association's statement that it is not wise to cover over streambeds with culverts.

The reason the applicant used culvert crossings in lieu of bridges is to minimize enlarging the natural streambanks. He anticipates the culverts will be overtopped during large storms; the objective was to not disturb the streambank unnecessarily.

5. Item 6: Concern on grading and erosion.

The applicant must work with the County on the implementation of his erosion control and grading plan. This work will be monitored by the County.

6. Difference between "retention" and "detention" ponds.

A detention basin is used to detain the flow of water so as not to allow the peak of the storm flow to arrive all at one time at a point. A retention basin is to hold back or store water so that the released stream flow will not exceed the normal flow.

Kawai Nui Heritage Foundation

1. Page 1, Paragraph 3: Disappointment that the submittal for the project is being handled on another island, and asked why it could not have been heard at the March 21st Oahu public hearing.

March 21st was a public hearing, limited to the Hawaii Water Plan; therefore the Y.Y. Valley Corporation submittal was not placed on the agenda.

2. Page 1, Paragraph 5: Question on sediment control and the amount of sediment and water the ponds will hold for purposes of irrigation.

The applicant states that the amount of drainage into the pond would come from only about 17 acres of land. The primary purpose of the ponds is to store water, not retain sediments. Storage at no. 1 is about 2.6 mg and at pond no. 2, about 2.4 mg.

3. Page 2, Paragraph 1: Questioned need for spillway for the reservoirs since the purpose is for sediment control.

Again, the purpose of the pond is to store water, not for sediment control. The applicant has a sediment control plan that has been approved by the County.

4. Page 2, Paragraph 3: Assurance that future diversions would be kept out of the ponds and concern that pumping of wells would affect the streamflows.

Staff cannot give that assurance; they have to go on the declaration of the applicant that no stream water would be diverted for the project. The question regarding the effect of pumping on the streamflows was addressed when the Commission issued drilling permits for the wells. The Commission made it a requirement that the applicant monitor the streamflows for possible impact. The applicant will comply with the condition.

Mr. Cox asked if the foundation of the rip-rap for the pond would be protected from flood flows coming down the stream so that it would withstand those conditions. He did not see a problem on the old road if nothing would be encroaching except the cart path.

In regards to the rip-rap, Mr. Matsumoto said it will be placed to protect the footing of the embankment that is built for the pond and would be below the flood height. Chairperson Paty answered the road question by stating that the road exists on the map, but doesn't exist in fact. The Commission does not see anything happening here that would affect the "paper road". The Department is looking to possibly working a quit-claim arrangement with the developer and an agreement to develop a suitable trail in the future.

Going back to the statement Mr. Matsumoto made regarding assurances on future diversion, Mr. Cox felt that any future diversion would require the consent of the Commission as long as the "status quo" on interim stream standards remains.

Mr. Tagomori replied that was correct; if a diversion is proposed, another application would need to be brought before the Commission. Referring to the old government road, Mr. Tagomori stated that the applicant decided to keep away from the area because the exact alignment of the road is not known.

Mr. Fujimura stated he did not see anything that monitors adverse impact on the marsh.

Mr. Matsumoto pointed out that it would be addressed by the applicant's required water quality monitoring plan.

Discussion followed on whether siltation would come under the water quality plan (DOH) or under the Commission if it affects the flow of water downstream. Dr. Chun asked if the Commission should get involved if sediment begins to affect the hydraulics of the stream.

Mr. Fujimura added that regardless of whether it is DOH or the Commission, if one of the concerns raised is possible impact of silt and pollutants on the marsh, not the stream, he felt a condition addressing that particular problem should be put on the permit. If the impact is on-going, the Commission has an obligation to mandate some sort of monitoring or have someone else monitor the potential impacts on the marsh after construction.

Mr. Matsumoto suggested the Commission ask the applicant whether the monitoring program that had been approved by DOH would extend beyond the project completion.

Dr. Chun expressed his concern that in order for the applicant to answer questions regarding possible impact of the golf course on the marsh, the applicant would need to undertake a major study of Kawaiui Marsh. He questioned if that should be required of the applicant. In order for the applicant to determine what influence his project would have on Kawaiui Marsh, he would need to establish what the influences of all other contributions to Kawaiui Marsh are also. He asked Mr. Fujimura if he was suggesting that monitoring be done after construction and if there is no difference, then the monitoring would not need to be done on the marsh.

Mr. Fujimura said after construction has been completed and it is an ongoing regular project, it can then be determined if the water the applicant said is going to be there continues to flow at that rate. If it does not flow at that rate, it should be fixed. Regarding the pollutants, Mr. Fujimura deferred to Dr. Lewin to whatever program they have to ensure that the marsh is protected.

Dr. Lewin stated DOH will monitor water quality for pollutants and bacterial counts of both the ocean outfall of the marsh and also in one location in the marsh itself. They will not be monitoring the build-up of siltation. Several features are still being discussed and will take interagency cooperation.

Mr. Fujimura reiterated that the staff recommendation and the applicant both say that subsequent to the project being completed there would be no impact on the marsh and if everyone was comfortable with that statement they should be able to prove it.

Dr. Chun asked if Mr. Fujimura was asking that the monitoring be extended beyond the construction phase of the project.

Mr. Fujimura said that whatever parameters they are focusing on to say there is no impact on the marsh, the Commission should be satisfied that the areas they are concerned with upstream will not create any impact. If there was any impact, staff should go back to the applicant and tell him it will have to be corrected.

The Chairperson stated the applicant may want to make a condition relative to impacts after the project has been completed since the recommendation deals with impacts during construction.

Mr. Matsumoto pointed out that the requirement of the County to have the monitoring program presumes that there will be some sediment going down the stream. To mitigate that impact they have required erosion control practices be carried out by the applicant. They are trying to minimize the impact of sediments to downstream areas.

Mr. William Tam commented that there were a series of lawsuits involving the Kawaiui Marsh and the County. The County and the Corps of Engineers revised their flood control plan to take into account how this situation would be handled. He suggested it would be useful to have whatever results the Commission wants to dovetail into that plan, especially if the Kawaiui Marsh eventually comes to the State. He stated he was concerned about tort liability.

Chairperson Paty called on the applicant, Mr. Robert Sarae of Community Planning Inc., to address the concerns of the Commission and community associations.

Regarding the water quality monitoring program, Mr. Sarae said the following was a condition for their Conditional Use Permit granted by the City:

"During construction work authorized by the grading permits for the infrastructure in Phase I, the developer shall coordinate efforts with the State DOH in collecting and recording water quality data. Prior to the issuance of a permit for the finished grading of the second phase golf course, the developer shall submit to the City a statement from DOH that water quality standards and concerns have been satisfactorily met during the construction of Phase I."

In February 1988 they met with the DOH staff to come up with a water quality program and took four baseline readings in February and March of '88 and were taking readings about once a month.

Dr. Lewin asked what kind of readings were being taken.

Mr. Sarae replied they were taking turbidity, non filterable residue, temperature, dissolved oxygen, total nitrogen, nitrate, nitrite and phosphorus readings monthly and met again with the DOH staff in October to submit all their monitoring data up to that date. A summary report up to that period, as well as a proposed program continuing from there, is now being prepared. Since January of this year they have started taking quality sampling about twice month.

To answer Dr. Chun's question on the number of sites being sampled, Mr. Sarae said there were four to six sites, depending on whether or not it rains. He also said the problem they had during monitoring was the other construction going on in the area at the same time within the streams by the State, City and the Federal government; none of which was required to take quality tests. Therefore, there was a lot of contributing silt coming from the other projects.

Dr. Lewin asked if the sites chosen were made in consultation with DOH.

Mr. Sarae replied that he had reported which sites were being considered and they were not asked to take any additional sites. Reports were submitted, and as far as they know, they were adequate. Since October, when the grading started, they started taking additional sites for comparison.

Dr. Chun asked how they would react to continuing the monitoring program.

Mr. Sarae stated he did not think it was a problem for the first phase if all the necessary permits are on schedule. For the second phase, if DOH requires it, they would continue.

Mr. Fujimura then directed some questions to Mr. Tagomori, asking if the key concern on the marsh was basically the potential for pollutants going into the marsh and if pollutants are defined as chemicals and sediment and also, if it were found that there was an adverse impact based upon what was being monitored, what could the Commission do at that point.

Mr. Tagomori responded that if there is going to be any impact, it would be cropping up during the course of the development. Staff would be monitoring the work, with the applicant making corrections.

Mr. Fujimura asked what would be an appropriate amendment to the conditions to get the monitoring subsequent to completion of the project. Mr. Sarae replied that their monitoring plan must satisfy DOH. Mr. Tagomori said staff has a standard condition (Condition 1) requiring the applicant to comply with federal, state and county requirements. Mr. Fujimura was concerned that other agencies may not clearly understand the Commission's concerns.

Chairperson Paty said Mr. Fujimura is asking the applicant to continue to maintain a monitoring station subsequent to the completion of the work, conforming to Condition 1, and suggested the following condition be added:

"The applicant will continue to provide DOWALD with the on-going results of the monitoring work."

Mr. Sarae agreed to the condition.

Dr. Lewin stated he would get a report of the present findings to the members and would also request continuing the monitoring of the use of fertilizer in the project. He would get the information back to the Commission and staff on a regular basis.

The Chairperson asked that the record show that the Commission addressed the concern largely expressed by some of the residents in the project area and that Dr. Lewin assured the Commission that as part of his monitoring program he will keep the Commission informed of the results.

Mr. Cox commented he understood the concern that the meeting was not held on Oahu, but the Commission did the best it could to meet the deadlines and that the application was being heard at a meeting, not a hearing.

Mr. Cox then moved to approve the recommendation with the condition that monitoring be continued and that the DOH will keep the Commission informed of the results of the monitoring program.

Unanimously approved (Cox/Chun).

ITEM 2 **RESUBMITTAL: PETITION FOR DESIGNATING THE ISLAND OF LANAI AS A WATER MANAGEMENT AREA**

Mr. Tagomori and Mr. Hardy reviewed the submittal and additional information received.

One of the recommendations was to re-institute water designation proceedings if the groundwater levels reach one half of their original levels (Condition 5.a.), Dr. Chun asked what was meant by "original". Mr. Hardy replied that each well encounters original water levels at different heights when first drilled and using the model proposed by the consultants, a point one-half the original level of water, would be the point where ultimate sustainable yield could be retrieved and withdrawn.

Mr. Cox asked if there was any kind of an estimate on the amount of storage available if the well is drawn down to 50% of the original levels. Mr. Hardy replied that he did not have a volume on storage, high level water is in itself stores much water. Basal water goes out further distances in a horizontal direction and high level water is higher in the vertical direction; both have influence below the sea level.

Dr. Lewin asked how the estimated volume of the sewage effluent was calculated. Mr. Hardy said it was estimated in the Lanai Company's Water Development Plan the ultimate potential source of water was 0.4 mgd. Although, at this time, they felt they could only recover half of that from ponds and as population increases they would get more sewage and therefore more water to irrigate the golf course in Manele.

In the event that the plantation reduces the acreage involved what effects would the lack of irrigation water have on the recharge, asked Dr. Lewin.

Mr. Hardy replied return irrigation water was never considered in the original sustainable yield figures of 6 mgd. If anything, it would raise the sustainable yield.

Mr. Paty inquired if in regards to Recommendation 2, which says the Company can expeditiously institute public information meetings seemed to be an optional effort. He asked if staff intended to keep it optional or if it was something that should occur.

Mr. Hardy said it was to bring to the attention of Lanai Company that there are provisions in the Code where if withdrawals reach the 80% of the sustainable yield rate, they can hold informational meetings in collaboration with the Commission to discuss mitigative measures.

Dr. Chun suggested the Commission should require that Lanai Company monitor the situation and that if withdrawals reach the 80% sustainable yield rate, that the Commission may institute public informational meetings.

Mr. Arnold Lum, Native Hawaiian Legal Corporation, summarized Mr. John Gray's written testimony (copies provided to Commission). Mr. Lum also passed out a document for the Commission's review of their findings. He felt the numbers 4.22 mgd of potable water was wrong and should be closer to 5.22 or 5.5 mgd. at the present time. If the Company should find the non-potable source then that could change, stated Mr. Lum. He went over other points of Mr. Gray's testimony and their findings.

Dr. Lewin asked if the golf course standards used as a comparison was based on a traditional golf course with irrigation of the entire fairway or was consideration taken into account that a target model was being used. Mr. Lum replied that they assumed a 100 acres conservative estimate. In closing, Mr. Lum said the people want the Company to develop the Manele Resort Development because they are depending on it for jobs, but they want someone to regulate the water resource.

Mr. Thomas Leppert of Oceanic Properties, representing Lanai Company, gave his testimony (copies were provided in the Commission folder) and answered questions of the Commission and statements made in Mr. Gray's testimony. Referring to Mr. Gray's statement that he did not get reports from the Lanai Co., Mr. Leppert said copies of reports were sent to him. He said the figures were conservative (30-40% higher) numbers to give themselves a buffer. County standards were used on the housing information.

Mr. Leppert stated that in no instance did they say they would use potable water at Manele. They suggested in the application that a condition of Manele be alternative source water. In regards to the golf estimates, they used golf course architects, construction, and irrigation people to estimate demands of water. All of the irrigation at both Koele and Manele will be computer operated because it reduces the usage. Kikuyu, Bermuda, or New Mexico grasses will be used because they are the lowest users of water and are also drought resistant. The golf course at Koele is being designed to be lined and used as catchment purposes to reduce the water usage over time.

Mr. Fujimura stated once the wells are completed and they actually see if the sources can be developed and the sustainable yield is actually 6 mgd or not, and if an expected source does not come online--at that point, there would have to be a reevaluation of the impact on the aquifer.

Mr. Leppert replied that the group that should be most concerned about the water is themselves from the shortage standpoint because of the Water Shortage Plan. The first priority for water is domestic use (community, home use, etc.), the second is commercial, and third would be irrigation for golf courses, etc. They would be hit first, from the water standpoint they have more of an interest in preserving it than any other group involved.

Mr. Fujimura asked for clarification on the number of years the the acreage reduction (pineapple production) has been ongoing. He asked if the timing was matched in terms of where the hotel is at and what's happening to the work force in pineapple. Mr. Leppert replied it was roughly five years ago that it started. He stated the first priority for jobs would be the people on the island and they also commit to additional training for the people.

If a water management area was declared how would they see it as a major problem, asked Dr. Lewin.

Mr. Leppert replied he would try to answer it as an analytical question since it is hypothetical. He felt it is not necessary, they are comfortable in sharing information because they share the same interests. There are a number of alternative sources such as brackish water or a desalination plant for irrigation for Manele although they would make this their second or third choice.

Mr. Cox asked what the status was for exploration of brackish water. Mr. Leppert replied they dug two wells. One had high chlorides with warm water and the other did not show a water source.

Mr. Jim Parker of Dole Company stated no decision had been made on the production of the Lanai Plantation that has been influenced by development. The decision was made because of Dole Package Foods Co.'s sourcing of pineapple for the international market - that sourcing is driven by the competition. He said they are down about 60 employees from the same time last year.

Mr. Cox asked how many acres were to be planted in pineapple.

Mr. Parker responded that approximately 750 acres would be planted.

Mr. Vince Bagoyo of the Maui Department of Water Supply expressed his concern because the figures presented by the Lanai Company keeps changing. For planning purposes, he wanted some kind of consistency in the figures. The development plans by Lanai Co. appear to be consistent with the Community Plan. If the figures presented by staff is correct, it appears to be sufficient water to meet the development needs. There is only one potable aquifer for the island and extreme caution should be used to prevent damage to the aquifer or contamination by agricultural chemicals. Staff's recommendation that Lanai Company form a water shortage plan is a good idea, but what concerns them is that there seems to be an assumption that there will be a water shortage. Should the Commission decide to adopt the staff recommendation not to designate, he asked that they consider as part of the condition that Lanai Co. should not be withdrawing more than what is being presented (4.22). If additional water beyond the 4.22 being proposed for withdrawal, Mr. Bagoyo suggests that the remaining water should be set aside for residential and agricultural use.

Mr. Cox clarified that the 4.22 figure Mr. Bagoyo mentioned is the staff's estimate, not the Lanai Co. The Lanai Co. figure was 3.5.

Mr. Tom Mitsunaga, a Lanai resident, stated he has a copy of Mr. Gray's report and is sympathetic with that report because they (residents) have not had reports sent to them for review either. He is concerned because the figures are estimated, they're not sure what the figures are really going to be. The availability of water is also an estimate and felt pumpage figures should be made available before saying the water is there for use. He's concerned about what would happen after the project is completed. He urged the Commission to look at the water situation because if the aquifer is damaged the people will suffer.

Mr. Ron McComber asked why Lanai Co. was against designation if there is so much water available, why they do not want it watched. He felt if there was much water as they say, the Lanai Co. should let the people have the designation without fighting it. Out of the 458 acres for Hulapoe Manele, only 110 acres will be serviced by nonpotable water; the other acreage will be residential housing who will need water for the grounds. Therefore, they will use more water than the initial golf course because there is very little rainfall, it's very dry, very arid. The people of Lanai asked for designation so they would have some other entity to ask questions to protect them.

Joanna Varawa expressed a concern about what safeguard or guarantee they have that the aquifer is not going to be contaminated since well #8 is in the middle of the golf course. She was told that the well is above the golf course not in the middle. Dr. Lewin replied DOH established eight standards that apply to golf courses to protect ground water supplies. The golf courses have to comply to these standards which include chemicals that cannot be used, regulates the amount of fertilizers, required water test. He added that the well would be extensively tested to protect it.

Mr. Cox inquired of staff how deep well #5, which reportedly sucked air from time to time. Mr. Hardy replied it was approximately the same as well #4 (about 1000 feet), it would have to be deepened if they were to develop the ultimate sustainable yield of 6 mgd.

Dr. Chun commented the Commission must assure themselves as well as the people of Lanai that the uses on the island are monitored very closely because it is a unique single aquifer. He felt there were enough conditions that the Commission was comfortable that the situation is closely overlooked and that they can move quickly should things not go according to the conditions stated.

Dr. Chun moved that the petition for designation be denied. The motion was seconded by Mr. Cox.

Dr. Lewin stated discussions were held with staff at DOH and that they were not concerned at this point about water quality issues, they felt that could be safeguarded. They were concerned about the supply issue and wanted to stress the importance of locating the other source of water for the Manele golf course. He suggested Addition "D" be added to the staff's recommendation to safeguard protecting the water as follows:

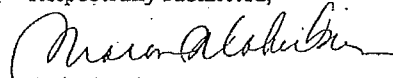
"d. If the withdrawal exceeds 4.3 mgd per day, that it be a trigger to reinstitute water management area designation proceedings".

Unanimously approved with the above recommendation (Lewin/Chun).

ADJOURNMENT

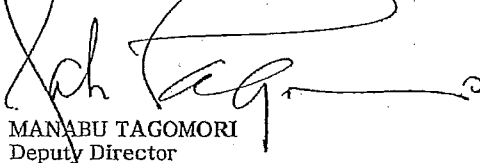
The meeting was adjourned at 5:43 p.m.

Respectfully submitted,



SHARON S. KOKUBUN
Secretary

APPROVED AS SUBMITTED:



MANABU TAGOMORI
Deputy Director

LEO R. ASUNCION, JR., AICP

Director, Office of Planning, State of Hawaii

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PROFESSIONAL EXPERIENCE

Director, Office of Planning; December 2015 - Present

Acting Director, Office of Planning; March 2014 – December 2015

Responsible for the management, budgeting, and oversight of the Office of Planning. Responsible for overall development of policies, execution of studies and reports generated by all divisions of the office, and represents the office before the State Legislature, Executive Branch agencies, communities and the public.

Planning Program Manager, Hawaii Coastal Zone Management Program; June 2011 – December 2015

Responsible for management, budgeting and implementation of the State's Coastal Zone Management Program. Responsible for developing policies and applicable background information for policies affecting Hawaii's Coastal Zone Management Area. Oversight on the Update of the Hawaii Ocean Resources Management Plan, Coastal Non-Point Pollution Control Program, and other planning and environmental aspects of the Program.

Sr. Regulatory Analyst, Hawaiian Electric Company, Inc.; April 2009 – June 2011

Responsible for implementing policies relating to regulatory affairs, and providing substantive direction for the development, preparation, submission, presentation, and execution of significant investigations and other major regulatory matters before the Hawaii Public Utilities Commission in the focus areas of Integrated Resource Planning, Energy Efficiency and Renewable Energy. Reviewed and prepared applications, written testimonies, and other regulatory documents consistent with Company policy, Hawaii regulatory law, and regulatory decisions. Assist in the development, interpretation, and administration of the Company's Tariffs and Rules.

Sr. Resource Planning Analyst, Hawaiian Electric Company, Inc.; Aug 2005 – April 2009

Responsible for management and coordination of the Integrated Resource Planning (IRP) process for subsidiary Maui Electric Co, Ltd., including development of 20-year long-range and 5-year action plans that meet customer needs, corporate/shareholder goals, and regulatory reporting requirements. Coordinated approximately 8 to 10 intra-company and inter-subsidiary IRP team members/groups, and outside consultants. Assist in the planning and execution of public Advisory Group and stakeholder meetings.

- Developed and completed major update of Maui Electric Co., Ltd's Integrated Resource Plan within target completion date and estimated budget.
- Analyzed, recommended, and implemented as necessary, new or improved planning techniques, processes, procedures, and/or methodologies to increase process efficiency, and cost/process timing reductions.
- Performed analysis of new strategic opportunities and definition of impacts upon the company's long term planning and regulatory activities.

Project Planner/Manager, SSFM International, Inc.; Feb 2002 – July 2005

Responsible for planning, permitting, environmental impact assessments and statements, and overall project management for diverse projects worked upon by the company.

- Successful management and implementation of planning, engineering, construction and renovation projects totaling over \$25 million for various clients (Federal, State, and County agencies, and private entities) in Hawai'i, the Commonwealth of the Northern Mariana Islands (Saipan), and the Republic of Palau.
- Authored and managed various State and Federal environmental impact statements, environmental assessments, planning reports, and related documents.
- Performed technical (qualitative and quantitative) planning analysis for various projects.

Planner, Planning and Program Evaluation Division, Hawaii State Judiciary; Oct 1998 – Jan 2002

Responsible for providing planning and program evaluation support to the Office of the Administrative Director, various court jurisdictions (judges and administrators), and affiliated governmental agencies.

- Staffed and performed research for Judiciary committees examining various topics related to judicial administration, including changes to the operational administration of the Judiciary.
- Successfully updated the Statewide Judiciary Security Plan in coordination with employees, judges, administrative directors, and stakeholders; developed and implemented operational and facility renovation recommendations.
- Managed annual reviews and periodic updates of contracts and agreements between the Judiciary and the State Department of Public Safety, including private vendors for provision of materials and services.

Staff Planner, State Land Use Commission, Department of Business, Economic Development & Tourism, State of Hawaii; Jan 1992 – Oct 1998

Responsible for providing planning and policy evaluation support to the members of the State Land Use Commission.

- Reviewed and performed research of boundary amendment petitions, special permit applications, county land use applications, environmental impact statements, and other related documents to assist Land Use Commissioners in its quasi-judicial decision making process.
- Performed policy research and analysis on land use, infrastructure, utility, and planning related activities in Hawai'i.
- Reviewed and completed major amendments of the Commission's administrative rules.

EDUCATION

Hawaii Pacific University – Master of Business Administration degree (With Distinction)

University of Hawaii – Manoa – Master of Urban and Regional Planning degree

University of Hawaii – Manoa – Bachelor of Arts degree in Political Science

PROFESSIONAL AFFILIATIONS/AWARDS

American Institute of Certified Planners, July 1994 – present

American Planning Association, National and Hawaii Chapter, September 1988 – present

Hawaii Pacific University Alumni Global Network, 2008 – present

University of Hawaii Alumni Association Life Member, 1992 – present

W. ROY HARDY
Resume

**WORK
EXPERIENCE:**

HYDROLOGIC PROGRAM MANAGER (Full-time, 8/87 to present)

State of Hawaii, Dept. of Land & Natural Resources, COMMISSION ON WATER RESOURCE MANAGEMENT, P.O. Box 621, Honolulu, HI 96809: Work relating to water management for the State. Responsible for: ground water regulation branch, formulation and implementation of administrative rules to the State Water Code, 174C-HRS; processing and review of well construction, pump installation, stream protection, and water use permits and related construction standards; hydrologic review concerning ground water including numerical ground water model design; design & construction of monitoring networks & various engineering projects related to the Department. From 1998 to 2007 also managed the Department's Information Technology Office (ITO). ITO is responsible for all DLNR IT hardware and software purchases and implementation, which includes local and wide area networking within and between DLNR divisions, Geographic Information Systems (GIS) development and coordination, departmental email, application programming services, Internet security, and web page development. Presently in a second term as Acting Deputy to the Commission since Feb '15.

RESEARCH ASSISTANT (Full & Part-time, 1/86 - 7/87)

WATER RESOURCE RESEARCH CENTER, University of Hawaii, Honolulu, HI 96822: Responsible for the Honouliuli Wastewater Recharge Project in Southern Oahu. Work included design & construction of observation wells and irrigation plots, groundwater and wastewater quality analysis, and ground water transport model design.

INTERN ENGINEER (Full-time, Summer '84)

City & County of Honolulu, DEPARTMENT OF PUBLIC WORKS, 650 South King St., Honolulu, HI 96813: Responsibilities included tracking and responding to trouble calls, field investigation, inspection, and analysis for public and private sewer system construction and maintenance. Formulated a safety program for the field workers.

INTERN ENGINEER (Full-time, 1/84 - 3/84)

GEORGE S. NOLTE & ASSOC., 1713 N. First St., San Jose, CA, 95051: Worked in the Water Resources Division of this private firm. Work included wastewater treatment plant analysis, drainage system design, and water distribution system design in the San Jose area. Also, worked on flood analysis for the City of San Diego gathering data for use in HEC-1 modeling.

CONSTRUCTION WORKER (Full-time, Summers '81, '82)

WINDWARD PARTNERS, LTD., 2410 A Makiki Hts. Dr., Honolulu, HI, 96822: Worked as laborer for subdivision development that included roadwork, utility, and drainage infrastructure construction.

SURVEYING (Full-time, Summers '79, '80)

R.M. TOWILL CORP., 420 Waiakamilo Rd. Suite 411, Honolulu, HI 96817: Responsible for basic rodman field duties in performing property, route, construction, topographic, hydrographic, and control surveys.

EDUCATION:

1992, P.E. License, No. 7548-C, *State of Hawaii, Department of Commerce & Consumer Affairs,*
1987, M.S. Civil Engineering, Water Resources, *University of Hawaii*
1984, B.S. Civil Engineering, *University of Santa Clara*
1980, High School Diploma, *Punahou*

Joanna L. Seto, P.E.
Work Phone: (808) 586-4258
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EDUCATION

- Washington University in St. Louis, Missouri
Bachelor of Science in Civil Engineering
- 'Iolani School

PROFESSIONAL REGISTRATION

- Licensed Professional Civil Engineer Hawaii License No. 8326

WORK EXPERIENCE

- **Engineering Program Manager** – March 16, 2011 – Present
State of Hawaii, Department of Health, Environmental Management Division (EMD),
Safe Drinking Water Branch (SDWB)
919 Ala Moana Boulevard, Room 308, Honolulu, Hawaii 96814-4920
Supervisor: Mr. Stuart Yamada, P.E., Environmental Management Division Chief
Supervision of Statewide Public Water System Supervision Program;
Groundwater Protection Program; Drinking Water State Revolving Fund Program; and
Underground Injection Control Program.
- **Engineer (Environmental) VI** - June 13, 2007 to March 15, 2011
State of Hawaii, Department of Health, Environmental Management Division (EMD),
Clean Water Branch (CWB)
919 Ala Moana Boulevard, Room 301, Honolulu, Hawaii 96814-4920
Supervisor: Mr. Alec Wong, P.E., Clean Water Branch Chief
Supervision of Statewide National Pollutant Discharge Elimination System
(NPDES) General Permitting Program Management.

Honors:

- 2009 Sustained Superior Performance Award and nomination for Department of Health's Employee of the Year Award
- **Engineer (Environmental) V** - December 1996 to June 12, 2007
State of Hawaii, Department of Health, EMD, CWB
919 Ala Moana Boulevard, Room 301, Honolulu, Hawaii 96814-4920
Supervisor: Mr. Alec Wong, P.E., Engineering Section
Statewide NPDES General Permitting Program Management.

Honors:

- 2003 Sustained Superior Performance Award and nomination for Department of Health's Employee of the Year Award
- **Engineer (Environmental) IV** - April 1995 to December 1996
State of Hawaii, Department of Health, EMD, CWB

Supervisor: Mr. Alec Wong, P.E., Engineering Section
Statewide NPDES General Permitting Program Management.

- **Civil Engineer** - November 1990 to April 1995
Sato & Associates, Inc.
2046 South King Street, Honolulu, Hawaii 96826-2221
Supervisor: Mr. Clifford Arakawa, P.E., Project Manager
Design of construction plans for water, sewer, & drainage systems; roadways; grading; and subdivision layouts in compliance with Federal, State, and County standards and environmental regulations.

- **Construction Engineer I** - September 1989 to October 1990
Hawaiian Dredging & Construction Company
P.O. Box 4055, Honolulu, Hawaii 96812
Supervisor: Mr. Creighton Chang, P.E., Superintendent
Assigned to the Halawa Quarry Viaduct - Mauka project. Duties included:
 - Job forecasting (Account Quantity Balancing), material take-offs
 - Preparation, coding and submitting timesheets for job personnel
 - Material purchases and approval of invoices for payment
 - Preparation of Project Status, Cost, and Productivity Reports
 - Cost Engineer for other projects as needed, including Estimating Department and Barber's Point Harbors Apron project

- **Summer Student Aide** - June 1986 to August 1988
Various government agencies performing engineering work.

TIMELINE OF DOCKET NO. A89-649

- 1987** – State Water Code enacted, creating Water Commission and system of Community/County/State planning and water use regulation.
- 1989** – Water Commission receives petition to designate Lanai as a Water Management Area.
- 1989** – Lanai Resort Partners requested a district boundary amendment of 138,577 acres into the State Urban District.
- 1990** – A Water Use and Development Plan for Lanai was adopted by Maui County Council and the Water Commission.
- 1990** – OHA and Lanaians for Sensible Growth (LSG) are accepted as intervenors.
- 1990** – Water Commission finds no basis for recommending Lanai as a Water Management Area
- 1991** – Dole Pineapple plantation closes, total average annual water use declines.
- 1990 /1991** – Land Use Commission (LUC) holds six days of public hearings on Lanai
- 1991** – LUC issues a Decision and Order approving the Petition with Conditions.
- 1993** – LUC issued an Order to Show Cause whether Lanai Resort Partners was violating Condition 10.
- 1993/1995** – Lanai Resort Partners filed Motions for Modifying Condition 10.
- 1994/1996** – LUC held hearings on Order to Show Cause and Motions to Modify.
- 1996** – LUC issued Orders finding that Petitioner had violated Condition 10 and denying Motions to Modify Condition 10; Lanai Company, Inc. (LCI), appealed to court.
- 1999** – Circuit Court reversed LUC's 1996 Order; LSG and LUC appealed.
- 2004** – Supreme Court affirmed in part, vacated in part and remanded back to the LUC.
- 2006** – LUC held public hearings on Lanai on Condition 10.
- 2007** – LCI, OP, County of Maui and LSG meet in settlement discussions at the request of the LUC; OP reported that settlement was unlikely.
- LUC appoints hearings officer. OP recommends that each party file motions to resolve case before any further hearings are held.
- OP and LCI each file Motions to Amend, LUC delays hearing. M/Amend heard. Supplemental briefing filed. LUC takes matter under advisement.
- 2009** – OP files Revised Motion to Amend

2010 – LUC issues Order Vacating 1996 Cease and Desist Order; Denying Office of Planning's Revised Motion to Amend Findings of Fact, Conclusions of Law, and Decision and Order Filed April 16, 1991; and Granting Petitioner's Motion for Modification of Condition No. 10, with Modifications ("2010 Order").

2012 – Commission on Water Resource Management adopts Lanai's Water Use and Development Plan dated February 25, 2011.

2016 – Intermediate Court of Appeals vacates LUC's 2010 Order.

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 |) | |
| |) | CERTIFICATE OF SERVICE |
| 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) |) | |
| |) | |
| |) | |

CERTIFICATE OF SERVICE

I hereby certify that on the date below a true and correct copy of the foregoing OFFICE OF PLANNING'S EXHIBITS 5-12 was duly served on the following parties at their last known addresses via United States mail, postage prepaid:

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County of Maui
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Attorneys for COUNTY OF MAUI
DEPARTMENT OF PLANNING

DATED: Honolulu, Hawaii, October 10, 2016.



ds-

LEO R. ASUNCION
Director of the Office of Planning