

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:

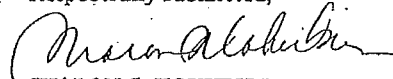
"d. If the withdrawal exceeds 4.3 mgd per day, that it be a trigger to reinstitute water management area designation proceedings".

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

ADJOURNMENT

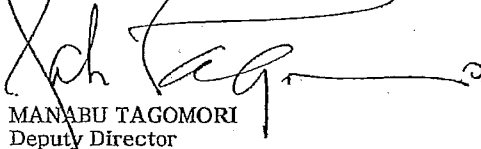
The meeting was adjourned at 5:43 p.m.

Respectfully submitted,



SHARON S. KOKUBUN  
Secretary

APPROVED AS SUBMITTED:



MANABU TAGOMORI  
Deputy Director