

## **4.8 SOCIAL AND ECONOMIC CHARACTERISTICS**

Appendix J and K of this EIS contains the economic, fiscal impact, and marketing study prepared by Knowledge Based Consulting Group (KBCG). Appendix M of this EIS contains the social impact study prepared by Earthplan.

### **4.8.1 Population**

Moloka'i's population increased from 5,089 persons in 1970 to 7,257 persons in 2000, which represents an overall 43 percent increase. The rate of growth during this 30-year period was highest in the 1970s, when the population increased an average of 1.5 percent a year. Most of Moloka'i's population growth occurred in East Moloka'i in this 30-year period.

In contrast, West Moloka'i's population decreased from 1970 to 1990 due to plantation closures, which resulted in former plantation employees leaving the area. Then, the area experienced a 1.7 annual growth rate in the 1990s due to growth in resort-related activities. In 2000, the West Moloka'i population of 2,569 persons accounted for 35 percent of Moloka'i's total resident population, mainly situated in Kaluako'i Resort and Maunaloa Village.

In addition to the resident population, 805 non-residents populate Moloka'i on any given day (SMS 2002).

Currently, there are no residents living in the Lā'au Point project site.

### ***POTENTIAL IMPACTS AND MITIGATION MEASURES***

The Maui County Planning Department developed a socio-economic forecast in preparation for the 2006 General Plan Update. The forecast serves as a planning tool to predict future growth scenarios, and is based on projections developed by the State Department of Business, Economic Development and Tourism. Population projections indicate that Moloka'i's population will reach 7,276 in 2010 and 7,772 by 2020 (Maui County Data Book 2006).

Based on the demographic patterns at other seasonal communities in Hawai'i and what has been observed at Kaluako'i, it is expected that most Lā'au Point residents will be empty nesters, and in pre-retirement or retirement. The average number of persons per household at Lā'au Point is expected to be 2.9. At the end of the lot sales period in 2012, it is expected there will be 12 permanent residents at Lā'au Point. At final build-out in 2023, preliminary estimates project that the population of Lā'au Point will be approximately 174 permanent residents (persons staying at Lā'au Point 180 or more days per year) and a maximum of 325 seasonal residents (KBCG 2006a). The term "seasonal resident" refers to persons living at Lā'au Point less than 180 days per year. On average, seasonal residents are expected to occupy their homes from 60 to 90 days per year. This is expected to occur over 4 to 6 visits, generally around holidays and summer vacation times. Because Lā'au Point homes will be individually owned (time-share or vacation rental will be prohibited), the seasonal fluctuations that are common with tourist high/low seasons would not necessarily apply to Lā'au Point.

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At build-out, it is anticipated that permanent residents will occupy up to 60 of the homes (30 percent) and seasonal residents would occasionally occupy the remainder. Low occupancy rates would minimize the need for County services to residents and lessen any impacts of residential build-out on the character of the Moloka'i coast.

#### **4.8.2 Housing**

Between 1970 and 2000, Moloka'i's supply of housing units more than doubled, from 1,449 units in 1970 to 3,013 units in 2000. Most of this increase occurred in the 1970s, when housing units increased an average of 4.5 percent a year. Most of the increase in housing unit supply occurred in East Moloka'i (Earthplan 2006).

West Moloka'i's housing supply increased 75 percent from 669 units in 1970 to 1,170 units 2000. In 2000, the West Moloka'i's housing supply accounted for 39 percent of the island's housing units (Earthplan 2006).

Although Moloka'i does not have high-density resorts, it has seen strong growth in its real estate markets, particularly since the re-opening of the Kaluako'i Golf Course. Total real estate sales in Moloka'i were about \$83 million in 2005, up slightly from a record \$79.8 million in 2004. In terms of units, the market is fairly evenly split between condominium resales (69), lot sales (106), and single-family residences (77). In terms of value, single-family residences represent \$37.8 million, lots represent \$27.4 million, and condominiums account for \$18.0 million.

Lots are a major part of the Moloka'i real estate market (40 percent of units and 35 percent of sales). The distribution of real estate sales on Moloka'i is similar to that on the Big Island resorts, where lots are 45 percent of sales. The majority of Moloka'i real estate buyers are from owners within the State of Hawai'i (KBCG 2006b).

Specifically, Kaluako'i had 65 sales or resales for \$34.1 million in 2005. These included 32 condominiums (\$9.3 million), 25 lots (\$12.6 million), and 8 single-family residences (\$12.2 million). Kaluako'i sales prices are substantially higher than elsewhere on Moloka'i. The average price for a lot at Kaluako'i in 2005 was \$503,000, compared to \$182,000 elsewhere on the island. Single-family residence prices reflect this land value with the average price for a Kaluako'i single-family residence surpassing \$1.5 million in 2005. The owners of Kaluako'i real estate reside in a wide geographic region, including other Hawaiian islands. The largest source market is California (37 percent), followed by Hawai'i (22 percent), and the Pacific Northwest and Alaska (15 percent). About 10 percent are Moloka'i residents (KBCG 2006b).

There are currently no homes at Lā'au Point.

#### ***POTENTIAL IMPACTS AND MITIGATION MEASURES***

The Lā'au Point project will add 200 single-family rural-residential lots to the island's housing inventory. Lā'au Point will include low-density oceanfront and near ocean lots in a setting of seclusion and natural beauty. It will be a unique product in the state and should attract buyers who appreciate privacy, the natural values of the land, and the Moloka'i community who are primarily Native Hawaiian; rather than the resort environment prevalent on the more developed islands. Based on market data from comparable non resort settings, the limited availability of

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low-density oceanfront and near ocean property anywhere in the state, and the special conditions and requirements associated with ownership at Lā'au Point, it is anticipated that annual demand for residential lots at Lā'au Point will range from 35 to 45 lots a year (KBCG 2006a).

Following initial lot sales, the first houses are expected to be built around 2010 and residential construction should continue through 2023. Residential market values for the project will be \$34.4 million in the first year of lot sales (2008) and increase to \$211.9 million when lot sales are completed and the first 22 homes have been built (2012). From that point on, the residential values increase by about \$16 million per year as additional residences are constructed for both seasonal and permanent residents. Upon the eventual build out of all residences by the end of 2023, the residential market value will increase to \$352 million (KBCG 2006a).

The principal markets for Lā'au Point include the opportunity to relocate existing Kaluako'i and Moloka'i property owners (Local Transfer Market) as well as attract buyers who currently own property elsewhere in Hawai'i (Interisland Transfer Market) and bring in new buyers from qualified markets (Ongoing Market) outside of Hawai'i. Being able to successfully penetrate the transfer market will be a key factor in Lā'au Point's initial success. The transfer demand, on its own, seems sufficient to support about three-quarters of the units that are planned be developed at Lā'au Point (KBCG 2006b).

**Property Taxes** – There have been concerns raised regarding the potential impact of Lā'au Point on increased property taxes for other Moloka'i homeowners. The Hallstrom Group, Inc., examined potential increases to real property tax on existing properties in the areas of Maunaloa, Kualapu'u, Kaunakakai, and beyond as a result of the Lā'au Point project. Appendix L contains the Hallstrom Group's comments.

According to the Hallstrom Group (2006), assessments of existing property that is not adjacent (and thus not competing in the same market or market area), and/or that has different highest and best use potentials, will not be directly affected. This finding is based on analysis of paired assessment trends over time between expanding development and non-adjacent land holdings, an understanding of value trends and influences, and discussion with Maui County and O'ahu tax offices concerning this specific matter. Of particular note has been the historic lack of "cause and effect" between changes in market prices in Kaluako'i and assessed values elsewhere on the island.

The Lā'au Point project is physically separated from the rest of Moloka'i by hundreds of acres of Ranch land, and will be a unique market unto itself. Secondary impacts, if any, might only be potentially possible among the makai portions of the Kaluako'i lots; however, even this inventory already has an established data set of its own comparable market activity. In addition, the 55,000+ acres of protective lands of the Land Trust and easements will isolate and distinguish Lā'au Point from the rest of Moloka'i. Changes in assessments are the result of comparable market transactions, fueled by new economic activity or a scarce amenity; Lā'au Point is not a comparable to the existing real estate.

Only to the extent there is new worker in-migration to the island to support or sustain the development and its residents, could there be some modest indirect impact on selected real estate activity and prices. Offsetting this is the moratorium on further MPL land development as a

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result of the Land Trust and easements, which will reinforce the status quo and limit further development.

Additionally, the land going into Land Trust donations and easements will remove those lands' potential for development, thereby lowering its market value. If a property's development rights are forfeited through a conservation easement, then the land's development potential no longer exists and the land's value may be lowered. This in turn lowers the property's taxes (source: Nature Conservancy and Land Trust Alliance).

**Affordable Housing** – The Lā'au Point project will address affordable housing in the implementation of *Community-Based Master Land Use Plan for Molokai Ranch* (see Section 2.1.7). During the community planning process, the EC and other Moloka'i community members involved in creating the Plan clearly indicated that “only Moloka'i residents will decide future expansion of existing communities” (Appendix A, p. 5). Throughout the community planning process, the vesting of land back into community hands and ensuring the development returns (Lā'au Point income) be shared by the community was part of a larger vision by the Moloka'i community to plan and finance housing for themselves without the involvement of MPL.

The community process identified up to 100 acres around each of the towns of, Kualapu'u and Maunaloa for the future development of “Ohana Neighborhood Communities” (i.e., affordable housing) to be developed by partnering various community resources such as Habitat for Humanity, Self-Help Housing, and others. As previously noted, approximately 1,100 acres will also be gifted to the Moloka'i Community Development Corporation (CDC); a large portion of which can be used for community affordable homes. As discussed in the Plan, the community desires a link between affordable housing and other community-facilities present at each of the three communities to insure that they be developed as balanced communities. The community also does not support a large affordable housing project in one area only (Appendix A, p. 69).

There will be a continuing need in the future for more housing for Moloka'i families at affordable prices based on incomes. MPL, EC, and others in the community, such as Habitat for Humanity to name just one organization, can coordinate the planning and implementation of future affordable housing projects. MPL can reserve lands for lease at affordable prices will put title restrictions on 100 acres around Kualapu'u and Maunaloa to ensure limit the development of these lands for future affordable housing projects. Although MPL will retain land ownership, affordable housing development decisions will be made by the community-represented CDC and not by MPL.

The economic value of the land donations, and the income from Lā'au Point (estimated at more than \$10 million from initial lots sales and an endowment from the income from subsequent lot and house sales), will enable the Moloka'i CDC to plan, site, and construct affordable homes itself. Self-determination is a critical component behind the creation of the CDC and this Plan for development of community affordable housing. Moreover, placing housing development in the hands of a community organization provides the opportunity for appropriate development timing, which is important in a slow-growing community like Moloka'i. As stated in the Plan: “The growth of Kaunakakai, Kualapu'u, and Maunaloa should be community-planned and should be allowed to happen naturally as community-driven demands require” (Appendix A, p. 67).

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For the purposes of affordable housing, residency will be as specified under the County of Maui Residential Workforce Housing Policy, Chapter 2.96, MCC. Specifically, under Section 2.96.020, MCC, “Resident” means a person who meets one of the following criteria:

1. Currently employed in the County;
2. Retired from employment in the County, having worked in the County immediately prior to retirement;
3. A full-time student residing in the County;
4. A disabled person residing in the County who was employed in the County prior to becoming disabled;
5. The parent or guardian of a disabled person residing in the County;
6. A spouse or dependent of any such employee, retired person, student, or disabled person residing in the County; or
7. In the event of the death of the employee, retired person, student, or disabled person, the spouse or dependent of any such person residing in the County.

To satisfy the affordable housing requirements of Chapter 2.96, MCC, MPL will seek an adjustment as specified under Section 2.96.030(C)(1), MCC. The terms of the adjustment will specify the provisions discussed above.

### **4.8.3 Community Character**

Moloka‘i is known as a place where the pace is slow, the land and style are rural, and Hawaiian culture and values form the foundation of all facets of island life. With not a single traffic signal, Moloka‘i has avoided the urbanization and mass development that has become evident on other islands.

Moloka‘i is still governed by the old ways of life. Many residents continue to nourish their family in the same vein as the early kānaka maoli; subsistence activities (hunting, gathering, fishing, and agriculture) play an important role to Moloka‘i’s culture and lifestyle.

West Moloka‘i’s plantation-agricultural history is still evident in the old plantation village of Maunaloa, which sits at 1,200-foot elevation overlooking countryside and the Pacific Ocean. Although many of the former plantation buildings have been converted to shops and modern-day uses, the old-style architecture has been retained.

Molokai Ranch is still a working cattle ranch with its paniolo heritage spanning generations. Visitors to Maunaloa can experience the paniolo and ranching lifestyle through various activities offered at the Lodge and Kaupoa Beach Village at Molokai Ranch.

During the Earthplan’s research and meetings for the Social Impact Assessment (Appendix M), there was an underlying theme of a Moloka‘i identity. People often assessed activities behavior and attitudes based on whether or not it was reflective of a Moloka‘i value or behavior. There seemed to be a common understanding shared by residents of what constitutes a positive Moloka‘i identity, hereby referred to as “Moloka‘i style” and is summarized below:

- **Foundation of Hawaiian values.** ‘Ohana, mālama‘āina and aloha‘āina form the bases for the various facets of Moloka‘i Style.
- **Laid back.** A common attribute which reflects both attitude and behavior. Being laid back was described as being patient and accepting.

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- **Social interaction.** Also common was a clear pattern of social interaction. People noted that, not only did “everyone know each other,” they also took care of each other. It was noted that even though there may be controversy and conflict, “when push comes to shove,” people will help each other. Homelessness is virtually non-existent because people look out for those in need. Moloka‘i Style also means respecting and accepting each other. It was noted that newcomers are welcomed and families stick together even though they may be on different sides of an issue.
- **Survival.** People were comfortable, if not dependent, on outdoor living, and the island’s natural resources provide for subsistence living. It is expected that people take only what they need to maintain sustainability. Survival also depends on maintaining good relationships with each other. People trust and depend on each other and bartering and trading are still practiced.
- **Self-identity.** Knowing who you are and your inherent value, and not depending on class or status for identification. Moloka‘i Style is being comfortable with yourself regardless of your economic situation, and respecting others unconditionally. Hence, while those with low incomes should not be ashamed of being poor, the affluent should be satisfied with a modest house.

While Moloka‘i Style meant mostly positive attributes, there were also some characteristics that were considered negative, and it was feared that these are becoming increasingly evident. A common problem was the increasing antagonism associated with controversial matters. It was felt that Moloka‘i is becoming known for its controversy and confrontation and that this is not reflective of the “Friendly Isle.”

Kūpuna noted they that did not teach people rudeness and name-calling and that this type of behavior is becoming more common at public meetings. It hurt them to see such behavior from their own Moloka‘i people. They and others felt that this confrontational attitude is intimidating and causes a loss of aloha, respect, and friendliness.

### ***POTENTIAL IMPACTS AND MITIGATION MEASURES***

The social impact assessment (Earthplan 2006) found that a significant impact on the social environment is the embodiment of negative expectations related to Lā‘au Point residents and the public controversy. The heated nature of this controversy has a detrimental effect on the social environment. It causes social disharmony and stress. Kūpuna were concerned that this type of behavior was becoming more common. The mitigation to offset this already existing impact has been to give people the opportunity to learn about the Lā‘au Point project and the *Community-Based Master Land Use Plan for Molokai Ranch* in a non-confrontational setting so that they can make an informed decision on their own (see Section 2.4).

Social impacts of Lā‘au Point have been related to expectations and preconceptions of other social groups. There is a tendency to expect certain behavior and values of people who are different. Race and gender have culturally and historically been the bases for expectations. Economic class differences also elicit preconceptions, as do age, religion, politics, occupation and lifestyle. The bases for these expectations vary, including cultural mores, the media, experience, parents, authority, etc.

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Part of the Lā'au Point project's impact on Moloka'i's social environment is therefore the expectation of conflicting behavior and values between the new Lā'au Point residents and current Moloka'i residents. These expectations create an atmosphere that awaits conflicts, an atmosphere of tension and apprehension.

This social impact is already occurring. In meetings and interviews for the social impact assessment, it was found that people have many expectations of the new residents, and these expectations are especially negative for those who oppose the project. People expect the new residents to have materialistic values and to look down on those who are poor. People expect the new residents to have little or no appreciation for Moloka'i Style, including social behavior, subsistence gathering, and ocean recreation. The Lā'au Point project has elicited passionate community discourse and created some community conflict between project opponents and proponents.

Interestingly, the Lā'au Point project is not adding a new element (affluent people) to Moloka'i's social environment. East Moloka'i, in particular, has been experiencing affluent people buying homes. Interaction between existing residents and affluent newcomers is therefore already occurring. From accounts in interviews and meetings, Moloka'i Style is still persistent and resilient in spite of these new residents (Earthplan 2006).

Regarding the issue of future growth and development, there was strong consensus that growth needs to be planned, slow, and controlled. Further, there was a sense of the "right type of growth." People wanted to make sure that new development would fit in. They were concerned that luxury housing would bring in millionaires, and generally assumed that these new residents would have values that conflict with Moloka'i Style. It was felt that community character would be affected by having luxury homes and affluent residents, particularly if the homes and property fences are very visible or prominent, at Lā'au Point. The juxtaposition of natural beauty and expensive homes would be offensive for those who resent the presence of outsiders or structural development. On the other hand, existing residents may appreciate the ability to visit Lā'au Point, a previously inaccessible area, regardless of nearby uses.

To mitigate potential social conflicts due to economic disparities between the existing and new residents, there needs to be social integration on a regional level. Newcomers will be informed of and sensitized to local values and lifestyle through a CC&R requirement that they attend education classes that will be with kūpuna who would be working with the Land Trust. The Land Trust will further enlist the support of existing residents to help the new homeowners assimilate into the community through Hawaiian spiritual, cultural, and Moloka'i lifestyle education. Sharing, not selling or commercializing, authentic Hawaiian culture will help integrate new residents to Moloka'i Style. As previously stated in the Plan: "...subdivision development at Lā'au Point will be set apart from typical subdivisions completed in Hawai'i...The aim is that people who buy lots in the subdivision will have to support conservation, cultural site protection, and subsistence" (Appendix A, pg. 99). The strict CC&Rs attached to Lā'au Point ensure that new residents will have to adhere to values consistent with the Moloka'i community. This scenario of mutual adjustment and acceptance is very likely, especially given the spiritual values and aloha that is characteristic of Moloka'i Style.

Interactions between new Lā'au Point residents and existing residents can be positive if both parties are respectful and appreciate each other's right to enjoy Lā'au Point. It is crucial that

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existing residents feel welcome to use the public accesses and visit the shoreline. Expectation management will be incorporated in the resource management program orientation so that shoreline visitors are comfortable with the new development. Also, to the extent possible, structures will be setback 100 feet from the current Conservation District boundary line to limit visibility from the shoreline (see Section 4.7). This will mitigate the visual impacts for shoreline visitors and provide privacy for the homeowners.

The Plan embodies Moloka'i style in several ways. Implementation of the Plan and the Lā'au Point project will protect 55,000 acres from development, and allow for local control over land and other resources. It helps people survive by providing economic opportunities and provisions for affordable housing. The Plan promotes subsistence gathering and ensures the protection and preservation of large tracts of land. This will protect these lands from further development in perpetuity, thereby maintaining the rural open space character of the West End.

An important objective of the Lā'au Point project is to retain Moloka'i's rural island lifestyle. A key design element of Lā'au Point was to keep the community on only eight percent of the Lā'au parcel. This keeps the remainder of the Lā'au's 6,348-acre TMK parcel in open space. Also, in designing Lā'au Point, there were many conscious decisions regarding the strict CC&Rs to be attached to the community that would ensure Moloka'i's rural lifestyle would be perpetuated.

#### **4.8.4 Economy**

According to the Moloka'i Community Plan, limited economic opportunity is the most significant problem facing Moloka'i, due to the limited availability of jobs. In the 1970s and 80s, the economy of Moloka'i was devastated when two pineapple plantations closed down. Then, Kaluako'i Resort, Moloka'i's only major resort, closed in 2000. Further negative economic impacts were caused by the bankruptcy of Coffees of Hawai'i and downsizing of the Moloka'i's only hospital (EC 2006).

In 2005, Moloka'i's labor force was 2,550 people, with non-agricultural jobs making up 1,900 jobs. Although the unemployment rate dropped from 13.3 percent in 2000 to 7.8 percent in 2005, Moloka'i continues to have the highest jobless rate within the state historically (DLIR 2006).

Historically Moloka'i has had decades of double digit unemployment up until the past few years. Although the unemployment rate was reported as 3.2 percent in December 2006<sup>1</sup>, this figure may be deceptively low. A consultant for First Hawaiian Bank thinks it is just a matter of time before that number starts to creep up and a manager of the Workforce Development office of DLIR in Wailuku believes many Moloka'i people have moved to Maui for work. Creating more jobs on Moloka'i will prevent a large out-migration of Moloka'i residents to other islands.

The primary industry on Moloka'i today is government, yet the island's economy still depends on tourism and agriculture as economic sources. West Moloka'i is a significant center for tourism and related recreational amenities. Molokai Ranch (MPL) operates the Lodge and Kaupoa Beach Village, which offers activities that introduce visitors to ranch life. Activities

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<sup>1</sup> Source: Molokai Island Times, "Molokai jobless rate hits new low," January 31, 2007.



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include mountain biking, horseback riding, hiking, and rodeo skills. MPL employs approximately 140 people and is the largest private employer on the island.

According to the Economic and Fiscal Impacts Report (Appendix J), the net loss from MPL operations in 2001 to 2006 has been approximately \$31.6 million. Whereas often painful cost cutting has reduced operating losses from \$8.6 million in 2001 to a range of \$3.6 to \$3.8 million in the last three years, the increasing costs of water, energy, and insurance make it difficult to expect profitable operations in the future. In addition to operating losses, annual capital expenditures are another drain on cash flow, averaging over \$800,000 per year over the past five years. Taken in total, MPL has subsidized the continuing operations and upkeep of Molokai Ranch to \$4.7 million to \$10.2 million per year. The cumulative subsidy over the past six years has been \$36.9 million. The only way the company has survived fiscally in recent years has been to sell land.

Moloka'i's visitor occupancies have been low for many years. In 2004, Moloka'i had 72,099 visitors; lower than Lāna'i's 73,388 visitors and Maui's 2,155,561 visitors. In 2004, 299 rental accommodations were available, with an average occupancy rate of 60.38 percent, and an average room rate of \$107.28 per night. These figures are substantially lower than Maui's, which had an average occupancy rate of 78.69 percent, and an average room rate of \$226.78 per night (Maui County Data Book 2005). Forecasts, however, show Moloka'i visitor unit occupancy rising over time, in proportion to overall growth of Maui County's average visitor count (SMS 2002).

The *Moloka'i Responsible Tourism Initiative Report* (2006) indicates: "Kaluako'i resort development is essential to the island's tourism economy" (p. 21). The study determined that for the re-opened Kaluako'i Resort to break even (60 percent occupancy), Moloka'i would need an additional 56,000 visitor nights annually.

While the current amount of flights to Moloka'i from O'ahu and Maui do not provide the capacity to bring the number visitors needed to re-open the hotel and make it break even economically at 60 percent occupancy, discussions have been held with Island Air concerning future flights to Moloka'i. Island Air has stated that the economics of the airline business prevent it from increasing capacity with no demand. However, capacity would definitely follow demand (the re-opening of the hotel) and the airline has stated it would be in its interests to meet this demand with additional airline capacity.

### **POTENTIAL IMPACTS AND MITIGATION MEASURES**

The Plan addresses MPL's operational cash deficit and assures an economic future for its employees. The Lā'au Point project is crucial to the economic viability of the Plan. Lot sales will also fund an endowment to assist the CDC in carrying out its mission as discussed in Section 2.1.9.

Proceeds from the sale of the Lā'au Point lots will fund the renovations and upgrading of the Kaluako'i Hotel and Golf Course. These facilities are crucial to revitalizing the Moloka'i tourism economy and are projected to provide over 100 jobs for Moloka'i residents. By outsourcing various hotel functions such as laundry, gift shop, beach shack and spa, and by committing to use local produce, small business opportunities will also be created for the community. However,

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the direct impact of Lā‘au Point on tourism will be limited since no vacation rentals are allowed under the Lā‘au Point CC&Rs.

MPL is now totally managed on the island by members of the community, with many Native Hawaiians in key roles. Over the past five years there has been a conscious effort to promote local people into management positions within the Molokai Ranch Lodge and Beach Village. Local people, including a majority of Native Hawaiians, now hold all key management positions at the hotels and within the MPL management structure for maintenance and other on-island activities. Those individuals will form the core nucleus of the future management team in other MPL enterprises such as the Kaluako‘i Hotel.

Regarding specific new jobs created by the Lā‘au Point project, these jobs will be a mix of construction, maintenance, and service jobs at prevailing wages. Some will be short-term, depending on the length of time for full build-out, and some will permanent and long-term. Many jobs will be contracted, therefore, for the contracted jobs during construction or after build-out, MLP will not be providing direct training and employment opportunities. Several positions also will be available for the operation and maintenance of the wastewater treatment plant. As mentioned above there will also be jobs re-created upon the re-opening of the Kaluako‘i Hotel.

In addition, sales of the Lā‘au Point rural-residential lots will offset the value of donated land and potential “lost-opportunity cost” of developing land of more than \$25 million.

The Lā‘au Point project will enhance the economic environment and stimulate economic diversification relative to the present unprofitable ranch operations. The Lā‘au Point project not only provides a financial return for MPL, but its implementation creates an economy on the West End that will give stimulus to MPL investments (the second largest employer on Moloka‘i) and to the town of Maunaloa. There will also be “spill over” effects on other businesses as well.

The Economic and Fiscal Impacts report (Appendix M), summarizes the following economic benefits: Economic benefits to the community include:

- \$246 million in total development and construction investment.
- 1,350 person years of construction-related employment over project build-out (a “person year” is the amount of time a person can work in one year).
- \$17.7 million in construction-related taxes.
- \$1.3 million in annual real estate tax revenues at the end of the lot sales period in 2012; tax revenues will increase at a rate of \$90,000 each year until it reaches \$2.1 million at full build-out.
- Other County tax revenue (fuel tax, utility tax, license fee, permits, state/federal grants) will be \$1.6 million at full build-out with an additional \$30 million over the development period.
- Annual state revenues from taxes on residents and their expenditures of \$276,000 at the end of lot sales in 2012; climbing to \$1.3 million by 2023. A line-item breakdown of these state tax revenues is as follows:

	<u>For 2012</u>	<u>For 2023</u>
<u>Excise Tax</u>	\$28,668	\$240,000
<u>Income Tax</u>	\$64,000	\$960,000

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Conveyance Taxes                      \$183,324                      \$106,205

These revenues would continue on in subsequent years.

- Annual expenditures on Moloka‘i at build-out of about \$4.4 million, which represents about \$22,000 in on-island spending per residence.
- Support of 60 on-going jobs upon full build-out in 2023 through resident spending and the Lā‘au Point homeowners’ association.
- Five percent of land sales going to support the Land Trust; this commitment will provide over \$10.2 million (prior to the payment of any real estate commissions or other regulatory costs) for the preservation and enhancement of the dedicated lands.

A vibrant and busy West End greatly assists the West End economy by bringing more people to the area. The Lā‘au Point project will also generally stimulate the West End economy as follows:

- The additional West End visitor traffic will generate more revenues for the golf course as well as providing an economic stimulus to Maunaloa town through increased population.
- The new residents in Maunaloa and at Lā‘au Point will shop in Maunaloa and use the town’s facilities as Maunaloa is the closest retail area to Kaluako‘i and Lā‘au Point.
- The increased visitor count and new residents will add impetus to ancillary businesses such as its Village Grill, which was closed when the Kaluako‘i Hotel shut down.

#### **4.9 INFRASTRUCTURE AND UTILITIES**

The Lā‘au Point project will provide significant infrastructure improvements that will serve the project and many of the on-site improvements will not require County maintenance.

Appendices N and O contain the preliminary engineering and drainage reports prepared by Warren S. Unemori Engineering, Inc.

##### **4.9.1 Drainage**

There are several natural drainageways that transect the Lā‘au Point project site in the mauka to makai directions, such as Kamāka‘ipō Gulch and Hakina Gulch. There are numerous intermittent streams, which generally only have flows during or immediately following heavy rainfalls. There are no perennial streams on the project site.

Current runoff in these drainageways for a 100-year 24-hour storm range between 79 and 2,194 cubic feet per second (cfs). The current peak runoff from the project site for a 50-year 1-hour duration storm is 512 cfs.

#### **POTENTIAL IMPACTS AND MITIGATION MEASURES**

Lā‘au Point will be in compliance with all laws and regulations regarding runoff and non-point source pollution, ensuring that storm water runoff and siltation will not adversely affect the downstream Conservation District land’s marine environment and nearshore and offshore water quality.

The present flow patterns in the existing drainageways will be maintained. Culverts will be sized to convey these flows across the roadways that generally run perpendicular to these natural

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drainageways. To minimize disturbance of existing conditions, existing drainageways that transect the lots in a mauka-makai direction, may be undergrounded and subsurface or surface detention facilities installed at the downstream end of such drainageways. In addition, the CC&Rs will state that the existing flow patterns through/across lots shall be retained and maintained by the lot owner.

~~The Lā'au Point project is not expected to have a significant adverse effect on the existing downstream properties. Although peak post-development runoff from the developed lots and roadways is projected at 623 cfs (111 cfs more than current conditions), mitigation measures will minimize disruption to the natural drainageways and preserve adequate drainage corridors. Surface and/or subsurface retention facilities will be sized to retain the difference in peak runoff in each lot. The runoff volume each lot must retain is approximately 282 cubic feet per acre of land.~~

Clearing, grubbing, and grading will be confined to road right-of-ways and other areas needed for infrastructure installation. All disturbed areas will be planted with groundcover upon completion of grading.

Roadways constructed across existing drainageways will be provided with culverts to convey 100-year, 24-hour offsite runoff safely across them. Storm drainage systems will also be installed along the roadway shoulders to convey pavement runoff into the closest drainageways. Subsurface storage and filtration systems (de-silting basins) will be installed at the end of each roadway drainage system to intercept waterborne silt and other debris before it is discharged into drainageways and coastal waters.

Perforated risers will be added to the inlets of these culverts as shown in Exhibit 7 of Appendix R. In addition, subject to the availability of boulders from the roadway excavation, boulder berms will be constructed upstream of some of the inlets to reduce the velocity in the drainway and also to induce gravitational settling of water borne silt and debris before it enters the culverts. Energy dissipators will be constructed at the outlets of these drainage culverts to keep the velocities equal to or less than pre-development velocities, in accordance with the provisions of Article 15-04-06 subparagraph (8) of Title NC-15, A Rules for the Design of Storm Drainage Facilities in the County of Maui.

~~Where necessary, grass-lined diversion ditches will be installed along mauka boundaries of the project site to keep offsite runoff from flowing across the lots. All lots will also be required to retain runoff of their lot in surface or subsurface retention basins onsite. This is to ensure that additional runoff generated by the project is kept within the project limits in accordance with Maui County Storm Drainage Standards. The contractor will also be required to comply with State and County approved Best Management Practices for the duration of the construction period.~~

The current runoff from the project area is 512 cubic feet per second (cfs) for a 50-year 1-hour storm. This is expected to increase by 111 cfs to 623 cfs with development. The total volume needed to store this increase is 152,390 ft<sup>3</sup>. Since the increase in runoff due to the roadway pavement is estimated at  $(53/111) = 48\%$ , approximately 52% is attributable to the imperviousness in each lot. The required storage in the roadway and lots are  $(0.48 \times 152,390) = 73,147 \text{ ft}^3$  and  $79,243 \text{ ft}^3$  respectively. It is estimated that approximately 20 feet of 5 feet diameter

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perforated pipe buried in each lot or a retention basin of equal capacity will be required to handle the additional runoff generated during a 50-year 1-hour storm event. See Exhibit 6 in Appendix R for details of subsurface systems on road and in lots.

As previously discussed in Section 3.8 (Marine Environment), marine waters surrounding Lā'au Point will experience episodic “red water” events following periods of heavy rainfall. Sediment delivery to coastal waters is exacerbated by soil loosened by natural causes, including the effects of deer and livestock transiting and foraging in upland areas. Erosion control practices are planned for Lā'au Point that will protect existing natural drainageways and nearshore water quality, such as drainage control systems, re-vegetation as a means of permanent erosion control measures throughout the developed areas, and fencing to keep deer and other animals from disturbing the soil near the community.

The Land Trust will conduct the monitoring on a regular basis. Should it be determined that there is some problem with water quality, testing will be undertaken and investigation made as to the cause. The action taken will depend on the results of the investigation and the attributed cause. Through the CC&Rs or through the courts, the problem will be rectified if the cause is a violation of the law of the CC&Rs.

#### 4.9.2 Water

**Water as a Community Concern** – More so than most other places in the state, Moloka'i residents are keenly attuned to water issues. Significant segments of the population have long taken very active roles in issues relating to water planning, allocation, development and use. Moloka'i is where the State Commission on Water Resource Management, in 1992, elected to inaugurate and test the concept of a community-based water working group for addressing local water issues. Abundant water resources are located on the north and east sides of the island of Moloka'i, but very limited quantities of fresh water are available on the west, central, and south sides of the island where most of the current population resides, nearly all of the planned developments are to occur, and most of the agricultural lands are located. The relatively sparse population of the island and low level of economic activity add to the infrastructure challenges associated with the accessibility of water resources. Water, therefore, is, and will continue to be, of significant concern on Moloka'i.

**Water Resources** – Moloka'i's groundwater resources are of three types: Basal, perched, and dike-confined. Basal groundwater underlies most of the island, but its quality varies significantly from East to West Moloka'i. Generally speaking, good quality potable water is found on the East end, somewhat brackish water is found in Central Moloka'i, and completely brackish water is found on the West end. Perched water comes from percolating water that runs underground along ash beds and issues as springs. The perennial streams in East Molokai are largely due to springs issuing from dike structures. Dike-confined water is also developed with tunnels or wells.

Virtually all of the stream flow on Moloka'i originates in the East Moloka'i Mountains, flows north and east to the ocean, and is characteristically flashy. In general, streams in the windward northeastern valleys of Moloka'i are perennial throughout most of their lengths. Most of the streams that drain to the southern coast of East Moloka'i are perennial only in the upper reaches

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where rainfall is persistent or where water is drained from marsh areas or springs. No measurable stream flow occurs in the arid and semi-arid Central and West Moloka'i.

**Water Systems** – The major water systems on Moloka'i include: Department of Hawaiian Homelands (DHHL), Maui County Department of Water Supply (DWS), Moloka'i Irrigation System (MIS), and private systems.

DHHL operates two wells (0801-01 and 0801-02) in Kualapu'u with permitted withdrawals of 367,000 gallons per day (gpd). In addition, it has a groundwater reservation of ~~2,900,000~~ 2,905,000 gpd from the Kualapu'u Aquifer System.

Maui County DWS has one well (0801-03) in close proximity to the DHHL wells, and has a permit to withdraw ~~500,000~~ 516,000 gpd. Other County wells are in Kaunakakai and Ualapu'e.

The MIS was planned, designed, and constructed under a special Act of Congress (Reclamation Act of 1954) to develop surface water and high-level groundwater (Wells 0855-01, -02, and -03) in Waikolu Valley in northeastern Moloka'i to irrigate farmlands in central and western parts of the island. The MIS originally served large-scale pineapple operations, but was converted to serve diversified agriculture after the pineapple operations closed in the late 1970s. The system also serves the native Hawaiian homesteads in Ho'olehua, and pursuant to HRS Section 168-4, Hawaiian homesteads have a prior right to two-thirds of the water currently developed by the MIS. The MIS transports 1,500,000 gpd via a 10-mile transmission link to an open reservoir at Kualapu'u, where it is stored prior to entering a distribution network extending from Ho'olehua to Mahana.

When originally constructed, the MIS was administered by the State Board of Land and Natural Resources (BLNR). In 1975, the BLNR entered into an agreement (the Agreement) with Kaluako'i Corporation (Kaluako'i), renting "space" in the MIS for Kaluako'i to transport water from Well 17 to Mahana. The water is then treated to potable standards and used to supply potable water to Maunaloa town, the Pāpōhaku and Kaluako'i subdivisions, the Kaluako'i condominiums, and for other residential purposes as well as to meet the potable water needs of the resort areas on the West End. Under the terms of the Agreement, Kaluako'i would pump water from Well 17 into the MIS system and withdraw the water at Mahana. To account for potential system losses along the way, Kaluako'i was allowed to withdraw a lesser amount than was put in from Well 17. Additionally, Kaluako'i paid lease rent to the MIS. The Agreement was for the use of "excess capacity" in the system and provided that if there was no longer sufficient capacity in the system then the use would have to be relinquished on reasonable notice. The 1975 Agreement was extended by the BLNR in 1985. In 1988, Kaluako'i assigned its interest in the Agreement to Kukui (Moloka'i), Inc. (KMI), which assignment was consented to by the BLNR. As a result of the Agreement, no other infrastructure to transport Well 17 water to the West end of Moloka'i was put into place.

Effective July 1, 1989, administration and management of the MIS was transferred from the BLNR to the State Department of Agriculture (DOA). In December 1989, the Agreement was amended to reflect the statutory transfer to the DOA.

Subsequently, the Agreement was extended twice through December 31, 2005. In late 2001, KMI assigned the Agreement to Kaluako'i Water, LLC (KWLLC), a Hawai'i limited liability

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company wholly owned by Molokai Properties Limited. The DOA acknowledged the assignment in early 2002.

Prior to and following the Agreement termination date of December 31, 2005, KWLLC and the DOA have been engaged in negotiations for the continued use of the MIS to transport Well 17 water to Mahana, and the DOA has conducted community meetings on the matter. By September 2007, a further extension to the Agreement was in the final stages of being completed following community input on aspects of the Agreement. The Agreement had been open for public input on Moloka'i before the MIS Advisory Board prior to its execution by the parties.

The extension agreement had not been executed when, on September 12, 2007, the DOA, through its Deputy Attorney General, officially determined that any agreement for the continued use of the MIS by KWLLC would be subject to the preparation of an environmental disclosure document pursuant to HRS Chapter 343. As of this writing, KWLLC continues to utilize the MIS to transport water; however, the DOA's Deputy Attorney General indicated in writing that the practice should cease pending preparation of the environmental disclosure document. Currently, there is no alternative means of transporting water from Well 17 to end users in Kaluako'i. Several alternatives are possible, each of which requires acquisition of new easements or modification of existing easements as well as engineering and cost studies. These items have to be addressed before MPL can rationally identify the practicable alternatives.

MPL operates ~~two private~~ three water systems that serve West Moloka'i: ~~the Mountain System and the Kaluako'i System~~, two of which are subject to regulation by the Public Utilities Commission – Molokai Public Utilities, Inc., and Waiola O Moloka'i, Inc. All three systems, the third being Molokai Ranch Mountain System, are all subject to regulation by the State's Water Commission.

The Molokai Ranch Mountain System is the initial ranch water system. It is over 100 years old and relies totally on surface water delivered by gravity, which makes it cheaper to deliver to customers. The Ranch system moves surface water approximately 20 miles from the central mountains of Moloka'i to Pu'u Nana. The system relies on surface water diverted from the upper Kawela and Kamakou watersheds, both of which are separate from and distantly removed from streams serving the Hālawa and Waialua taro activities. From Pu'u Nana, the water is either treated to potable for Maunaloa and the Industrial Park or used in the Molokai Ranch irrigation system. In addition, the system provides water for landscaping at Maunaloa Village, the Molokai Lodge, Kaupoa Camp, and Molokai Ranch's livestock.

As with all surface systems, the mountain system's yield is highly weather-dependent. In winter storm months, flows of ~~1,300,000~~ 1,200,000 gpd can be achieved, while in summer drought months, low yields of 65,000 gpd have occurred. The average yield of this system is 500,000 gpd. The system has a storage capacity of 39,000,000 gallons, which helps to compensate for the seasonal fluctuation in source.

The Kaluako'i System's source is Well 17 in Kualapu'u, which has a water use allocation of 1,018,000 gpd. Water from Well 17 is transported via rental space in the Moloka'i Irrigation System (MIS) to the Mahana pump station. The Kaluako'i System does not use MIS water. It puts in 1,111,111 gallons of water for every 1,000,000 gallons it takes out at its Mahana pump station. The amount of water pumped into the MIS from Well 17 and the amount that is

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withdrawn at Mahana are metered; the meters at both ends are monitored by the DOA. Over the course of a year, this additional input amounts to about 30,000,000 gallons.

From Mahana, water is then pumped to a 7,000,000-gallon reservoir at Pu'u Nana for treatment. The treated water is then piped to a 3,000,000-gallon reservoir in Maunaloa and gravity-fed to Kaluako'i. The distribution system terminates approximately 9,000 feet north of the Lā'au Point project site. With the Kaluako'i Hotel closed, current use of the Kaluako'i system is approximately 800,000 gpd.

Kaluako'i's use of the MIS to transport water from Well 17 to Mahana dates back to 1975. In September 2007, the DOA decided that continued use of the MIS to transport Well 17 water would be subject to the preparation of an environmental disclosure document pursuant to HRS Chapter 343 (See discussion above). Currently, there is no alternative means of transporting water from the source (Well 17) to end users in Kaluako'i. Upon completion of the environmental disclosure process, either there will be an agreement for the continued use of the MIS to transport Well 17 water or an alternative method of water transport will have to be established. Several alternatives are possible, each of which requires acquisition of new easements or modification of existing easements as well as engineering and cost studies. These items have to be addressed before MPL can rationally identify the practicable alternatives. As of October 2007, this issue remains unresolved.

Below is a table of the various existing water use permits held by MPL or its subsidiaries:

**Table 6. Water Use Permits**

<u>WUP NO.</u>	<u>APPROVED</u>	<u>APPLICANT</u>	<u>WELL NO.</u>	<u>WELL NAME</u>	<u>WUP (mgd)</u>	<u>USE</u>
<u>617</u>	<u>12/19/2001</u>	<u>Kaluakoi Land, LLC</u>	<u>0901-01</u>	<u>Well #17</u>	<u>1.018</u>	<u>Moloka'i Public Utilities, Inc., Well Municipal Use</u>
<u>604</u>	<u>03/14/1995</u>	<u>Molokai Ranch Ltd.</u>	<u>0706-03</u>	<u>Palaau Salt</u>	<u>0.001</u>	<u>Aquaculture, Salt Water</u>
<u>607</u>	<u>11/17/1993</u>	<u>Molokai Ranch, Ltd.</u>	<u>0706-02</u>	<u>South Hoolehua</u>	<u>0.864</u>	<u>Aquaculture, Brackish Water</u>

The Lā'au Point site is currently undeveloped and is not yet serviced by any of the previously-mentioned water systems.

**Moloka'i Water Working Group** – The Moloka'i Water Working Group was originally appointed in ~~1982~~ 1992 to: 1) recommend to the CWRM a plan for water development on Moloka'i that assists the County and community in developing its Water Use and Development Plan; and 2) test a community “working group” model that could be used in other communities faced with tough water issues. The Working Group was asked to enter into good faith deliberations aimed at producing the highest consensus possible on demand forecasts, bulk water



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allocations, recommendations to manage both supply and demand, and the best plans on balancing future water uses.

In 1993, the Working Group presented a written report. A second Working Group revisited and updated the 1993 report and issued its final report in 1996. Findings of these reports include the following estimates of existing uses, future demands, and supply:

- 1996 groundwater permitted usage is 8,590,000 gpd.
- 1996 surface water reported usage is 2,960,000 gpd.
- DHHL has a groundwater reservation of 2,905,000 gpd from the Kualapu‘u aquifer system.
- 1993 projected potable water use for 2010 is estimated at 11,550,000 gpd.
- 1993 projected non-potable water use for 2010 to “build out” is estimated at 42,900,000 gpd.
- Current use (in 1996) plus 1993 projections of water use exceed supply.

From these findings, the Moloka‘i Water Working Group’s 1996 report set forth a number of general and specific recommendations to water resources and each of the four aquifer sectors on the island. The Water Plan Analysis (Appendix P) includes an analysis of relevant Moloka‘i Working Group recommendations in relation to MPL’s Water Plan.

In July 2007, at the request of Moloka‘i residents, the Water Commission reconvened the Moloka‘i Water Working Group because of the community focus arising from initiatives from MPL, DHHL, and the Maui County DWS. In the following “Additional Information and Analysis” section, further information is given on the initial meetings of the Water Working Group.

### **POTENTIAL IMPACTS AND MITIGATION MEASURES**

In connection with the *Community-Based Master Land Use Plan for Molokai Ranch*, MPL developed a proposed Water Plan. A copy of the proposed Water Plan is provided as Chapter 6 in Appendix A. A key feature of the Water Plan is that only existing sources, at currently permitted amounts, will be utilized to meet all of the potable water needs for the current customers of the ~~two-private~~ three water systems operated by MPL and MPL’s future developments proposed under the Plan. These sources include the permitted 1,018,000 gpd from Well 17 in the Kualapu‘u Aquifer and surface water from the Molokai Ranch Mountain Water system which is treated to potable quality at the Pu‘u Nana water treatment plant. The constructed, but currently unused, Kākalahale well in the Kamiloloa Aquifer is being proposed as a new non-potable water source. The Water Plan also includes aggressive water conservation strategies for reducing demand and utilizing alternative sources of water. An analysis of the Water Plan was prepared by Morihara Lau & Fong LLP and is provided as Appendix P of this EIS.

In the Water Plan, MPL proposes that water from Well 17 be used solely for potable water needs. Irrigation uses, currently permitted under the Well 17 permit, will be supplied from other sources. Under this plan, MPL will not need to seek any more potable water than what is currently developed. MPL will sign covenants preventing it from ever seeking further potable water permits from the CWRM, and will abandon the Waiola Well application.

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MPL is currently working with the DHHL, the County of Maui DWS, and USGS to comprehensively evaluate Moloka'i's long-term water demands and resources. It is expected that many of Moloka'i's water issues will be addressed by a comprehensive modeling analysis (see following "Additional Analysis and Information" section). Although the specifics of the water resource issues and modeling analysis have yet to be identified, MPL has long acknowledged publicly that its water use would yield to DHHL's priority first rights to water.

According to the Water Plan Analysis, MPL's plans are reasonable and realistic, from a regulatory standpoint, because the Water Plan calls for: 1) significantly decreasing the current use of safe drinking (potable) water for irrigation; 2) increasing efficiencies within existing systems; and 3) aggressive water conservation strategies.

**Safe Drinking (Potable) Water** – MPL plans to retain its current 1,500,000 gpd of safe drinking water: 1,018,000 gpd from Well 17 and 500,000 gpd from the Molokai Ranch Mountain System. Under the Water Plan, approximately 600,000 gpd of safe drinking water from Well 17 will be freed up from existing irrigation uses, leaving that amount available for safe drinking water needs associated with MPL's future developments of Lā'au Point and Kaluako'i. Safe drinking (potable) water will not be used for irrigation.

For Lā'au Point, safe drinking water demand is projected at 96,000 gpd at full build-out based on 600 gpd for 200 lots at 80 percent occupancy. An additional demand of 1,000 gpd of safe drinking is projected for the two parks within the project area. Modification of the uses of Well 17 (0901-01) to serve Lā'au Point will require a modification of the water use permit.

The following "Additional Analysis and Information" section below indicates that even if the 200 lots each use 600 gpd, and not the 80 percent as projected, MPL's Water Plan still remain a valid document of future water demand.

The Since 1975, the MIS has been utilized, pursuant to agreement with the State, to transport water from Well 17 to Mahana, where it is treated and then distributed to end users at Kaluako'i. MPL's plan was to extend this existing distribution infrastructure at Kaluako'i from Public Water System No. 231, Maunaloa-Kaluako'i, will be extended to service Lā'au Point. This extension shall be approved by the Director of Health (HAR, Chapter 11-20, Rules Relating to Potable Water Systems, Section 11-20-30). When customer demand in Kaluako'i warrants, a looped connection from Maunaloa to Lā'au Point is proposed to be added which will then supply Lā'au Point and augment deliveries to Kaluako'i whose original infrastructure was undersized not sufficiently sized to support full build-out of the area. MPL has also offered to make the excess safe drinking water capacity available from Well 17 for the use of communities outside its property.

The "loop" will not be built during the initial phase of construction. It will be added as demand warrants. Once the capacity of the existing line based on calculated demand, using accepted County standards, is reached, the loop will be constructed. Since potential build-out is gradual, it is estimated that construction will not be required for 5-10 years.

In September 2007, however, the DOA decided that continued use of the MIS to transport Well 17 water would be subject to the preparation of an environmental disclosure document pursuant

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to HRS Chapter 343 (See discussion earlier in this section). Currently, there is no alternative means of transporting water from the source (Well 17) to end users in Kaluako'i. Upon completion of the environmental disclosure process, either there will be an agreement for the continued use of the MIS to transport Well 17 water or an alternative method of water transport will have to be established. Several alternatives are possible, each of which requires acquisition of new easements or modification of existing easements as well as engineering and cost studies. These items have to be addressed before MPL can rationally identify the practicable alternatives. MPL's infrastructure plan for transporting and distributing water to Lā'au Point, therefore, remains unresolved as of this writing. This issue, however, will have to be resolved regardless of, and without reference to, the Lā'au Point project.

The MIS currently transports up to 1.018 mgd of water (12-month moving average) pumped from Well 17 to Mahana for distribution to existing, current users in Kaluako'i. Well 17 water will continue to be used by Kaluako'i customers whether or not the Lā'au Point project is approved. Thus, the issue of how to transport water from Well 17 to either Mahana or to Kaluako'i will have to be resolved regardless of the Lā'au Point project. Inasmuch as the MIS issue affects existing, current uses, there is an element of urgency, and it is likely that the MIS issue will be resolved prior to any discretionary land use decisions being made on the Lā'au Point project. Therefore, the decisions made with respect to continued use of the MIS may have to be made without consideration of the Lā'au Point project.

Because there are existing customers in Kaluako'i dependent upon Well 17 water, water will have to somehow be transported from Well 17 to the facilities owned by MPL for further distribution to end users at Kaluako'i. Either the MIS will continue to be used or alternate infrastructure will be developed for this purpose. Either way, the infrastructure used to transport water from Well 17 to MPL distribution facilities will also be used to transport potable water to Lā'au Point. Therefore, even if use of the MIS to transport Well 17 water is discontinued, there will be a means of getting potable water to Lā'au Point. The decisions made with respect to this MIS issue, however, will affect infrastructure planning for the transport and distribution of potable water to Lā'au Point.

**Non-Drinking (Non-potable) Water** – Initially, water for irrigation and fire protection will be provided from surplus available mountain system water. Water for construction will be from available non-drinking (non-potable) water sources that will later be used for irrigation after build-out. In the long-term, MPL's water plan calls for drawing 1,000,000 gpd of brackish water from the Kākahale Well for future non-drinking water needs. Of that amount, 340,000 gpd is for the proposed Lā'au development, 200,000 gpd is proposed for future expansion of Maunaloa and Kualapu'u, and the balance is needed to address future demands from existing developed lots, the renovation of the Kaluako'i Hotel, and existing Ranch uses. The Kākahale Well sits at elevation 980 feet, and was drilled in 1969 to provide drinking water to Kaluako'i. However, due to the brackish water quality, the well was never used as a production well.

A storage tank or reservoir will be constructed above the project site to provide adequate pressure and to meet the storage requirements for fire protection. All lots will be metered. Fire flows are proposed to be provided from the non-drinking water system due the larger pipe and reservoir sizes that will be associated with this system. Fire hydrants will be installed along the road spaced at intervals between 450 to 500 feet. At full build-out, some 20 years hence, non-drinking (non-potable) water use is projected to be 300,000 gpd for the 200 Lā'au Point rural

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residential lots and associated common areas, plus 40,000 gpd for the two parks within the project area. Various alignments are under consideration with respect to bringing non-drinking (non-potable) water to the project site.

A water use permit would be required before the Kākahale Well (0700-01) can be put into production; this was confirmed by the DLNR Commission on Water Resource Management in their letter dated January 10, 2007. When Kākahale Well use is permitted, MPL will not transmit brackish water from the well to the West End by the MIS system. Instead, MPL has indicated that it will seek to use existing pipeline easements across DHHL's Ho'olehua lands for the transmission of Kākahale water.

The safe drinking (potable) and non-drinking (non-potable) water systems will be carefully designed and operated to prevent cross-connections and backflow conditions. The two systems will be clearly labeled and physically separated by air gaps or reduced pressure principle backflow preventers to avoid contaminating the safe drinking (potable) water supply. In addition, all non-potable spigots and irrigated areas will be clearly labeled with warning signs to prevent the inadvertent consumption of non-potable water.

A dual water system management plan will be developed at a later date and submitted by the water system owner and operator.

**Water Conservation** -- MPL will implement conservation measures recommended by the Maui County DWS such as: eliminating single-pass cooling, utilizing low-flow fixtures and devices, maintaining fixtures to prevent leaks, using climate-adapted plants, and preventing over-watering by automated systems.

MPL will also continue its own water conservation campaign to Kaluako'i residents and future Lā'au Point residents by reducing consumption, shutting off irrigation systems during rainfall, and restructuring the water rates. MPL believes a combination of low occupancy, water conservation education, xeriscaping, and tiered water rates will moderate water consumption by Lā'au Point homeowners. As previously discussed in Section 2.3.6, CC&Rs will require the following water-related protocol:

- **Landscaping and Irrigation.** Common area Landscaping landscape irrigation systems ~~will be from~~ will utilize re-use water (treated effluent) from the wastewater treatment plant. ~~or collected in catchments systems;~~ Residential catchment systems may provide landscape irrigation to individual lots and homes. ~~only~~ Only drip irrigation systems will be permitted for both common area and residential landscaping. Landscaping will be restricted to appropriate native and Polynesian species that are drought-tolerant and suitable for coastal locations; xeriscaping aims to reduce water use.
- **Storage Tank.** All houses will be required to have at least a 5,000-gallon storage tank for water captured from roofs.
- **Water covenants.** Requirement of a dual-water system split into safe drinking and non-drinking water; safe drinking water will be limited to 500-600 gpd. Homes will be required to use double flush toilets and specially-designed showerheads for water conservation.

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- **Drainage Systems.** Require drainage systems that retain any run-off within the disturbed area of the lot. Maximize recharge into the ground. Restore land areas that have eroded by re-establishing vegetative cover. Minimize impervious (paved) surfaces on the Lot.

**Contingency Planning Alternatives** – Concerns have been raised in the event MPL’s water plan needs more water for increased demand for agriculture on its own lands or on land to be donated to the Land Trust. If more non-potable water is needed for agriculture in particular, MPL still has two options:

- The brackish water available to MPL from the Prawn Farm, at Pala‘au, which currently is permitted for 864,000 gallons per day of which 500,000 gallons per day could be available for reuse. The following “Additional Analysis and Information” section below has also shown that even without the Kākahale Well, MPL could satisfy the needs of its Lā‘au Point customers, and provide for the build-out of all of the Kaluako‘i subdivision from the existing systems and from extracting usable water from the Prawn Farm well.
- Desalinization.

The Prawn Farm water is very brackish and it would be three times as expensive to remove the salts to bring it to an acceptable level for use as agricultural water as compared to obtaining water from the Kākahale Well. But it remains an option for the future and particularly for non-potable uses, such as agriculture.

Although improvements to desalination technology have been made, the technology’s high operating cost (primarily energy costs) continues to be an issue for its use as an alternative water supply. If a desalination plant were to be located on the West End of Moloka‘i using the underlying groundwater as the feedwater supply, the feedwater salinity would limit recovery of the product water to 50 percent or less of the water running through the plant.

Assuming the treatment plant utilizes reverse osmosis (RO) technology, the plant would use a pressure of approximately 700 psi to move the feedwater through the RO membranes. At an average electrical cost of \$0.30/kwh and assuming the treatment plant were located at 500 feet elevation above Kaluako‘i Resort, the cost of desalted product water (excluding capital recovery) would be at least \$6.75 per thousand gallons (kgal).

#### **Components of the Cost of Desalting at Moloka‘i’s West End (50% recovery rate)**

	<u>Dollars/kgal</u>
Pumping the Feedwater Supply	\$1.36
Pumping cost through the RO Filters	\$4.39
<u>Other RO Operating Costs</u>	<u>\$1.00</u>
Total	\$6.75

In comparison, pumping water from the Kākahale Well through a 69,000-foot long pipeline, also at \$0.30/kwh, would cost approximately \$2.60 per kgal. If the average use rate is 1.0 MGD, the operating cost difference of \$4.15 per kgal would amount to \$4,140 per day or more than \$1.5 million per year.

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Therefore, the significantly higher costs associated with desalination technology limit its use as an alternative solution today. However, as technology continues to improve, desalination may be an option for the future and particularly for non-drinking water uses when the cost of producing water comes down.

As this technology continues to improve, the cost of producing water will come down. As the conservation rates go up, at some point the two price lines will cross, and MPL will find the balance between demand and supply. MPL has talked about the ability to have multiple rate blocks for both potable and non-potable water. Structured properly, these rates would, in effect, subsidize prudent or thrifty water users and penalize excessive water use. At the higher rate block, the cost of desalinization can be recovered. Therefore, if multiple rate blocks were implemented, there would be no pressure to pursue additional groundwater or surface water sources from the central or east end of the island.

#### **4.9.2.1 Additional Water Information and Analysis**

In response to several questions and comments on the Draft EIS received during the public comment period, this section clarifies issues, answers questions, and provides additional information regarding water-related issues.

#### **4.9.2.2 Explanation of Moloka'i Aquifer Systems Geology**

The State Commission on Water Resource Management (CWRM) has divided the island of Moloka'i into 16 management areas or aquifer systems, primarily defined on the basis of geologic conditions and topographic divides. The aquifer systems, however, are not necessarily isolated from one another. Significantly, not enough information is presently available to accurately determine the extent to which the basal aquifers that are most important for the island's domestic water supply – Kualapu'u, Kamiloloa, and Kewela – are hydrologically connected.

The Island of Moloka'i is formed primarily by the extrusive shield- and postshield-stage lavas of the older West Moloka'i Volcano and the younger East Molokai Volcano, and secondarily by rejuvenated-stage volcanic rocks at Kalaupapa Peninsula. The central saddle area between the two volcanoes was formed by lava flows from East Moloka'i Volcano banking up against and being deflected by the West Moloka'i Volcano. The zone of weathered West Moloka'i Volcanics and soil located beneath the contact of the West and East Moloka'i Volcanics impedes groundwater flow between East and West Moloka'i. This means that groundwater in the West Moloka'i Volcanics is limited to the recharge of minimal local rainfall. As a result, groundwater throughout all of West Moloka'i is too saline for irrigation or potable use without desalinization.

Although there are data gaps on hydrologic connectivity between aquifers on Moloka'i, there is empirical evidence to conclude that the Kāalahale well site is hydro geologically isolated from existing and proposed well sites in the Kualapu'u aquifer. When the Kāalahale Well was drilled and pump tested in 1969, the brackish quality of its water was not expected. The Kāalahale well site is situated downgradient of the Kāalahale Pu'u, which was formed by intrusive dikes which are barriers to groundwater flow. The poor quality of water from the Kāalahale Well is attributed to its location downgradient of these barriers.

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Intrusive volcanic rocks include those rocks, such as dikes, that formed when magma cooled below the ground surface. Dikes associated with the rift zones of the West and East Moloka'i volcanoes are the dominant intrusive rocks on Moloka'i, and are most abundant within the central area of the rift zones. The rift zones are hydrologically important because dikes have low permeability and tend to impound ground water to high altitudes within inter-dike compartments.

The dike compartments in Waikolu Valley, from which the MIS system obtains its water, are isolated from the basal ground water bodies from which most of the domestic water on Moloka'i is withdrawn.

**The Punakou Aquifer** – The Lā'au project area overlies the Punakou aquifer. The aquifer has a developable sustainable yield of 2.0 mgd. There is however, little or no fresh water associated with the Punakou aquifer. Although MPL has not conducted any test drillings itself, public records indicate that Louisiana Land, its predecessor in ownership, conducted tests between the early 1970s and early 1990s.

Several wells and a number of test borings have done in the Punakou and Kaluako'i aquifer immediately adjacent. The water in the aquifer has consistently shown up as being very brackish to near seawater salinity. In virtually all of the borings the water was also geothermally heated. Tests indicted that the water in the aquifer has salinity levels at 1/3 to 1/2 of seawater. Alpha USA reported similar results more recently. The water in the aquifer is not usable even for irrigation without desalinization.

Although the aquifer does not have a significant amount of potable water, MPL will use Best Management Practices (BMPs) designed to minimize infiltration of the aquifer by contaminants and to minimize runoff so that water can be retained in the system for recharging the aquifer. In developing BMPs MPL will utilize "Source Water Protection Practices – Managing Storm Water Runoff of Prevent Contamination of Drinking Water".

#### **4.9.2.3 Moloka'i Designated a Ground Water Management Area**

Criteria for designating a groundwater management area are set forth in HRS §174C-44. CWRM will designate a groundwater management area if:

- 1) Actual water use or "authorized planned use" will cause the maximum rate of withdrawal from that groundwater source to reach 90 percent of the sustainable yield;
- 2) The Department of Health determines that there is actual or threatened water quality degradation;
- 3) CWRM believes, based on evidence of excessively declining groundwater levels, that regulation is necessary to preserve the groundwater supply for the future;
- 4) Existing withdrawals of groundwater are endangering the stability or optimum development of the ground water body due to upconing or encroachment of salt water. Although the amount of water withdrawn may be well within the sustainable yields, the rates, times, spatial patterns, or depths of the withdrawals may nevertheless degrade the water source;
- 5) Chloride contents of existing wells are increasing to levels which materially reduce the value of their existing uses;
- 6) There is excessive and preventable waste occurring;
- 7) There are serious disputes about the use of groundwater resources; or

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- 8) Water development projects that have received other governmental approvals would result in any of the above conditions.

The entire Island of Moloka'i was designated as a groundwater management area for a combination of reasons. There is no indication that current withdrawals are threatening the health of any of the aquifers. Rising salinity levels in some of the wells appear to be localized phenomena associated with particular wells and not an indication of general aquifer degradation.

The total sustainable yield for groundwater resources on Moloka'i, which is established by CWRM, is 81 mgd. For planning purposes, the 1996 Moloka'i Water Working Group used 33.5 mgd as the developable yield of potable water on the island. Of the 81 mgd, less than 10 mgd is currently used. Additionally, there are 36 perennial streams on Moloka'i, but surface water usage on Moloka'i amounts to an average of about 3 mgd.

#### **4.9.2.4 Moloka'i's "Sole Source Aquifer" Designation**

Moloka'i has been designated a "Sole Source Aquifer" by the Federal Government pursuant to §1424(e) of the Safe Drinking Water Act of 1974. Under this federal program, designation as a "sole source aquifer" does not necessarily denote a hydrological determination. For purposes of the Sole Source Aquifer program, an "aquifer" may be a part of an aquifer, an entire aquifer, or an aquifer system. An aquifer system may be designated a "sole source aquifer" if all aquifers in the system are hydrogeologically connected. In Moloka'i's case, the petition to designate the entire Island of Moloka'i as a sole source aquifer was filed by Sarah Sykes in 1993. The petition acknowledged that aquifer boundaries are not known and proposed a "broad-brush agreement that there is basically only one hydrogeologically-linked aquifer underlying Moloka'i." From a hydrologic perspective, however, it is clear that ground water in West Moloka'i is relatively isolated from the basal aquifers in central and eastern Moloka'i, and that the dike-impounded waters are isolated from the basal aquifers. Moreover, the State Commission on Water Resource Management, for its regulatory purposes, divides the Island of Moloka'i into 16 aquifer systems.

The purpose of the Federal Sole Source Aquifer program is to protect ground water sources for drinking water purposes. The program is aimed at protecting water sources needed to supply 50 percent or more of the drinking water for an aquifer service area, where the volume of water which could be supplied by alternative sources is insufficient to replace the sole source aquifer should it become contaminated.

This program prohibits Federal financial assistance for projects that might contaminate an aquifer that has been designated by EPA as a sole or principal source of drinking water for an area. No Federal financial assistance is contemplated for any part of the Lā'au Point project and therefore the Sole Source Aquifer program is not applicable to Lā'au Point. However, in response to comments on the Draft EIS, a discussion of the Sole Source Aquifer designation for the island of Moloka'i is included here.

Proposed projects with Federal financial assistance that have the potential to contaminate sole source aquifers are subject to EPA review by a ground water specialist. Examples of projects that might be subject to review include highways, wastewater treatment facilities, construction projects that involve storm water disposal, public water supply wells and transmission line,



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agricultural projects that involve the management of animal waste, and projects funded through Community Block Grants. Project reviews can result in:

- EPA requirements for design improvements, ground water monitoring programs, maintenance and educational activities that would not otherwise occur; or
- District technical assistance, by identifying specific activities that may lead to ground water contamination. In addition, technical assistance usually involves site-specific coordination of ground water protection activities among State and local environmental and public health protection agencies.

To reiterate, no Federal financial assistance is contemplated for any part of the Lā'au Point project and therefore the Sole Source Aquifer program is not applicable to Lā'au Point.

#### **4.9.2.5 Prior Studies by USGS on the Capacity of the DHHL Wells**

There has been some mention of increased salinity levels in the DHHL Wells. Rising salinity was referred to in a previously released USGS study. The referenced changes in salinity appear to be related to local phenomena associated with particular wells and do not appear to be an indication of dangerously depleted resources.

The concentrated pumpage of the two DHHL wells (Well Nos. 0801-01 and 02) and the County DWS well (Well No. 0801-03) appear to be the cause of chloride rise in these wells. The DHHL and DWS wells are closely grouped and poorly located relative to each other. All three wells have upgradient/downgradient effects when the DWS well is running while one or the other of the DHHL wells is also operating. A 20 mg/L chloride rise—to levels of about 100 mg/L—in the DHHL wells was an almost immediate response to the start of pumping of the DWS Kualapu'u well in 1991. Chloride levels appear to have been stabilized in all three wells at the higher level.

Well 17 has been in use from 1952 to the present. There has never been a chloride response in the DHHL wells since they began operating in 1961 and 1981 or in DWS well since it began operating in 1991 as a result of pumping the Well 17, even during periods of extended (continuous) pumpage of Well 17 at a 1750 gpm pumping rate (2.5 mgd). The fact that chloride levels for Well 17 have remained stable at about half (or less) the levels in the DHHL and DWS wells is further evidence that pumpage of Well 17 is not producing a chloride response in the DHHL/DWS wells, and vice versa.

Before the early 1980s, chloride concentrations of water pumped from the County's Kawela Shaft (Well No. 0457-01) ranged from 100 to 200 mg/L, and since 2002 chloride concentrations generally have been greater than 200 mg/L.

Before 2002, chloride concentrations of water pumped from the County's 'Ualapu'e Shaft (Well No. 0449-01) generally were less than 70 mg/L. From 2003-2005, however, chloride levels exceeded 70 mg/L, reaching a high of 100 mg/L during 2004.

The rising chloride levels in Kawela Shaft and 'Ualapu'e Shaft appear to be the result of localized phenomena, and the USGS and Maui County are exploring redistributing and increasing withdrawals to other locations, including locations within the Kawela and 'Ualapu'e aquifers.

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MPL is not aware that the MIS is experiencing chloride problems. The sources of water for the MIS are stream diversions and three production wells located in Waikolu Valley, which withdraw water from the dike complex in northeastern Moloka‘i. Unlike basal aquifers, fresh water in dike complexes do not overlies salt water.

#### **4.9.2.6 Additional Information on the Kākahale Well**

##### **Salinity and Impacts on Use**

Water from Kākahale Well is considered “slightly brackish” with chloride levels of approximately 400 mg/L. In contrast, seawater is about 19,500 mg/L, and the County’s Kawela Shaft (a drinking water source) has chlorides of about 200 mg/L.

Types of crops that could be irrigated with water of these chloride levels include: asparagus, date palm, sugar beet, alfalfa, broad bean, onion, turnip, cabbage, lettuce, carrot (source: CTAHR <<http://www.ctahr.hawaii.edu/oc/freepubs/pdf/pnm17.pdf>>).

##### **Impact on the Aquifers of Pumping Water from Kākahale**

It is highly unlikely that pumping 1.0 mgd from the Kākahale Well will have any measurable impact on the existing DHHL and DWS wells in Kualapu‘u for several reasons. First, the Kākahale Well is down- and across-gradient from the DHHL and DWS wells. Second, the Kākahale Well is approximately 12,200 feet (2.31 miles) away from the DHHL and DWS wells; at that distance, it is unlikely that pumping 1.0 mgd will create a measurable effect. Third, there are known subsurface intrusives between the Kākahale and DHHL/DWS well sites, namely Pu‘u Kākahale and Pu‘u Luahine, which are barriers to ground water flow.

The Kākahale Well was developed in 1969 as a drinking water well for the Kaluako‘i Resort. However, due to the brackish quality of the water, the well was never put into production. Relative to its distance inland, chlorides of the Kākahale Well are anomalously high. This anomaly is explained, however, by the presence of upgradient subsurface intrusives, i.e., the subsurface “plumbing” of Pu‘u Kākahale, which function as barriers to normal mauka-to-makai flow of groundwater. The upgradient intrusives, which create the brackish result in the Kākahale Well, also function to limit the effect of pumping the Kākahale Well on other wells upgradient of the intrusives, such as the DHHL and DWS wells in Kualapu‘u.

It is also highly unlikely that withdrawing 1.0 mgd from Kākahale Well will adversely impact DHHL’s ability to develop its water reservation in Kualapu‘u Aquifer.

For DHHL to develop its 2.905 mgd reservation in the Kualapu‘u aquifer, new and appropriately spaced wells east of the existing DHHL/DWS well field will be required. All of these new wells will be upgradient of the known subsurface intrusives, Pu‘u Kākahale and Pu‘u Luahine. These subsurface intrusives create a barrier to groundwater flow, benefiting wells that are upgradient of the intrusives and adversely impacting the wells downgradient of the intrusives. They also limit the impact that wells on one side of the intrusives have on wells on the other side of the intrusives.

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The Kākahale Well will be down- and across-gradient, and on the downstream side of known intervening intrusive structures, from any wells that DHHL is likely to develop to access any part of its 2.905 mgd reservation. Therefore, an adverse impact on future DHHL wells is highly unlikely.

#### Alternatives to the Use of Kākahale-Sourced Water

The Kākahale Well is an ideal source of non-potable water. The well is owned by MPL and already constructed (though not in production). More importantly, because the well site is hydro geologically isolated by subsurface intrusive structures, withdrawing water from the Kākahale Well is unlikely to have any adverse impact on existing wells in the Kualapu'u aquifer, on DHHL's ability to withdraw its 2.905 mgd reservation amount from the Kualapu'u aquifer, or the development of potable water in the Kamiloloa aquifer.

In the event Kākahale Well water is not available, however, there are alternative sources of non-potable water. Reclaimed water from the Pālā'au Shrimp Farm could be treated to make it suitable for irrigation purposes. Additionally, desalinization of either brackish water from West Moloka'i aquifers or sea water are alternative sources of irrigation water.

Desalinization is not the preferred alternative because of the cost. As mentioned in MPL's water plan, desalting is still about four times more expensive on Moloka'i (not helped by the island's high energy costs) than developing an operating deep groundwater well.

A pilot plan on O'ahu developed in the early 2000s still remains idle today because of escalating energy costs needed, in simple terms, to push the brackish water through a membrane to remove the salts.

MPL has previously been approached by two parties proposing desalination on Moloka'i as an economic business; neither party, following their detailed investigation, wished to continue with their plans for a desalination plant.

Desalinization is therefore too expensive to be considered MPL's first choice of non-potable water. However, it is an alternative if water from the Kākahale Well is not available.

#### Recent Studies by USGS Indicate Pumping Kākahale Will not have an Adverse Impact on the DHHL, County, or MPL Wells

**Background** – In August 2007, the USGS released preliminary results of a two-dimensional modeling study it did for the Army Corps of Engineers as a part of its Kaunakakai Stream Ecosystem Restoration Project entitled "Effects of Ground-Water Withdrawal on Kaunakakai Stream Environmental Restoration Plan, Moloka'i, Hawai'i," Scientific Investigations Report 2007-5128 by Delwyn S. Oki. The Kaunakakai project proposes the construction of 2.75 acres of shallow ponds and mudflats near the mouth of Kaunakakai Stream to restore habitat for the endangered Hawaiian Stilt. A study on the effects of well pumping mauka of the site was important as, where the wetland bottoms are below the water table, the ponds and wetlands are sustained by ground water discharge during the dry season. Because ground water is the main source of water for the proposed wetlands, a reduction of ground water discharge near the mouth of the stream will have an effect on the availability of habitat.

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At the Army Corps' request the USGS undertook an investigation to estimate water levels using an existing numerical ground flow model and the changes that would occur if there were additional ground water withdrawals. Water levels in existing wells in the upstream aquifers and the coastal discharge changes (if any) were estimated for six different scenarios. The six scenarios were developed by assuming changes in pumping at existing wells and pumping at proposed new wells, at selected sites in the area between Kualapu'u and 'Ualapu'e.

The model used was the existing numerical ground water flow model done by Delwyn Oki in 1997. The 1997 study was used as the background for the various scenarios. The new 2007 study describes the results of model simulations that assess the effects of redistributed or additional ground water withdrawal using the 2006 average or May 2007 permitted withdrawal rates as a baseline. The study did not use any new (subsequent to 1997) data.

Available data was sufficient in 1997 to develop a detailed contour map of water levels for the entire island. Electrical-resensitivity measurements were used to determine the depth of saltwater below ground and then applied using a principal (Ghyben-Herzberg) or relation, to estimate the altitude of the water table for the western part of the island. This relationship (for hydrostatic conditions and assuming a sharp interface between salt and fresh water without the known transition zone) predicts that every foot of freshwater above sea level must be balanced by 40 feet of freshwater below sea level. This generally underestimates the freshwater lens thickness near the discharge zones. The method ignores the transition zone and does not account for dynamic conditions of the aquifer where water flows vertically.

The study notes that groundwater on Moloka'i occurs in two forms: 1) as a lens shaped body of fresh water floating on saltwater within permeable dike free rocks; and 2) as dike impounded water ten to hundreds of feet above seal level (meaning it is not directly a part of the lens).

**Numerical Simulation of Additional Withdrawal** – The regional (1997) model is two-dimensional. It is designed to simulate the flow of fresh ground water in systems that have a fresh water lens. The simulation assumes a sharp interface between fresh and salt water (meaning there is no transition zone allowed for in the model). It also assumes that water flow is entirely horizontal (there is no modeling of potential up and down movement) and all wells fully penetrate the freshwater lens. As such, if a well is actually using dike impounded water or is otherwise isolated from the lens, the model cannot take these factors into account.

The original 1997 study was used to estimate the effects of new well withdrawals in the model on ground water and coastal discharge. Although the original model covered the entire island, for this study only certain "nodes" were used from the 1997 report so that it could be focused on the desired area. To determine a base case, or current conditions without any changes, reported withdrawals from existing wells were used. The withdrawals, from a geographic perspective, were assumed to take place in an entire "node" of 3280 square feet.

The Waiola well was not considered as part of the scenario as the application has not been acted upon and the DHHL reservation was not considered as the location of the wells by DHHL has not been determined.

The total amount of water withdrawal is five percent of the total recharge of the aquifer.

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Withdrawal rates for the various proposed wells in the different scenarios were developed from conversations with the various water purveyors. The various scenarios and withdrawal rates are set forth in each of the six scenarios.

The model has several limitations. The number of wells is insufficient to define the distribution of water levels in the southeastern part of Moloka'i in the west and in the dike complexes in the northeast part of the island. The simulated withdrawals are therefore unverified in some part of the island. Also, the thickness of the fresh water lens is not known on most parts of the island, including the areas of proposed increase in groundwater withdrawals. Because of this and because of the other limitations mentioned above, the model should not be viewed as precise. The model is, nevertheless, a tool for analyzing possibilities.

**Model Results** – For each of the scenarios the water levels and coastal discharges were determined relative to what is currently occurring. Simulated changes were greatest at withdrawal sites and decrease outward from the site. Within the zone where water levels decline because of increased withdrawal, the salinity of water pumped from existing wells may increase, although the extent of the increase could not be predicted accurately because of the limitations in the model, mainly because it assumes a sharp interface between fresh and salt water (it assumes that there is no transition zone). However, greater water level changes are expected to cause greater salinity changes (all other factors being equal). Wells near the coast are likely to be closer to a transition zone and as such, water level changes affect the wells to a greater extent.

Simulated changes in coastal discharge are greatest immediately down gradient (below) from changes in withdrawal. The numerical models used in this study are estimates of changes in coastal discharge because the actual changes are difficult to measure.

- **Scenario 1.** In this scenario pumping of 1.0 gallons per day at Kākahale was added to the base model. This causes water levels and coastal discharge decrease from what is currently estimated. The water level decline at the well itself is estimated at 0.61 feet and decrease moving away from the well site. Near the Kaunakakai stream habitat the simulated water level decline is 0.08 feet. The percentage decrease is estimated at seven percent. However, this is likely overestimated as the stream only covers a small fraction of the area measured in the model.

When Kākahale is pumped at 1.0 mgd there is a 0.09-foot decrease in the level at Well 17. Kualapu'u Mauka decreases by 0.09 feet and Kawela Shaft by 0.01 feet. 'Ualapu'e shaft shows no decrease at all.

- **Scenario 2.** Withdrawals at Kākahale are at 1.0 mgd and withdrawals at Well 17 are increased to 1.7 mgd in this scenario. Increased withdrawals from Well 17 cause greater simulated decline in coastal discharge than Scenario 1. The simulated level decline at Well 17 in this scenario is 3.4 feet and 0.71 feet at Kākahale. Reductions of coastal discharge in the Kaunakakai Stream area increase to 11 percent. In the Kaunakakai Stream area, the simulated water decline is 0.04 feet greater than Scenario 1. As in Scenario 1, the decrease in coastal discharge is likely overestimated.

In Scenario 2 the simulated water level at Kualapu'u Mauka decreases by an estimated 1.45 feet and the Kawela shaft by 0.02 feet. There is no impact on the 'Ualapu'e shaft.

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- **Scenario 3.** The withdrawals are the same as Scenario 1 but Scenario 3 includes redistribution of withdrawals from existing wells to wells proposed by the Maui DWS. Withdrawal from the DWS Kualapu'u Mauka well is reduced to 0.232 mgd and withdrawal from a proposed Manawainui well was increased from zero to 0.232 mgd and the Kawela Shaft reduced to zero. A well proposed by DWS at Kawela was increased from zero to 0.237, 'Ualapu'e Shaft was decreased to zero and withdrawal and a new 'Ualapu'e well was increased from zero to 0.272.

Reduced withdrawals from the Kualapu'u mauka well results in a simulated increase in the immediate area by 0.57 feet. Because of the simulated increase at the two proposed wells the simulated water level decline at Kakalahale increases from scenario one by 0.04 feet. However, Kākalahale's impact on surrounding water levels decreases because of the decreased withdrawal from Kualapu'u Mauka. The simulated water level decline at the Kaunakakai stream is 0.01 greater than Scenario 1.

- **Scenario 4.** Scenario 4 is the same as Scenario 2 with the redistributed withdrawals from Scenario 3. Reduced withdrawals from the Kualapu'u Mauka, Kawela Shaft, and 'Ualapu'e Shaft wells decreases the water level decline at Well 17 from the Scenario 2 decline of 3.40 feet to 2.81 feet. However, the increased withdrawals from the proposed wells cause the Kākalahale well decrease in water level to increase from 0.71 to 0.74 feet. Near the Kaunakakai stream the decline is 0.01 greater than in Scenario 2.
- **Scenario 5.** Simulated withdrawal is the same as Scenario 3 except that withdrawal from Kualapu'u Mauka is further reduced by .2 mgd and withdrawal from the proposed Manawainui well increased by an equal amount. In this scenario the water level at Kualapu'u Mauka increases by 1.11 feet compared to .57 in Scenario 3. The simulated water level at the proposed Manwainui well increases from Scenario 3 by an additional .23. The simulated decline in Kaunakakai stream is the same as Scenario 3.
- **Scenario 6.** Simulated withdrawals in Scenario 6 are the same as Scenario 4 except that withdrawal at Kualapu'u Mauka is further reduced by 0.2 mgd and the Manawainui well is increased by the same amount. In this scenario, the water level at Kualapu'u Mauka decrease by 0.03 feet from the base case compared to 0.65 in Scenario 4. The decrease at the Manawainui well increases due to the increased withdrawal at the well. Water level decline at the Kaunakakai stream habitat is the same as Scenario 4.

In the scenario that mirrors the proposed water withdrawals for the Lā'au Point project (Scenario 1), the results indicated that pumping Kākalahale would have a negligible impact on the DHHL wells (a 0.03-foot lowering). This would indicate that even if it is assumed that there are no geological intrusions, and that the down-gradient location of the Well is discounted such that there is an assumed direct connection between the aquifers and the wells, pumping Kākalahale at 1.0 mgd will not impact on DHHL's ability to continue to operate its well. In addition, the impact on the discharge of fresh water at the ocean is limited such that the water level decline is 0.08 feet.

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#### **Impact of Pumping Kāalahale on the Fresh Water Transition Zone**

Within the dike-free lava flows, a freshwater lens floats on denser, underlying saltwater. Saltwater flows landward in the deeper parts of the aquifer, rises, and then mixes with seaward-flowing freshwater, creating a freshwater-saltwater transition zone. Under hydrostatic conditions, the thickness of the freshwater lens can be estimated by using the Ghyben-Herzberg relation, which predicts that every foot of freshwater above sea level must be balanced by 40 feet of freshwater below sea level. The Ghyben-Herzberg relation is sometimes used to estimate the depth at which brackish water in the transition zone has a salinity of about 50 percent of seawater.

USGS drilled a deep monitor well in the Kualapu'u area and collected salinity profiles from this well from 2001 to 2004. Measured salinity profiles indicate a freshwater lens of about 260 to 290 feet thick. The upper part of the freshwater-saltwater transition zone generally is about 150 feet thick.

The Kāalahale Well site, however, is hydrogeologically isolated by subsurface intrusive structures. The Kāalahale Well was developed in 1969 as a drinking water well for the Kaluako'i Resort. However, due to the brackish quality of the water, the well was never put into production. Relative to its distance inland, chlorides of the Kāalahale Well are anomalously high. This anomaly is explained, however, by the presence of upgradient subsurface intrusives, i.e., the subsurface "plumbing" of Pu'u Kāalahale, which function as barriers to normal mauka-to-makai flow of groundwater. The upgradient intrusives, which create the brackish result in the Kāalahale Well, also function to limit the effect of pumping the Kāalahale Well on other wells upgradient of the intrusives, such as the DHHL and DWS wells in Kualapu'u. Pumping water from the Kāalahale Well will not draw down on the fresh water lens underlying the Kualapu'u wells or cause a rise in the transition zone.

#### **Impact of Pumping Kāalahale on the Coastal Environment, Limu, and Fishponds**

Native Hawaiians gather limu and other marine resources all along the southern and eastern coastline of Moloka'i, including the shoreline area down gradient of the Kāalahale well site below the Kamiloloa Aquifer. They do not confine their gathering activities to areas within their ahupua'a of residence. The shoreline area of the Kamiloloa Aquifer, however, is not prime habitat for edible limu. Limu may occur in quantities sufficient for personal use, but the edible species are not abundant. This is likely due to the fact that the area off the southern shore of Moloka'i has low water quality due to red sediment in the water after heavy rains. The marine life that flourishes in the area has therefore evolved, or is limited to, those species that can withstand radical water quality changes.

Groundwater pumped from the Kāalahale Well will be reduced by approximately the same amount the groundwater discharge along the south shore of Moloka'i. Coastal-discharge reductions due to such pumpage generally are greatest immediately downgradient from sites of withdrawal, and effects diminish with lateral distance from the directly downgradient location.

Groundwater modeling of proposed pumpage of 1.25 to 1.326 mgd from the proposed Waiola well predicted a reduction in groundwater discharge of 3 percent over a 13-mile coastline to 15 percent over a 6-mile stretch of coastline. At that magnitude, the resultant change in salinity at

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the shoreline would not be distinguishable. For example, in fishponds, which are subject to less sea water influence and mixing, the lowest salinity measured along the south coast of Moloka'i was 28.6 parts per thousand (ppt). Assuming the salinity of the groundwater at the point of the shoreline discharge is 4 ppt, reducing the quantity of discharge by 10 percent would cause a salinity increase in the fishpond of 0.6 ppt, from 28.6 ppt to 29.2 ppt. Such a change is less than the within-day salinity variation in the fishpond due to tides and mixing by wind.

#### **Transmission of Brackish Water from Kākahale Well**

MPL will be seeking to transmit the Kākahale brackish water to the West End in a separate pipe and not mix it, prior to transmission, with its existing potable water from Well 17.

MPL will not seek approval to use the MIS system for this water transmission, as stated in the Master Plan (Appendix A of this EIS) and its Water Plan contained as Chapter 6 within the Master Plan.

MPL intends to seek permission from DHHL, under its current easement agreement, to increase the size of one of its existing two pipes in the easement area to facilitate this transmission.

Under the joint easement agreement with DHHL, both parties need to seek approval from the other for amendments to their existing agreed pipe sizes, but the agreement notes that this approval "cannot be unreasonably withheld."

MPL has initially raised this issue with DHHL, along with a range of issues aimed at ensuring benefits to both parties from future water plans for the island.

#### **4.9.2.7 DHHL's Future Water Needs**

##### **MPL Reiterates Support for DHHL's 2.905 mgd Kualapu'u Aquifer Reservation; MPL Opposition to DHHL Well Permits in the 90s**

MPL has stated and re-iterates that it supports DHHL's 2.905 mgd reservation in the Kualapu'u Aquifer.

When DHHL applied for a water use permit to increase pumpage from its Kualapu'u wells in 1996, DHHL was a party in a contested case proceeding on Waiola o Moloka'i's application for a new well and water use permit in the Kamiloloa aquifer. In the Waiola contested case, DHHL took the position that pumping 1.25 mgd from the proposed Waiola well, which was more than three miles away from the Kualapu'u well field, would adversely affect existing pumping from the DHHL wells. According to DHHL, the transition zone was close to the bottom of its wells, thus the additional pumping by Waiola would result in an unacceptable increase in chloride levels in the DHHL Kualapu'u wells. At the same time, DHHL contradicted itself by filing an application to pump more out of its existing wells. Waiola/Molokai Ranch did not oppose DHHL's application, but sought to explore this contradiction through a contested case proceeding on DHHL's application.

DHHL did not receive a permit for additional pumping because the CWRM staff recommended that the application be denied because DHHL was proposing to increase pumpage from wells



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that were already showing indications of localized upconing due to the close proximity of the two DHHL wells and the County well. CWRM staff recommended that any increased withdrawals should be from new wells strategically located elsewhere in the Kualapu'u aquifer so as not to interfere with water quality in the existing wells. DHHL proposed reducing the amount of increased pumpage, but was not willing to consider a new well site.

Hawaiian Homesteaders have a priority right to two-thirds of the water developed in Phase I of the Moloka'i Irrigation System (MIS), which is owned and operated by the State Department of Agriculture. Water for the MIS is developed from dike compartments in Waikolu Valley, which are isolated from the basal ground water bodies from which Well 17 and Kākahale well water is or will be withdrawn.

DHHL has a reserved 2.905 mgd from the Kualapu'u aquifer, the bulk of which is targeted for agricultural use. MPL's Water Plan (Chapter 6 of Appendix A) recognizes DHHL's future needs and MPL's water development plans will not interfere with DHHL's ability to develop its water reservation. MPL is currently working with DHHL, the County of Maui DWS, and USGS to comprehensively evaluate Moloka'i's long-term water demands and resources. The goal is to appropriately locate wells and manage pumping such that all of the parties will be able, to the greatest extent possible, withdraw sufficient water to meet their needs.

#### ***DHHL's Current Water Shortages***

The shortage of water available to Hawaiian Homesteaders is not due to a scarcity of water resources on Moloka'i. The total sustainable yield for groundwater resources on Moloka'i is 81 mgd, according to the 1996 Water Working Group. For planning purposes, the Moloka'i Water Working Group used 33.5 mgd as the developable yield of potable water on the island. Of the 81 mgd, less than 10 mgd is currently used. Additionally, there are 36 perennial streams on Moloka'i, but surface water usage on Moloka'i amounts to an average of about 3.0 mgd.

The lack of infrastructure has hampered DHHL's ability to meet the demands of its homesteaders. Since 1995, DHHL has had a reservation right to develop another 2.905 mgd of groundwater in the Kualapu'u aquifer. When DHHL requested that amount, it was anticipated that it would meet the domestic and agricultural water needs for DHHL lands in Ho'olehua and Kalama'ula.

In 1996, DHHL proposed to pump some of that reservation amount out of its existing wells in Kualapu'u. Because there already were indications of localized upconing due to the close proximity of the two DHHL wells and the County well, CWRM staff recommended that any increased withdrawals should be from new wells strategically located elsewhere in the Kualapu'u aquifer so as not to interfere with water quality in the existing wells. At the time, DHHL was not willing to consider a new well site.

To date, DHHL has not identified alternate well sites and thus, has not developed any of its 2.905 mgd water reservation.

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**Molokai Island Plan and DHHL Future Water Needs**

In 2005, Group 70 completed the Moloka'i Island Plan (Island Plan) for DHHL. The Island Plan planned future growth of DHHL residential, commercial, and agricultural uses over the next 20 years on DHHL properties throughout Moloka'i.

Based on the Island Plan, DHHL asked its water consultants to study existing demand and the likely future demand at build-out, and whether there was adequate water reserved within its 2.905 mgd reservation within the Kualapu'u Aquifer.

This build-out anticipated an additional 466 residential units at Ho'olehua and 243 additional residential units at Kalama'ula, in addition to 113 acres at Ho'olehua and 89 acres at Kalama'ula for future commercial and community use.

At a presentation to stakeholders and to its constituents in June 2007, DHHL stated that at build out under their Island Plan, it anticipated an additional 2.037,521 mgd of additional source would be required. This left a 698,900 gpd balance of DHHL's reserve remaining within its reservation within the Kualapu'u Aquifer.

**DHHL's System Improvements**

A major focus of DHHL's future plans will be to improve its storage capacity and infrastructure within its Moloka'i water system and attempt to convert agricultural users from its system to intended MIS System use.

The DHHL water study showed that the homesteaders' use of DHHL potable water for agriculture also results in higher potable water demand and increases over-pumping of DHHL wells beyond the permitted allocation.

DHHL is also is committed to substantially improve its water losses, which were stated at the June 2007 presentation as being about 50 percent of the 357,000 gpd that it supplies to its users. DHHL has admitted that its current unaccounted water losses include theft of water from its system.

**Source Development Options**

DHHL has a number of options to meet source requirements for full build-out under the Island Plan. At the June 2007 presentation, DHHL recommended reviewing the construction or operation of four new well sources itself, and at the same time exploring all other source opportunities on Moloka'i, as follows:

- Develop New Sources. The required four new wells; source, transmission and infrastructure have a probable cost of \$23 million, requiring \$4 million to \$6 million for well construction.
- Explore partnerships with Maui DWS to construct a new well on DHHL land, in place of current DWS plans for a well in the Manawainui Aquifer.
- Receive the excess capacity from MPL's Well 17. Well 17 has provided a proven water source, may yield up to 500,000 gpd, which DHHL could utilize for its own use, and means no water development cost for DHHL. Countering this was the downside that

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there was no existing stand-by well for Well 17, and such an arrangement would require easements in DHHL land to the West End of the island.

***DHHL Recommendations***

DHHL recommended that validation tests of all wells in the Kualapu'u Aquifer be undertaken to determine the safe pumping capacities of existing wells in order that the aquifer's integrity be protected.

**4.9.2.8 USGS Modeling of Kualapu'u Aquifer**

Any ground water withdrawals on Moloka'i must consider the impact it would have on DHHL's ability to develop its reservation of 2.905 mgd from the Kualapu'u aquifer.

Theoretically (based on sustainable yields), if DHHL, MPL, and the County DWS space out their wells, each of the parties should be able to develop the water they need, including the full amount of DHHL's reservation. On the other hand, a lack of coordination and cooperation could mean that none of the parties will be able to develop the water necessary to satisfy each of their needs. Indeed, depending on where DHHL locates its wells, it may not be able to withdraw its full 2.905 mgd reservation amount without adversely impacting its existing wells, even without any withdrawals from the Kākahale Well or additional DWS withdrawals. In a 2006 ground water modeling study, the USGS arbitrarily located four additional well sites within the Kualapu'u aquifer to withdraw an additional 2.905 mgd. These arbitrarily chosen sites were spaced relatively close together and not far distant from the existing Kualapu'u well site. Under that scenario, USGS concluded that DHHL could not develop the full amount of its reservation from the Kualapu'u aquifer.

The result of a 2006 USGS model simulation should not, and cannot, be taken to mean that there is not enough water within the Kualapu'u aquifer for DHHL to develop its full reservation amount within that aquifer. USGS is not proposing, as a result of its study, that the sustainable yield of the Kualapu'u aquifer be reduced. The lesson gleaned from the USGS modeling study is that the future development of ground water resources on Moloka'i demands coordination among the larger water developers—DHHL, DWS, and MPL—to accommodate, to the greatest extent possible, the water needs of all of the stakeholders.

MPL is currently working with DHHL, DWS, and USGS to comprehensively evaluate Moloka'i's long-term water demands and resources. The goal is to appropriately locate wells and manage pumping such that all of the parties will be able, to the greatest extent possible, to withdraw sufficient water to meet their needs.

Since September of 2006, MPL has attempted to join with DHHL and DWS in having USGS perform a comprehensive three-dimensional model for the Moloka'i aquifers. MPL is pleased that USGS will move forward with a joint study, the terms of which are currently under discussion with all parties. The timeline for completion of this modeling analysis is uncertain; however, based on total sustainable yield on Moloka'i, and the evidence of previous water studies, the modeling analysis is not a critically important element for acceptance of the Lā'au Point Final EIS.

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MPL is participating in these studies and cooperative efforts notwithstanding the fact that it is highly unlikely that pumping 1.0 mgd from the Kākahale Well will diminish the other parties' ability to develop the water they need, or, conversely, that water withdrawals by others will impact MPL's ability to withdraw 1.0 mgd from the Kākahale Well. The Kākahale Well is hydrogeologically isolated by upgradient subsurface intrusives, i.e., the subsurface "plumbing" of Pu'u Kākahale, which function as barriers to normal mauka-to-makai flow of groundwater. The upgradient intrusives, which create the brackish result in the Kākahale Well, also function to limit the effect of pumping the Kākahale Well on other wells upgradient of the intrusives, where future potable wells in the Kualapu'u aquifer will have to be located.

The Kākahale Well will be down- and across-gradient, and on the downstream side of known intervening intrusive structures, from any wells that DHHL is likely to develop to access any part of its 2.905 mgd reservation. Therefore, an adverse impact on future DHHL wells is highly unlikely.

#### **4.9.2.9 Water Working Group Task Force 2007**

##### **Details of Proposed Action Plan**

In July 2007, CWRM reconvened the 1996 Water Working Group on Moloka'i. This followed three major planning efforts "which had brought the community to a renewed focus on water issues," according to the deputy-director Ken Kawahara. These planning efforts had been completed by MPL (*The Community-Based Master Land Use Plan for Molokai Ranch*), DHHL (*The Moloka'i Island Plan*), and the County of Maui (initiating a Water Use and Development Plan).

As of September 2007, it was unclear as to the likely outcome of the Water Working Group's deliberations because of the polarization of the participants on many issues.

##### **The 1996 Water Working Group Project Water Use is Out-of-Date Under Master Plan**

In considering available water supplies on Moloka'i, the 1996 Water Working Group limited its analysis to groundwater. Although the island's ground water sustainable yield is 81 mgd (it was 83 mgd at the time the Water Working Group's report was written), the Water Working Group decided to work with a conservative 41.5 mgd of developable yield. Of that amount, 33.5 mgd was considered "sweet" or potable water.

On the demand side, the Water Working Group projected a 2010 potable water demand of 11.55 mgd. That included 2.14 mgd for the Kaluako'i Resort and 2.0 mgd for the Alpha USA property. Since the Water Working Group report, MPL acquired Kaluako'i Resort and the Alpha USA property. MPL's current projected potable water demand for all of its existing and future developments is less than 1.5 mgd, significantly less than the 4.14 mgd projected need for just the Kaluako'i Resort and Alpha property that was utilized in the Water Working Group's analysis.

The big gap between water supply and demand, however, is reflected in the Water Working Group's non-potable water use projections. Total projected long-term non-potable water demand amounted to 42.9 mgd. Included within this amount was 10.6 mgd for Molokai Ranch's

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agricultural activities. Existing agricultural activities on Ranch lands are supplied with irrigation water from the Ranch's mountain system, not from groundwater. There are no plans to convert these uses to groundwater sources. Additionally, the Water Working Group projected that 5.8 mgd of non-potable water would be required for Kaluako'i Resort and the Alpha USA property. Under MPL's current ownership, and as identified in the *Water Plan for the EC/Community-Based Master Land Use Plan for Molokai Ranch* (see Appendix S), the total long-term demand for non-potable ground water will be less than 1.5 mgd.

In other words, the gap between water availability and water need as identified in the Water Working Group's Report is, under present conditions, overstated, and the conclusion that "projections of water use exceed supply" is probably inaccurate.

Nevertheless, MPL is keenly aware that water is Moloka'i's most precious resource, and therefore, has incorporated into its plans, water system improvements to increase efficiencies and decrease system losses and aggressive water conservation strategies to minimize water demands.

When MPL acquired the Moloka'i Public Utilities water system, inadequate maintenance had resulted in significant system losses amounting to approximately 200,000 gpd. MPL has already begun to implement system improvements and anticipates that system losses can be cut in half.

To minimize water demands, MPL will use a number of different strategies. Conservation rates that provide financial incentives to customers to conserve water have already begun to be implemented and the effectiveness of these rates have already been manifested. Additionally, covenants on Lā'au Point lots will limit further subdivision of the lots, restrict disturbance of each lot to no more than 30 percent (approximately 1/2-acre), require catchment systems for each residence for irrigation use, and require drip irrigation systems, double flush toilets, and other water conservation devices.

#### **4.9.2.10 Waiola Well Issues Raised**

##### ***The Waiola Case and the Kakalahale Well***

In 1998, the Commission on Water Resource Management issued a permit to Waiola O Molokai/Molokai Ranch authorizing the withdrawal of 655,928 gallons per day from the proposed Waiola well site in the Kamiloloa aquifer. The Water Commission's decision was appealed to the Hawai'i Supreme Court, which remanded the Waiola water use permit case to the Water Commission for further proceedings on two issues.

- 1) The court held that although it had be shown that pumping from the proposed Waiola well would not adversely impact the existing DHHL wells in Kualapu'u, MPL had not provided evidence to show that pumping from the Waiola well would not impact DHHL's ability to withdraw its 2.905 reservation amount from the Kualapu'u aquifer.
- 2) Second, the court held that MPL did not meet its burden in showing that water withdrawals from the Waiola well would not abridge native Hawaiian traditional and customary gathering rights. In the Waiola contested case, MPL took a defensive posture with respect to the issue of traditional and customary native gathering rights. In other words, MPL focused on discounting or impeaching the testimony of those who claimed that native Hawaiian gathering rights would be abridged. The court held that that was not sufficient for MPL to meet its burden as the applicant. Instead, MPL had to make an

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affirmative showing that withdrawal of water from the Waiola well would not abridge native Hawaiian traditional and customary gathering rights. Additionally, the court held that there was a procedural error in not allowing one of MPL's witnesses to be fully cross-examined, which may have affected the Water Commission's findings of fact with respect to the impact on native gathering rights.

The Supreme Court ruled that in all other respects MPL had met the requirements for a water use permit for the Waiola well.

MPL could ask that the proceedings be re-opened to give MPL the opportunity to address the two issues the Supreme Court identified as requiring further evidence. On MPL's request, the Water Commission has not yet re-opened those proceedings.

In order to withdraw 1.0 mgd from the Kākahale Well, MPL will have to obtain a water use permit from the Water Commission. The issues addressed in the Waiola case will also have to be addressed for Kākahale.

MPL will be able to show that withdrawing 1.0 mgd from the Kākahale Well will not impact DHHL's ability to withdraw its 2.905 reservation amount from the Kualapu'u aquifer. Kākahale Well is 1.5 miles downslope of the proposed Waiola well site and down gradient from the Kualapu'u well field. More importantly, unlike the Waiola well site, the Kākahale Well site is hydrogeologically isolated and it is also highly unlikely that withdrawing 1 mgd from Kākahale Well will adversely impact DHHL's ability to develop its water reservation in Kualapu'u Aquifer.

For DHHL to develop its 2.905 mgd reservation in the Kualapu'u aquifer, new and appropriately spaced wells east of the existing DHHL/DWS well field will be required. All of these new wells will be upgradient of the known subsurface intrusives, Pu'u Kākahale and Pu'u Luahine. These subsurface intrusives create a barrier to groundwater flow, benefiting wells that are upgradient of the intrusives and adversely impacting the wells downgradient of the intrusives. They also limit the impact that wells on one side of the intrusives have on wells on the other side of the intrusives.

The Kākahale Well will be down- and across-gradient, and on the downstream side of known intervening intrusive structures, from any wells that DHHL is likely to develop to access any part of its 2.905 mgd reservation. Therefore, an adverse impact on future DHHL wells is highly unlikely.

Additionally, by conducting a cultural impact study, MPL is addressing the issue of impacts on traditional and customary native Hawaiian rights;

#### **4.9.2.11 Tenure of MPL's Water Resource Permits**

The water use permit for 1.018 mgd from Well 17 is on appeal to the Supreme Court. However, a permit issued by the CWRM is valid, even though appealed, unless and until it is vacated or revoked by the Court or CWRM.

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The Hawaii Supreme Court's decision in the Waiahole Ditch case cast a cloud over all of the interim in-stream flow standards adopted statewide. However, no petition has been filed to amend any of the interim in-stream flow standards adopted for any of the streams on Moloka'i. It is unlikely therefore, that Molokai Ranch's ability to continue to divert water in its Mountain Water System is in any jeopardy.

#### **4.9.2.12 MIS issues**

Well 17, located in Kualapu'u, currently provides water to Kaluako'i on the West End of Moloka'i. Water is transported from Well 17 to Kaluako'i first through the MIS system to the Mahana pump station. From Mahana, water is pumped to Pu'u Nānā for treatment. The treated water is piped to a reservoir in Maunaloa, and from there gravity fed to Kaluako'i.

Kaluako'i does not use any MIS water, i.e., water developed by the MIS system for agricultural irrigation. Instead, Molokai Public Utilities, Inc. (MPUI), which services Kaluako'i, "rents space" in the MIS system to transport Well 17 water to Mahana.

The water pumped from Well 17 is of potable quality. However, in the MIS, it is mixed with non-potable water that does not meet Safe Drinking Water standards. Thus, the water has to be treated at Pu'u Nānā before it can be distributed to end users in Kaluako'i.

#### ***Transmission Agreement***

The MIS was planned, designed, and constructed under a special Act of Congress (Reclamation Act of 1954) to develop surface water and high-level groundwater (Wells 0855-01, -02, and -03) in Waikolu Valley in northeastern Moloka'i to irrigate farmlands in central and western parts of the island. The MIS originally served large-scale pineapple operations, but was converted to serve diversified agriculture after the pineapple operations closed in the late 1970s. The system also serves the native Hawaiian homesteads in Ho'olehua, and pursuant to HRS section 168-4, Hawaiian homesteads have a prior right to two-thirds of the water currently developed by the MIS. The MIS transports 1,500,000 gpd via a 10-mile transmission link to an open reservoir at Kualapu'u, where it is stored prior to entering a distribution network extending from Ho'olehua to Mahana.

When originally constructed, the MIS was administered by the State Board of Land and Natural Resources (BLNR). In 1975, the BLNR entered into an agreement (the Agreement) with Kaluako'i Corporation (Kaluako'i), renting "space" in the MIS for Kaluako'i to transport water from Well 17 to Mahana. The water is then treated to potable standards and used to supply potable water to Maunaloa town, the Pāpōhaku and Kaluako'i subdivisions, the Kaluako'i condominiums, and for other residential purposes as well as to meet the potable water needs of the resort areas on the West End. Under the terms of the Agreement, Kaluako'i would pump water from Well 17 into the MIS system and withdraw the water at Mahana. To account for potential system losses along the way, Kaluako'i was allowed to withdraw a lesser amount than was put in from Well 17. Additionally, Kaluako'i paid lease rent to the MIS. The Agreement was for the use of "excess capacity" in the system and provided that if there was no longer sufficient capacity in the system then the use would have to be relinquished on reasonable notice.

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The 1975 Agreement was extended by the BLNR in 1985. In 1988, Kaluako'i assigned its interest in the Agreement to Kukui (Moloka'i), Inc. (KMI), which assignment was consented to by the BLNR. As a result of the Agreement, no other infrastructure to transport Well 17 water to the West end of Moloka'i was put into place.

Effective July 1, 1989, administration and management of the MIS was transferred from the BLNR to the State Department of Agriculture (DOA). In December 1989, the Agreement was amended to reflect the statutory transfer to the DOA.

Subsequently, the Agreement was extended twice through December 31, 2005. In late 2001, KMI assigned the Agreement to Kaluako'i Water, LLC (KWLLC), a Hawai'i limited liability company wholly owned by Molokai Properties Limited. The DOA acknowledged the assignment in early 2002.

Prior to and following the Agreement termination date of December 31, 2005, KWLLC and the DOA have been engaged in negotiations for the continued use of the MIS to transport Well 17 water to Mahana, and the DOA has conducted community meetings on the matter. By September 2007, a further extension to the Agreement was in the final stages of being completed following community input on aspects of the Agreement. The Agreement had been open for public input on Moloka'i before the MIS Advisory Board prior to its execution by the parties.

The proposed extension Agreement would have permitted MPL to transmit water through the MIS system until June 30, 2011 at an equivalent price of 70 cents per 1000 gallons transmitted. This compares to the 30 cents per 1,000 gallons paid for by homesteaders and commercial agricultural users of the system. Provisions of the Agreement include emergency use of surplus Well 17 pumping capacity in drought emergencies, the ability for MPL to store up to 20 million gallons in the MIS reservoir in case of breakdowns at its Well 17 pump, continued compensation for system losses and an option for extension of the Agreement, or early termination provisions should MPL seek to transmit water from Well 17 outside the MIS.

The extension Agreement had not been executed when, on September 12, 2007, the DOA, through its Deputy Attorney General, officially determined that any agreement for the continued use of the MIS by KWLLC would be subject to the preparation of an environmental disclosure document pursuant to HRS Chapter 343. As of October 2007, KWLLC continues to utilize the MIS to transport water; however, the DOA's Deputy Attorney General indicated in writing that the practice should cease pending preparation of the environmental disclosure document.

Currently, there is no alternative means of transporting water from the source (Well 17) to end users in Kaluako'i. Upon completion of the environmental disclosure process, either there will be an agreement for the continued use of the MIS to transport Well 17 water or an alternative method of water transport will have to be established. Several alternatives are possible, each of which requires acquisition of new easements or modification of existing easements as well as engineering and cost studies. These items have to be addressed before MPL can rationally identify the practicable alternatives. As of this writing, this issue remains unresolved.

Under MPL's Water Plan, Lā'au Point's potable water needs will be met from Well 17. MPL's infrastructure plan for transporting and distributing water to Lā'au Point, therefore, remains



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unresolved as of October 2007. This issue, however, will have to be resolved regardless of, and without reference to, the Lā'au Point project.

The MIS currently transports up to 1.018 mgd of water (12-month moving average) pumped from Well 17 to Mahana for distribution to existing, current users in Kaluako'i. Well 17 water will continue to be used by Kaluako'i customers whether or not the Lā'au Point project is approved. Thus, the issue of how to transport water from Well 17 to either Mahana or to Kaluako'i will have to be resolved regardless of the Lā'au Point project. Inasmuch as the MIS issue affects existing, current uses, there is an element of urgency, and it is likely that the MIS issue will be resolved prior to any discretionary land use decisions being made on the Lā'au Point project. Therefore, the decisions made with respect to continued use of the MIS may have to be made without consideration of the Lā'au Point project.

Because there are existing customers in Kaluako'i dependent upon Well 17 water, water will have to somehow be transported from Well 17 to the facilities owned by MPL for further distribution to end users at Kaluako'i. Either the MIS will continue to be used or alternate infrastructure will be developed for this purpose. Either way, the infrastructure used to transport water from Well 17 to MPL distribution facilities will also be used to transport potable water to Lā'au Point. Therefore, even if use of the MIS to transport Well 17 water is discontinued, there will be a means of getting potable water to Lā'au Point. The decisions made with respect to this MIS issue, however, will affect infrastructure planning for the transport and distribution of potable water to Lā'au Point.

#### ***Explanation of the "System Losses" Concept in MIS Agreement***

As part of the rental agreement, MPUI, in addition to monetary payments to the MIS, puts in more water than it takes out of the MIS.

The "excess" water is meant to cover system losses. Thus, for every 1,111,111 gallons that is pumped from Well 17 into the MIS, 1 million gallons is taken out at Mahana for eventual use in Kaluako'i. The amount of water pumped into the MIS from Well 17 and the amount that is withdrawn at Mahana are metered; the meters at both ends are monitored by the DOA. In recognition of this agreement, CWRM included a "MIS System Use Charge" of 94,000 gallons per day as part of the 1.018 mgd allocation for Kaluako'i.

#### ***MPL Kept Its Word, Did Not Use MIS Water During Well 17 Breakdown***

During June and early July of 2007, MPL's Well 17 pump malfunctioned and the Well was inoperable for 36 days while the shaft was removed and the pump replaced. During this period, MPL instituted strict conservation measures and was able to use water from its mountain system that was stored in reservoirs to meet potable needs throughout its systems. Stream diversions in the mountain system were not increased during this time.

MPL received approval from CWRM to extend the service area of its mountain system to Kaluako'i during the breakdown period.

MPL did not use MIS water and did not seek permission to use MIS water.

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MPL was able to maintain its buffer in the MIS system, ensuring the homesteaders and other agricultural users were not affected by the Well 17 breakdown.

#### **4.9.2.13 Lā'au Project Issues**

##### **The Impact of 100 Percent of Lā'au Point Homes Using 600 gpd**

Under the Water Plan, MPL will have approximately 1.5 mgd of potable water: 1.018 mgd from Well 17 plus 500,000 gpd from the Mountain water system.

Total anticipated long-term potable water needs amounts to 1,089,520 gpd. This includes 96,000 gpd for the Lā'au Point lots, which is based on 600 gpd for 200 lots at 80 percent occupancy (See page 9 of Water Plan Analysis, Appendix S).

If MPL were to increase the Lā'au Point potable allocation to 100 percent (i.e. all 200 homes used 600 gpd), the amount would be 120,000 gpd, an increase of 24,000 gpd. That would raise the total long-term potable water needs to 1,113,520 gpd, which can still be accommodated with the 1.5 mgd available.

The estimated use of 600 gpd for each Lā'au Point residence relates to potable water use only. This is the Maui County Department of Water Supply Water Demand Standard per residential unit.

Additional non-potable water is anticipated for irrigation uses.

##### **Restricting the Water Use at Lā'au Point**

Conservation rates are but one means of moderating water consumption. Covenants attached to the Lā'au lots will ensure conservation of water.

Residences at Lā'au Point, unlike the existing Kaluako'i residences, will be required to use a dual water system (potable and non-potable). Moreover, a number of covenants will be attached to the Lā'au lots that will ensure further conservation of potable water. These covenants include:

- Restrictions on further subdivision of lots.
- Disturbance of lot limited to no more than 30% (approx. 1/2-acre)
- Restrict water use for irrigation (landscaping).
  - Require re-use and collection/storage systems for catchments.
  - Only drip systems permitted for irrigation.
- Require all houses to have at least a 5,000-gallon storage tank for water captured from roofs (could be used for irrigation).
- Covenants on drinking water use – designed to ensure an overall maximum drinking water daily use of 500-600 gpd.
  - Double flush toilets.
  - Specially designed shower heads for conservation.
  - Must use dual water system (potable and non-potable).

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While the above conservation measures have not been precisely quantified, the restriction on drinking water use to a maximum of 500-600 gpd will ensure implementation of the above conservation measures and perhaps other measures to stay within the maximum daily drinking water limit.

***Clarification that Water Plan Allows for Full Kaluako‘i Build-Out***

MPL’s Water Plan projects long-term potable water needs of no more than 1.5 mgd. This includes, among other things, water for full build-out of the Kaluako‘i residential properties. At full build-out, potable water requirements for Kaluako‘i residential properties are expected to increase to 228,500 gpd from its current use of 77,500 gpd. Non-potable water needs for Kaluako‘i residential properties are expected to increase from the current 143,825 gpd to 633,825 gpd at full build-out.

***Transition of Potable Water to Non-Potable Uses in Kaluako‘i.***

The CWRM has permitted the use of 1.018 mgd from Well 17 for uses at Kaluako‘i. More than half of that amount is for irrigation purposes. Under the Water Plan, the water pumped from Well 17, which is of drinking water quality, will not be used for irrigation purposes. Other sources of non-potable water, namely the Kākahale Well, are intended to replace Well 17 water for irrigation. Until the alternate non-potable source is permitted, developed, and the infrastructure is in place to transport the water to Kaluako‘i, Well 17 water will continue to be used for irrigation purposes.

As the alternate non-potable source becomes available, the water from Well 17 that was used, or slated for use, for irrigation purposes will be available for drinking water needs.

**4.9.2.14 Desalinization- Additional Clarification**

The incentive for desalinization is associated with costs. If the operational cost to desalinate water and the amortized capital costs become lower than the costs to pump and transmit water, we would choose to desalinate. Issues associated with the DHHL reservation and pipeline easements as well as the reliability of the MIS are added incentives.

After preliminary investigation, it was determined that desalinization was not a current reasonable economic alternative and it was therefore not included among those alternatives that were more rigorously explored.

As mentioned in the Water Plan, desalting is still about four times more expensive on Moloka‘i (not helped by the island’s high energy costs) than developing an operating a deep groundwater well.

A pilot plan on O‘ahu developed in the early 2000s still remains idle today because of escalating energy costs needed, in simple terms, to push the brackish water through a membrane to remove the salts.

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MPL has previously been approached by two parties proposing desalinization on Moloka'i as an economic business; neither party, following their detailed investigation, wished to continue with their plans for a desalinization plant.

Desalinization is therefore too expensive to be considered MPL's first choice of non-potable water. However, it is an alternative if water from the Kākahale Well is not available.

#### **4.9.2.15 Alternatives Studied Instead of Kākahale under the Water Plan**

##### ***West End Water Sources and East End Alternatives***

Several wells and a number of test borings have been completed in both the Kaluako'i and Punakou aquifer systems. The water there is very brackish to near-seawater salinity. In virtually all of the borings, the water was also geothermally heated. These sources are not satisfactory for irrigation use.

There are also a number of small wells in the Kawela and 'Ualapu'e aquifers, including the County's Kawela Shaft and 'Ualapu'e Shaft, which have water use permits to pump 0.348 mgd and 0.234 mgd respectively. The USGS's 2006 modeling effort was given the task of, among other things, studying the effects of replacing these wells with new wells (some in other locations within the Kawela and 'Ualapu'e aquifers), and also of increasing pumpage from these wells. The USGS study modeled 14 different scenarios, each of which included, among other things, some withdrawals by the County from wells in both the Kawela and 'Ualapu'e aquifers.

The water level in the Pu'u O Hoku No. 1 well in the Waialua aquifer, which was drilled in 1998, is nine feet mean sea level, indicating that the well site is not in the dike complex as anticipated.

#### **4.9.2.16 Other Water Issues Raised**

##### ***Water for Agricultural Easement Land***

The majority of MPL's west end holdings are currently in agricultural use. Agricultural easements will ensure that agricultural use of these lands will continue into the future. Much of these lands are utilized for ranching, which has low water requirements. Water for irrigation of MPL's agricultural lands is supplied by Molokai Ranch's Mountain Water System.

##### ***Drought Mitigation***

In addition to the development of new sources for agricultural water, drought mitigation strategies are important in securing the viability of agriculture and agricultural activities on Moloka'i. Recommended drought mitigation strategies for Moloka'i, identified by the Maui Drought Committee, include a number of measures to repair and improve the efficiencies of the Molokai Irrigation System. Another drought mitigation recommendation is to install a pump in MPL's Kākahale well, which could supply brackish water for mixing with existing sources to meet non-potable demands. This drought mitigation measure can readily be incorporated into MPL's plans to utilize the Kākahale Well for non-potable irrigation needs identified in the *Community-Based Master Land Use Plan for Molokai Ranch (Appendix A)*.

### 4.9.3 Wastewater

The Lā'au Point site is currently undeveloped and is not serviced by any wastewater system. In the project's vicinity, both Maunaloa Village and Kaluako'i have their own private individual wastewater systems. The site is located in the Critical Wastewater Disposal Area as determined by the Maui County Wastewater Advisory Committee where no new cesspools are allowed.

#### **POTENTIAL IMPACTS AND MITIGATION MEASURES**

At build-out, it is anticipated that permanent residents will occupy up to 60 of the homes (30 percent). Daily flows for wastewater are anticipated to be approximately 20,000 gpd. With additional seasonal residents (80 percent occupancy), the project could generate 70,000 gpd of wastewater.

Lā'au Point will include its own private wastewater treatment system to be maintained through homeowners' association dues. In their July 6, 2006 comment letter on the EISPN, the State Department of Health stated: "As the project cannot be served by the County sewer service system, we have no objection to the proposed option for a private wastewater treatment system." In their comment letter on the Draft EIS dated January 31, 2007, the State Department of Health stated: "we have no objections to the proposed construction of an R-1 wastewater facility." MPL will build the onsite sewer collection system within Lā'au Point. A centrally-located site of 14 acres has been designated for the wastewater treatment system, which will accommodate the projected full development flow. The proposed sewage system will be designed to County of Maui standards. In addition, all wastewater plans will conform to applicable provisions of HAR, Chapter 11-62, "Wastewater Systems."

The ~~primary~~ method of effluent disposal proposed for the Lā'au Wastewater Treatment Plant (WWTP) is beneficial reuse as irrigation water for ~~select areas of conservation lands along the coastline~~ common areas and for soil erosion control ~~in arid areas of this project.~~ Residential lots will not be irrigated with effluent disposal because the State Hawai'i State Department of Health (DOH) *Guidelines for the Treatment and Use of Recycled Water* require residential recycled water systems to be managed by a "irrigation manager," and this would not be effective for the amount of residential lots at Lā'au Point. ~~Therefore-However,~~ the effluent produced by the WWTP shall meet the DOH R-1 recycled water quality criteria. R-1 quality recycled water requires the effluent to be at all times oxidized, then filtered, and then exposed to a disinfection process that kills pathogens.

~~A fully integrated wastewater treatment system that incorporates biological processes, ultrafiltration membranes, and disinfection technology is proposed for the WWTP due to the stringent effluent requirements for R-1 recycled water. This technology combines the activated sludge process with micro pore filtration in a compact membrane bioreactor (MBR). Both oxidation and filtration are achieved in the MBR, thus eliminating the need for separate secondary and tertiary treatment processes.~~

~~Preliminary treatment of the plant influent for treatment in the MBR include coarse bar screening, grit removal, flow equalization, anoxic basin, pre-aeration, and fine screening of the wastewater.~~

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~~Final effluent from the MBR, virtually particulate-free, will be disinfected using ultraviolet irradiation to render it bacteriologically safe for recycling and disposal.~~

~~Solids generated at the WWTP include screenings, grit and sludge. Screenings and grit will be dried on-site using sand drying beds and disposed in a county landfill.~~

To meet the stringent effluent requirements for R-1 recycled water, a fully integrated wastewater treatment system that incorporates biological processes, ultrafiltration membranes, and disinfection technology is proposed for the WWTP. This technology combines the activated sludge process with micro-pore filtration in a compact membrane bioreactor (MBR). Final effluent from the MBR, virtually particulate-free, will be disinfected using ultraviolet irradiation to render it bacteriologically safe for recycling and disposal. This grade of treated water is approved by the Hawaii Department of Health for such uses as agriculture, landscaping, and golf course irrigation.

The terminal disinfection process will eliminate the potential of pathogen infection. R-1 water, will however contain inorganic nutrients such as nitrogen and phosphorous. Because the applications will take place below the UIC line, no potable groundwater lens will be affected. Runoff of this water into the ocean will have minimal effect on water quality because of the circulation patterns along this coast which will dilute the runoff.

The DOH Director must approve all recycled water systems. A Conservation District Use Permit also would be required for any recycled water systems within the State Conservation District. As stated in Section 3.3 (Soils), to the extent possible, Conservation District areas will not be landscaped or irrigated. Exceptions to this may include areas subject to erosion, where new landscaping can serve to stabilize the soil.

Pollution prevention (P2) plans will be incorporated in plant facilities design and standard operation and maintenance procedures aimed to minimize pollutant releases in stormwater runoff from plant activities.

A schematic of the treatment proposed at the WWTP and a conceptual site layout are provided in Figures 1 and 2 of Appendix Q T, respectively. Constituent concentration levels anticipated after each treatment process are presented in Table 4 7 below.

**Table 4 Table 7. Anticipated Wastewater Effluent Constituent Levels**

<b>Constituent</b>	<b>Influent</b>	<b>MBR</b>	<b>UV Disinfection</b>
Average BOD <sub>5</sub> (mg/L)	240	< 5	< 5
Average SS (mg/L)	240	< 5	< 5
Fecal Coliform – median (CFU/100 mL)	10 <sup>8</sup>	< 23	< 1
Turbidity (NTU)	30 - 50	< 0.2	< 0.2

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In wastewater engineering, BOD is a term for biochemical oxygen demand, SS is suspended solids, CFU is colony forming units, and NTU is nephelometric turbidity units.

Biochemical Oxygen Demand (BOD) is a measure of the quantity of oxygen used in the biochemical oxidation of organic matter in a biological treatment process, and hence an indicator of the biodegradable organic content of constituents in wastewater. In conventional secondary treatment processes for wastewater, BOD concentrations are reduced from 200 milligrams per liter (mg/L) to 30 mg/L, or 85 percent removal.

Suspended Solids (SS) is the concentration of organic and inorganic particles held in suspension in wastewater. The laboratory procedure is to measure a liter of liquid, pass it through a standard glass fiber filter, weigh the amount of particles after drying on the filter paper, and calculate the concentration in milligrams per liter of liquid. Secondary treatment processes are defined as producing an effluent of 30 mg/L, or 85 percent removal. As Table 7 above indicates, R-1 recycled water quality is far better than secondary treatment.

Colony Forming Units (CFU) is a unit of expression used in enumerating bacteria density by plate-counting methods. A colony of bacteria develops from a single cell or a group of cells, either of which is a colony-forming unit.

Nephelometric Turbidity Units (NTU) is a unit of expressing the cloudiness (turbidity) of a sample as measured using a nephelometric turbidimeter, a laboratory instrument that emits and measures absorbed light through the solution.

**Sludge Treatment and Disposal** – The MBR is essentially a high mixed liquid suspended solids (MLSS) activated sludge process utilizing a membrane as a means to separate solids from liquid. The MLSS concentration in the MBR typically ranges between 15,000 mg/L to 30,000 mg/L with sludge ages typically in excess of 40 days. Therefore, sludge digestion is typically not required following the MBR. Wasted sludge (or biosolids) from the MBR will be dewatered to humus using sand drying beds, a practice that is particularly conducive in the arid climate of west Molokai. Biosolids residue for disposal at a county landfill will be small, amounting to about 70 cubic yards annually.

**Alarms and Telemetry** – Alarms indicating high and low liquid level conditions, equipment malfunction, and other emergency conditions will be a feature of the WWTP. Visual and audio alarms will be integrated in the control centers of the WWTP, and any alarm signals will be sent through telephone lines to the homes and mobile telecommunication devices of key maintenance personnel as an additional safety measure during non-work hours.

**Odor Control** – Since the collection system for the development is not extensive and the sewer flow velocities are high in the small-diameter pressure mains, the detention time in the sewer system should be relatively short, thereby minimizing the formation and emission of odors at the WWTP.

**Reliability and Redundancy** – Safeguards will be incorporated in the plant design to ensure that treatment operations are uninterrupted in the event of power failure or equipment malfunction. Design features will comply with the reliability and redundancy provisions promulgated in the “Guidelines for the Treatment and Use of Recycled Water,” prepared by the Hawai‘i State

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Department of Health, and dated May 15, 2002, and amendments thereto. For power supply reliability, an auxiliary generator will automatically operate and transfer power during electrical power outages. For process redundancy, multiple units of tanks, pumps, and other key equipment will afford parallel operation during times when a process unit is taken out of service for maintenance or repair.

As part of the reliability and redundancy operating safeguards, an effluent storage impoundment will be provided at the treatment facility. Should any of the redundant backup treatment units malfunction resulting in the plant effluent not having full treatment, that water will be stored in the impoundment for re-treatment, applied to grounds for soil erosion control, or used in plant watering at nearby areas of the treatment facility that are not in the Conservation District. A contingency provision for impoundment is contained in the State Department of Health Reuse Guidelines of Chapter 62, HAR, Wastewater Systems.

During times when the irrigation system is not in operation or when recycled water quantities exceed the irrigation requirements, a storage tank and backup storage and disposal impoundment will be utilized for any excess, such as in times of inclement weather or system maintenance.

**Restricted Public Access** – Wastewater conveyance pump stations and treatment facilities will be fenced to restrict public access.

**Warning Signs and Special Precautions** – Effluent reuse facilities, including piping and appurtenances, and application areas subject to public access will have warning signs stating that irrigation water is not fit for consumption. These signs shall comply with the DOH guidelines.

**Construction Phasing** – The treatment plant will be constructed with an initial capacity of 60,000 gallons per day (gpd), and consist of dual parallel process trains of 30,000 gpd to afford operating redundancy. At some future time when the wastewater flow is forecast to increase as build-out of the project nears, another increment of up to two 30,000 gpd capacity modules will be added to the existing plant. Concomitant with this expansion will be provisions for additional drying beds and ancillary equipment. The treatment facility can be constructed in a 15 to 18 month timeframe.

#### **4.9.4 Solid Waste**

In the Public Facilities Assessment Update County of Maui (2002), R.M. Towill Corporation projected that the Nā'iwa landfill will have adequate capacity to accommodate residential and commercial waste through the year 2019, and a 10-acre parcel adjacent to the Nā'iwa site, that has been identified for future landfill expansion, could provide for another 25 to 30 years of waste disposal service.

The Lā'au Point site is currently undeveloped and does not have solid waste disposal.

#### **POTENTIAL IMPACTS AND MITIGATION MEASURES**

Solid waste will be generated during construction and after development of Lā'au Point. ~~During construction, material derived from clearing and grubbing will be chipped and spread over~~



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~~adjoining Ranch lands to decompose as organic matter. Boulders and other excavated material that are not recycled will be stockpiled in Ranch lands with proper erosion control measures.~~

The County of Maui's Solid Waste Division has previously estimated that households on Maui generate approximately nine pounds of solid waste per day. Applying this estimate to Lā'au Point after full build-out, total waste from residential uses would be 1,800 pounds per day. This estimate includes full occupancy of all homes. It is projected, however, that only 30 percent of the homes will be occupied on a full-time basis.

To mitigate potential impacts of solid waste generation, Lā'au Point will incorporate recycling during construction and in the community to help reduce the amounts of solid waste going to the landfill.

As required by the County of Maui, a solid waste management plan will be prepared to address waste generated by construction. During the construction phase, whenever practical, solid wastes will be minimized and recycled. It will be recommended to contractors that a job-site recycling plan be developed and, as much as possible, construction waste should be recycled. Construction waste that cannot be recycled will be sent to the Nā'iwa landfill. MPL will ensure that all solid waste generated during construction will be directed to a DOH-permitted waste disposal or recycling facility. Nā'iwa landfill is a DOH-permitted waste disposal facility.

Material derived from clearing and grubbing will be chipped and spread over adjoining MPL lands to decompose as organic matter. Boulders and other excavated material that are not recycled will be stockpiled on MPL lands with proper erosion control measures.

#### **4.9.5 Electrical and Communication Systems**

There is no existing electric, telephone, or cable service for the Lā'au Point site. Nearby, there is an underground system in Kaluako'i north of the project site, and an overhead system that runs to Hale O Lono Harbor east of the project site.

Moloka'i has 12.0 Megawatts (MW) of firm generating capacity. Peak load for 2005 was 6.4 MW (MECO 2005).

Moloka'i recently received a \$1.1 million solar power grant from the USDA for solar water heating systems. Water heating is considered the largest use of electricity in a typical home. MECO estimates that 300 systems will be installed through the program.

#### ***POTENTIAL IMPACTS AND MITIGATION MEASURES***

At full build-out, if all 200 lots contain a residence, estimated electrical demand would range from 110,400 to 183,000 kilowatt-hours (kWh) monthly, depending on the residence's air conditioning usage (see Table 8 below). This estimate is based on the use of solar water heaters, as required by the CC&Rs.

**Table 8. Electrical Demand**

	<b>200 Residences</b>	
	<b><u>Electric Demand per month</u></b> <b><u>(kWh)</u></b>	<b><u>Electric demand</u></b> <b><u>per year (kWh)</u></b>
<b><u>No a/c</u></b>	<u>110,400</u>	<u>1,324,200</u>
<b><u>With room a/c</u></b>	<u>139,800</u>	<u>1,676,400</u>
<b><u>With central a/c</u></b>	<u>183,000</u>	<u>2,194,200</u>

Electrical, telephone, and cable distribution systems will be extended underground from Kaluako‘i. Underground utilities will be as close to the road center as possible to avoid multiple impact corridors. At its eastern terminus, this underground distribution system will be connected to the existing overhead system servicing Hale O Lono Harbor to provide an alternative means of serving the project.

In their June 29, 2006 comment letter on the EISPN, Maui Electric Company (MECO) stated that the project’s anticipated electrical load demand will have a substantial impact to MECO’s system and an electrical line extension and other substantial upgrades may be necessary to accommodate the project. As project design progresses, as recommended by MECO, MPL’s electrical consultant will submit electrical drawings and a time schedule to MECO so that electrical service can be provided on a timely basis.

CC&Rs and design standards for Lā‘au Point will encourage energy-efficient building design and site development practices to reduce electrical demand. As previously discussed in Section 2.3.6, covenants will include:

- **Green architecture.** Require “green” architecture that incorporates recycled materials, energy efficient equipment, natural ventilation, solar and photovoltaic systems, etc.
- **Solar power.** Solar panel requirement for water heating and to supplement electric power for appliances.
- **General energy.** All energy systems shall be designed and constructed to meet United States Environmental Protection Agency conservation standards.

## **4.10 PUBLIC SERVICES**

### **4.10.1 Schools**

Moloka‘i has six public schools, including three elementary, one conversion charter school elementary, one intermediate, and one high school. In the last three years, educational resources were expanded to include a private charter high school and a private charter middle school. Maui Community College offers post-secondary opportunities.

The nearest educational facilities to the project site are Maunaloa Elementary School (grades K-6) in Maunaloa Town, and Moloka‘i Intermediate School (grades 6-8) and Moloka‘i High School (grades 9-12), located in Ho‘olehua. Other options include the three charter schools.

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Enrollment for Maunaloa Elementary School has been decreasing. Enrollment dropped from 73 students in 2003-2004 to 69 students in 2004-2005, to its current 2005-2006 school year enrollment of 57 students. The school has capacity for 121 students (DOE 2006).

Moloka'i Intermediate School has experienced decreasing enrollment from 253 students in 2003-2004, to 215 in 2004-2005, to 181 in its current 2005-2006 school year. Moloka'i High School also experienced decreasing enrollment from 451 in 2003-2004, to 413 students in 2004-2005, to 408 in 2005-2006.

### **POTENTIAL IMPACTS AND MITIGATION MEASURES**

According to Department of Education (DOE) school multipliers<sup>1</sup> for new communities, it is estimated that the Lā'au Point community will contain 56 elementary, 29 middle, and 31 high school students. However, this DOE formula does not take into consideration the unique character of the Lā'au Point community and the expectation that seasonal residents and retirees will occupy a substantial share of the community. Therefore, adjustments to the DOE formula may be justified given the following factors (KBCGa 2006):

- Only approximately 30 percent of Lā'au Point residents are expected to be permanent residents.
- Lā'au Point residents will be somewhat older than the general population.
- About 25 percent of the Lā'au Point permanent residents are expected to have children under 18.
- Expected school age population of Lā'au Point permanent residents will likely be less than 10 children ages 5 through 12, and less than 15 children ages 13 through 17.
- Expected Lā'au Point population of schoolchildren is less than 25 percent of what is expected on a pro rata basis.
- It is likely that some of the Lā'au Point residents will home school or send their children to private schools off island.

~~Under these conditions, it would appear that the Lā'au Point project will not significantly impact the public school system and a reduction in DOE's impact fees would be appropriate and warranted.~~

MPL will make a monetary contribution to the development, funding, and/or construction of school facilities on a fair-share basis pursuant to the Education Contribution Agreement for Lā'au Point between MLP and the DOE dated August 3, 2007.

#### **4.10.2 Police Protection**

Police protective services on Moloka'i are provided by the Maui Police Department. Lā'au Point falls within the Maui Police Department's (MPD) Moloka'i Patrol District V. The Police Station is located in Kaunakakai, next to the Kaunakakai Fire Station. In addition to the Commanding Officer position, there are 28 positions including:

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<sup>1</sup> Elementary: 200 SF homes x 0.279 = 55.8 students

Middle: 200 SF homes x 0.143 = 28.6 students

High: 200 SF homes x 0.154 = 30.8 students

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- One Lieutenant
- Six sergeants
- Twelve patrolmen
- Five dispatchers
- One school resource officer
- One community officer
- One animal control officer
- One clerk-typist

A minimum of two officers and one sergeant are on duty at any given time. The island is divided into an east and a west beat. Each beat has three eight-hour shifts, and each shift is staffed by one officer.

### **POTENTIAL IMPACTS AND MITIGATION MEASURES**

The Lā'au Point project may impact police protection services due to increase of people and activity on and around the project site. During construction, construction activities will increase activity and access on private property.

In the long-term time frame, there will be an increase in demand from the additional population, more homes and property, and increased activity resulting from public parks and more public accesses. Lā'au Point is very remote and the response time for all emergency services is about 25 minutes. Further, the population in the Kaluako'i region is dispersed.

To mitigate impacts, road access will be improved. The Police Department will be kept informed of each stage of the construction process in anticipation of security or other issues. Further, on-site private security services, hired by the homeowners' association, will help to deter trespassing, loitering, and property crime.

#### **4.10.3 Fire Protection**

There are three fire stations on Moloka'i: Kaunakakai, Pūko'o, and Ho'olehua. In addition to fire emergencies, the department has first responder medical assistance capability when needed. Emergency Medical Service, or EMS, is provided by Medivac, a private ambulance service of American Medical Response Company. EMS has two ambulances, one with two people on duty and a backup ambulance serviced by call-back personnel.

The main station is the Kaunakakai Fire Station located next to the Police Department. The Kaunakakai Fire Station has an Engine and Tanker, a rescue boat and a utility truck. There are five to six firefighters on duty every twenty-four hours.

A \$10.5 million new fire station for Kaunakakai is starting development on a five-acre parcel, approximately one-half mile from the existing fire station, near the intersection of Alanui Ka 'Imi 'Ike and Kakalahale Street. This new station will house full equipment, apparatus, and personnel, and will serve as an Emergency Operations Center in case of disasters.

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The Pūko‘o Fire Substation is 16 miles east of Kaunakakai and houses a two-man engine company. The County of Maui budgeted for a new fire station at Pūko‘o in its Fiscal Year 2006, Capital Improvement Program.

The Ho‘olehua Station is the closest station to Lā‘au Point, at 20 miles away. The Ho‘olehua Fire Station serves the west end, and houses a full five-man engine company.

#### **POTENTIAL IMPACTS AND MITIGATION MEASURES**

The project may impact fire protection services due to the increased demand generated by additional population, the presence of more structures, and potential increased activity at the parks and along the shoreline. The project area is about 25 to 35 minute response time from the Ho‘olehua fire station and about 20 additional minutes from Kaunakakai’s station. These response times are estimates and emergency response times may take longer. Currently access to the area is via unimproved and dirt roads. With the project, the access road will be paved, improving the road conditions, which may reduce emergency response times.

Most responses to the project area would probably be medical related given the older population. Further, there is a risk of brush fires in the area due to dryness and high winds, although fire breaks will be cut regularly during summer months.

A water storage tank or reservoir will be constructed above the project site to provide adequate pressure and to meet the storage requirements for fire protection. Fire hydrants will be installed along the road spaced at intervals between 450 to 500 feet.

To provide increased fire protection at Lā‘au Point until there is a fire station within the five road miles required to have a favorable fire insurance rating as determined by the Hawaii Insurance Bureau, the Lā‘au Point Covenants, Conditions, and Restrictions (CC&Rs) will require all residential structures to have sprinkler systems meeting standards specified in the Fire Code. The Fire Department does not require MPL to provide a fire station on the West End for Lā‘au Point.

Fire and rescue emergency services will be able to access Lā‘au Point and the shoreline from the new paved access road from Kaluako‘i and the existing emergency access dirt road from Hale O Lono Harbor, with access to the shoreline through the subdivision at designated locations. Emergency responders can also use an existing emergency access dirt road from Hale O Lono Harbor and do not have to go all the way to Kaluako‘i to access Lā‘au Point.

#### **4.10.4 Health Care Services**

Moloka‘i is served by the Moloka‘i General Hospital, which is part of the Queens Health System based in Honolulu. Located in Kaunakakai, the Moloka‘i General Hospital houses 15 patient beds, of which 13 are acute care beds and two are long-term care beds. Its service population is the island of Moloka‘i.

Moloka‘i General Hospital has the only emergency room and urgent care clinic on the island. The hospital provides acute, long-term care, and low-risk obstetrical inpatient services. It also offers kidney health, diabetes management, preventive health, high-risk weight management,

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compassionate care/hospice services, family planning and family support services on an outpatient basis.

In June, 2005, Moloka'i General Hospital celebrated the opening of a new wing to their facility. The \$7.5 million project represents completion of Phase I of the development, conceptualized in 1997. The new wing includes two new trauma rooms, new CAT scan, new radiology room, emergency room, delivery room, and storage rooms among others. Phase II will include the relocation of the Women's Health Center and expansion of the medical office.

In addition to the hospital, Moloka'i's medical services include a rural health clinic that is part of the hospital, two private physician practices, a midwife, three dental practices, a community health center, and one chiropractic clinic. Other medical and health services include three mental health care homes, an area health education center, Care Resources (nursing home without walls), ambulance medical response, Moloka'i Occupational Center, Na Pu'uwai, Kalua Ola Hou, Moloka'i Drugs, and several government programs.

***POTENTIAL IMPACTS AND MITIGATION MEASURES***

It is anticipated that on-site residents will be older than the general population, and thus may require a higher level of service. The low level of permanent population (30 percent) will help to offset impact on health care services.

Should emergency services be required at Lā'au Point, emergency vehicles will be able to access the site from the new paved access road from Kaluako'i and the existing emergency access dirt road from Hale O Lono Harbor. Should medical and rescue services be needed for shoreline emergencies, access will be provided at designated points through the subdivision.

**4.10.5 Recreational Facilities**

The Molokai Ranch lands contain various recreational activities for both residents and visitors. The west and south coasts of the ranch lands contain stunning and relatively undeveloped beaches. The beach and nearshore areas are used at various times for sunbathing, picnicking, swimming, fishing, snorkeling, scuba diving, whale watching, surfing, and paddling by residents and visitors.

There are a significant number of trails throughout the property for hiking, biking, and horse riding. There are also cultural trails, which run along the coast.

Molokai Ranch provides access to numerous activities, such as kayaking, mountain biking, horse riding, as well as a paniolo cultural museum in Maunaloa town. It also maintains camping facilities at Kaupoa Camp, which is now available to the community at affordable prices at selected times of the year. Maui County maintains camping sites at Pāpōhaku Beach Park, located on the north end of Pāpōhaku Beach. There is an 18-hole golf course at Kaluako'i and a 9-hole course at the Ironwoods Golf Course.

In addition to Molokai Ranch's recreational facilities, the following are public parks and recreation areas available on Moloka'i:

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- Duke Maliu Regional Park
- Halawa Park
- Cooke Memorial Pool
- Kakahai'a Park
- Kaunakakai Ball Park
- Kaunakakai Lighthouse Park
- Kilohana Community Center
- Kualapu'u Park
- Mitchell Pauole Center
- One Ali'i Park
- Pāpōhaku Beach Park
- Pu'u Hauole Park
- Maunaloa Park

### **POTENTIAL IMPACTS AND MITIGATION MEASURES**

The Lā'au Point community is not expected to have a significant impact on public regional recreation facilities. To provide access for the shoreline and help manage the coastal resources, the Lā'au Point project will include two public parks (totaling approximately 17 acres), one by Kamāka'ipō Gulch (2 acres) on the west end of the community, and the other (15 acres) at Pu'u Hakina, west of Hale O Lono Harbor at the south end. This 17-acre total exceeds the 2.26 acres of parks required for a 200-lot development under the County's subdivision requirements (MCC Sec. 18.16.320). The following description of the parks is provided to comply with Special Management Area (SMA) Use permit application requirements. Figures 18 & 20 shows proposed preliminary design and landscape treatment plans for each park site.

**Conceptual South Park Plan** – This larger park located at the east end of the proposed Lā'au Point site's south shoreline will provide primary access for the public to engage in recreational, cultural, and subsistence activities. The park is intended to provide for passive recreational and open space needs as there are more appropriate sites for active recreational sports elsewhere. The main purpose of the South Park at Lā'au Point is to provide parking and comfort station for users of the shoreline area who must enter by foot.

A new paved road approximately 800 feet long will be constructed through the park site as far inland as possible along the base of the hills away from the shoreline. A total of 30 parking stalls will be provided in three enclaves to minimize the impact of open paved lot areas. The use of permeable materials for the road and parking lots will be considered. At the end of the paved road will be a caretaker's Resource Manager's residence and/or maintenance shed. An elevated vantage point for the caretaker's Resource Manager's residence will allow park personnel to overlook the park entrance and manage shoreline access. The Resource Manager would be responsible for community access and protection of the subsistence resources within the Lā'au shoreline. MPL and the Land Trust believe that providing on-site accommodation and having a Resource Manager on-site full-time will add additional protection to the marine resources at Lā'au Point. A gate will control use of the existing shoreline access road for emergency purposes.

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The proposed road improvements and the caretaker's Resource Manager's residence will be located outside of the SMA boundary. The public restroom and shower is located within the SMA boundary but outside of the County's 150-foot shoreline setback line. All structures, including buildings and roads, are proposed to be located outside of the County's setback line. No paved areas or walkways fall within the shoreline setback. Improvements within the shoreline setback will be limited to clearing for footpaths and landscaped planting, along with underground sprinklers and minor drainage system improvements. No utility pipes would traverse underground in the setback area. The comfort station and caretaker's Resource Manager's house will require all utilities and be serviced by individual wastewater systems.

The existing shoreline trail will remain intact along the shoreline. A portion of the shoreline trail will be used for emergency access to the Lā'au Point residences through the east end of the subdivision. The intersection of the new park road and the existing State access road to Hale O Lono will need to be modified. An SMA Use Permit will be sought for improvements occurring within the SMA boundary line. A State land use district amendment from Conservation to Rural will be needed to implement park improvements. The County designation for Park use will be sought to amend the Community Plan and Rural (RU-1) use proposed for the Change in Zoning. A shoreline survey certification will be submitted if deemed appropriate for the shoreline area fronting the park improvements.

**Conceptual West Park Plan** – The proposed park on the northwest end of the Lā'au Point project site will provide public access entering south from Kaluako'i Road. A new 700-foot long paved road will lead down to the shoreline along the one side of Kamāka'ipō Gulch. The park will provide a buffer between the houselots along the edge of the new road and the archaeological sites of the Kamāka'ipō Gulch Archaeological Preserve. The purpose of the park is to provide parking and foot access to the shoreline and the Archaeological Preserve for cultural, recreation, and subsistence activities. A total of 12 parking stalls and a comfort station with shower facilities will be provided. Utility connections and an individual wastewater system will be needed for the comfort station. Road construction will avoid archaeological sites and be designed to stabilize any erosion and drainage conditions.

All structures, including buildings, roadways, and walkways will be located outside of the SMA boundary and 150-foot County Shoreline Setback area. There may be only minor clearing and landscape planting in the area fronting the shoreline within the SMA and Shoreline Setback areas, which will be, for the most part, left in its natural state. The existing shoreline trail traverses this area.

As the park site remains outside of the State Conservation District, a reclassification from the existing State Agriculture to Rural District will be sought. The Park use designation will be sought for the County's Community Plan Amendment and Rural (RU-1) use proposed for the Change in Zoning. Although most of the park improvements lie outside of the SMA boundary, an SMA permit application has been submitted in the event minor or exempt improvements may be involved.

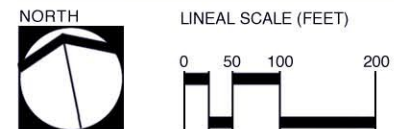




## Landscape Legend

-  Trees
  - Kou
  - Milo
  - Existing Kiawe
-  Shrubs
  - Naupaka
-  Groundcovers
  - Bermuda Grass

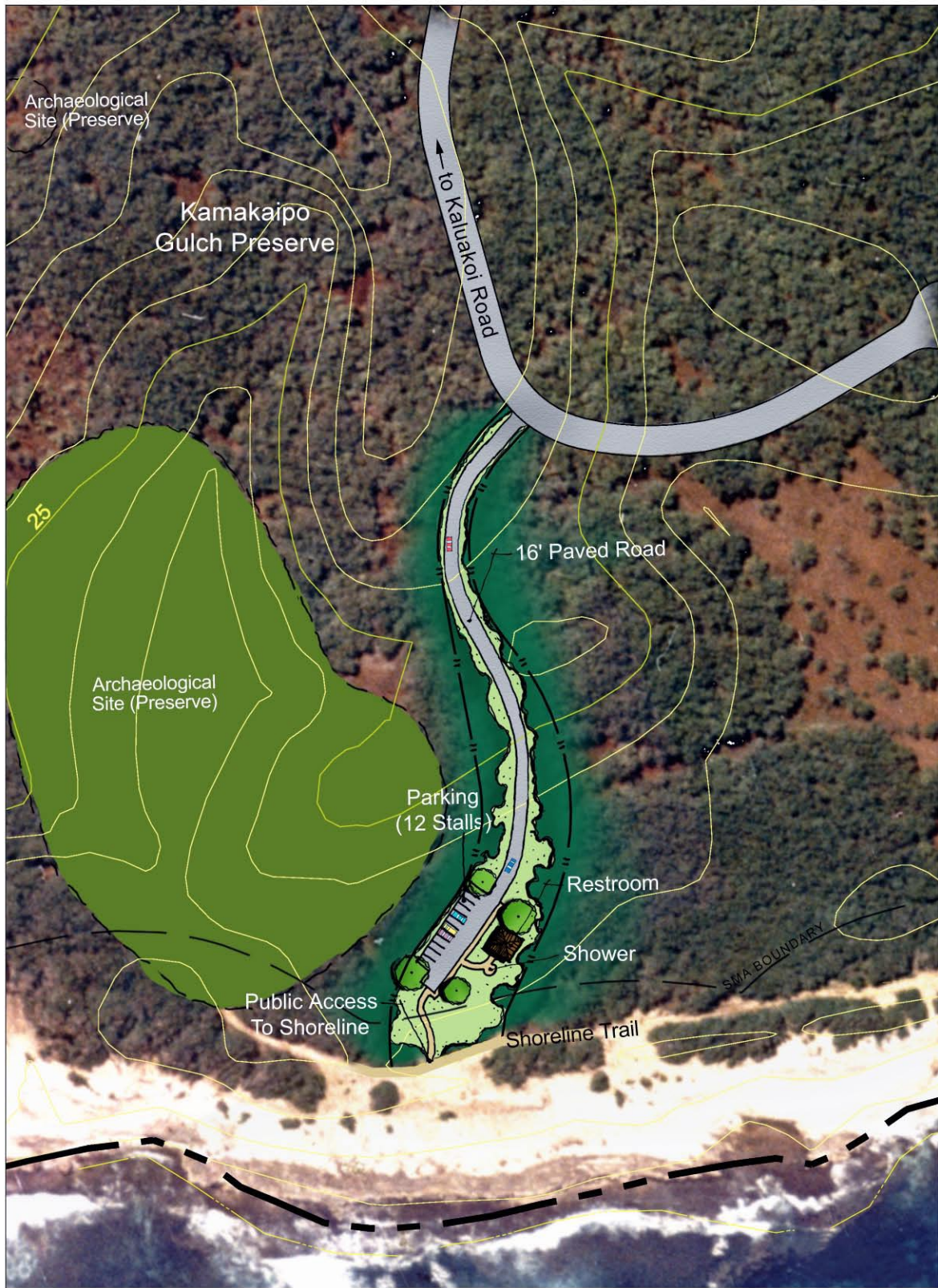
Figure 20a  
 Conceptual Plan - South Park  
**Lā'au Point**



ISLAND OF MOLOKAI



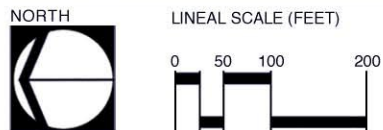




## Landscape Legend

	Trees -Kou -Milo -Existing Kiawe
	Shrubs -Naupaka
	Groundcovers -Bermuda Grass

Figure 20b  
Conceptual Plan - West Park  
**Lā'au Point**



ISLAND OF MOLOKAI



## 5.0 RELATIONSHIP TO LAND USE PLANS AND POLICIES

State of Hawai‘i and County of Maui land use plans and polices relevant to the Lā‘au Point project, and required permits and approvals, are described below.

### 5.1 STATE OF HAWAI‘I

#### 5.1.1 Chapter 343, Hawai‘i Revised Statutes

Compliance with Chapter 343, HRS is required as previously described in Section 1.5.

#### 5.1.2 State Land Use Law Chapter 205, Hawai‘i Revised Statutes

The State Land Use Law (Chapter 205, HRS) establishes the State Land Use Commission (LUC) and gives this body the authority to designate all lands in the State into one of four districts: Urban, Rural, Agricultural, or Conservation. The majority of the Lā‘au Point project site is within the Agricultural District, and the coastline area lies within the Conservation District (see Figure 4). Within the Conservation District, the project site is within the General and Limited Subzones (see Figure 5).

MPL is seeking a State Land Use District Boundary Amendment (SLUDBA) to change the proposed residential area from the Agricultural District to the Rural District, to allow rural-residential lots of 1.5 to 2+ acres in size, roadways, infrastructure, parks, and open space. In addition, MPL proposes to expand the Conservation District along the shoreline and related resource areas to ensure protection of these areas (see ~~Table 5~~ Table 9 and Figure 1).

**Table 5 Table 9. SLUDBA Petition Area**

<b>District</b>	<b>Acreage</b>
Agricultural (AG) to Rural (R)	
• House lots (200)	400
• Roadways	46
• Infrastructure	14
• Parks	8
• Open Space	382
Conservation (C) to Rural (R)	9
Agricultural (AG) to Conservation (C)	254
<b>TOTAL</b>	<b>1,113 acres</b>

Decision making criteria to be used in the LUC’s review of petitions for reclassification of district boundaries is found in Section 205-17, HRS, and Section 15-15-77, HAR. Standards for determining the Rural District are contained in Section 15-15-21, HAR and standards for determining the Conservation District are contained in Section 15-15-20 HAR. The following is an analysis of how the Lā‘au Point project conforms to these criteria and standards.

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**Land Use Commission Decision Making Criteria**

**§205-17 Land use commission decision making criteria.** *In its review of any petition for reclassification of district boundaries pursuant to this chapter, the commission shall specifically consider the following:*

- (1) *The extent to which the proposed reclassification conforms to the applicable goals, objectives, and policies of the Hawaii state plan and relates to the applicable priority guidelines of the Hawaii state plan and the adopted functional plans;*

**Discussion:** Lā‘au Point conforms to the applicable goals, objectives, and policies of the Hawai‘i State Plan and functional plans, as discussed in Sections 5.1.5 and 5.1.6 of this EIS.

- (2) *The extent to which the proposed reclassification conforms to the applicable district standards;*

**Discussion:** Lā‘au Point conforms to the Rural and Conservation District standards as discussed below.

- (3) *The impact of the proposed reclassification on the following areas of state concern:*
  - (A) *Preservation or maintenance of important natural systems of habitats;*
  - (B) *Maintenance of valued cultural, historical, or natural resources;*

**Discussion:** The Lā‘au Point project will be sensitive to natural systems, such as streams, gulches, and floodways, and will define areas for environmental protection. A State Land Use District Boundary Amendment is proposed to expand the existing Conservation District along the coastline of Lā‘au Point to create a Shoreline Conservation Zone (see Figure 1). The acreage in the Conservation District will expand from 180 acres to 434 acres (an increase of 254 acres), thereby increasing the amount of natural shoreline habitats in protection. An additional 382 acres surrounding the rural-residential lots will be designated for open space under County zoning to ensure that streams, gulches, and floodways will remain undeveloped open space.

Prior to site planning and design of the Lā‘au Point project, an archaeological survey of the entire 6,348-acre parcel identified approximately 1,000 acres for cultural and resource protection where groupings of archaeological and historic sites exist. Access roads and the rural-residential lots have been planned to respect these cultural preservation areas and archaeological sites. An archaeological preserve of approximately 128 acres will be created at Kamāka‘ipō Gulch, an area to be donated to the Moloka‘i Land Trust. The creation of Cultural Protection Zones (see Figure 10 ~~12~~) increases preservation of cultural landscapes rather than only individual sites, which represents a great advance not just in acreage, but in diversity and intensity of preservation actions (see Section 4.1).

The Conservation District areas to be protected (approximately 434 acres) within the Lā‘au Point project will be the subject of an easement held by the Moloka‘i Land Trust, with guidelines for uses reflecting the importance of these areas culturally, archeologically, and to subsistence gathering. These protected lands will be part of an entity that is controlled jointly by Lā‘au Point homeowners and the Land Trust.

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- (C) *Maintenance of other natural resources relevant to Hawaii’s economy, including, but not limited to, agricultural resources;*

**Discussion:** MPL is committed to preserving over 55,000 acres of Agricultural District property in perpetuity through donation of land and establishing protective easement restrictions to protect the rural and agricultural nature of the island. The Moloka‘i Land Trust, a community-based land steward organization, will manage the 26,200 acres (40 percent of present MPL lands) that MPL will donate to the Moloka‘i community under the *Community-Based Master Land Use Plan for Molokai Ranch* (see Section 2.1.8). Under the protective easements, 14,390 acres will be protected forever for agricultural use, and 10,560 acres of Agricultural District land will be protected as open space on which no building will be permitted. The Land Trust will administer agreed upon land use policies for these areas that affect agricultural resources.

- (D) *Commitment of state funds and resources;*

**Discussion:** The fiscal analysis prepared for the Lā‘au Point (Appendix J) projects that State revenues should exceed State expenditures by \$4.7 million over the life of the project. Regarding County revenues and costs, the fiscal analysis projects an annual surplus of \$2.1 million at the end of lot sales.

Lā‘au Point’s onsite Wastewater Treatment Plant will be privately developed, owned, and maintained. MPL will develop roadways to County standards and may at some future stage seek to dedicate the roads to the county. Initially, the roads will be owned by the residents.

- (E) *Provision of employment opportunities and economic development; and*

**Discussion:** As ~~previously~~ discussed in Sections 2.1.7 (Key Points) and 4.8.3 (Economy), the Lā‘au Point project will enhance Moloka‘i’s economic environment and stimulate economic diversification relative to the present unprofitable ranch operations. These opportunities include:

- \$246 million in total development and construction investment.
- 1,350 person years of construction-related employment over project build-out (a “person year” is the amount of time a person can work in one year).
- Annual expenditures on Moloka‘i at build-out of about \$4.4 million, which represents about \$22,000 in on-island spending per residence.
- Support of 60 on-going jobs upon full build-out in 2023 through resident spending and the Lā‘au Point homeowners’ association.
- Providing funding for the Kaluako‘i Hotel and Golf Course renovations from sales of the Lā‘au Point rural-residential lots. These resort facilities are crucial to revitalizing the Moloka‘i economy and are projected to provide in excess of 100 jobs for Moloka‘i residents.

- (F) *Provision for housing opportunities for all income groups, particularly the low, low-moderate, and gap groups; and*

**Discussion:** As ~~previously~~ discussed in Sections 2.1.9 (CDC) and 4.8.2 (Housing), 200 acres around the towns of Kualapu‘u and Maunaloa have been identified for the future development of ‘Ohana Neighborhood Communities (i.e., affordable housing) to be developed by partnering with various community resources such as Habitat for Humanities, Self-Help Housing, and others.

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Approximately 1,100 acres will also be gifted to the Moloka‘i Community Development Corporation (CDC), a large portion of which can be used for ~~community homes~~ affordable housing.

(4) *The representations and commitments made by the petitioner in securing a boundary change.*

**Discussion:** MLP is committed to following through with the representations and commitments it has made to the community and the State Land Use Commission. The financial statements of MPL’s parent company, BIL International Limited, were provided as an exhibit of the SLUDBA petition submitted on April 27, 2006.

**§15-15-77 Decision-making criteria for boundary amendments.** (a) *The commission shall not approve an amendment of a land use district boundary unless the commission finds upon the clear preponderance of the evidence that the proposed boundary amendment is reasonable, not violative of section 205-2, HRS, and consistent with the policies and criteria established pursuant to sections 205-16, 205-17, and 205A-2, HRS.*

(b) *In its review of any petition for reclassification of district boundaries pursuant to this chapter, the commission shall specifically consider the following:*

- (1) *The extent to which the proposed reclassification conforms to the applicable goals, objectives, and policies of the Hawaii state plan and relates to the applicable priority guidelines of the Hawaii state plan and the adopted functional plans;*
- (2) *The extent to which the proposed reclassification conforms to the applicable district standards;*
- (3) *The impact of the proposed reclassification on the following areas of state concern:*
  - (A) *Preservation or maintenance of important natural systems or habitats;*
  - (B) *Maintenance of valued cultural, historical, or natural resources;*
  - (C) *Maintenance or other natural resources relevant to Hawaii’s economy including, but not limited to agricultural resources;*
  - (D) *Commitment of state funds and resources;*
  - (E) *Provision for employment opportunities and economic development; and*
  - (F) *Provision for housing opportunities for all income groups, particularly the low, low-moderate, and gap groups;*
- (4) *In establishing the boundaries of the districts in each county, the commission shall give consideration to the general plan of the county in which the land is located;*

**Discussion:** Lā‘au Point’s conformance with the applicable goals, objectives, and policies of the Hawai‘i State Plan and Functional Plans are discussed in Sections 5.1.5 and 5.1.6 of this EIS.

The extent to which the proposed reclassification conforms to the applicable district standards is discussed below.

The impact of the proposed reclassification on areas of state concern is discussed in the preceding section regarding Section 205-17, HRS, *Land Use Commission Decision Making Criteria*.

Lā‘au Point’s conformance with the Maui General Plan and the Moloka‘i Community Plan land use policies is discussed in Section 5.2.2. A Community Plan Amendment is being sought so that Lā‘au Point is consistent with the Moloka‘i Community Plan Land Use Map.



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- (5) *The representations and commitments made by the petitioner in securing a boundary change, including a finding that the petitioner has the necessary economic ability to carry out the representations and commitments relating to the proposed use or development; and*

**Discussion:** MLP is committed to following through with the representations and commitments it has made to the community and the State Land Use Commission. The financial statements of MPL's parent company, BIL International Limited, were provided as an exhibit of the SLUDBA petition submitted on April 27, 2006.

- (6) *Lands in intensive agricultural use for two years prior to date of filing of a petition or lands with a high capacity for intensive agricultural use shall not be taken out of the agricultural district unless the commission finds either that the action:*  
(A) *Will not substantially impair actual or potential agricultural production in the vicinity of the subject property or in the county or State; or*

**Discussion:** Lā'au Point will not impact MPL's agricultural operations. As discussed in Section 3.4 (Agricultural Impact), no ranching has occurred on the site since 2000. As discussed in Section 3.3 (Soils), the Lā'au Point site provides no value for soil-based agriculture.

- (B) *Is reasonably necessary for urban growth.*

**Discussion:** Lā'au Point will be a rural residential community, as opposed to an urban development. The real estate marketing report prepared for the Lā'au Point project (Appendix K) projects a demand of approximately 40 of these rural-residential lots per year, indicating that all lots could be sold in approximately five years.

- (c) *Amendments of a land use district boundary in conservation districts involving land areas fifteen acres or less shall be determined by the commission pursuant to this subsection and section 205-3.1, HRS.*  
(d) *Amendments of land use district boundary in other than conservation districts involving land areas fifteen acres or less shall be determined by the appropriate county land use decision-making authority for the district.*

**Discussion:** The Lā'au Point project area is more than 15 acres; therefore, the State Land Use Commission is the appropriate body to consider the reclassification.

- (e) *Amendments of a land use district boundary involving land areas greater than fifteen acres shall be determined by the commission, pursuant to this subsection and section 205-3.1, HRS.*

**Discussion:** The State Land Use Commission shall be the decision-making authority for the SLUDBA and accepting authority for the EIS.

### **Standards for Determining Rural District Boundaries**

**§15-15-21 Standards for determining "R" rural boundaries.** *Except as otherwise provided in this chapter, in determining the boundaries for the "R" rural district, the following standards shall apply:*

- (1) *Areas consisting of small farms; provided that the areas need not be included in this district if their inclusion will alter the general characteristics of the areas;*

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- (2) *Activities or uses as characterized by low-density residential lots of not less than one-half acre and a density of not more than one single-family dwelling per one-half acre in areas where "city-like" concentration of people, structures, streets, and urban level of services are absent, and where small farms are intermixed with the low-density residential lots; and*
- (3) *It may also include parcels of land which are surrounded by, or contiguous to this district, and are not suited to low-density residential uses for small farm or agricultural uses.*

**Discussion:** The Lā'au Point community will be low-density, consisting of 200 rural-residential lots, each approximately 1.5 to 2+ acres in size. The community will not contain "city-like" concentrations of people, structures, streets, or urban levels of services.

**Standards for Determining Conservation District Boundaries**

*§15-15-20 Standards for determining "C" conservation district boundaries. Except as otherwise provided in this chapter, in determining the boundaries for the "C" conservation district, the following standards shall apply:*

- (1) *It shall include lands necessary for protecting watersheds, water resources, and water supplies;*
- (2) *It may include lands susceptible to floods and soil erosion, lands undergoing major erosion damage and requiring corrective attention by the state and federal government, and lands necessary for the protection of the health and welfare of the public by reason of the land's susceptibility to inundation by tsunami and flooding, to volcanic activity, and landslides;*
- (3) *It may include lands used for national or state parks;*
- (4) *It shall include lands necessary for the conservation, preservation, and enhancement of scenic, cultural, historic, or archaeological sites and sites of unique physiographic or ecologic significance;*
- (5) *It shall include lands necessary for providing and preserving parklands, wilderness and beach reserves, for conserving natural ecosystems of indigenous or endemic plants, fish, and wildlife, including those which are threatened or endangered, and for forestry and other related activities to these uses;*
- (6) *It shall include lands having an elevation below the shoreline as stated by section 205A-1, HRS, marine waters, fish ponds, and tidepools of the State, and accreted portions of lands pursuant to section 501-33, HRS, unless otherwise designated on the district maps. All offshore and outlying islands of the State are classified conservation unless otherwise designated on the land use district maps;*
- (7) *It shall include lands with topography, soils, climate, or other related environmental factors that may not be normally adaptable or presently needed for urban, rural, or agricultural use, except when those lands constitute areas not contiguous to the conservation district;*
- (8) *It may include lands with a general slope of twenty per cent or more which provide for open space amenities or scenic values; and*
- (9) *It may include lands suitable for farming, flower gardening, operation of nurseries or orchards, growing of commercial timber, grazing, hunting, and recreational uses including facilities accessory to those uses when the facilities are compatible natural physical environment.*

**Discussion:** A State Land Use District Boundary Amendment is proposed to expand the existing Conservation District along the coastline of Lā'au Point to create a Shoreline Conservation Zone (see Figure 1). The areas proposed for Conservation District expansion include concentrations of archaeologically and culturally important sites. Additionally, the Conservation District lands along the shoreline will be expanded inland to allow a greater setback between the shoreline and the homes and in recognition of the cultural importance of the shoreline area in Native Hawaiian subsistence practices. The increased Conservation District will allow for sensitivity to natural systems, such as streams, gulches, and floodways, and areas for environmental protection.



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Within the project area, the acreage in the Conservation District will expand from 180 acres to 434 acres (an increase of 254 acres), thereby increasing the amount of natural shoreline habitats in protection.

A reclassification of nine acres from Conservation to Rural District is also proposed for the public shoreline park on the south shore. While park-type uses are compatible with the standards set forth in §15-15-20, HAR, the reclassification to the Rural District will facilitate implementation of park improvements (such as a comfort station, a parking lot, a Resource Manager's residence, an individual wastewater system, a drainage system, and footpaths) without the need for a Conservation District Use Application (CDUA). In their comment letter dated February 23, 2007, the DLNR Office of Conservation Coastal Lands confirmed that a petition to re-district the nine acres from Conservation to Rural for the park development would not require a Conservation District Use Application (CDUA).

#### 5.1.3 State Conservation District Administrative Rules

The purpose of the State Conservation District Law (183C, HRS) is to conserve, protect, and preserve the important natural resources of the State through appropriate management and use to promote their long-term sustainability and public health, safety, and welfare. The Conservation District lands in the project site fall within the General and Limited Subzones (see Figure 5).

The State Conservation District Administrative Rules (HAR, Title 13, DLNR, Subtitle 1 Administration, Chapter 5, Conservation) provide for identified land uses within Conservation District subzones. Below each criterion is listed, along with a discussion of how the Lā'au Point project conforms to the specific criterion.

In their comment letter dated February 23, 2007, the DLNR Office of Conservation Coastal Lands stated that the 254 acres designated into the Conservation District will not have subzone designation. If the land is designated to the Conservation District the landowner will need to petition the Board of Land and Natural Resources for a new subzone. This will require an Administrative Rule Amendment.

(1) *The proposed land use is consistent with the purpose of the conservation district;*

**Discussion:** According to HAR ~~§13-5-30~~ §13-5-1, the purpose of the Conservation District is to “regulate land use in the conservation district for the purpose of conserving, protecting, and preserving the important natural resources of the State through appropriate management and use to promote their long-term sustainability and the public health, safety, and welfare.”

The areas proposed for Conservation District expansion include concentrations of archaeologically and culturally important sites. Additionally, the Conservation District lands along the shoreline will be expanded inland to allow a greater setback between the shoreline and the homes and in recognition of the cultural importance of the shoreline area in Native Hawaiian subsistence practices. Within the project area, the acreage in the Conservation District will expand from 180 acres to 434 acres (an increase of 254 acres), thereby increasing the amount of natural shoreline and other areas in protection.

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- (2) *The proposed land use is consistent with the objectives of the subzone of the land on which the use will occur;*

**Discussion:** The objective of the Limited subzone is “to limit uses where natural conditions suggests constraints on human activities” (HAR §13-5-12). MPL agrees that the natural conditions along the Lā‘au Point shoreline suggest constraints on human activities, and is therefore seeking to increase the Conservation District between the house lots and the shoreline. The shoreline area will be accessible in recognition of the cultural importance of the shoreline area in Native Hawaiian subsistence practices.

The objective of the General subzone is “to designate open space where specific conservation uses may not be defined, but where urban use would be premature” (HAR §13-5-14). The expanded Conservation District lands along the shoreline will be accessible for subsistence activities. The archaeological preserve (approximately 128 acres) to be created at Kamāka‘ipō Gulch (an area to be donated to the Moloka‘i Land Trust) will also be designated to the Conservation District and accessible for cultural practices.

- (3) *The proposed land use complies with provisions and guidelines contained in chapter 205A, HRS, entitled “Coastal Zone Management,” where applicable;*

**Discussion:** Lā‘au Point complies with the provisions and guidelines contained in Chapter 205A, HRS, entitled “Coastal Zone Management” as discussed in Section 5.1.4 of this EIS.

- (4) *The proposed land use will not cause substantial adverse impact to existing natural resources within the surrounding area, community, or region;*

**Discussion:** The proposed land use involves expanding the existing Conservation District area by 254 acres along the shoreline and related resource areas. This proposed expansion will provide for a total of 434 acres of the project area to be protected in the Conservation District. Natural systems, such as streams, gulches, and floodways will be maintained and remain as open space. Potential impacts to the natural resources will be mitigated through appropriate management and protocol as ~~previously~~ discussed in Section 3.0 of this EIS.

- (5) *The proposed land use, including buildings, structures and facilities, shall be compatible with the locality and surrounding areas, appropriate to the physical conditions and capabilities of the specific parcel or parcels.*

**Discussion:** No buildings, structures, or facilities will be built in Conservation District lands.

- (6) *The existing physical and environmental aspects of the land such as natural beauty and open space characteristics, will be preserved or improved upon, whichever is applicable;*

**Discussion:** The existing physical and environmental aspects of the land, such as natural beauty and open space characteristics, will be preserved by the expansion of the Conservation District by 254 acres along the shoreline and related resource areas. This proposed expansion will provide for a total of 434 acres of the project area to be protected as open space in the Conservation District. Natural systems, such as streams, gulches, and floodways will be maintained and remain as open space.

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As ~~previously~~ discussed in Section 4.1, large ~~acres~~ areas of Cultural Protection Zones, such as the archaeological preserve (approximately 128 acres) at Kamāka‘ipō Gulch (an area to be donated to the Moloka‘i Land Trust), increases preservation of cultural landscapes rather than only individual sites, which represents a great advance not just in acreage, but in diversity and intensity of preservation actions (see Figure ~~10~~ 12).

(7) *Subdivision of land will not be utilized to increase the intensity of land uses in the conservation district; and*

**Discussion:** There will be no subdivision of land within the Conservation District.

(8) *The proposed land use will not be materially detrimental to the public health, safety and welfare.*

**Discussion:** Expanding the Conservation District at Lā‘au Point is not expected to be detrimental to public health, safety, or welfare.

#### **5.1.4 Hawai‘i Coastal Zone Management Program, Chapter 205A, Hawai‘i Revised Statutes**

The Coastal Zone Management Area as defined in Chapter 205A, HRS, includes all the lands of the State. As such, Lā‘au Point is within the Coastal Zone Management Area.

The relevant objectives and policies of the Hawai‘i Coastal Zone Management (CZM) Program pertaining to Lā‘au Point, along with a discussion of how the project conforms to these objectives and policies, is discussed below.

#### **Recreational Resources**

##### ***Objective***

(A) *Provide coastal recreational opportunities to the public.*

##### ***Policies***

(B) *Provide adequate, accessible, and diverse recreational opportunities in the coastal zone management area by:*

- (i) *Protecting coastal resources uniquely suited for recreational activities that cannot be provided in other areas;*
- (iii) *Providing and managing adequate public access, consistent with conservation of natural resources, to and along shorelines with recreational value;*
- (iv) *Providing an adequate supply of shoreline parks and other recreational facilities suitable for public recreation;*
- (v) *Ensuring public recreational uses of county, state, and federally owned or controlled shoreline lands and waters having recreational value consistent with public safety standards and conservation of natural resources;*
- (viii) *Encouraging reasonable dedication of shoreline areas with recreational value for public use as part of discretionary approvals or permits by the land use commission, board of land and natural resources, and county authorities; and crediting such dedication against the requirements of section 46-6.*

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**Discussion:** Project plans propose that Native Hawaiians and the general public will have shoreline access from two public shoreline parks (totaling approximately 17 acres), one by Kamāka'ipō Gulch (2 acres) on the west end of the community, and the other (15 acres) near Hale O Lono Harbor at the south end (see Section 4.10.5). In the process of developing the *Community-Based Master Land Use Plan for Molokai Ranch*, subsistence fishermen and gatherers were very concerned of marine resource depletion that could be caused by opening up the south and west shores to increase public access. Increased public access to the shoreline and other coastal resources has the potential to damage the natural environment and diminish the uniqueness of the coast. Therefore, to protect the natural resources of the shoreline, a ~~shoreline access management plan for the area will be implemented which~~ Shoreline Access Management Plan (SAMP)(further discussed in Section 4.3 and provided as Appendix B) has been developed and adopted to address maintenance and resource management for the area.

### **Historic Resources**

#### ***Objective***

*Protect, preserve, and where desirable, restore those natural and manmade historic and prehistoric resources in the coastal zone management area that are significant in Hawaiian and American history and culture.*

#### ***Policies***

- A) *Identify and analyze significant archaeological resources;*
- B) *Maximize information retention through preservation of remains and artifacts or salvage operations; and*
- C) *Support state goals for protection, restoration, interpretation, and display of historic resources.*

**Discussion:** As discussed in Section 4.1 (Archaeological Resources), extensive archaeological surveys have been conducted for the Lā'au Point project site. Approximately 1,000 acres were identified as Cultural Protection Zones, which denote areas where groupings of archaeological and historic sites exist, such as at the proposed archaeological preserve (approximately 128 acres) to be created at Kamāka'ipō Gulch (see Figure ~~10~~ 12), an area to be donated to the Moloka'i Land Trust. The creation of Cultural Protection Zones, to be managed by the Land Trust, increases preservation of cultural landscapes rather than only individual sites, which represents a great advance not just in acreage, but in diversity and intensity of preservation actions.

The residential community at Lā'au Point will not encroach on Cultural Preservation Zones since access roads and the rural-residential lots are planned to avoid cultural preservation zones and archaeological sites. Depending on the nature of the archaeological sites, buffers, permanent boundaries, and interpretive signs will be established to protect and preserve sites. It is expected that the project will not have adverse effects to archaeological sites.

### **Scenic and Open Space Resources**

#### ***Objective***

*Protect, preserve, and where desirable, restore or improve the quality of coastal scenic and open space resources.*

#### ***Policies***

- A) *Identify valued scenic resources in the coastal zone management area;*

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- B) *Ensure that new developments are compatible with their visual environment by designing and locating such developments to minimize the alteration of natural landforms and existing public views to and along the shoreline.*
- C) *Preserve, maintain, and, where desirable, improve and restore shoreline open space and scenic resources.*

**Discussion:** As discussed in Sections 2.3.1 and 4.7, to mitigate visual impacts, lot lines will be set back at least 250 feet from the designated shoreline or high water mark, creating a coastal conservation zone. Figure 17 19 provides a typical section analysis of the setback and buffer zone. To further minimize visual impacts, residential construction will be subject to stringent CC&Rs (as discussed in Section 2.3.6). Buildings must maintain a low-profile rural character and respect the natural environment. Restrictions on building height (one-story, maximum 25 feet high), materials, colors, and style are important factors to blend homes into the environment.

It is important to note that the 200 homes will be on relatively large lots (approximately two acres each) which provides for a very low-density rural community. Homes will be sited appropriately to avoid a dense urban-like development.

The scenic resources and shoreline open space will be preserved and improved upon by the expansion of the Conservation District by 254 acres along the shoreline and related resource areas. This proposed expansion will provide for a total of 434 acres of the project area to be protected as open space in the Conservation District. Natural systems, such as streams, gulches, and floodways will be maintained and remain as open space. In addition, the creation of Cultural Protection Zones and rural landscape reserves will preserve large open space landscapes throughout Lā'au Point.

### **Coastal Ecosystems**

#### ***Objective***

*Protect valuable coastal ecosystems, including reefs, from disruption and minimize adverse impacts on all coastal ecosystems.*

#### ***Policies:***

- A) *Exercise an overall conservation ethic, and practice stewardship in the protection, use, and development of marine and coastal resources.*
- C) *Preserve valuable coastal ecosystems, including reefs, of significant biological or economic importance;*
- D) *Minimize disruption or degradation of coastal water ecosystems by effective regulation of stream diversions, channelization, and similar land and water uses, recognizing competing water needs;*

**Discussion:** As discussed in Sections 3.8 (Marine Environment) and 4.9.1 (Drainage), Lā'au Point will be in compliance with all laws and regulations regarding runoff and non-point source pollution, ensuring that storm water runoff and siltation will not adversely affect the marine environment and nearshore and offshore water quality.

The coastal ecosystem and shoreline will be further preserved by the expansion of the Conservation District by 254 acres along the shoreline and related resource areas. This proposed expansion will provide for a total of 434 acres of the project area to be protected in the Conservation District.

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Lā‘au Point will exercise an overall conservation ethic by appealing to people that respect the unique character of the site and Moloka‘i, and that support conservation, cultural site protection, and coastal resource management. Residents of the Lā‘au Point community will be educated and informed about the environment and culture, and taught to “mālama ‘āina,” take care of the land and sea, through strict CC&Rs attached to the subdivision.

**Coastal Hazards**

***Objective***

*Reduce hazard to life and property from tsunami, storm waves, stream flooding, erosion, subsidence, and pollution.*

***Policies***

- B) *Control development in areas subject to storm wave, tsunami, flood, erosion, hurricane, wind, subsidence, and point and nonpoint source pollution hazards.*
- C) *Ensure that developments comply with requirements of the Federal Flood Insurance Program.*

**Discussion:** As previously discussed in Section 3.5 (Natural Hazards), Lā‘au Point will not exacerbate any hazard conditions. No structures will be allowed to be built within the 100-year floodplain (Zones V and A) or the Civil Defense Tsunami Evacuation Zone. The potential impacts to homes by earthquake, tsunami, or destructive winds and torrential rainfall caused by hurricanes will be mitigated by compliance with the Maui County Building Code.

In addition, residential lot lines will be set back at least 250 feet from the designated shoreline or high water mark. In addition, boundaries for the makai lots fronting the proposed expanded Conservation District will have covenants requiring an additional 50-foot building setback. These specified setbacks result in providing substantial building setbacks from the shoreline; in some areas, this is as much as 1,000 feet.

As discussed in Sections 3.8 (Marine Environment) and 4.9.1 (Drainage), Lā‘au Point will be in compliance with all laws and regulations regarding runoff and non-point source pollution, ensuring that storm water runoff and siltation will not adversely affect the downstream marine environment and nearshore and offshore water quality.

**Managing Development**

***Objective***

*Improve the development review process, communication and public participation in the management of coastal resources and hazards.*

***Policies***

- C) *Communicate the potential short and long-term impacts of proposed significant coastal developments early in their life-cycle and in terms understandable to the public to facilitate public participation in the planning and review process.*

**Discussion:** This EIS discusses potential impacts and mitigation measures of the Lā‘au Point project.

## **Public Participation**

### ***Objective***

*Stimulate public awareness, education, and participation in coastal management.*

### ***Policies***

- A) *Promote public involvement in coastal zone management processes.*
- B) *Disseminate information on coastal management issues by means of educational materials, published reports, staff contact, and public workshops for persons and organizations concerned with coastal issues, developments, and government activities; and*
- C) *Organize workshops, policy dialogues, and site-specific mediations to respond to coastal issues and conflicts.*

**Discussion:** As discussed in Sections 2.1.6 (Community Planning Process) and 2.4 (Community Meetings), MPL has worked diligently with community and government agencies to create the *Community-Based Master Land Use Plan for Molokai Ranch* (Appendix A) and the Lā'au Point project.

Through this EIS, the State Land Use District Boundary Amendment petition hearings, and the County permitting process, the public has additional opportunities to be involved in the public review process for Lā'au Point.

## **Beach Protection**

### ***Objective***

*Protect beaches for public use and recreation.*

### ***Policies***

- A) *Locate new structures inland from the shoreline setback to conserve open space, minimize interference with natural shoreline processes, and minimize loss of improvements due to erosion.*

**Discussion:** Residential lot lines will be set back at least 250 feet from the designated shoreline or high water mark. In addition, boundaries for the makai lots fronting the proposed expanded Conservation District will have covenants requiring an additional 50-foot building setback (see Figure 47 19). These specified setbacks result in providing substantial building setbacks from the shoreline; in some areas, this is as much as 1,000 feet.

## **Marine Resources**

### ***Objective***

*Promote the protection, use, and development of marine and coastal resources to assure their sustainability.*

### ***Policies***

- A) *Ensure that the use and development of marine and coastal resources are ecologically and environmentally sound and economically beneficial;*
- B) *Coordinate the management of marine and coastal resources and activities to improve effectiveness and efficiency;*

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**Discussion:** As discussed in Sections 2.3.7 (Access for Subsistence Gathering), 4.2 (Cultural Resources), and 4.3 (Trails and Access), protection of the shoreline for subsistence gathering is of great importance to the people of Moloka'i. Access to Lā'au Point will be managed to protect marine and coastal resources. Perpetual right to subsistence gathering will be noted on the titles of the areas to be preserved.

In the process of developing the *Community-Based Master Land Use Plan for Molokai Ranch*, subsistence fishermen and gatherers were very concerned of marine resource depletion that could be caused by opening up the south and west shores to increase public access. Therefore, to protect the natural resources of the shoreline, a ~~shoreline access management plan for the area will be implemented which~~ Shoreline Access Management Plan (SAMP) (further discussed in Section 4.3 and provided as Appendix B) has been developed and adopted to address maintenance and resource management for the area.

Project plans propose that Native Hawaiians and the general public will have shoreline access from two public shoreline parks (totaling approximately 17 acres), one by Kamāka'ipō Gulch (2 acres) on the west end of the community, and the other (15 acres) near Hale O Lono Harbor at the south end (see Section 4.10.5).

#### **5.1.5 Hawai'i State Plan, Chapter 226, Hawai'i Revised Statutes**

The Hawai'i State Plan (Chapter 226, HRS), establishes a set of goals, objectives and policies that serve as long-range guidelines for the growth and development of the State. The Plan is divided into three parts: Part I (Overall Theme, Goals, Objectives and Policies); Part II (Planning, Coordination and Implementation); and Part III (Priority Guidelines). Part II elements of the State Plan pertain primarily to the administrative structure and implementation process of the Plan. As such, comments regarding the applicability of Part II to Lā'au Point are not appropriate. The sections of the Hawai'i State Plan directly applicable to Lā'au Point, along with a discussion of how the project conforms to the State Plan are included below.

#### **Part I: Overall Theme, Goals, Objectives and Policies**

The Hawaii State Plan lists three "Overall Themes" relating to: (1) individual and family self-sufficiency; (2) social and economic mobility; and (3) community or social well-being. These themes are viewed as "basic functions of society" and goals toward which government must strive (§226-3). To guarantee the elements of choice and mobility embodied in the three themes, the Plan states three goals:

- 1) *A strong, viable economy, characterized by stability, diversity and growth that enables fulfillment of the needs and expectations of Hawaii's present and future generations.*
- 2) *A desired physical environment, characterized by beauty, cleanliness, quiet, stable natural systems, and uniqueness, that enhances the mental and physical well-being of the people.*
- 3) *Physical, social and economic well-being, for individuals and families in Hawaii, that nourishes a sense of community responsibility, of caring and of participation in community life (§226-4).*

**Discussion:** The Lā'au Point project contributes to the attainment of the three goals by 1) providing direct and indirect employment opportunities for present and future residents of Molokai; 2) generating increased State and County tax revenues; 3) contributing to the stability,



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diversity, and growth of local and regional economies; and 4) protecting the archaeological, historic, and natural features of the site.

The creation of the *Community-Based Master Land Use Plan for Molokai Ranch* was based on the partnership between MPL and the Enterprise Community to create a visionary plan for Molokai Ranch’s 60,000+ acres that would reflect the kind of community the residents desired (see Section 2.1.6 and Appendix A). The Plan provides for a viable and sustainable economy that is in balance with resident needs and values, cultural and natural resources, and lifestyle. Section 2.1.7 discusses the key points of the Plan, which support the above-mentioned Hawai‘i State Plan goals.

The Plan provides measures that set unique precedents. These precedents are related to community planning, the creation of a Land Trust for the community, the donation of legacy lands to the Land Trust, the donation of easements to the Land Trust, and the protection of subsistence fishing, gathering, and hunting. The Plan also provides for covenants, conditions and restrictions that Lā‘au Point homeowners will need to accept and agree to uphold in order to purchase a lot.

Specific objectives, policies, and priority directions of the State Plan most relevant to the Lā‘au Point community are listed and discussed below.

**Objectives and Policies for Population (§226-5)**

***Objective***

*It shall be the objective in planning for the State’s population to guide population growth to be consistent with the achievement of physical, economic and social objectives contained in this chapter.*

***Policies***

- 1) *Manage population growth statewide in a manner that provides increased opportunities for Hawaii’s people to pursue their physical, social and economic aspirations while recognizing the unique needs of each County.*
- 2) *Encourage an increase in economic activities and employment opportunities on the neighbor islands consistent with community needs and desires.*
- 7) *Plan the development and availability of land and water resources in a coordinated manner so as to provide for the desired levels of growth in each geographic area.*

**Discussion:** The creation of the Moloka‘i Community Development Corporation (CDC) provides the Moloka‘i community a means to plan their own future (Section 2.1.9). With the Plan’s implementation and the Lā‘au Point project, MPL will gift land and assets to the CDC for future community expansion and affordable housing projects. With these donations, the CDC can plan its own community expansion at pace with population growth, and without recourse to MPL. The Water Plan (see Section 4.9.2 and Appendix ~~N~~ S) addresses the availability and coordination of water resources for future growth.

As ~~previously~~ discussed in Sections 2.1.7 (Key Points) and 4.8.3 (Economy), the Lā‘au Point project will enhance Moloka‘i’s economic and employment environment and stimulate economic diversification relative to the present unprofitable ranch operations. These opportunities include:

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- \$246 million in total development and construction investment.
- 1,350 person years of construction-related employment over project build-out (a “person year” is the amount of time a person can work in one year).
- Annual expenditures on Moloka‘i at build-out of about \$4.4 million, which represents about \$22,000 in on-island spending per residence.
- Support of 60 on-going jobs upon full build-out in 2023 through resident spending and the Lā‘au Point homeowners’ association.
- Providing funding for the Kaluako‘i Hotel and Golf Course renovations from sales of the Lā‘au Point rural-residential lots. These resort facilities are crucial to revitalizing the Moloka‘i economy and are projected to provide approximately 130 jobs for Moloka‘i residents. As discussed in Section 4.8.3, the *Moloka‘i Responsible Tourism Initiative Report* (2006) indicates that Kaluako‘i Resort is essential to the island’s tourism economy.

**Objectives and Policies for the Economy—in General (§226-6)**

**Objectives**

- 1) *Increased and diversified employment opportunities to achieve full employment, increased income and job choice, and improved living standards for Hawaii's people.*

**Policies**

- 2) *Promote Hawaii as an attractive market for environmentally and socially sound investment activities that benefit Hawaii's people.*
- 6) *Strive to achieve a level of construction activity responsive to, and consistent with, State growth objectives.*
- 9) *Foster greater cooperation and coordination between the public and private sectors in developing Hawaii's employment and economic growth opportunities.*
- 10) *Stimulate the development and expansion of economic activities which will benefit areas with substantial or expected employment problems.*
- 11) *Maintain acceptable working conditions and standards for Hawaii's workers.*
- 14) *Promote and protect intangible resources in Hawaii such as scenic beauty and the aloha spirit, which are vital to a healthy economy.*

**Discussion:** Lā‘au Point will promote Hawai‘i as an attractive market for environmentally and socially sound investment activities by appealing to people that respect the unique character of the site and Moloka‘i, and that support conservation, cultural site protection, and coastal resource management. Residents of the Lā‘au Point community will be educated and informed about the environment and culture, and taught to “mālama ‘āina,” take care of the land and sea, through strict CC&Rs attached to the subdivision.

Cooperation and coordination between the public and private sectors in developing employment and economic growth opportunities was demonstrated in the planning and development of the *Community-Based Master Land Use Plan for Molokai Ranch*. Between September 2003 and September 2005, in an Enterprise Community (EC) sponsored process (EC Project #47), MPL joined with over 1,000 community participants to discuss a community-based master land use plan for Molokai Ranch’s lands. The goals of the *Community-Based Master Land Use Plan for Molokai Ranch* and the planning process was to create new employment opportunities and affordable housing options for Moloka‘i residents, as well as provide Moloka‘i with more control of their future (see Section 2.1.6).

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As previously discussed in Sections 2.1.7 (Key Points) and 4.8.3 (Economy), the Lā‘au Point project will enhance Moloka‘i’s economic environment and stimulate economic diversification relative to the present unprofitable ranch operations. These opportunities include:

- \$246 million in total development and construction investment.
- 1,350 person years of construction-related employment over project build-out (a “person year” is the amount of time a person can work in one year).
- Annual expenditures on Moloka‘i at build-out of about \$4.4 million, which represents about \$22,000 in on-island spending per residence.
- Support of 60 on-going jobs upon full build-out in 2023 through resident spending and the Lā‘au Point homeowners’ association.
- Providing funding for the Kaluako‘i Hotel and Golf Course renovations from sales of the Lā‘au Point rural-residential lots. These resort facilities are crucial to revitalizing the Moloka‘i economy and are projected to provide over 100 jobs for Moloka‘i residents. As discussed in Section 4.8.3, the *Moloka‘i Responsible Tourism Initiative Report* (2006) indicates that Kaluako‘i Resort is essential to the island’s tourism economy.

#### **Objectives and Policies for the Economy—Agriculture (§226-7)**

##### ***Objectives***

- 3) *An agriculture industry that continues to constitute a dynamic and essential component of Hawaii’s strategic, economic, and social well-being.*

##### ***Policies***

- 1) *Establish a clear direction for Hawaii’s agriculture through stakeholder commitment and advocacy.*
- 2) *Encourage agriculture by making best use of natural resources.*
- 9) *Enhance agricultural growth by providing public incentives and encouraging private initiatives.*

**Discussion:** MPL is committed to preserving over 55,000 acres of Agricultural District property in perpetuity through donation of land and establishing protective easement restrictions to protect the rural and agricultural nature of the island. The Moloka‘i Land Trust, a community-based land steward organization, will manage the 26,200 acres (40 percent of present MPL lands) that MPL will donate to the Moloka‘i community under the *Community-Based Master Land Use Plan for Molokai Ranch* (see Section 2.1.8). Under the protective easements, 14,390 acres will be protected forever for agricultural use, and 10,560 acres of Agricultural District land will be protected as open space on which no building will be permitted. The Land Trust will administer agreed upon land use policies for these areas which affect agricultural resources.

#### **Objective and Policies for the Economy – Visitor Industry (§226-8)**

##### ***Objectives***

*Planning for the State’s economy with regard to the visitor industry shall be directed towards the achievement of the objective of a visitor industry that constitutes a major component of steady growth for Hawaii’s economy.*

##### ***Policies***

- 3) *Improve the quality of existing visitor destination areas.*
- 5) *Develop the industry in a manner that will continue to provide new job opportunities and steady employment for Hawaii’s people.*

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- 7) *Foster a recognition of the contribution of the visitor industry to Hawaii's economy and the need to perpetuate the aloha spirit.*

**Discussion:** The *Moloka‘i Responsible Tourism Initiative Report* (2006) indicates there is almost unanimous community support for the re-opening of the Kaluako‘i Hotel as a mid-range hotel. As previously discussed in Sections 2.1.7 (Key Points) and 4.8.3 (Economy), funding for the Kaluako‘i Hotel and Golf Course renovations will come from sales of the Lā‘au Point rural-residential lots. These facilities are crucial to revitalizing the Moloka‘i economy and are projected to provide over 100 jobs for Moloka‘i residents.

**Objectives and Policies for the Physical Environment—Land Based, Shoreline and Marine Resources (§226-11)**

**Objectives**

*Planning for the State’s physical environment with regard to land-based, shoreline, and marine resources shall be directed towards achievement of the following objectives:*

- 1) *Prudent use of Hawaii's land-based, shoreline, and marine resources.*
- 2) *Effective protection of Hawaii's unique and fragile environmental resources.*

**Policies**

- 1) *Exercise an overall conservation ethic in the use of Hawaii's resources.*
- 2) *Ensure compatibility between land-based and water-based activities and natural resources and ecological systems.*
- 3) *Take into account the physical attributes of areas when planning and designing activities and facilities.*
- 4) *Manage natural resources and environs to encourage their beneficial and multiple use without generating costly or irreparable environmental damage.*
- 6) *Encourage the protection of rare or endangered plant and animal species and habitats native to Hawaii.*
- 8) *Pursue compatible relationships among activities, facilities, and natural resources.*
- 9) *Promote increased accessibility and prudent use of inland and shoreline areas for public recreational, educational, and scientific purposes.*

**Discussion:** As discussed in Sections 3.8 (Marine Environment) and 4.9.1 (Drainage), Lā‘au Point will be in compliance with all laws and regulations regarding runoff and non-point source pollution, ensuring that storm water runoff and siltation will not adversely affect the marine environment and nearshore and offshore water quality.

The coastal ecosystem and shoreline will be further preserved by the expansion of the Conservation District by 254 acres along the shoreline and related resource areas. This proposed expansion will provide for a total of 434 acres of the project area to be protected in the Conservation District. Natural systems, such as streams, gulches, and floodways will also be maintained and remain as open space. The Land Trust will be in charge of managing Lā‘au Point’s Conservation lands.

The entire coastline of MPL lands is important for subsistence fishing and ocean gathering. MPL lands are very important for subsistence hunting, and forested areas are accessed for subsistence gathering. MPL recognizes and reaffirms all rights, customarily and traditionally exercised for subsistence, cultural and religious purposes by descendants of Native Hawaiians; and therefore,

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will continue to provide access to Moloka‘i community members for subsistence activities (see Sections 2.3.7 and 4.2).

Access to the Lā‘au Point shoreline for subsistence will be provided from two public shoreline parks, one by Kamāka‘ipō Gulch (2 acres) on the west end of the project site, and the other (15 acres) near Hale O Lono Harbor at the south end (see Section 4.3).

Sections 3.6 (Flora) and 3.7 (Fauna) discuss the protection of rare and endangered plant and animal species and habitats through appropriate management and protocol.

Lā‘au Point will exercise an overall conservation ethic by appealing to people that respect the unique character of the site and Moloka‘i, and that support conservation, cultural site protection, and coastal resource management. Residents of Lā‘au Point will be educated and informed about the environment and culture, and taught to “mālama ‘āina,” take care of the land and sea, through strict CC&Rs attached to the subdivision.

**Objective and Policies for the Physical Environment--Scenic, Natural Beauty, and Historic Resources (§226-12)**

***Objective***

*Planning for the State's physical environment shall be directed towards achievement of the objective of enhancement of Hawaii's scenic assets, natural beauty, and multi-cultural/historical resources.*

***Policies***

- 1) *Promote the preservation and restoration of significant natural and historic resources.*
- 2) *Provide incentives to maintain and enhance historic, cultural, and scenic amenities.*
- 3) *Promote the preservation of views and vistas to enhance the visual and aesthetic enjoyment of mountains, ocean, scenic landscapes, and other natural features.*
- 4) *Protect those special areas, structures, and elements that are an integral and functional part of Hawaii's ethnic and cultural heritage.*

**Discussion:** As previously discussed in Section 4.1, large acres of Cultural Protection Zones, such as the archaeological preserve (approximately 128 acres) at Kamāka‘ipō Gulch (an area to be donated to the Moloka‘i Land Trust), increases preservation of cultural landscapes rather than only individual sites, which represents a great advance not just in acreage, but in diversity and intensity of preservation actions (see Figure ~~10~~ 12).

The rural residential community will not encroach on Cultural Preservation Zones since access roads and the rural-residential lots are planned to avoid cultural preservation zones and archaeological sites. Depending on the nature of the archaeological sites, buffers, permanent boundaries, and interpretive signs will be established to protect and preserve the sites. It is expected that the project will not have adverse effects to archaeological sites.

The natural topography and slope of the site provide exceptional coastal and ocean views from many vantage points. Section 4.7 provides discussion on Lā‘au Point’s scenic resources. Lā‘au Point has been designed to blend in with the surrounding landscape, therefore, minimizing the alteration of natural landforms and existing views. Strict CC&Rs will regulate the color, size, and height of homes within the community (see Section 2.3.6).

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As discussed in Section 4.2 (Cultural Resources), a total of 26,200 acres or 40 percent of Molokai Ranch lands will be donated to the Moloka‘i Land Trust. The donated lands include premier Native Hawaiian legacy lands and contain many subsistence resources. The Land Trust donation, going from east to west, will include:

- Cultural sites at the base of the Kawela Plantation (34.895 acres).
- Lands mauka of Kaunakakai for community expansion (1,160 acres).
- The Makahiki Grounds mauka of Kualapu‘u and up through and including the cliffs of Nā‘iwa.
- A large strip of land from Kawakanui beach, north to ‘Īlio Point, stretching around to the MPL boundary with Department of Hawaiian Homes Lands in Ho‘olehua and down to Pālā‘au and over to Hale O Lono Harbor and including the Kā‘ana Area.
- The fishing village 15-acre site adjacent to the north boundary of Kaupoa Camp.
- Pu‘u O Kaiaka.
- Other sites as shown on the Land Trust map (See Appendix A, p. 9).

#### **Objectives and Policies for Facility Systems—Water (§226-16)**

##### ***Objective***

*Planning for the State's facility systems with regard to water shall be directed towards achievement of the objective of the provision of water to adequately accommodate domestic, agricultural, commercial, industrial, recreational, and other needs within resource capacities.*

##### ***Policies***

- 1) *Coordinate development of land use activities with existing and potential water supply.*
- 2) *Support research and development of alternative methods to meet future water requirements well in advance of anticipated needs.*
- 3) *Reclaim and encourage the productive use of runoff water and wastewater discharges.*
- 4) *Assist in improving the quality, efficiency, service, and storage capabilities of water systems for domestic and agricultural use.*
- 5) *Support water supply services to areas experiencing critical water problems.*
- 6) *Promote water conservation programs and practices in government, private industry, and the general public to help ensure adequate water to meet long-term needs.*

**Discussion:** As discussed in Section 4.9.2 (Water), MPL will not require any more drinking water than what is currently proposed for allocation in the *Community-Based Master Land Use Plan for Molokai Ranch* (Appendix A). According to the Water Plan Analysis (Appendix P), MPL’s plans are feasible because the Water Plan calls for: 1) significantly decreasing the current use of safe drinking (potable) water for irrigation; 2) increasing efficiencies within existing systems; and 3) aggressive water conservation strategies.

MPL is currently working with the Department of Hawaiian Homelands (DHHL), the County of Maui Department of Water Supply (DWS), and the US Geological Survey (USGS) to comprehensively evaluate Moloka‘i’s long-term water demands and resources. It is expected that many of Moloka‘i’s water issues will be addressed by a comprehensive modeling analysis. Although the specifics of the water resource issues and modeling analysis have yet to be identified, MPL has long acknowledged publicly that its water use would yield to DHHL’s priority first rights to water.

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~~As discussed in the proposed CC&Rs (Section 2.3.6), landscaping~~ Common area landscape irrigation systems will include water re-use (treated effluent) from the wastewater treatment plant, or collected in catchments systems; only Residential catchment systems may provide landscape irrigation to individual lots and homes. Only drip systems will be permitted. Landscaping will be restricted to appropriate native and Polynesian species that are drought-tolerant and suitable for coastal locations; xeriscaping aims to reduce water use. All houses will be required to have at least a 5,000-gallon storage tank for water captured from roofs.

MPL supports research and development of alternative methods to meet future water requirements.

MPL supports water supply service to areas experiencing critical water problems. As outlined in the Water Plan (Appendix S), MPL will make its excess safe drinking water capacity from its Well 17 potable well in the Kualapu‘u aquifer available for the use of communities outside its property DHHL as part of DHHL’s 2.905 mgd reservation.

MPL will continue its water conservation campaign to Kaluako‘i residents and future Lā‘au Point residents by reducing consumption, shutting off irrigation systems during rainfall, and restructuring the water rates.

**Objectives and Policies for Socio-Cultural Advancement—Housing (§226-19)**

**Objective**

- 1) *Greater opportunities for Hawaii’s people to secure reasonably priced, safe, sanitary, and livable homes, located in suitable environments that satisfactorily accommodate the needs and desires of families and individuals, through collaboration and cooperation between government and nonprofit and for-profit developers to ensure that more affordable housing is made available to very low-, low-, and moderate-income segments of Hawaii’s population.*
- 2) *The orderly development of residential areas sensitive to community needs and other land uses.*

**Policies**

- 1) *Effectively accommodate the housing needs of Hawaii’s people.*
- 2) *Stimulate and promote feasible approaches that increase housing choices for low-income, moderate-income, and gap-group households.*
- 3) *Increase homeownership and rental opportunities and choices in terms of quality, location, cost, densities, style, and size of housing.*
- 5) *Promote design and location of housing developments taking into account the physical setting, accessibility to public facilities and services, and other concerns of existing communities and surrounding areas.*
- 6) *Facilitate the use of available vacant, developable, and underutilized urban lands for housing.*
- 7) *Foster a variety of lifestyles traditional to Hawaii through the design and maintenance of neighborhoods that reflect the culture and values of the community.*

**Discussion:** The creation of the Moloka‘i Community Development Corporation (CDC) provides the Moloka‘i community a means to plan their own future (discussed in Section 2.1.9). With the Plan’s implementation and the Lā‘au Point project, MPL will gift land and assets to the CDC for future community expansion and affordable housing projects. With these donations, the CDC can plan its own community expansion at pace with population growth, and without recourse to MPL. The economic value of the land donations, and the income from Lā‘au Point, will enable the Moloka‘i CDC to plan, site, and construct affordable homes itself.

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As discussed in the *Community-Based Master Land Use Plan for Molokai Ranch* (Appendix A), the community desires a link between affordable housing and other community-facilities present at each of the three communities to insure that they be developed as balanced communities. The future development of ‘Ohana Neighborhood Communities (i.e., affordable housing) would be developed by partnering various community resources such as Habitat for Humanities, Self-Help Housing, and others. The community also does not support a large affordable housing project in one area only (Appendix A, p. 69).

### **Part III. Priority Guidelines**

The purpose of this part of the Plan is to establish overall priority guidelines to address areas of Statewide concern. The Plan notes that the State shall strive to improve the quality of life for Hawaii’s present and future population through the pursuit of desirable courses of action in five major areas of Statewide concern which merit priority attention: 1) economic development, 2) population growth and land resource management, 3) affordable housing, 4) crime and criminal justice; and 5) quality education (§ 226-102). The priority guidelines applicable to the Lā‘au Point community are discussed below:

#### **Economic Priority Guidelines (§ 226-103)**

*b) Priority guidelines to promote the economic health and quality of the visitor industry:*

- 2) Encourage the development and maintenance of well-designed, adequately serviced hotels and resort destination areas which are sensitive to neighboring communities and activities and which provide for adequate shoreline setbacks and beach access.*
- 3) Support appropriate capital improvements to enhance the quality of existing resort destination areas and provide incentives to encourage investment in upgrading, repair, and maintenance of visitor facilities.*
- 4) Encourage visitor industry practices and activities which respect, preserve, and enhance Hawaii’s significant natural, scenic, historic, and cultural resources.*

**Discussion:** As discussed in Sections 2.1.7 and 4.8.3, the community supports the re-opening of the Kaluako‘i Hotel as a mid-range hotel. Funding for the Kaluaki‘o Hotel and Golf Course renovations will come from sales of the Lā‘au Point rural-residential lots. These facilities are crucial to revitalizing the Moloka‘i economy and are projected to provide over 100 jobs for Moloka‘i residents.

*d) Priority guidelines to promote the growth and development of diversified agriculture and aquaculture:*

- 1) Identify, conserve, and protect agricultural and aquacultural lands of importance and initiate affirmative and comprehensive programs to promote economically productive agricultural and aquacultural uses of such lands.*

**Discussion:** As promised in the *Community-Based Master Land Use Plan for Molokai Ranch* with the implementation of the Lā‘au Point project, under protective agricultural easements, 14,390 acres of other Molokai Ranch land will be protected forever for agricultural use, and another 10,560 agricultural-zoned lands will be protected as Open Space on which no buildings will be permitted. The Land Trust will administer agreed-upon land use policies for these areas.

*e) Priority guidelines for water use and development:*

- 1) Maintain and improve water conservation programs to reduce the overall water consumption rate.*



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- 2) *Encourage the improvement of irrigation technology and promote the use of nonpotable water for agricultural and landscaping purposes.*
- 3) *Increase the support for research and development of economically feasible alternative water sources.*
- 4) *Explore alternative funding sources and approaches to support future water development programs and water system improvements.*

**Discussion:** MPL will comply with all the above-mentioned guidelines. As discussed in Section 4.9.2 (Water), MPL will not require any more drinking water than what is currently proposed for allocation in the *Community-Based Master Land Use Plan for Molokai Ranch* (Appendix A). According to the Water Plan Analysis (Appendix P), MPL's plans are feasible because the Water Plan calls for: 1) significantly decreasing the current use of safe drinking (potable) water for irrigation; 2) increasing efficiencies within existing systems; and 3) aggressive water conservation strategies.

MPL is currently working with DHHL, the County of Maui DWS, and the USGS to comprehensively evaluate Moloka'i's long-term water demands and resources. It is expected that many of Moloka'i's water issues will be addressed by a comprehensive modeling analysis. Although the specifics of the water resource issues and modeling analysis have yet to be identified, MPL has long acknowledged publicly that its water use would yield to DHHL's priority first rights to water.

~~As discussed in the proposed CC&Rs (Section 2.3.6), landscaping~~ Common area landscape irrigation systems will include water re-use (treated effluent) from the wastewater treatment plant; or collected in catchments systems; only Residential catchment systems may provide landscape irrigation to individual lots and homes. Only drip systems will be permitted. Landscaping will be restricted to appropriate native and Polynesian species that are drought-tolerant and suitable for coastal locations; xeriscaping aims to reduce water use. All houses will be required to have at least a 5,000-gallon storage tank for water captured from roofs.

MPL supports research and development of alternative methods to meet future water requirements.

MPL supports water supply service to areas experiencing critical water problems. As outlined in the Water Plan (Appendix S), MPL will make its excess safe drinking water capacity from its Well 17 potable well in the Kualapu'u aquifer available for the use of communities outside its property DHHL as part of DHHL's 2.905 mgd reservation.

MPL will continue its water conservation campaign to Kaluako'i residents and future Lā'au Point residents by reducing consumption, shutting off irrigation systems during rainfall, and restructuring the water rates.

**Population Growth and Land Resources Priority Guidelines (§226-104)**

*a) Priority guidelines to effect desired Statewide growth and distribution:*

- 1) *Encourage planning and resource management to insure population growth rates throughout the State that are consistent with available and planned resource capacities and reflect the needs and desires of Hawaii's people.*

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- 2) *Manage a growth rate for Hawaii's economy that will parallel future employment needs for Hawaii's people.*
  - 5) *Explore the possibility of making available urban land, low-interest loans, and housing subsidies to encourage the provision of housing to support selective economic and population growth on the neighbor islands.*
- b) *Priority guidelines for regional growth distribution and land resource utilization:*
- 2) *Make available marginal or nonessential agricultural lands for appropriate urban uses while maintaining agricultural lands of importance in the agricultural district.*
  - 10) *Identify critical environmental areas in Hawaii to include but not be limited to the following: watershed and recharge areas; wildlife habitats (on land and in the ocean); areas with endangered species of plants and wildlife; natural streams and water bodies; scenic and recreational shoreline resources; open space and natural areas; historic and cultural sites; areas particularly sensitive to reduction in water and air quality; and scenic resources.*
  - 12) *Utilize Hawaii's limited land resources wisely, providing adequate land to accommodate projected population and economic growth needs while ensuring the protection of the environment and the availability of the shoreline, conservation lands, and other limited resources for future generations.*
  - 13) *Protect and enhance Hawaii's shoreline, open spaces, and scenic resources.*

**Discussion:** MPL will comply with priority guidelines to achieve desired Statewide and regional growth distribution by implementing the goals and objectives of the *Community-Based Master Land Use Plan for Molokai Ranch* (see Section 2.1.7).

The creation of the Moloka'i CDC provides the Moloka'i community a means to plan their own future (Section 2.1.9). With the Plan's implementation and the Lā'au Point project, MPL will gift land and assets to the CDC for future community expansion and affordable housing projects. With these donations, the CDC can plan its own community expansion at pace with population growth, and without recourse to MPL.

While planning Lā'au Point, many considerations were taken to protect environmentally sensitive areas. First, the MPL proposes to expand the existing Conservation District by 254 acres along the shoreline and related resource areas. This proposed expansion will provide for 434 acres in the Conservation District. Second, streams, gulches, and floodways will be maintained as open space. Finally, access roads and the rural-residential lots have been sited away from environmental protection zones and the Conservation District.

MPL will also donate 26,200 acres to the Land Trust and set aside another 24,950 acres as agricultural and open space easements.

### **5.1.6 State of Hawai'i Functional Plans**

The Hawai'i State Plan directs State agencies to prepare functional plans for their respective program areas. There are 14 state functional plans that serve as the primary implementing vehicle for the goals, objectives, and policies of the Hawai'i State Plan. The functional plans applicable to the Lā'au Point project, along with each plan's applicable objectives, policies, are discussed below.

## **AGRICULTURE**

The Agriculture functional plan seeks to increase the overall level of agricultural development in Hawai‘i, in accordance with the two fundamental Hawai‘i State Plan objectives for agriculture: 1) continued viability of Hawai‘i’s sugar and pineapple industries, and 2) continued growth and development of diversified agriculture throughout the State.

**Discussion:** As promised in the *Community-Based Master Land Use Plan for Molokai Ranch* with the implementation of the Lā‘au Point project, under protective agricultural easements, 14,390 acres of other Molokai Ranch land will be protected forever for agricultural use, and another 10,560 acres of agricultural-zoned lands will be protected as Open Space on which no buildings will be permitted. The Land Trust will administer agreed-upon land use policies for these areas.

## **CONSERVATION LANDS**

The Conservation Lands Functional Plan addresses the impacts of population growth and economic development on our natural environment and provides a framework for the protection and preservation of our pristine lands and shorelines. Within the overall theme of balanced growth, the plan also provides for enhancement and increased access to Hawaii’s scenic natural resources and the effective management of already developed lands. The plan is divided into three issues: 1) inventories of resources and background information and basic research; 2) management; 3) education and public information.

**Discussion:** MPL proposes to expand the existing Conservation District by 254 acres. Areas proposed for Conservation District expansion include concentrations of archaeologically and culturally important sites and lands along the shoreline to allow a greater setback between the shoreline and the homes and in recognition of the cultural importance of the shoreline area in Native Hawaiian subsistence practices. This proposed expansion of the Conservation District will provide for a total of 434 acres of the project area to be protected as open space. The Land Trust will be in charge of managing Lā‘au Point’s Conservation lands. The Land Trust and the homeowner’s association will jointly manage the expanded Conservation District. The homeowner’s association will own the expanded Conservation District lands and the Land Trust will hold, and be able to enforce, an easement over these lands. Both entities will discuss and jointly decide on the management of the lands within the scope of the easement provisions.

Lā‘au Point will exercise an overall conservation ethic by appealing to people that respect the unique character of the site and Moloka‘i, and that support conservation, cultural site protection, and coastal resource management. Residents of Lā‘au Point will be educated and informed about the environment and culture, and taught to “mālama ‘āina,” take care of the land and sea, through strict CC&Rs attached to the subdivision.

## **EMPLOYMENT**

The Employment Functional Plan focuses on the preparation of Hawai‘i’s workforce for the global, information-based twenty-first century economy. It takes a multi-agency approach in providing job training and education services, implementing job placement services, improving

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the quality of the work environment, and coordinating employment information, analysis, and planning.

**Discussion:** The *Moloka‘i Responsible Tourism Initiative Report* (2006) indicates there is community support for the re-opening of the Kaluako‘i Hotel as a mid-range hotel. As previously discussed in Sections 2.1.7 and 4.8.3, funding for the Kaluaki‘o Hotel and Golf Course renovations will come from sales of the Lā‘au Point rural-residential lots. These facilities are crucial to revitalizing the Moloka‘i economy and are projected to provide over 100 jobs for Moloka‘i residents. Also, spending by permanent and seasonal residents of Lā‘au Point, and homeowners’ association services are projected to support approximately 60 on-going jobs upon full build-out in 2023.

## ENERGY

The Energy Advisory Committee highlights three major concerns for Hawai‘i in its Functional Plan: 1) the State’s over dependency on oil and fossil fuels; 2) the need for an integrated approach to energy development and management; and 3) energy emergency preparedness.

**Discussion:** Lā‘au Point covenants (Section 2.3.6) will require “green” architecture that incorporates recycled materials, energy efficient equipment, natural ventilation, solar systems, etc. All energy systems shall be designed and constructed to meet United States Environmental Protection Agency conservation standards.

## HISTORIC PRESERVATION

The long-term philosophy of the Historic Preservation Functional Plan highlights the importance of maintaining a record of Hawai‘i’s unique history. History enriches our social, intellectual, aesthetic and economic lives with insights from the past. With the rapid change and development of our island state, our historical resources are at risk. The Historic Preservation Functional Plan attempts to preserve these resources by focusing on three main issue areas: 1) preservation of historic properties; 2) collection and preservation of historic records, artifacts and oral histories; and 3) provision of public information and education on the ethnic and cultural heritages and history of Hawai‘i.

**Discussion:** As discussed in Section 2.1.8, the Moloka‘i Land Trust will be entrusted with ownership and management of the 26,200 acres (40 percent of Ranch lands) that MPL will donate to the Moloka‘i community under the conditions of the *Community-Based Master Land Use Plan for Molokai Ranch*. The Land Trust donation, going from east to west, will include:

- Cultural sites at the base of the Kawela Plantation (34.895 acres).
- Lands mauka of Kaunakakai for community expansion (1,160 acres).
- The Makahiki Grounds mauka of Kualapu‘u and up through and including the cliffs of Nā‘iwa.
- A large strip of land from Kawakanui beach, north to ‘Īlio Point, stretching around to the MPL boundary with Department of Hawaiian Homes Lands in Ho‘olehua and down to Pālā‘au and over to Hale O Lono Harbor and including the Kā‘ana Area.
- The fishing village 15-acre site adjacent to the north boundary of Kaupoa Camp.

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- Pu‘u O Kaiaka.
- Other sites as shown on the Land Trust map (See Appendix A, pg. 9).

As discussed in Section 4.1, approximately 1,000 acres of Cultural Protection Zones were identified to denote areas where groupings of archaeological and historic sites exist, such as the archaeological preserve (approximately 128 acres) to be created at Kamāka‘ipō Gulch, an area to be donated to the Molokai Land Trust. The creation of Cultural Protection Zones, to be managed by the Land Trust, increases preservation of cultural landscapes rather than only individual sites, which represents a great advance not just in acreage, but in diversity and intensity of preservation actions.

The Lā‘au Point project will not encroach on Cultural Preservation Zones since access roads and the rural-residential lots are planned to avoid cultural preservation zones and archaeological sites. Depending on the nature of the archaeological sites, buffers, permanent boundaries, and interpretive signs will be established to protect and preserve the sites. It is expected that the project will not have adverse effects to archaeological sites.

## **HOUSING**

The State Housing Functional Plan, prepared by the State Housing Finance and Development Corporation (now Housing and Community Development Corporation of Hawaii), addresses six major areas of concern: 1) increasing home ownership; 2) expanding rental housing opportunities; 3) expanding rental housing opportunities for the elderly and other special need groups; 4) preserving housing stock; 5) designating and acquiring land that is suitable for residential development; and 6) establishing and maintaining a housing information system. The majority of the objectives, policies, and implementing actions of the State Housing Functional Plan apply to the government sector.

**Discussion:** The creation of the Moloka‘i CDC provides the Moloka‘i community a means to plan their own future (see Section 2.1.9). With the Master Land Use Plan’s implementation and the Lā‘au Point project, MPL will gift land and assets to the CDC for future community expansion and affordable housing projects. With these donations, the CDC can plan its own community expansion at pace with population growth, and without recourse to MPL. The economic value of the land donations, and the income from Lā‘au Point, will enable the CDC to plan, site, and construct affordable homes itself. Section 4.8.2 (Housing) provides a full discussion.

## **RECREATION**

The Recreation Functional Plan outlines the public and private sectors’ roles in serving the recreation and open space needs of the public. It organizes objectives, policies, and actions into six major issue areas: 1) Ocean and shoreline recreation; 2) Mauka, urban, and other recreational opportunities; 3) Public access to shoreline and upland recreation areas; 4) Resource conservation and management; 5) Management of recreation programs, facilities, and areas; and 6) Wetlands protection and management.

**Discussion:** Lā‘au Point will include two public shoreline parks (total approximately 17 acres), one by Kamāka‘ipō Gulch (2 acres) on the west end of the community, and the other (15 acres)

near Hale O Lono Harbor at the south end. Section 4.10.5 (Recreational Facilities) provides a full discussion.

## **WATER RESOURCES DEVELOPMENT**

The State Water Resources Development Plan presents guidelines for: 1) the regulation of the development and the use of water to assure adequate supplies for the future; 2) development of water resources to meet municipal, agricultural, and industrial requirements, and the reduction of flood damage; and 3) preservation of water-related ecological, recreational, and aesthetic values and the quality of water resources.

**Discussion:** MPL is currently working with DHHL, the County of Maui DWS, and the USGS to comprehensively evaluate Moloka'i's long-term water demands and resources. It is expected that many of Moloka'i's water issues will be addressed by a comprehensive modeling analysis. Although the specifics of the water resource issues and modeling analysis have yet to be identified, MPL has long acknowledged publicly that its water use would yield to DHHL's priority first rights to water.

~~As discussed in the proposed CC&Rs (Section 2.3.6), landscaping~~ Common area landscape irrigation systems will include water re-use (treated effluent) from the wastewater treatment plant, or collected in catchments systems; only Residential catchment systems may provide landscape irrigation to individual lots and homes. Only drip systems will be permitted. Landscaping will be restricted to appropriate native and Polynesian species that are drought-tolerant and suitable for coastal locations; xeriscaping aims to reduce water use. All houses will be required to have at least a 5,000-gallon storage tank for water captured from roofs.

MPL will continue its water conservation campaign to Kaluako'i residents and future Lā'au Point residents by reducing consumption, shutting off irrigation systems during rainfall, and restructuring the water rates.

## **5.2 COUNTY OF MAUI**

Relevant land use plans and Ordinances of the County of Maui that pertain to Lā'au Point include the General Plan, the Moloka'i Community Plan, and the Maui County Code.

### **5.2.1 Maui County General Plan**

The County of Maui Charter requires that the Maui County General Plan set forth the desired sequence, patterns, and characteristics of future development. This is accomplished through long-range objectives focusing on the social, economic, and environmental effects of development coupled with specific policies designed to implement the objectives. The Maui County General Plan is a public document, and therefore, is available directly from the County of Maui Planning Department, and accessible directly from the Maui County website.

The Maui Planning Department is currently in the process of updating the *General Plan of the County of Maui 1990 Update*. Ordinance 3166, commonly referred to as "Bill 84", was adopted in 2002 and established an improved process for the update of the General Plan and Community

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Plans. The Planning Department is responsible for writing the plan with the inclusion of input from State and County agencies and the general public.

A community-based visioning process for Maui County was undertaken in 2003 called Focus Maui Nui. This process identified the following as issues specific for the island of Moloka'i (Retrieved from: <http://www.co.maui.hi.us/departments/Planning/pdf/molokai.pdf>):

- Consider each island and its unique needs individually from Maui.
- Expanded opportunities for vocational training and apprenticeships.
- Connect economic development with environmental preservation.
- Increased local control.
- Treatment and prevention of substance abuse.
- Nurture and respect local cultural heritage and values.
- Preserve natural and cultural resources.

To assist the Planning Department in updating the *General Plan of the County of Maui 1990 Update*, General Plan Advisory Committees (GPACs) have been formed on Maui, Molokai, and Lanai. The above-mentioned Focus Maui Nui issues provide provided a starting point for the Moloka'i General Plan Advisory Committees (GPAC) GPACs to discuss, comment, advise, and provide recommendations to the Planning Director on the General Plan 2030 (updated General Plan). The plan will then be reviewed by the Moloka'i Planning Commission, who in turn provides its proposed revisions and recommendations, and those made by the GPAC, to the County Council. It is then the County Council's responsibility to adopt the General Plan by ordinance.

In January 2007 a Countywide Policy Plan—the portion of the General Plan which provides broad policies and objectives that portray the desired direction of the County's future—was distributed to the GPACs for review and comment. In August 2007, the Countywide Policy Plan was provided to the Maui, Moloka'i, and Lāna'i Planning Commissions for review.

MPL has submitted information regarding the *Community-Based Master Land Use Plan for Molokai Ranch* and Lā'au Point to the GPAC. In addition, this EIS, including the *Community-Based Master Land Use Plan for Molokai Ranch* (Appendix A of the Draft EIS), has been submitted to the Maui Planning Department and has been widely available for public review. Further, the Lā'au Point project and the *Community-Based Master Land Use Plan for Molokai Ranch* have been widely discussed within the Moloka'i community and many Moloka'i GPAC members: 1) participated in the process of creating, or attended meetings regarding, the *Community-Based Master Land Use Plan for Molokai Ranch*; and 2) commented on this EIS. While the Lā'au Point project and the *Community-Based Master Land Use Plan for Molokai Ranch* are well known on Moloka'i, MPL intends to continue to be available to respond to questions on these issues.

As of September 2007 the updated General Plan was still a work in progress. Since the content of the updated General Plan is not finalized, and thus is ultimately unknown, it is not possible to discuss the Lā'au Point project in context of the unfinished updated General Plan.

Ultimately, the Maui County Council will approve the updated General Plan. However, until the Maui County Council approves the updated General Plan, the current *General Plan of the*

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County of Maui 1990 Update is still in effect. Discussion of how the Lā'au Point project conforms to the relevant objectives and policies of the General Plan of the County of Maui 1990 Update is provided below.

~~**Discussion:** As discussed in Section 2.1.6, Moloka'i community members involved in the *Community Based Master Land Use Plan for Molokai Ranch* process clearly indicated their desire to plan their own future, thereby expressing a desire for "increased local control." The Plan provides measures which set unique precedents. These precedents are related to community planning, the creation of a Land Trust for the community, the donation of legacy lands to the Land Trust, the donation of easements to the Land Trust, and the protection of subsistence fishing, gathering, and hunting. The Plan also provides for covenants, conditions and restrictions that Lā'au Point homeowners will need to accept and agree to uphold in order to purchase a lot.~~

~~With the Plan's implementation, 26,200 acres will be donated to a Land Trust for preservation. In addition, the Lā'au Point project will include approximately 1,000 acres dedicated for cultural resource protection over the entire parcel and will expand the existing Conservation District by 254 acres along the shoreline and related resource areas. This proposed expansion will provide for a total of 434 acres of the project area to be protected as open space in the Conservation District.~~

~~The creation of the Moloka'i CDC is another example of "local control." The CDC will provide the Moloka'i community a means to plan their own future (see Section 2.1.9). With the Plan's implementation and the Lā'au Point project, MPL will gift land and assets to the CDC for future community expansion and affordable housing projects.~~

~~Because the General Plan 2030 is still a work in progress, this EIS will discuss the relevant objectives and policies of the existing *General Plan 1990 Update* pertaining to Lā'au Point. Discussion of how the Lā'au Point project conforms to these objectives and policies is provided below.~~

## **POPULATION**

### ***Objective***

1. *To plan the growth of resident and visitor population through a directed and managed growth plan so as to avoid social, economic and environmental disruptions.*

### ***Policies***

- a. *Manage population growth so that the County's economic growth will be stable and the development of public and private infrastructures will not expand beyond growth limits specified in the appropriate community plans or negatively impact our natural resources.*
- b. *Balance population growth by achieving concurrency between the resident employee work force, the job inventory created by new industries, affordable resident/employee housing, constraints on the environment and its natural resources, public and private infrastructure, and essential social services such as schools, hospitals, etc.*
- d. *Provide for population density and distribution patterns within the appropriate community plans which balance with the County's fiscal ability to provide necessary essential services.*
- e. *Participate in and support State and Federal programs which compliment the County's growth strategy.*



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**Discussion:** The creation of the Moloka‘i CDC provides the Moloka‘i community a means to plan their own future (Section 2.1.9). With the Plan’s implementation and the Lā‘au Point project, MPL will gift land and assets to the CDC for future community expansion and affordable housing projects. With these donations, the CDC can plan its own community expansion at pace with population growth, and without recourse to MPL. Section 4.8 (Social and Economic Characteristics) provides full discussions.

**LAND USE**

**Objective**

1. *To preserve for present and future generations existing geographic, cultural and traditional community lifestyles by limiting and managing growth through environmentally sensitive and effective use of land in accordance with the individual character of the various communities and regions of the County.*

**Policies**

- b. *Provide and maintain a range of land use districts sufficient to meet the social, physical, environmental and economic needs of the community.*
- c. *Identify and preserve significant historic and cultural sites.*
- e. *The County will explore ways to develop a Maui County Open Space Program which will preserve important scenic, cultural, recreational, environmental and open space resources*

**Discussion:** As part of the *Community-Based Master Land Use Plan for Molokai Ranch* process, there were many considerations to preserve for present and future generations existing geographic, cultural, and traditional community lifestyles. Through the Plan, MPL is committed to preserving over 55,000 acres of Agricultural District property in perpetuity through donation of land and establishing protective easement restrictions to protect the rural and agricultural nature of the island. The Moloka‘i Land Trust, a community-based land steward organization, will manage the 26,200 acres (40 percent of present MPL lands) that MPL will donate to the Moloka‘i community under the Plan (see Section 2.1.8). Under the protective easements, 14,390 acres will be protected forever for agricultural use, and 10,560 acres of Agricultural District land will be protected as open space on which no building will be permitted. The Land Trust will administer agreed upon land use policies for these areas which affect agricultural resources.

Within the Lā‘au Point project area, MPL proposes to expand the existing Conservation District by 254 acres along the shoreline and related resource areas. This proposed expansion will provide for a total 434 acres in the Conservation District. Second, streams, gulches, and floodways will be maintained as open space. Third, access roads and the rural-residential lots have been sited away from environmental protection zones and the Conservation District.

In addition to Conservation lands, the Lā‘au Point project area includes another 382 acres of rural open space and 17 acres of parks (see ~~Table 4~~ Table 3 in Section 2.3.5).

As ~~previously~~ discussed in Section 4.1, 1,000 acres of Cultural Protection Zones, such as the archaeological preserve (approximately 128 acres) at Kamāka‘ipō Gulch (an area to be donated to the Moloka‘i Land Trust), will preserve cultural landscapes.

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**Objective**

2. *To use the land within the County for the social and economic benefit of all the County's residents.*

**Policies**

- a. *Mitigate environmental conflicts and enhance scenic amenities, without having a negative impact on natural resources.*
- c. *Encourage land use methods that will provide a continuous balanced inventory of housing types in all price ranges.*
- e. *Encourage programs to stabilize affordable land and housing prices.*

**Discussion:** The creation of the Moloka‘i CDC provides the Moloka‘i community a means to plan their own future (Section 2.1.9). With the Plan’s implementation and the Lā‘au Point project, MPL will gift land and assets to the CDC for future community expansion and affordable housing projects. With these donations, the CDC can plan its own community expansion at pace with population growth, and without recourse to MPL. The economic value of the land donations, and the income from Lā‘au Point, will enable the Moloka‘i CDC to plan, site, and construct affordable homes itself.

Lā‘au Point will include two public shoreline parks (totaling approximately 17 acres), one by Kamāka‘ipō Gulch (2 acres) on the west end of the community, and the other (15 acres) near Hale O Lono Harbor at the south end (see Section 4.10.5 for full discussion).

**Objective**

3. *To preserve lands that are well suited for agricultural pursuits.*

**Policies**

- a. *Protect prime agricultural lands from competing nonagricultural land uses.*
- d. *Discourage the conversion, through zoning or other means, of productive or potentially productive agricultural lands to nonagricultural uses, including but not limited to golf courses and residential subdivisions.*

**Discussion:** As proposed in the *Community-Based Master Land Use Plan for Molokai Ranch* MPL is committed to preserving over 55,000 acres of Agricultural District property in perpetuity through donation of land and establishing protective easement restrictions to protect the rural and agricultural nature of the island. The Moloka‘i Land Trust, a community-based land steward organization, will manage the 26,200 acres (40 percent of present MPL lands) that MPL will donate to the Moloka‘i community under the Plan (see Section 2.1.8). Under the protective easements, 14,390 acres will be protected forever for agricultural use, and 10,560 acres of Agricultural District land will be protected as open space on which no building will be permitted. The Land Trust will administer agreed upon land use policies for these agricultural resource areas.

**ENVIRONMENT**

**Objective**

1. *To preserve and protect the county's unique and fragile environmental resources.*

**Policies**

- a. *Preserve for present and future generations the opportunity to experience the natural beauty of the islands.*
- b. *Preserve scenic vistas and natural features.*

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*Objective*

2. *To use the County's land-based physical and ocean-related coastal resources in a manner consistent with sound environmental planning practice.*

*Policies*

- a. *Preserve, enhance and establish traditional and new environmentally sensitive access opportunities for mountain and ocean resources.*
- b. *Evaluate all land based development relative to its impact on the County's land and ocean ecological resources.*
- e. *Establish shoreline rules to maintain traditional beach access, beach use and lateral access along shorelines.*

**Discussion:** MLP proposes to expand the existing Conservation District by 254 acres along the shoreline and related resource areas. This proposed expansion will provide for a total of 434 acres of the project area to be protected as open space in the Conservation District. Natural systems, such as streams, gulches, and floodways will also be maintained and remain as open space. The Land Trust will be in charge of managing Lā'au Point's Conservation lands.

The entire coastline of MPL lands is important for subsistence fishing and ocean gathering. MPL lands are very important for subsistence hunting, and forested areas are accessed for subsistence gathering. MPL recognizes and reaffirms all rights, customarily and traditionally exercised for subsistence, cultural and religious purposes by descendants of Native Hawaiians; and therefore, will continue to provide access to Moloka'i community members for subsistence activities (see Sections 2.3.7, 4.2, and 4.3).

Access to the Lā'au Point shoreline for subsistence will be provided from two public shoreline parks, one by Kamāka'ipō Gulch (2 acres) on the west end of the project site, and the other (15 acres) near Hale O Lono Harbor at the south end (see Section 4.3).

Sections 3.6 (Flora) and 3.7 (Fauna) discuss the protection of rare and endangered plant and animal species and habitats through appropriate management and protocol.

## **CULTURAL RESOURCES**

*Objectives*

1. *To preserve for present and future generations the opportunity to know and experience the arts, culture and history of Maui County.*

*Policies*

- b. *Encourage the recordation and preservation of all cultural and historic resources, to include culturally significant natural resources.*
- c. *Establish programs to restore, maintain and interpret significant cultural districts, sites and artifacts in both natural and museum settings.*
- e. *Identify and maintain an inventory of significant and unique cultural resources for special protection.*

**Discussion:** As discussed in Section 2.1.8, the Moloka'i Land Trust will be entrusted with ownership and management of the 26,200 acres (40 percent of Ranch lands) that MPL will donate to the Moloka'i community under the conditions of the *Community-Based Master Land Use Plan for Molokai Ranch*. The Land Trust donation, going from east to west, will include:

- Cultural sites at the base of the Kawela Plantation (34.895 acres).

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- Lands mauka of Kaunakakai for community expansion (1,160 acres).
- The Makahiki Grounds mauka of Kualapu'u and up through and including the cliffs of Nā'iwa.
- A large strip of land from Kawakanui beach, north to 'Īlio Point, stretching around to the MPL boundary with Department of Hawaiian Homes Lands in Ho'olehua and down to Pālā'au and over to Hale O Lono Harbor and including the Kā'ana Area.
- The fishing village 15-acre site adjacent to the north boundary of Kaupoa Camp.
- Pu'u O Kaiaka.
- Other sites as shown on the Land Trust map (See Appendix A, pg. 9).

As discussed in Section 4.1 (Archaeological Resources), approximately 1,000 acres of Cultural Protection Zones were identified within the entire Lā'au parcel to denote areas where groupings of archaeological and historic sites exist, such as the archaeological preserve (approximately 128 acres) to be created at Kamāka'ipō Gulch (an area to be donated to the Moloka'i Land Trust). The creation of Cultural Protection Zones, to be managed by the Land Trust, increases preservation of cultural landscapes rather than only individual sites, which represents a great advance not just in acreage, but in diversity and intensity of preservation actions.

The residential community will not encroach on Cultural Preservation Zones since access roads and the rural-residential lots are planned to avoid cultural preservation zones and archaeological sites. Depending on the nature of the archaeological sites, buffers, permanent boundaries, and interpretive signs will be established to protect and preserve the sites. It is expected that the project will not have adverse effects to archaeological sites.

### **ECONOMIC ACTIVITY**

#### ***Objective***

1. *To provide an economic climate which will encourage controlled expansion and diversification of the County's economic base.*

#### ***Policies***

- a. *Maintain a diversified economic environment compatible with acceptable and consistent employment.*
- b. *Support programs, services and institutions which provide economic diversification.*

#### ***Objective***

3. *Utilize an equitable growth management program which will guide the economic well-being of the community.*

#### ***Policies***

- a. *Encourage a sustainable rate of economic development which is linked to the carrying capacity of the infrastructure systems and the fiscal ability of the County to maintain those systems.*
- b. *Encourage consensus building wherein growth conflicts are addressed in advance of critical infrastructural shortfalls.*
- c. *Encourage managed growth by concurrency wherein the administration and council regulate, tax and spend revenue in order to guide economic development by concurrently balancing growth demand with infrastructure supply and capability.*
- d. *Encourage the adoption of a resource allocation program which gives a high priority to affordable residential projects.*

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**Discussion:** As previously discussed in Sections 2.1.7 (Key Points) and 4.8.3 (Economy), the Lā‘au Point project will enhance the Moloka‘i’s economic environment and stimulate economic diversification relative to the present unprofitable ranch operations. These opportunities include:

- \$246 million in total development and construction investment.
- 1,350 person years of construction-related employment over project build-out (a “person year” is the amount of time a person can work in one year).
- Annual expenditures on Moloka‘i at build-out of about \$4.4 million, which represents about \$22,000 in on-island spending per residence.
- Support of 60 on-going jobs upon full build-out in 2023 through resident spending and the Lā‘au Point homeowners’ association.
- Providing funding for the Kaluako‘i Hotel and Golf Course renovations from sales of the Lā‘au Point rural-residential lots. These resort facilities are crucial to revitalizing the Moloka‘i economy and are projected to provide over 100 jobs for Moloka‘i residents.

The creation of the Moloka‘i CDC provides the Moloka‘i community a means to plan their own future (Section 2.1.9). With the Plan’s implementation and the Lā‘au Point project, MPL will gift land and assets to the CDC for future community expansion and affordable housing projects. With these donations, the CDC can plan its own community expansion at pace with population growth, and without recourse to MPL.

## AGRICULTURE

### *Objective*

2. *To maximize the use and yield of productive agricultural land throughout the County.*

### *Policies*

- a. *Ensure the availability of land that is well suited for agricultural production.*

**Discussion:** As proposed in the *Community-Based Master Land Use Plan for Molokai Ranch*, MPL is committed to preserving over 55,000 acres of Agricultural District property in perpetuity through donation of land and establishing protective easement restrictions to protect the rural and agricultural nature of the island. The Moloka‘i Land Trust, a community-based land steward organization, will manage the 26,200 acres (40 percent of present MPL lands) that MPL will donate to the Moloka‘i community under the Plan (see Section 2.1.8). Under the protective easements, 14,390 acres will be protected forever for agricultural use, and 10,560 acres of Agricultural District land will be protected as open space on which no building will be permitted. The Land Trust will administer agreed upon land use policies for these agricultural areas.

## HOUSING

### *Objective*

1. *To provide a choice of attractive, sanitary and affordable homes for all our residents.*

### *Policies*

- a. *Provide or require adequate physical infrastructure to meet the demands of present and planned future affordable housing needs.*
- b. *Encourage the construction of housing in a variety of price ranges and geographic locations.*
- f. *Encourage large land owners in the context of new projects to provide land and/or housing for their employees.*

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- i. *Ensure that each community plan region contains its fair share of affordable housing.*

**Objective**

2. *Provide affordable housing to be fulfilled by a broad cross-section of housing types.*

**Policies**

- a. *Identify Federal, State, County and private lands for affordable housing development, and make a dedicated effort to reserve these lands.*
- b. *Support the establishment of a non-profit County, business and community based housing alliance to provide financial assistance for housing development, purchase and rental.*

**Discussion:** The creation of the Moloka‘i CDC provides the Moloka‘i community a means to plan their own future (see Section 2.1.9). With the Plan’s implementation and the Lā‘au Point project, MPL will gift land and assets to the CDC for future community expansion and affordable housing projects. With these donations, the CDC can plan its own community expansion at pace with population growth, and without recourse to MPL. The economic value of the land donations, and the income from Lā‘au Point, will enable the Moloka‘i CDC to plan, site, and construct affordable homes itself. Section 4.8.2 (Housing) provides a full discussion.

**WATER**

**Objective**

2. *To make more efficient use of our ground, surface and recycled water sources.*

**Policies**

- a. *Reclaim and encourage the productive use of wastewater discharges in areas where such use will not threaten the integrity of ground water resources.*
- d. *Improve catchment systems and transmission systems to reduce runoff.*
- e. *Maximize use of existing water sources by expanding storage capabilities.*
- g. *Promote water conservation practices to make the most efficient use of existing water sources.*
- h. *Support the establishment of potable groundwater use priorities which prohibit the use of potable water for the irrigation of golf courses, golf driving ranges, parks and landscaped open space.*
- i. *Develop a method of allocation of water based on community need.*

**Discussion:** MPL will comply with all above-mentioned Water objectives and policies. As discussed in Section 4.9.2 (Water), MPL will not require any more drinking water than what is currently proposed for allocation in the *Community-Based Master Land Use Plan for Molokai Ranch* (Appendix A). According to the Water Plan Analysis (Appendix P-S), MPL’s plans are feasible because the Water Plan calls for: 1) significantly decreasing the current use of safe drinking (potable) water for irrigation; 2) increasing efficiencies within existing systems; and 3) aggressive water conservation strategies.

MPL is currently working with the DHHL, the County of Maui DWS, and the USGS to comprehensively evaluate Moloka‘i’s long-term water demands and resources. It is expected that many of Moloka‘i’s water issues will be addressed by a comprehensive modeling analysis. Although the specifics of the water resource issues and modeling analysis have yet to be identified, MPL has long acknowledged publicly that its water use would yield to DHHL’s priority first rights to water.

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~~As discussed in the proposed CC&Rs (Section 2.3.6), landscaping~~ Common area landscape irrigation systems will include water re-use (treated effluent) from the wastewater treatment plant, or collected in catchments systems; only Residential catchment systems may provide landscape irrigation to individual lots and homes. Only drip systems will be permitted. Landscaping will be restricted to appropriate native and Polynesian species that are drought-tolerant and suitable for coastal locations; xeriscaping aims to reduce water use. All houses will be required to have at least a 5,000-gallon storage tank for water captured from roofs.

MPL supports research and development of alternative methods to meet future water requirements.

MPL supports water supply service to areas experiencing critical water problems. As outlined in the Water Plan (Appendix S), MPL will make its excess safe drinking water capacity from its Well 17 potable well in the Kualapu'u aquifer available for the use of communities outside its property DHHL as part of DHHL's 2.905 mgd reservation.

MPL will continue its water conservation campaign to Kaluako'i residents and future Lā'au Point residents by reducing consumption, shutting off irrigation systems during rainfall, and restructuring the water rates.

### **5.2.2 Moloka'i Community Plan**

The *Moloka'i Community Plan*, most recently updated in 2001, is one of nine community plans for Maui County. It reflects current and anticipated conditions for the island of Moloka'i and addresses planning goals, objectives, policies, and implementation considerations as a decision-making guide in the region through the year 2010. The *Moloka'i Community Plan* provides specific recommendations to address the goals, objectives, and policies contained in the General Plan, while recognizing the values and unique attributes of Moloka'i, to enhance the region's overall living environment. The Moloka'i Community Plan is a public document, and therefore, is available directly from the County of Maui Planning Department, and accessible directly from the Maui County website.

In conjunction with the Maui County General Plan Update process noted in Section 5.2.1, the 2001 Moloka'i Community Plan will also be updated. It is expected that after the General Plan update process, the GPAC will transition into the Moloka'i Citizen Advisory Committee (CAC) to review and update the 2001 Moloka'i Community Plan. Per conversation with the Maui County Long Range Division (phone call February 1, 2007), the updated Community Plan may not reach approval stages until 2009.

MPL has submitted information regarding the *Community-Based Master Land Use Plan for Molokai Ranch* and Lā'au Point to the GPAC. In addition, this EIS, including the *Community-Based Master Land Use Plan for Molokai Ranch* (Appendix A of the Draft EIS), has been submitted to the Maui Planning Department and has been widely available for public review. Further, the Lā'au Point project and the *Community-Based Master Land Use Plan for Molokai Ranch* have been widely discussed within the Moloka'i community and many Moloka'i GPAC members: 1) participated in the process of creating, or attended meetings regarding, the *Community-Based Master Land Use Plan for Molokai Ranch*; and 2) commented on this EIS. While the Lā'au Point project and the *Community-Based Master Land Use Plan for Molokai*

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Ranch are well known on Moloka'i, MPL intends to continue to be available to respond to questions on these issues.

Ultimately, the Maui County Council will approve the updated Moloka'i Community Plan. However, until the Maui County Council approves the updated Moloka'i Community Plan, the 2001 Moloka'i Community Plan is still in effect. Discussion of how the Lā'au Point project conforms to the relevant objectives and policies of the 2001 Moloka'i Community Plan is provided below.

The Moloka'i Community Plan Land Use Map designates specific areas of the Lā'au Point site as AG (Agricultural) and C (Conservation) (Figure 6). The applicant is seeking a Community Plan Amendment to change the area of the proposed house lots from Agricultural (AG) to Rural (R) and Park (P). Community Plan amendments are processed through the Moloka'i Planning Commission, which provides their recommendation to the County Council and Mayor.

~~The relevant objectives and policies of the *Moloka'i Community Plan* pertaining to Lā'au Point, along with a discussion of how the community conforms to these objectives and policies, are discussed below.~~

## LAND USE

### GOAL

*Enhance the unique qualities of the island of Moloka'i to provide future generations the opportunity to experience rural and traditional lifestyles.*

### OBJECTIVES AND POLICIES

2. *Subdivision approvals should consider environmental, economic and social impacts of the project, including impacts on archaeological, historic and cultural resources, and should undergo public review to allow neighbors the opportunity to comment.*
9. *Limit the visitor accommodation center to West Moloka'i and require that any expansion approvals reflect the employment needs of the island's resident work force.*
11. *Promote and support the use of land in the State Agricultural District for productive agricultural purposes through implementing beneficial policies and education.*
12. *Protect prime, productive and potentially productive agricultural lands from competing non-agricultural land uses.*
14. *Encourage the expansion of the State Conservation District boundary where warranted for environmental preservation and habitat enhancement.*
15. *Regulate land use in a manner which reaffirms and respects customary and traditional rights of Native Hawaiians as mandated by Article 12, Section 7, Constitution of the State of Hawaii.*
22. *Consider the recommendations of the Moloka'i Subsistence Task Force Final Report (1994), as applicable, in the processing of discretionary land use permits.*
23. *Any new proposed land uses at Kaluakoi should go through the community plan amendment process to allow for community review.*

**Discussion:** The Lā'au Point project complies with the above-mentioned Land Use objectives and policies. In compliance with Chapter 343, HRS (see Section 1.7) and Act 50 of Chapter 343, HRS, MPL has initiated the preparation of this EIS to address potential environmental, cultural, economic, and social impacts related to the Lā'au Point project. Through the EIS, County permitting, and Community Plan Amendment process, the public has opportunities to be involved with the public review process and comment on Lā'au Point.



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The *Community-Based Master Land Use Plan for Molokai Ranch* provides measures which set unique precedents. These precedents are related to community planning, the creation of a Land Trust for the community, the donation of legacy lands to the Land Trust, the donation of easements to the Land Trust, and the protection of subsistence fishing, gathering, and hunting. The Plan also provides for covenants, conditions and restrictions that Lā'au Point homeowners will need to accept and agree to uphold in order to purchase a lot.

The *Moloka'i Responsible Tourism Initiative Report* (2006) indicates there is almost unanimous community support for the re-opening of the Kaluako'i Hotel as a mid-range hotel. As previously discussed in Sections 2.1.7 and 4.8.3, funding for the Kaluaki'o Hotel and Golf Course renovations will come from sales of the Lā'au Point rural-residential lots. These facilities are crucial to revitalizing the Moloka'i economy and are projected to provide over 100 jobs for Moloka'i residents.

As proposed in the Plan, MPL is committed to preserving over 55,000 acres of Agricultural District property in perpetuity through donation of land and establishing protective easement restrictions to protect the rural and agricultural nature of the island. The Moloka'i Land Trust, a community-based land steward organization, will manage the 26,200 acres (40 percent of present MPL lands) that MPL will donate to the Moloka'i community under the Plan (see Section 2.1.8). Under the protective easements, 14,390 acres will be protected forever for agricultural use, and 10,560 acres of Agricultural District land will be protected as open space on which no building will be permitted. The Land Trust will administer agreed upon land use policies for these agricultural areas.

To preserve the shoreline and other natural resource areas, MPL seeks to expand the State existing Conservation District by 254 acres along the shoreline and related resource areas. This proposed expansion will provide for 434 acres of the project area to be in the Conservation District.

The entire coastline of MPL lands is important for subsistence fishing and ocean gathering. MPL lands are very important for subsistence hunting, and forested areas are accessed for subsistence gathering. MPL recognizes and reaffirms all rights, customarily and traditionally exercised for subsistence, cultural and religious purposes by descendants of Native Hawaiians; and therefore, will continue to provide access to Moloka'i community members for subsistence activities (see Sections 2.3.7, 4.2, and 4.3).

## **SUBSISTENCE**

### **GOAL:**

*The continued practice of subsistence as a part of the Moloka'i lifestyle which incorporates and fosters the traditional and cultural values of conservation, malama 'aina and 'auwana.*

### **OBJECTIVES AND POLICIES:**

1. *Recognize the historical, traditional and continued role of subsistence activities as an integral part of the island residents' lifestyle.*
2. *Encourage and protect traditional Hawaiian access as mandated by Article 12, Section 7 of the Hawaiian State Constitution and HRS 7-10.*
3. *Encourage education concerning subsistence activities with an emphasis on traditional values and proper use of resources.*

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4. *Where appropriate, use subsistence considerations as a factor in the design, evaluation and permit processing of discretionary land use proposals.*
5. *Wherever possible, protect trails for traditional Hawaiian Access.*
6. *Where desirable, establish or re-establish access for hunting, fishing, religious, la'au and lapa'au gathering uses.*
7. *Protect resources from overuse and commercial exploitation.*

**Discussion:** The entire coastline of MPL lands is important for subsistence fishing and ocean gathering. MPL lands are very important for subsistence hunting, and forested areas are accessed for subsistence gathering. MPL recognizes and reaffirms all rights, customarily and traditionally exercised for subsistence, cultural and religious purposes by descendants of Native Hawaiians; and therefore, will continue to provide access to Moloka'i community members for subsistence activities.

As discussed in Sections 2.3.7 (Access for Subsistence Gathering), 4.2 (Cultural Resources), and 4.3 (Trails and Access), access to Lā'au Point will be managed to protect the marine and coastal resources. Protection of the shoreline for subsistence gathering is of great importance to the people of Moloka'i. Perpetual right to subsistence gathering will be noted on the titles of the areas to be preserved. Based on the community-proposed access plan (Appendix A, p. 105), protection of the off-shore coastal resources at Lā'au Point would best be achieved by controlling access to the area so that the community can retain the area for subsistence gathering. Therefore, a ~~management plan will be~~ Shoreline Access Management Plan (SAMP)(further discussed in Section 4.3 and provided as Appendix B) has been developed and adopted to regulate (through legal and enforceable means) the use of the land and ocean resources to ensure the continuance of the resources for future generations.

Access to the Lā'au Point shoreline will be ~~restricted to~~ provided at two points at planned shoreline public parks, with an acknowledgement of Native Hawaiian gathering rights as defined by law for subsistence purposes, in a designated subsistence management area. Strict access measures, such as a shoreline access education process, ~~could~~ will be put in place to ensure that resources for subsistence gathering are not depleted.

Under the *Community-Based Master Land Use Plan for Molokai Ranch*, MPL, Moloka'i Land Trust, the homeowners, and the broader community will work together ~~as follows to~~:

- ~~Seek to establish~~ Establish a subsistence fishing zone from the coast to the outer edge of the reef or where there is no reef, out a quarter-mile from the shoreline along the 40-mile perimeter of MPL's coastline property, modeled after the Hui Malama O Mo'omomi Subsistence Fishing Zone.
- End commercial hunting (commercial leases expire 2007), and allowing only subsistence hunting on the property.
- Ensure access to the shoreline will be available only by foot.
- Establish demonstration fishing nurseries/kapu sites to insure reproduction of key subsistence food species (e.g. 'opihi, moi, mullet, limu, lobster, ulua, uhu he'e).
- Support protection for Penguin Banks from overfishing.
- ~~Each year, an experienced Resource Group will recommend~~ Recommend open areas for subsistence fishing based on protecting and not depleting the resources.
- ~~Those provided access to fish and gather once the community-based subsistence fishing management zone is established will be asked to take an~~ Require educational ~~course courses~~ on traditional fishing methods, practices and conservation measures ~~that will be~~

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~~offered by the resource managers, with guidance by the Maunaloa residents~~ for those who access the shoreline.

- Erect a fence to demarcate private property from public access area. All of the informants felt that it is important to have a clear physical demarcation, such as a log fence, running along the individual property lines to distinguish between private property and the public access area. By putting in a fence of some kind the public will know the boundary.
- Establish an Access Trail that would follow the contour of the old traditional trail as much as possible. Existing kiawe would serve as a buffer between the trail and the sand and ocean. This can help reduce impact of the trail on the beach and ocean. The trail will be unpaved and only for walking (no cars, ATVs, or bicycles).

In addition, approximately 40,000 acres of Ranch land, previously reserved for commercial operations, will be opened up for subsistence hunters. Protections to subsistence gathering will be specified in the CC&Rs for Lā'au Point. Section 4.2 (Cultural Resources) provides a full discussion on subsistence activities for Lā'au Point.

## ENVIRONMENT

### **GOAL**

*Preserve, protect and manage Moloka'i's exceptional natural land and water resources to ensure that future generations may continue to enjoy and protect the island environment.*

### **OBJECTIVES AND POLICIES**

1. *Protect and encourage the restoration of native habitats through government and private conservation, land management and educational programs.*
3. *Manage, protect and preserve shoreline dune formations throughout the planning region. These topographic features are a significant element of the natural setting, often contain burials, and should be protected from any actions which would detract from their scenic or cultural value.*
4. *Manage, protect, and where appropriate, restore reef habitats, fish ponds and other coastal resources unique to the Island of Moloka'i.*
6. *Recognize and preserve traditional access and uses of the environment to address subsistence needs of the residents of Moloka'i.*
7. *Encourage the development of environmentally sensitive drainage master plans which consider development opportunities and constraints in flood prone areas, stream channels and gulches.*
12. *Recognize Native Hawaiian rights to environmental resources.*
16. *Establish shoreline setback plans based upon the unique cultural environmental and ecological shoreline characteristics of Moloka'i's coastline.*

**Discussion:** Lā'au Point supports these goals, policies, and objectives intended to preserve, protect and manage Moloka'i's exceptional natural land and water resources to ensure that future generations may continue to enjoy and protect the island environment.

MPL proposes to expand the existing Conservation District by 254 acres along the shoreline and related resource areas. This proposed expansion will provide for a total of 434 acres of the Project Area to be protected as open space in the Conservation District. Natural resource areas at Lā'au Point, such as streams, gulches, and floodways will be protected and maintained as open space.

In addition, residential lot lines will be set back at least 250 feet from the designated shoreline or high water mark. Using the current Conservation District boundary, which is approximately 150

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to 200 feet inland from the shoreline, as a base, residential lot boundary lines for Lā'au Point were determined to be at least 50 feet beyond the current Conservation District. In addition, boundaries for the makai lots fronting the proposed expanded Conservation District will have covenants requiring an additional 50-foot building setback. These specified setbacks result in providing substantial building setbacks from the shoreline; in some areas, this is as much as 1,000 feet.

As discussed in Sections 3.8 (Marine Environment) and 4.9.1 (Drainage), Lā'au Point will protect nearshore waters from increased degradation of water quality, such as drainage control systems, CC&Rs to regulate the use of fertilizers and pesticides, re-vegetation as a means of permanent erosion control measures throughout the developed areas, and livestock fencing to keep deer and livestock from disturbing the soil near the community. Therefore, it is likely that the long-term water quality in adjacent coastal waters may be improved by these measures.

As discussed in Sections 2.3.7, 4.2, and 4.3, protection of the shoreline for subsistence gathering is of great importance to the people of Moloka'i. Therefore, perpetual right to subsistence gathering will be noted on the titles of the areas to be preserved. Access to the Lā'au Point shoreline will be ~~restricted to~~ provided at two points at planned shoreline public parks, with an acknowledgement of Native Hawaiian gathering rights as defined by law for subsistence purposes, in a designated subsistence management area. Strict access measures, such as a shoreline access education process, ~~could~~ will be put in place to ensure that resources for subsistence gathering are not depleted.

Finally, Lā'au Point will exercise an overall conservation ethic by appealing to people that respect the unique character of the site and Moloka'i, and that support conservation, cultural site protection, and coastal resource management. Residents of Lā'au Point will be educated and informed about the environment and culture, and taught to "mālama 'āina," take care of the land and sea, through strict CC&Rs attached to the subdivision.

#### **IMPLEMENTING ACTION**

14. Review and revise the Special Management Area boundary to include the entire island of Molokai except Department of Hawaiian Homes lands and Kalawo County.

**Discussion:** This implementing action is listed under the "Environment" section of the Molokai Community Plan (Community Plan). Also in the Community Plan, Table 1 lists implementation responsibilities. We note that the Planning Department is responsible to implement this action. As of September 2007, the Planning Department has stated that a SMA Boundary study is currently under way, but there are no reportable results as of this date.

#### **CULTURAL RESOURCES**

##### **GOAL**

*Preservation, enhancement and appropriate use of cultural resources, cultural practices and historic sites that provide a sense of history and define a sense of place for the island of Moloka'i.*

##### **Objectives and Policies**

1. *Foster an awareness of the diversity and importance of cultural resources and of the history of Moloka'i.*
2. *Promote the rehabilitation of significant cultural resources.*

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3. *Encourage and protect the use of ancient Hawaiian trails, cultural practices and rural lifestyles.*
4. *Encourage community stewardship of historic sites and recognize and respect family ancestral ties to certain sites.*
7. *Require the identification, protection, and where appropriate, preservation of sites prior to and during development review. The general site types and areas that should be flagged for preservation include the following:*
  - Ancient Trails/Old Government Roads*
  - Fishponds*
  - Landings*
  - Leeward Slope Areas*
  - Nearshore marine cultural resources*
  - Stream Valley and Leeward Slope Areas*
  - habitation complexes (shoreline & interior)*
  - lo'i and 'auwai*
  - terraces*
  - Significant native vegetation zones*
  - Plantation ditch systems*
  - Religious Structures (shrines, churches & heiau)*
  - Old bridges*
  - Plantation camps*
  - Plantation era structures & homes*
  - Petroglyphs*
  - Burials*
8. *Encourage site preservation for significant archaeological remains, rather than data recovery.*
10. *Encourage proper management, appropriate interpretation, and adequate access to significant cultural resources and sites.*
11. *Improve and enhance access to cultural resources and the shoreline for the West End of the island.*

**Discussion:** As discussed in Section 2.1.8, the Moloka'i Land Trust will be entrusted with ownership and management of the 26,200 acres (40 percent of Ranch lands) that MPL will donate to the Moloka'i community under the conditions of the *Community-Based Master Land Use Plan for Molokai Ranch*. The Land Trust donation, going from east to west, will include:

- Cultural sites at the base of the Kawela Plantation (34.895 acres).
- Lands mauka of Kaunakakai for community expansion (1,160 acres).
- The Makahiki Grounds mauka of Kualapu'u and up through and including the cliffs of Nā'iwa.
- A large strip of land from Kawakanui beach, north to 'Īlio Point, stretching around to the MPL boundary with Department of Hawaiian Homes Lands in Ho'olehua and down to Pālā'au and over to Hale O Lono Harbor and including the Kā'ana Area.
- The fishing village 15-acre site adjacent to the north boundary of Kaupoa Camp.
- Pu'u O Kaiaka.
- Other sites as shown on the Land Trust map (See Appendix A, pg. 9).

As discussed in Section 4.1, approximately 1,000 acres of Cultural Protection Zones were identified within the larger Lā'au parcel to denote areas where groupings of archaeological and historic sites exist, such as the archaeological preserve (approximately 128 acres) to be created at Kamāka'ipō Gulch (an area to be donated to the Molokai Land Trust). The creation of Cultural Protection Zones, to be managed by the Land Trust, increases preservation of cultural landscapes

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rather than only individual sites, which represents a great advance not just in acreage, but in diversity and intensity of preservation actions.

The Lā'au Point project will not encroach on Cultural Preservation Zones since access roads and the rural-residential lots are planned to avoid cultural preservation zones and archaeological sites. Depending on the nature of the archaeological sites, buffers, permanent boundaries, and interpretive signs will be established to protect and preserve the sites. It is expected that the project will not have adverse effects to archaeological sites.

Regarding the Lā'au Point shoreline area, under the *Community-Based Master Land Use Plan for Molokai Ranch*, MPL, Moloka'i Land Trust, the homeowners, and the broader community will work together as follows to:

- Ensure access to the shoreline will be available only by foot.
- Establish demonstration fishing nurseries/kapu sites to insure reproduction of key subsistence food species (e.g. 'opihi, moi, mullet, limu, lobster, ulua, uhu he'e).
- ~~Each year, an experienced Resource Group will recommend~~ Recommend open areas for subsistence fishing based on protecting and not depleting the resources.
- ~~Those provided access to fish and gather once the community based subsistence fishing management zone is established will be asked to take an~~ Require educational course courses on traditional fishing methods, practices and conservation measures ~~that will be offered by the resource managers, with guidance by the Maunaloa residents~~ for those who access the shoreline.
- ~~Erect a fence to demarcate private property from public access area. All of the informants felt that it is important to have a clear physical demarcation, such as a log fence, running along the individual property lines to distinguish between private property and the public access area. By putting in a fence of some kind the public will know the boundary.~~
- ~~Establish an Access Trail that would follow the contour of the old traditional trail as much as possible. Existing kiawe would serve as a buffer between the trail and the sand and ocean. This can help reduce impact of the trail on the beach and ocean. The trail will be unpaved and only for walking (no cars, ATVs, or bicycles).~~

## ECONOMIC ACTIVITY

### **GOAL**

*A balanced local economy which provides preferred employment levels, long-term viability and sustainability while meeting residents' needs, respecting cultural and natural resources, and is in harmony with Moloka'i's rural quasi-subsistence lifestyle.*

### **Objectives and Policies**

3. *Maintain agriculture as an important economic activity on the island.*
9. *Consider a Community Land Trust and Community Development Corporation as tools for community-based economic development appropriate to Moloka'i's lifestyle.*
15. *Establish a management plan for Moloka'i's nearshore and offshore resources to ensure its productivity for future generations.*
17. *Promote, protect and enhance subsistence activities as provided in Article 12, Section 7 of the State Constitution.*
19. *Allow expansion of the visitor industry within the existing tourist destination area at the West End to the extent that it does not infringe upon the traditional, social, economic and environmental qualities of the island.*

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**Discussion:** Sections 2.1.8 and 2.1.9 of this EIS provide discussions of the Moloka'i Land Trust and Community Development Corporation (CDC). The conditions set forth in the *Community-Based Master Land Use Plan for Molokai Ranch* provides the Land Trust and CDC with the land and funding to guide community-based economic development appropriate to Moloka'i's lifestyle.

Under the protective easements in favor of the Land Trust (see Section 2.1.8), 14,390 acres will be protected indefinitely for agricultural use, and 10,560 agricultural-zoned lands will be protected as Open Space on which no buildings will be permitted. The Land Trust will administer agreed-upon land use policies for these areas.

As discussed in Sections 2.3.7 (Access for Subsistence Gathering), 4.2 (Cultural Resources), and 4.3 (Trails and Access), access to Lā'au Point will be carefully managed to protect the marine and coastal resources. Protection of the shoreline for subsistence gathering is of great importance to the people of Moloka'i. Therefore, perpetual right to subsistence gathering will be noted on the titles of the areas to be preserved.

As discussed in Sections 2.1.7 and 4.8.3, the community supports the re-opening of the Kaluako'i Hotel as a mid-range hotel. Funding for the Kaluaki'o Hotel and Golf Course renovations will come from sales of the Lā'au Point rural-residential lots. These facilities will not infringe upon the traditional, social, economic, and environmental qualities of the island. On the contrary, the re-opening of this West End visitor destination is crucial to revitalizing the Moloka'i economy and is projected to provide over 100 jobs for Moloka'i residents.

## HOUSING

### **GOAL**

*Housing opportunities which are affordable, safe, and environmentally and culturally compatible for the residents of Moloka'i.*

### **Objectives and Policies**

5. *Allow the development of multi-family housing in Kaunakakai and Maunaloa to provide local residents a choice in housing type and affordability.*
8. *Designate sufficient land area for affordable residential development in appropriate areas near established infrastructure.*

**Discussion:** The creation of the Moloka'i CDC provides the Moloka'i community a means to plan their own future (see Section 2.1.9). With the Plan's implementation and the Lā'au Point project, MPL will gift land and assets to the CDC for future community expansion and affordable housing projects. With these donations, the CDC can plan its own community expansion at pace with population growth, and without recourse to MPL. The economic value of the land donations, and the income from Lā'au Point, will enable the Moloka'i CDC to plan, site, and construct affordable homes itself.

## DESIGN

### **GOAL**

*Harmony between the natural and man-made environments to ensure that the natural beauty and character of Moloka'i is preserved.*

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**Objectives and Policies**

3. *Encourage building, infrastructure and landscaping designs which respect the scale, beauty and scenic qualities of Moloka‘i.*
7. *Promote the maintenance of historic landscapes and streetscapes in character to the region.*

**Discussion:** The Lā‘au Point project has been designed to respect the scale, beauty and scenic qualities of the area and to blend in with the surrounding landscape, therefore, minimizing the alteration of natural landforms and existing views.

As discussed in Section 4.7, to mitigate visual impacts lot lines will be set back at least 250 feet from the designated shoreline or high water mark, creating a coastal conservation zone. To further mitigate visual impacts, residential construction will be subject to stringent CC&Rs (as discussed in Section 2.3.6). Buildings must maintain a low-profile rural character and respect the natural environment. Restrictions on building height (one-story, maximum 25 feet high), materials, colors, and style are important factors to blend homes into the environment.

It is important to note that the 200 homes will be on relatively large lots (approximately two acres each) which provides for a very low density rural community. Homes will be sited appropriately to avoid a dense urban-like development.

The scenic resources and shoreline open space will be preserved by the expansion of the Conservation District by 254 acres along the shoreline and related resource areas. This proposed expansion will provide for a total of 434 acres of the project area to be protected as open space in the Conservation District. Natural systems, such as streams, gulches, and floodways will be maintained and remain as open space. In addition, the creation of Cultural Protection Zones and rural landscape reserves will preserve large open space landscapes throughout Lā‘au Point.

**INFRASTRUCTURE**

**GOAL**

*Culturally and environmentally sensitive infrastructure systems, developed and maintained in a timely fashion, which protect and preserve the safety and health of Moloka‘i's residents and visitors.*

**Water Objectives and Policies**

1. *Future water allocations for agriculture/aquaculture and Hawaiian Home Lands use should be given first priority and then consideration should be given to other viable economic development initiatives.*
5. *Promote programs for water conservation as well as ground water and wellhead protection.*
6. *Recognize Hawaiian water rights.*

**Discussion:** MPL will comply with the above-mentioned Water objectives and policies. As discussed in Section 4.9.2 (Water), MPL will not require any more drinking water than what is currently proposed for allocation in the *Community-Based Master Land Use Plan for Molokai Ranch* (Appendix A). According to the Water Plan Analysis (Appendix P), MPL's plans are feasible because the Water Plan calls for: 1) significantly decreasing the current use of safe drinking (potable) water for irrigation; 2) increasing efficiencies within existing systems; and 3) aggressive water conservation strategies.



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MPL is currently working with the DHHL, the County of Maui DWS, and the USGS to comprehensively evaluate Moloka'i's long-term water demands and resources. It is expected that many of Moloka'i's water issues will be addressed by a comprehensive modeling analysis. Although the specifics of the water resource issues and modeling analysis have yet to be identified, MPL has long acknowledged publicly that its water use would yield to DHHL's priority first rights to water. Upon approval of the Community-Based Master Land Use Plan, MPL will sign covenants preventing it from ever seeking further water permits from the CWRM. MPL will also abandon the Waiola Well application.

~~As discussed in the proposed CC&Rs (Section 2.3.6), landscaping~~ Common area landscape irrigation systems will include water re-use (treated effluent) from the wastewater treatment plant, or collected in catchments systems; only Residential catchment systems may provide landscape irrigation to individual lots and homes. Only drip systems will be permitted. Landscaping will be restricted to appropriate native and Polynesian species that are drought-tolerant and suitable for coastal locations; xeriscaping aims to reduce water use. All houses will be required to have at least a 5,000-gallon storage tank for water captured from roofs.

MPL supports research and development of alternative methods to meet future water requirements.

MPL supports water supply service to areas experiencing critical water problems. As outlined in the Water Plan (Appendix S), MPL will make its excess safe drinking water capacity from its Well 17 potable well in the Kualapu'u aquifer available for the use of communities outside its property DHHL as part of DHHL's 2.905 mgd reservation.

MPL will continue its water conservation campaign to Kaluako'i residents and future Lā'au Point residents by reducing consumption, shutting off irrigation systems during rainfall, and restructuring the water rates.

#### ***Liquid and Solid Waste Objectives and Policies***

1. *Encourage comprehensive waste management for the island which includes recycling and reuse of solid waste and wastewater as major plan components.*
4. *Designate an alternate site for the wastewater treatment plant, if needed.*

**Discussion:** As discussed in Section 4.9.3 (Wastewater), Lā'au Point will include its own private wastewater treatment system to be maintained through homeowners' association dues. The treatment facility will provide tertiary quality water suitable for use as landscape irrigation.

As discussed in Section 4.9.4 (Solid Waste), Lā'au Point will incorporate recycling during construction and in the community to help reduce the amounts of solid waste going to the landfill.

#### ***Drainage Objectives and Policies***

1. *Require an environmentally sensitive drainage system which provides for a high standard in preventing flooding and property damage while not adversely affecting wetlands, the marine environment and nearshore and offshore water quality. It is necessary to alleviate existing problems, institute maintenance procedures, and ensure that the overall system will meet future growth requirements.*

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2. *Prepare, adopt and implement a drainage master plan for settlement areas, which emphasizes land management techniques, such as the use of natural landscape swales, periodic maintenance and annual cleaning of stream channels and avoidance of development in flood-prone areas to minimize the potential of flood damage.*

**Discussion:** As discussed in Section 4.9.1 (Drainage), Lā'au Point's drainage plan requires runoff generated by the project to be retained onsite and kept within the project limits in accordance with Maui County Storm Drainage Standards. Subsurface storage and filtration systems (de-silting basins) will be installed at the end of each roadway drainage system to intercept waterborne silt and other debris before it is discharged into drainageways and coastal waters.

***Energy and Public Utilities Objectives and Policies***

6. *Encourage the undergrounding of existing overhead utility lines as well as the provision of underground utility lines in major new developments.*

**Discussion:** Utility lines will be placed underground. See Section 4.9.5 for full discussion.

**SOCIAL INFRASTRUCTURE**

***GOAL***

*An efficient and responsive system of people-oriented public services which enable residents to live a safe, healthy and enjoyable lifestyle.*

***Recreation Objectives and Policies***

1. *Provide and maintain recreational opportunities which address the needs of residents while respecting the rural character of Moloka'i.*

**Discussion:** Lā'au Point will include two public shoreline parks (totaling approximately 17 acres), one by Kamāka'ipō Gulch (2 acres) on the west end of the project site, and the other (15 acres) near Hale O Lono Harbor at the south end (see Sections 4.3 and 4.10.5).

**GOVERNMENT**

***GOAL***

*Accessible, cost effective and responsive government services and programs which meet the unique needs of the residents of the island of Molokai.*

***Objectives and Policies***

1. *Investigate and pursue ways to streamline the permit process through means such as consolidating public hearings, concurrent processing of applications and coordination of permits between State, Federal and County governments*

**Discussion:** The efficient processing of the Lā'au Point EIS and County applications implements this policy.

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**PLANNING STANDARDS**

**LAND USE**

3. *Require appropriate mitigative measures as needed to preserve and protect archaeological sites. Such measures could include greater building setbacks (suggested minimum of 50-feet), buffer areas, controlled access, prohibiting fill or pier construction in wetlands, lo'i or fishponds.*

**Discussion:** As discussed in Section 4.1, approximately 1,000 acres of Cultural Protection Zones were identified to denote areas where groupings of archaeological and historic sites exist, such as the archaeological preserve (approximately 128 acres) to be created at Kamāka'ipō Gulch (an area to be donated to the Moloka'i Land Trust). The creation of Cultural Protection Zones, to be managed by the Land Trust (see Section 2.1.8), increases preservation of cultural landscapes rather than only individual sites, which represents a great advance not just in acreage, but in diversity and intensity of preservation actions.

The residential community will not encroach on Cultural Preservation Zones since access roads and the rural-residential lots are planned to avoid cultural preservation zones and archaeological sites. Depending on the nature of the archaeological sites, buffers, permanent boundaries, and interpretive signs will be established to protect and preserve the sites. It is expected that the project will not have adverse effects to archaeological sites.

**DESIGN**

1. *Limit building height throughout the island to two stories or thirty-five feet above grade...*
3. *Traditional Hawaiian design with distinctive pitched roof construction, or low-rise earhtone contextual architecture is encouraged for new construction. Use of traditional materials should be explored.*
4. *Encourage the siting of buildings so that the roofline is in context with surrounding terrain.*
5. *Consider existing topographical features in building design, building bulk, and height.*
6. *Choose materials and colors which blend with the landscape avoiding highly reflective materials.*

**Discussion:** The Lā'au Point project has been designed to respect the scale, beauty and scenic qualities of the area and to blend in with the surrounding landscape, therefore, minimizing the alteration of natural landforms and existing views.

As discussed in Section 4.7, to mitigate visual impacts lot lines will be set back at least 250 feet from the designated shoreline or high water mark, creating a coastal conservation zone. To further mitigate minimize visual impacts, residential construction will be subject to stringent CC&Rs (as discussed in Section 2.3.6). Buildings must maintain a low-profile rural character and respect the natural environment. Restrictions on building height (one-story, maximum 25 feet high), materials, colors, and style are important factors to blend homes into the environment.

It is important to note that the 200 homes will be on relatively large lots (approximately two acres each) which provides for a very low density rural community. Homes will be sited appropriately to avoid a dense urban-like development.

**LANDSCAPE PLANTING**

1. *Native plant species which are found on the island of Moloka'i should be utilized in landscaping for all new developments.*
2. *Require the use of xeriscaping in future landscape planting.*

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**Discussion:** As discussed in Section 2.3.6 (Covenants), strict CC&Rs for Lā'au Point will: 1) establish appropriate semi-arid landscapes that envelop buildings and blend them into the surrounding site; 2) utilize plants, landscapes, structures, and details that draw upon native plant landscape and building traditions; 3) utilize plant palettes that are sensitive to water conservation; 4) include a resource protection management plan for Lā'au Point as part of the covenants for each property owner. Section 2.3.5 of this EIS provides a conceptual landscape plan and plant list.

#### **SUBDIVISIONS**

##### ***Environmental Design***

*Lot configurations, roadways and subdivision improvements shall be designed to respect existing landforms, coastal and aquatic resources, biological resources and cultural/historic resources to the greatest extent possible.*

**Discussion:** The Lā'au Point project has been designed to respect the scale, beauty and scenic qualities of the area and to blend in with the surrounding landscape, therefore, minimizing the alteration of natural landforms and existing views. To respect the presence of cultural preservation zones and archaeological sites, access roads and the rural-residential lots have been sited away from these sensitive areas.

As discussed in Section 4.7, to mitigate visual impacts lot lines will be set back at least 250 feet from the designated shoreline or high water mark, creating a coastal conservation zone. To further mitigate minimize visual impacts, residential construction will be subject to stringent CC&Rs (as discussed in Section 2.3.6). Buildings must maintain a low-profile rural character and respect the natural environment. Restrictions on building height (one-story, maximum 25 feet high), materials, colors, and style are important factors to blend homes into the environment.

It is important to note that the 200 homes will be on relatively large lots (approximately two acres each) which provides for a very low density rural community. Homes will be sited appropriately to avoid a dense urban-like development.

##### ***Socio-Economic Considerations***

*The direct and cumulative impacts on agriculture and the socio-economic impacts on the community shall be assessed and considered.*

**Discussion:** Sections 3.4 (Agricultural Impact Assessment) and 4.8 (Social and Economic Characteristics) of this EIS (as well as conformance to other policies within this chapter) address the project's impacts on agriculture and the community.

### **5.2.3 County of Maui Zoning**

The Lā'au Point site is designated Agricultural by the County of Maui (Figure 7). The applicant will seek a Change in Zoning to change the County zoning of the project site from the County Agricultural zoning to the County Rural and Open Space zoning. The County of Maui does not zone land within the Conservation District. Zoning changes are processed through the County of Maui Planning Department and Moloka'i Planning Commission, and then adopted via ordinance by the County Council.

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#### 5.2.4 Special Management Area

Portions of the Lā‘au Point project are within the County’s Special Management Area (SMA), pursuant to Chapter 205A, HRS and Chapter 202, Special Management Area Rules for the Moloka‘i Planning Commission (see Figure 8). The proposed improvements within the SMA include creation of two shoreline beach parks with related park facilities, for future dedication to the County or the Land Trust. No residential lots will be located within the SMA.

MPL is seeking an approval of a SMA Permit concurrently with the processing of the other required County permits and approvals. The SMA Permit is granted by the Moloka‘i Planning Commission.

According to Section 12-302-10 of the Special Management Area Rules for the Moloka‘i Planning Commission, the objectives and policies of the Special Management Area are the same as the objectives and policies of the Coastal Zone Management Program (Section 205A-2, HRS). Conformance to the objectives and policies of the Coastal Zone Management Program was previously discussed in Section 5.1.4 of this EIS.

#### 5.2.5 County Special Use Permit

Lā‘au Point will include its own private wastewater treatment plant (WWTP) to be maintained through the homeowners’ association. MPL will build the onsite sewer collection system within Lā‘au Point. A site of 14 acres has been designated for the WWTP, which will accommodate the projected full development flow (see Figure 1 for WWTP site). The proposed sewage system will be designed to County of Maui standards. In addition, all wastewater plans will conform to applicable provisions of HAR, Chapter 11-62, “Wastewater Systems.” The private WWTP will require a County Special Use Permit.

### 5.3 APPROVALS AND PERMITS

An approximate list of permits and approvals required for the Lā‘au Point project is presented below.

**Table 6 Table 10. Necessary Permits and Approvals**

<b>Permit/Approval</b>	<b>Responsible Agency</b>
Chapter 343, HRS Compliance	State Land Use Commission Office of Environmental Quality Control
State Land Use District Boundary Amendment	State Land Use Commission
Community Plan Amendment	County of Maui Planning Department Moloka‘i Planning Commission Maui County Council
Change in Zoning	County of Maui Planning Department Moloka‘i Planning Commission Maui County Council
Special Management Area	County of Maui Planning Department Moloka‘i Planning Commission

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<b>Permit/Approval</b>	<b>Responsible Agency</b>
County Special Use Permit	County of Maui Planning Department Moloka'i Planning Commission
Chapter 6E, HRS Compliance	State Historic Preservation Division
<u>Conservation District Use Permit</u>	<u>State Department/Board of Land &amp; Natural Resources</u>
<u>Conservation District Administrative Rule Amendment</u>	<u>State Department/Board of Land &amp; Natural Resources</u>
Subdivision Approval	County of Maui Department of Public Works & Environmental Management
Grading/Building Permits	County of Maui Department of Public Works & Environmental Management
National Pollutant Discharge Elimination System (NPDES) Permit	State Department of Health
<u>Water Use Permit</u>	<u>State Commission on Water Resource Management</u>
<u>Approval for Distribution System for a Public Water System</u>	<u>State Department of Health</u>
<u>Recycled Water System Approval</u>	<u>State Department of Health</u>

## **6.0 ALTERNATIVES TO THE PROPOSED ACTION**

Under HAR, Title 11, Chapter 200, Environmental Impact Statement Rules, Section 11-200-10(6), the alternatives to the proposed action considered are limited to those that would allow the objectives of the project to be met, while minimizing potential adverse environmental impacts. The feasible alternatives must also address the project's economic characteristics while responding to the surrounding land uses that will be impacted by the project.

**Project Objectives** – As stated in Section 2.1.7, the objectives of the Lā‘au Point project are rooted in MPL’s desire to create a sustainable future for Moloka‘i and the Ranch through the implementation of the *Community-Based Master Land Use Plan for Molokai Ranch* (Plan). The goal of the Plan was to create new employment and training opportunities for Moloka‘i residents and to provide the community with certainty about its future. The objectives of the Plan are shared by the Lā‘au Point project and include:

- Developing sustainable economic activities that are compatible with Moloka‘i and the vision of the Moloka‘i Enterprise Community (EC).
- Securing the role of the community in the management of MPL’s 60,000+ acres.
- Re-opening the Kaluako‘i Hotel and creating over 100 jobs.
- Protecting cultural complexes and sites of historic significance on MPL lands.
- Protecting environmentally valuable natural resources, agricultural land, pasture, and open space.
- Providing an endowment that serves as a continuous revenue stream for the Moloka‘i Community Development Corporation (CDC).
- Protecting and enhancing subsistence gathering, an important element of life on Moloka‘i that includes ensuring public access to and along the shoreline area adjacent to the project.
- Protecting Molokai’s water resources, by minimizing drinking (potable) water use.

**Criteria for Evaluating Alternatives** – Alternatives to the Lā‘au Point project were evaluated against the project objectives along with MPL’s criteria of achieving economic viability while minimizing potential adverse environmental, social, and cultural impacts. These included:

- Reasonable financial returns must be generated from the funds invested.
- No expanded use of drinking (potable) water currently available to the company.
- No significant increase in population and large urban development of land beyond what the company conceived as acceptable to the community.
- Minimal displacement of land currently designated for agriculture or open space.
- Development of unsuitable lands with poor soil ratings rather than development on more potentially productive agricultural lands.
- Minimizing the cultural and social impacts by mitigating the impact of new people to the island and by ensuring that minimum amounts of drinking (potable) water are used.
- Protecting cultural sites and complexes.

While most alternatives analysis is based on financial feasibility and is economic by nature, this section is intended to also weigh the economic impacts with broader environmental concerns, which include social and cultural impacts, as appropriate. In its efforts to address community-

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wide concerns, MPL expanded their criteria for evaluation to compare how each alternative addressed key issues related to the increase in population, availability of drinking water supplies, protection of cultural sites, subsistence activities, and agricultural land.

More detailed discussion of the cultural impacts of the proposed alternatives is discussed in Section 9 of the Cultural Impact Assessment Report (included as Appendix F of this EIS). The social impacts of various scenarios are discussed in Section 5 of the Social Impact Assessment Report (included as Appendix M of this EIS).

**The Process of Examining Alternatives** – During the two-year community planning process that led to the *Community-Based Master Land Use Plan for Molokai Ranch*, MPL in conjunction with the Enterprise Community (EC) under the auspices of EC Project #47 (Moloka'i Compatible Development Plan), examined a range of alternatives to the proposed Lā'au Point development.

Community concerns were raised about homes at Lā'au Point and whether MPL had been diligent in seeking alternatives that would be more acceptable to the community. In evaluating any proposed alternative, there was the need for economically viable projects that could generate revenue and returns on investment which could make the overall conservation initiatives proposed by the *Community-Based Master Land Use Plan for Molokai Ranch* feasible and sustainable for the benefit of the Moloka'i community. Similarly, the cultural and social impacts were evaluated.

The Alternative to Lā'au Development Committee (ALDC) and an outside planning consultant were funded and sponsored by the EC to find alternatives to the Lā'au Point development and review all the alternatives from the community and off-island. Clark Stevens of New West Land Company was hired based on his expertise in conservation planning. For all proposed alternatives, MPL analyzed the proposals using financial models to ensure it was not ignoring any feasible alternative. In April 2005, MPL reported to the Land Use Committee and the ALDC on its review of 10 alternatives that had been proposed over the previous 14 months by a variety of community members and planners, ~~including alternatives proposed by the ALDC planning consultant.~~ Later, after the ALDC consultant delivered his report to the EC, MPL evaluated each of the consultant's recommendations and included evaluations in the Draft EIS. In all cases, the alternative development plans proposed by the ALDC and others did not include any business case, revenue, or cost estimates that demonstrated a feasible alternative (see ~~Table 7~~ Table 11 in Section 6.4).

In summary, all alternatives proposed were evaluated against the project objectives and not selected over the proposed Lā'au Point project (detailed in Section 2.3) for the following primary reasons. The alternative plans:

- Did not produce the revenue and returns necessary to fund the re-opening of the Kaluako'i Hotel and support the future viability of Molokai Properties Limited.
- Were not viable economically as stand alone projects.
- Would require vastly increased safe drinking (potable) and non-drinking (non-potable) water use that could not be supported by the Land Use Committee or the EC.
- Proposed increases of up to 1,000 units which increased the resident population to levels that were unacceptable to the Land Use Committee and the EC.



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In summary, MPL did not want to seek more drinking (potable) water from island resources, nor propose population increases that appeared to be unacceptable to the island’s community. At the Lā‘au Point project’s build-out, it is anticipated that permanent residents will occupy only 60 of the homes (30 percent), thus minimizing the social impact (see Section 4.8). Water use will be contained by strict CC&Rs attached to the project (see Section 4.9.2).

Another criteria was to ensure that current potentially usable agricultural land remain available for future agricultural use, thus protecting the desire to have Moloka‘i remain an agricultural-based economy. Section 3.3 and 3.4 discuss soils at the Lā‘au Point site as being poorly suited for soil-based agriculture. Other more suitable agricultural land has been identified elsewhere on other MPL lands in the Plan.

In conformance with applicable regulations (HAR, Title 11, Chapter 200, Environmental Impact Statement Rules, Section 11-200-10(6)), the alternatives to the proposed action that were derived during the community process and evaluated are listed below and discussed individually.

- No Action
- Bulk or “Piece-Meal” Sale of Other Land Inventory
- Agricultural Subdivision
- Other MPL Land Development Alternatives Considered
- ALDC Proposed Alternatives
- Other Proposed Uses for MPL Lands (Non-residential and Non-agricultural)
- Postponing Action Pending Further Study

## **6.1 “NO ACTION” ALTERNATIVE**

The “no action” alternative would not involve any changes to the Lā‘au Point project site, and the property would remain vacant of any additional improved uses. If the Lā‘au Point project were not developed, lands would remain as fallow agricultural land. As agricultural land, the site is underutilized due to the poor soils (see Section 3.3) and lack of irrigation water.

With “no action”, there would be no expansion of the Conservation District or designation of cultural and environmental preserves in the area.

In terms of meeting the goals of the *Community-Based Master Land Use Plan for Molokai Ranch* (Plan), maintaining the site in its present condition would forego a revenue source to pay for renovations of Kaluako‘i Hotel. In addition, the “no action” alternative would not meet the Plan’s objectives as previously detailed above and in Section 2.1.7. The Plan’s needs (e.g. affordable housing, infrastructure improvements, housing demand) would not be met, and direct and indirect impacts would not occur.

Since the Lā‘au Point project is the primary financial component to achieve the Plan’s objectives, non-implementation of the project means that most, or all, of the Plan may not be realized. The only Plan component that will occur without the Lā‘au Point project is the gifting of 1,600 acres to the Land Trust (as discussed in Section 2.1.8). The Land Trust would not receive the remainder donation of 24,600 acres, which include numerous culturally significant sites such as the makahiki grounds of Nā‘iwa, Kawela Plantation, fishing village at Kaupoa Camp, and other sites.

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A key negative impact of the “no action” alternative would be the effect on the financial viability of ongoing operations of Molokai Ranch and its employees. An evaluation of MPL’s current and historical operating records shows that the net loss from 2001 to 2006 operations has been approximately \$36.9 million. Painful cost-cutting has reduced operating losses in the last three years, but increasing costs for water, energy, and insurance have made it difficult to expect profitable operations in the future.

The “no action” alternative would also not generate the \$30 million+ required to renovate and re-open the Kaluako‘i Hotel. MPL is currently seeking a Special Management Area permit in anticipation that the Lā‘au Point project will receive approval. Unless MPL begins the preliminary design work on the hotel now, it could be at least two years after regulatory approvals for Lā‘au Point that the hotel is re-opened. Doing the necessary preliminary work on the hotel now means an earlier re-opening.

Without the increase in support for golf and the existing Lodge and Beach Village hotel operations, MPL could be forced to reduce operations and perhaps close those facilities. In addition, MPL could also be forced to reduce or eliminate other subsidized operations such as maintenance, nursery, gas station, and other services. The impacts of these reductions would significantly affect existing employment at Molokai Ranch and in Maunaloa Town.

The “no action” alternative would not sustain the Ranch for the future. A continuation of present operating practices would eventually lead MPL to close down its ranch operations and either land bank the property for the future or put the lands up for sale (see Section 6.2). Employment would have to be reduced, tourist expenditures would be lost, and local businesses at Maunaloa Town and elsewhere would be affected. These losses in local jobs and probable business failures would also increase the need for County and State social services. While the “no action” alternative would allow the environment of Lā‘au Point to remain untouched to the benefit of those opposing development, these negative effects of the impending closure of Ranch operations and unknown risk created by probable land sales would appear to have more far reaching effects upon the economic and social fabric of the larger Moloka‘i community.

Finally, the “no action” alternative would deny the State, County, and general public of the potential public benefits associated with the Lā‘au Point project. Some of these benefits include:

- \$246 million in total development and construction investment.
- 1,350 person years of construction-related employment over project build-out (a “person year” is the amount of time a person can work in one year).
- \$17.7 million in construction-related taxes.
- \$1.3 million in annual real estate tax revenues at the end of the lot sales period in 2012; tax revenues will increase at a rate of \$90,000 each year until it reaches \$2.1 million at full build-out.
- Other County tax revenue (fuel tax, utility tax, license fee, permits, state/federal grants) which is estimated to reach \$1.6 million annually after full build-out.
- Annual state revenues from taxes on residents and their expenditures of \$276,000 at the end of lot sales in 2012; climbing to \$1.3 million by 2023.
- Annual expenditures on Moloka‘i at build-out of about \$4.4 million, which represents about \$22,000 in on-island spending per residence.

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- Support of 60 on-going jobs upon full build-out in 2023 through resident spending and the Lā‘au Point homeowners’ association.
- Five percent of land sales going to support the Land Trust; this commitment is estimated to provide over \$10.2 million (prior to the payment of any real estate commissions or other regulatory costs) for the on-going operations related to the preservation and enhancement of the dedicated lands.

The resulting environmental, social, and economic benefits of creating the proposed Lā‘au Point project outweigh the loss of approximately 460 acres of currently vacant agricultural land. The ~~conversion~~conversion to rural district for 200 lots and related infrastructure development would not impact Molokai Ranch’s agricultural goals and production.

Given the above, and in consideration with the goals and objectives of the Lā‘au Point project and the *Community-Based Master Land Use Plan for Molokai Ranch*, the alternative for “no action” is not a feasible alternative.

## **6.2 BULK OR “PIECE-MEAL” SALE OF OTHER MPL LAND INVENTORY ALTERNATIVE**

MPL land holdings are comprised of 101 lots that could be sold within Pāpōhaku Ranchlands, Maunaloa (both Residential and Commercial), and the Industrial Park. Of these 101 lots, 23 are held by a Kaluako‘i LLC, 70 by MPL, and 8 by Cooke Land Company. The golf course is actually held in six separate TMK parcels but is only counted as one, as it would be impractical to sell it to more than one buyer, unless it was to be abandoned. Each of the lots in Kaunakakai is counted as a separate lot as it could be sold to different buyers. It would be more likely that there would be a fair amount of consolidation and re-subdivision of those small lots for larger industrial or business uses.

This “land-banking,” or individual parcel sales, would essentially close down ranch operations and reduce MPL’s employment to only 10 full-time staff as the company sells its properties to potentially 101 new owners/residents. Although the immediate effect of reducing employees is always devastating often with longer-term implications, it is conceivable that subsequent landowners could rehire former employees and/or create new job opportunities. While the amount and type of new jobs is not known, these would likely occur over a longer period of time. A great concern will be how the local economy will be impacted shortly after it loses support of the island’s largest private employer and user of goods and services.

In selling off its holdings, an existing allowable lot density analysis conducted by MPL shows that the west end agricultural-zoned parcels comprising approximately 43,000 acres could be subdivided into more than 1,500 lots, based on the Agricultural district subdivision standards for Maui County zoning (lots range from 2, 15, 25, and 40 acres) or the Community Plan (minimum 25-acre lots).

In this alternative, the 24,600 acres (this does not include the 1,600 acres to be gifted regardless of project outcome) that would otherwise have been donated to the Land Trust under the Lā‘au Point proposed action would instead be sold off as separate parcels.

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If these lots were sold off without the benefit of a master plan, such as the one prepared for Lā'au Point, the impact would include a greater number of new land owners/residents, less community control of development (i.e. design controls and CC&Rs), no land trust, and less financial support to the County and State (this later assumes that Lā'au Point is developed and taxed at its highest and best use and if not developed as such, that subsequent land owners could not develop their individual lots with the same intensity of uses in mind). Similar to the “no action” alternative (see Section 6.1), selling parcels separately would deny the State, County, and general public of the potential public benefits associated with the Lā'au Point project, of which the benefits have been cited before in the previous section.

Given the summary of impacts disclosed above, and in consideration with the goals and objectives of the Lā'au Point project and the *Community-Based Master Land Use Plan for Molokai Ranch*, the alternative for “bulk and piece-meal sale of other MPL land inventory” has been rejected as an acceptable alternative.

### **6.3 AGRICULTURAL SUBDIVISION ALTERNATIVE**

The Lā'au Point project will require a State Land Use District Boundary Amendment (SLUDBA) to re-district 850 acres of land currently within Agricultural District to the Rural District. The Lā'au Point project site to be re-districted is a small portion of the larger agricultural parcel of 6,348 acres, identified as TMK 5-1-02:30. The “agricultural subdivision alternative” would not require a SLUDBA because the entire parcel is already within the State Agricultural District.

The project will also require both a Community Plan Amendment and Change in Zoning approval to re-district agricultural-designated lands (AG) to rural (R) designation. According to the Moloka'i Community Plan (Planning Standards, Subdivisions, Minimum Lot Size), the recommended minimum lot size for AG subdivisions shall be 25 acres; therefore, the Lā'au Point parcel could be subdivided into approximately 215 agricultural lots (with an allocation of 15% for roads). Under the Maui County Agricultural District Ordinance (Maui County Code, Chapter 19.30A), the entire parcel zoned AG could be subdivided into 223 lots ranging in size from 2 acres, 15 acres, 25 acres, and 40 acres.

Since the MPL parcels are already zoned for agriculture, agricultural subdivisions would not require MPL to obtain a State Land Use District Boundary Amendment, Community Plan Amendment, or County Change in Zoning approval.

As previously discussed in Section 3.3, the soils of the parcel have severe limitations for cultivation. Except for approximately 24 acres rated as poor (“D”) soils, the Land Study Bureau classifies the soils of the parcel as very poor (“E”). Soils rated “E” are considered as having little or no suitability for soil-based agricultural production. Also, a majority of the soils of the parcel are unclassified by under the ALISH system, which means the soils provide no value for soil-based agriculture. Therefore, the only feasible agricultural activity that could prosper on this parcel would be grazing, which has proven to not be economically sustainable for Molokai Ranch.

For these reasons, it is questionable as to whether there would be a market for agricultural lots in West Moloka'i. Unlike the Lā'au Point project, which would subdivide and sell 400 acres (200

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lots) to private landowners, the agricultural lot subdivision alternative would involve selling 6,348 acres to farmers in direct competition with more suitable agricultural lands elsewhere throughout Moloka'i and the State.

In addition, an agricultural subdivision of the parcel would not provide the environmental benefits of expanding the Conservation District at Lā'au Point and creating cultural/environmental preserves, or addressing the objectives of the *Community-Based Master Land Use Plan for Molokai Ranch*.

#### **6.4 OTHER MPL LAND DEVELOPMENT ALTERNATIVES**

Molokai Ranch has vast land holdings on Moloka'i of 60,000+ acres. These lands stretch from West Moloka'i east to scattered parcels near Kaunakakai and Kualapu'u. While large tracts of land appears available for development at first, options are narrowed when considering the importance of the development's location in relation to the shoreline and therefore its ability to attract interest and generate the necessary revenue to make the Plan work economically.

MPL examined various options in detail where it may be possible to develop a community at other Ranch land locations away from the Lā'au Point project area. Models were developed to compare alternative scenarios ranging among different agricultural and residential projects of between 27 lots/units and 1,000 lots/units.

MPL initially looked at large Agricultural lot developments conforming to existing State land use designations, the Moloka'i Community Plan, and County Zoning at Maunaloa Town and above Kaunakakai. MPL also looked at an affordable residential expansion at Kualapu'u as part of the first round of possible alternatives and at various rural and condo alternatives for Kaluako'i. MPL also examined DeGray Vanderbilt's Lā'au Point alternative (the Kaluako'i Rural Subdivision and Golf Course) to make sure MPL had looked at every aspect.

In efforts to avoid development specific to the Lā'au Point project area, MPL examined nine options in detail on other Ranch lands outside of the Lā'au Point project site. Financial models were created to examine the alternatives' ability to generate the necessary revenue to make the *Community-Based Master Land Use Plan for Molokai Ranch* work economically. It is important to note the following assumptions in relation to these financial models and resulting evaluation:

- Current land sales data of MPL transactions was used for establishing relative selling prices, benchmarked with prices of properties sold by local real estate agents at the West End at various locations.
- Development cost models were constantly reviewed and benchmarked with current projects such as the Maunaloa Community Center, the Kaluako'i Water Compliance project, and the Pāpōhaku erosion control project. Development and construction cost estimates were reviewed and updated quarterly with outside contractors, and factored in future inflation costs and labor requirements.

In all of the development alternatives evaluated below, the following has not been factored in, but would undoubtedly substantially reduce returns to the developer:

- The cost of capital or funding costs to develop.
- A percentage of lot sale revenue assigned to the Land Trust.

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- The impact of delays in the regulatory permitting process, which can be significant.
- Sales momentum, the time taken to sell once developed, in other words the “time value of money” or net present value of future cash flows.

In this analysis, MPL found that all of the financial models had the common problem of not generating reasonable returns on the funds invested in meeting Lā‘au Point’s objective of providing adequate funding for the Kaluako‘i Hotel and Golf Course renovations, and an endowment for the Land Trust and the CDC. The models that in theory were capable of generating returns in excess of 10 million dollars are massive in scope and in reality are probably less feasible than the smaller projects due to the need to phase them over years and the time taken to address both the construction requirements and market absorption. The outcomes showed either proposed water use not available to the company or used vast amounts of land or increased the population beyond what was conceived as acceptable to the island, thus having dramatic cultural and social impacts.

In varying degrees, none of the alternatives evaluated meet the criteria established: adequate financial return, no further use of drinking (potable) water, no great population increase, no great displacement of lands designated for agriculture or open space, no use of potentially higher value agricultural lands versus less, suitable agricultural lands with poorer soil productivity ratings.

Table 7 Table 11 and the following sections provide a summary of the evaluation analysis of the alternative of “Other MPL Land Development”.

**Table 7 Table 11. Summary of Other MPL Land Development Alternatives**

	<b>Alternative</b>	<b># of Lots/ Units</b>	<b>Approx. Land area (acres)</b>	<b>Estimated Water use per lot/unit (gals/day)</b>	<b>Estimated Total Water Use (gals/day)</b>	<b>Estimated Population impact per lot</b>	<b>Total Population</b>	<b>Estimated Financial Return (total dollars)</b>
1	Maunaloa to Lā‘au – 25-acre lots	175	4,650	3,000	525,000	2	350	\$4,336,000
2	Maunaloa to Lā‘au – 10-acre lots	420	4,350	3,000	1,260,000	2	840	\$15,731,000
3	Maunaloa to Lā‘au – 2-acre lots	600	1,450	3,000	1,800,000	2	1,200	\$6,455,000
4	Maunaloa Ag	27	700	3,000	81,000	2	54	\$2,613,000
5	Kaunakakai Ag	70	1,800	3,000	210,000	2	140	\$1,974,000
6	Kualapu‘u	40	7	500	20,000	4	160	(\$92,000)
7	Kaluako‘i Rural #1	500	300 125	1,000/unit potable 2,000/acre nonpot	500,000 potable 250,000 nonpotable	2	1,000	\$0

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	<b>Alternative</b>	<b># of Lots/ Units</b>	<b>Approx. Land area (acres)</b>	<b>Estimated Water use per lot/unit (gals/day)</b>	<b>Estimated Total Water Use (gals/day)</b>	<b>Estimated Population impact per lot</b>	<b>Total Population</b>	<b>Estimated Financial Return (total dollars)</b>
8	Kaluako‘i Rural #2	800	720 180	1,000/unit potable 2,000/acre nonpotable	800,000 potable 360,000 nonpotable	2	1,600	\$36,752,000
9	Kaluako‘i Resort Condo	1,000	92.75	560/unit potable 2,000/acre nonpotable	560,000 potable 185,500 nonpotable	1.5	1,500	\$38,000,000

**6.4.1 Maunaloa Toward Lā‘au Point**

Professor Luciano Minerbi from the University of Hawai‘i’s Urban and Regional Planning Department recommended that MPL look at a development area below Maunaloa town extending toward Lā‘au Point but staying a minimum of a mile from the shoreline. MPL ran three models for this area, a Moloka‘i Community Plan-conforming Agricultural subdivision with a 25-acre minimum lot size, a subdivision in the same area using a 10-acre minimum lot size, and a 2-acre minimum lot size version.

**25-acre Minimum Lot Size** – this model contains 175 lots.

- (a) Revenue per lot: \$450,000
- (b) Total Revenue: \$72,450,000
- (c) Cost to Develop: \$68,114,000
- (d) Financial Return: \$4,336,000
- (e) Water Use: 525,000 gallons/day
- (f) Population increase: 350
- (g) Land Requirement: 4,650 acres

Agricultural lots are often marketed to farmers desiring to cultivate diversified crops. The economic feasibility and market demand of this alternative is questionable due to the lack of infrastructure and high cost of front-end investment needed.

**10-Acre Minimum Lot Size** – Located in the same geographic area as the project above, this project contemplates a Community Plan Amendment to create higher densities and greater net revenues. This model contains 420 units.

- (a) Revenue per lot: \$275,000
- (b) Total Revenue: \$115,500,000
- (c) Cost to Develop: \$99,769,000
- (d) Financial Return: \$15,731,000
- (e) Water Use: 1,260,000 gallons/day
- (f) Population increase: 840
- (g) Land Requirement: 4,350 acres

Although this alternative creates a high profit return, this alternative’s proposed water use is not available to the company, more land is required, and the increase in population is beyond what was conceived as acceptable to the community. Therefore, this alternative was rejected.

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**2-Acre Minimum Lot Size** – Smaller lots are preferable for small-scale diversified agricultural operations. Like the concept above, a Community Plan amendment to allow minimum 2-acre lot size is also contemplated with this scheme. This project of 600 sites, would have a much smaller footprint than the two alternatives above, but would have considerably greater population and water impacts.

(a)	Revenue per lot:	\$200,000
(b)	Total Revenue:	\$120,000,000
(c)	Cost to Develop:	\$113,545,000
(d)	Financial Return:	\$ 6,445,000
(e)	Water Use:	1,800,000 gallons/day
(f)	Population increase:	1,200
(g)	Land Requirement:	1,450 acres

This alternative does not generate reasonable returns on the funds invested, proposed water use is not available to the company, more land is required, and the increase in population is beyond what was conceived as acceptable to the community. Therefore, this alternative was rejected.

#### **6.4.2 Maunaloa Agricultural Subdivision**

This alternative would utilize the best 700 acres of pasture land just above Maunaloa to create a 25-acre agricultural lot subdivision. This development would provide 27 lots and infrastructure demands were relatively low.

(a)	Revenue per lot:	\$500,000
(b)	Total Revenue:	\$13,500,000
(c)	Cost to Develop:	\$10,887,500
(d)	Financial Return:	\$2,612,500
(e)	Water Use:	81,000 gallons/day
(f)	Population increase:	54 people
(g)	Land Requirement:	700 acres

This alternative does not generate reasonable returns on the funds invested. Therefore, this alternative was rejected.

#### **6.4.3 Kaunakakai Agricultural Subdivision**

This alternative would develop the existing cornfields below Manila Camp and all the land directly above Manila Camp up to about the 1500-foot elevation. Consistent with the Moloka‘i Community Plan’s 25-acre minimum agricultural lot size, the lots would require 1,800 acres, creating 70 lots – 2 suitable for diversified agriculture and 68 pasture lots. As the cornfields are an existing agricultural water use, that water use is not included in the summary below:

(a)	Revenue per lot:	\$475,000 - \$625,000
(b)	Total Revenue:	\$33,980,000
(c)	Cost to Develop:	\$32,006,000
(d)	Financial Return:	\$1,974,000
(e)	Water Use:	210,000 gallons/day
(f)	Population increase:	140 people
(g)	Land Requirement:	1,800 acres



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This alternative does not generate reasonable returns on the funds invested, proposed water use is not available to the company, and more land is required. Therefore, this alternative was rejected.

#### **6.4.4 Kualapu‘u Residential Subdivision**

Conceived as an affordable housing project adjacent to the existing town and the Kalae Highway, the project would be able to benefit from existing infrastructure to reduce costs to some degree. This initial increment was sized at 40 lots.

(a)	Revenue per lot:	\$60,000
(b)	Total Revenue:	\$2,400,000
(c)	Cost to Develop:	\$2,492,000
(d)	Financial Return:	(\$92,000) loss
(e)	Water Use:	20,000 gallons/day
(f)	Population increase:	160
(g)	Land Requirement:	7 acres

This alternative results in a financial loss. Therefore, this alternative was rejected.

#### **6.4.5 Kaluako‘i Rural Subdivision and Golf Course**

This concept looked at 500 half-acres designated for rural lot development in conjunction with a new 18-hole golf course. About half of the lots would have golf course frontage, while the remainder would have ocean views.

(a)	Revenue per lot:	\$245,000
(b)	Total Revenue:	\$122,256,000
(c)	Cost to Develop:	\$122,259,000
(d)	Financial Return:	Breakeven
(e)	Water Use:	750,000 gallons/day
(f)	Population increase:	1,000
(g)	Land Requirement:	425 acres

This concept replicated a previous land use plan concept that provided 800 three-quarter acre lots planned around 27 holes of golf. As would be expected, the population and water impacts are considerable. However, the financial contribution from this project is disappointing.

(a)	Revenue per lot:	
	(1) Golf Course frontage:	\$300,000
	(2) View Lots:	\$200,000
(b)	Total Revenue:	\$200,500,000
(c)	Cost to Develop:	\$163,748,000
(d)	Financial Return:	\$36,752,000
(e)	Water Use:	1,160,000 gallons/day
(f)	Population increase:	1,600
(g)	Land Requirement:	900 acres

This alternative’s proposed water use is not available to the company and the increase in population is beyond what was conceived as acceptable to the community. Therefore, this alternative was rejected.

#### **6.4.6 Kaluako‘i Resort Condo Units**

For this analysis MPL assumed that 1,000 units might determine a return that was feasible. Two-bedroom, 1,200 square foot units were assumed. It was also presumed that MPL would need to build the units with an investor/partner due to the enormous financial requirements of this development.

(a)	Revenue per unit:	\$500,000
(b)	Total Revenue:	\$500,000,000
(c)	Cost to Develop:	\$462,000,000
(d)	Financial Return:	\$ 38,000,000
(e)	Water Use:	745,000 gallons/day
(f)	Population increase:	1,500
(g)	Land Requirement:	92.75 acres

This alternative increases population beyond what was conceived as acceptable to the community and has water requirements beyond what’s available the company. Therefore, this alternative was rejected.

**Summary of Findings** – To the extent that MPL could develop a community at another location on other MPL lands, the alternative for “Other MPL Land Development” was rejected for the following reasons:

- Other sites do not have the natural beauty and coastal attributes needed to achieve the full economic potential.
- Other sites would not attract the upper spending market that would pay a premium for lots at Lā‘au Point. Sales of the residential lots are crucial for funding the Kaluako‘i renovations and the Moloka‘i CDC.
- Overall project density and population would be higher at the alternative locations.
- More water would be required, which would mean increased water permit applications.
- A consensus was reached with the *Community-Based Master Land Use Plan for Molokai Ranch* for the Lā‘au Point project.

The models that in theory were capable of generating returns in excess of ten million dollars are massive in scope and in reality are probably less feasible than the smaller projects due to the need to phase them over years and the time taken to address both the construction requirements and market absorption. As stated, these factors were not addressed.

By comparison (refer to ~~Table 6~~ Table 11), the Lā‘au Point project as currently conceived would:

- Require only 1/8 the land area of models (1) or (2), and much less than models (3), (4), (5), or (8).
- It would impact the population less than models (2), (3), (7), (8), or (9).
- It would also require much less water than models (2), (3), (7), (8), or (9).

More importantly, the Lā‘au Point project can meet the financial requirements of MPL, protect the employment of existing staff and provide over 100 new jobs with the Kaluako‘i Hotel re-opening, with slow, modest growth. Most importantly, it allows the creation of the Land Trust and the resulting transfer of 26,200 acres and the protection of an additional 25,000 acres.

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#### 6.5 ALDC ALTERNATIVES

The Alternative to Lā'au Development Committee (ALDC) efforts to find an alternative to the Lā'au Point project, and the hiring of Clark Stevens (New West Land Company), were funded by the Moloka'i Enterprise Community (EC). The former leader of the ALDC, Mr. Matt Yamashita, sought EC Board approval to delay a vote on the Plan *Community-Based Master Land Use Plan for Molokai Ranch* and Lā'au Point “until a process for solidly incorporating potential alternatives into the Land Use Plan was seriously considered by the EC.” Ultimately, the EC Board rejected this motion after review and consideration of ALDC's proposed alternatives, which are described below.

In response to his comment letter on the Draft EIS dated February 21, 2007, we have incorporated the following statements by Mr. Yamashita:

“...the ALDC was formed by frustrated members of the community who had to petition the EC for the ALDC to become a part of the “community” process.”

“The ALDC was not formed until November of 2004. EC funding to support the work of the ALDC was not secured until June 2006!”

“The reason the ALDC formed was because no action was being taken by the EC to allow the community to address potential alternatives to La'au Point. While there was a Tourism Committee, Economics Committee, Environment Committee, & Cultural Committee — no Committee was formed to look at the La'au development and other potential economic engines.”

##### 6.5.1 New “Town”

This alternative proposed 50 view-shed lots at Lā'au Point, located between 0.5 mile and 1.5 miles from the Lā'au shoreline, and another 100 small residential lots, which would represent a new “town” similar to Maunaloa. No financial evaluation was provided with this proposed alternative.

This alternative was examined in some detail as the EC funded the ALDC to hire Clark Stevens to review alternatives. MPL examined every site proposed by Clark Stevens by walking the area proposed for these lots.

MPL's analysis of the alternative indicates that the total cost of infrastructure and lot construction (which would need to be brought in and connected to Maunaloa's systems) would cost \$875,000 per lot (or a total cost of \$44 million) for the 50 view-shed lots (not including the 100 small residential new “town”). The distance between the lots (lots were proposed to be spread out across the Lā'au Point parcel) and the fact that it would not be feasible to run infrastructure from Kaluako'i, resulted in this abnormally high infrastructure cost.

On this basis, MPL would lose money on this alternative as it is inconceivable that it could achieve a price of \$875,000 for lots that only had ocean views and were sited between one mile and one and a half miles from the ocean.

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A comparison can be made with the Kaluako'i lots, many of which are currently on the market by private sellers and are of similar distance from the ocean. Good ocean-view lots of five-acres in size, and that are close to the Kaluako'i Hotel, were selling for approximately \$400,000 to \$450,000 in October 2006.

The proposal to create a new "town" at Lā'au Point was soundly rejected by the community of Maunaloa; a community that is currently fighting to survive a declining West End economy. The *Community-Based Master Land Use Plan for Molokai Ranch* allows for the expansion of Maunaloa by up to 100 acres, but only when the community believes it is necessary, as discussed in Section 4.8.2 (Housing).

Some of the proposed sites were also in the middle of cultural site complexes (denoted as Cultural Protection Zones in Figure 40 12), a factor not reviewed by Stevens in his report.

The Lā'au Point proposal protects more than 1,000 acres in front of and surrounding the development. This protection includes the gifting of an important cultural and archaeological complex at Kamāka'ipō Gulch to the Land Trust and protective easements covering other cultural sites.

The detail of the cultural impacts (Section 4.2) of proposed Lā'au Point project, the issues of access for the community for subsistence gathering (Sections 2.3.7, 4.2, and 4.3), and the proposed Water Plan (Section 4.9.2) are discussed in this EIS.

The budgeted construction for the proposed Lā'au Point project is \$360,000 per lot. Because of the large cost and value difference between this alternative (\$875,000 per lot) and the proposed project, the new "town" alternative was rejected.

### **6.5.2 Purchase of Lā'au Point Parcel**

The other alternative proposed included several purchase options for Lā'au Point instead of development. ALDC's consultant, Clark Stevens, proposed that it would not be "unreasonable" to assume that an effort to purchase Lā'au Point would elicit broad-based financial support, particularly from the 400,000 people of Hawaiian ancestry who appreciated the culture of the Hawaiian Islands.

Stevens also proposed that the Land Trust purchase both the lands proposed for the Land Trust and the Lā'au Point parcel (a total of 33,000 acres), and then lease the land in 1,320 properties (25-acre lots). This option was rejected as it failed to recognize the desire of the Land Use Committee and the EC to protect vast areas of the property in conservation. It was not reasonable to assume that the Land Trust would purchase land that was already planned for fee donation to them under the proposed *Community-Based Master Land Use Plan for Molokai Ranch*.

Early in 2006, the ALDC, in a memorandum to the EC Board, indicated its support for the purchase of the Lā'au Point parcel, either in whole or in part, by a third party, individual, or entity. The ALDC stated it would prefer a conservation "philanthropic" buyer to purchase the entire 6,348-acre parcel, or a buyer who could use the tax incentives and develop mauka of the shoreline with less density. The ALDC asserted that in order for them to move forward with finding potential purchasers, MPL must be willing to keep this alternative open and determine a purchase price for the parcel.

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In October 2006, Matt Yamashita, leader of the ALDC, told an EC Board meeting that the ALDC, as a formal organization, no longer existed, and he asserted it was the responsibility of the EC to consider looking for alternatives to the Lā'au Point development. He stated that the ALDC had not put effort into finding a conservation buyer for the parcel.

MPL has stated to the ALDC, regarding this purchase alternative, the following:

- If a purchaser offers the company a price for the Lā'au parcel that is equivalent to its development return, protects areas for subsistence as proposed, and provides an endowment income to the Land Trust/CDC as proposed under the Lā'au Point development plan, it will seriously consider the offer. MPL will seriously consider offers, but after an extensive two-year community process, does not desire to indicate a price for the parcel because of the many variables involved.
- Should a serious buyer emerge, MPL will enter meaningful negotiations with that party or parties.

### **6.6 OTHER PROPOSED USES FOR MPL LANDS (NON-RESIDENTIAL AND NON-AGRICULTURAL) ALTERNATIVES**

Several other options were suggested which included a Marine Biology Center, a new University focusing on environmental sciences, a Health and Wellness Center, and a Cultural College; all proposed to have economic benefit equal to or better than the Lā'au Point project. MPL does not believe that these options are viable at this time and over the past decade has had no inquiries from institutions with any interest in establishing such projects or investing capital on Moloka'i for these types of ventures.

An alternative proposed by the U.S. Military was to use parts of Lā'au Point for non-live firing amphibious and air exercises. The Land Use Committee rejected this alternative citing it as an inappropriate use and contrary to the Plan and project objectives.

MPL was also asked to look at the area from Hale O Lono to Pālā'au. There are several issues with this area, not the least of which is the proposed inclusion of this land in the Land Trust and the importance of the Kā'ana ahupua'a.

With respect to archeological sites, the area has had only limited analysis done to date, and where surveys have been conducted, sites have always been found. Based on the limited surveys, it is likely that extensive archaeological survey work would identify culturally-sensitive areas. The topography of the site is that of sloping ridges divided by deep, steep gullies. To access development along the more desirable coastal areas, it would be necessary for road construction to start at the top of Maunaloa and traverse down each of these ridges. MPL estimated that 24 miles of roads would be needed to service the area. This would not only be costly, but would severely impact the ability of this region to be used for subsistence hunting as currently proposed by the Plan. These roads and utilities would require the development of hundreds of lots to offset their construction costs. This analysis explains why Molokai Ranch in the past had shelved plans for initial development of this area as being economically unfeasible.

## **6.7 FURTHER ALTERNATIVE ANALYSIS**

As part of a continuing commitment to analyze alternatives to the proposed development at Lā'au Point, and following a review of the many letters with questions relating to the alternatives published in the Draft EIS, MPL has further analyzed its previous complete list of alternatives (published in the Section 6 above).

- Further research has shown that Alternative 1 (175 twenty-five acre lots between Maunaloa and Lā'au Point), Alternative 2 (420 ten-acre lots between Maunaloa and Lā'au Point), Alternative 4 (27 Maunaloa Ag lots), Alternative 5 (70 Kaunakakai Agricultural lots), Alternative 6 (40 Kualapu'u residential lots), Alternatives 7 and 8 (500 and 800 rural lots in the Kaluako'i area) and the alternative proposed by the ALDC consultant, Clark Stevens, for a new "town" located between Maunaloa and Lā'au Point, are not economically feasible. The reasons given in the previous section for dismissing these particular developments are still valid.

Examined in greater detail were:

- The three alternatives for a variety of different developments on two-acre lots and ten-acre lots mauka of Lā'au Point and situated between half a mile and two miles between the current proposed La'au Point development and Maunaloa.
- A Kaluako'i Resort Condo development of 1,000 with a potential return of \$38 million; and options for lesser units.

### **6.7.1 Relocating the Development Mauka of the Current Location at Lā'au**

One of the primary questions asked in comment letters to the Draft EIS was: "Why can't the proposed development be relocated mauka by one-half mile to one mile?" In context with this question, comments raised the following issues in regard to currently proposed location of the Lā'au Point subdivision (that is at least 250 ft from the shoreline):

- i. The homes may be visible from the beach and from the ocean, thereby depriving residents of the sense of an undeveloped place, as it now exists.
- ii. The homes as currently located, increase adverse social inter-action and the new residents will have an adverse impact on the fishing and coastal resources of the area.
- iii. The homes as currently located, increase the risk of adverse impacts from the subdivision such as run-off.
- iv. What is the basis of the economic impact of re-locating the subdivision mauka of its current planned location, and can these be outweighed by the other adverse impacts of the current location.

In response to items (i), (ii) and (iii) above, MPL is extremely conscious of these issues. Specific sections of this EIS have provided suggested mitigation measures to minimize potential impacts. In response to item (iv) an economic analysis is provided below. The principle issue of the development of a piece of property close to the ocean, and the almost certainty that some houses will be visible from areas of the beaches, is an issue that cannot be overcome with the current siting, and MPL can only mitigate this issue to lessen the impact.

### **6.7.1.1 One Mile from the Shoreline**

Relocating the subdivision at least one mile from the shoreline would:

- Overcome potential adverse visual impacts from the shoreline and the ocean;
- Lessen perceived adverse social impacts from inter-action from new residents with members of the community wishing to fish the ocean, and
- Reduce the potential for run-off from the subdivision into the ocean.

Locating the subdivision at least one mile from the shoreline would also:

- Place the development on Rural Reserve land, projected for no buildings whatsoever under the *Community-Based Master Land Use Plan for Molokai Ranch*.
- Interrupt rural views toward the ocean from Maunaloa and the Maunaloa Highway by the sight of houses. During the process of creating the *Community-Based Master Land Use Plan for Molokai Ranch*, protection of the rural views from the highway leading into Maunaloa was a primary concern of participants, particularly those from Maunaloa.
- Prohibit subsistence hunting, planned for that Rural Reserve area.

### **6.7.1.2 One-Half Mile from the Shoreline**

In the case of siting the subdivision one-half mile from the shoreline, the potential visual impact would be minimized, but not overcome entirely as the high-point ridges of the hills above Lā'au Point are in many places more than one-half mile away. Some homes built within a half mile from the shoreline may be visible from the ocean and from some of the beaches.

For this alternative, the same protection measures to prevent runoff would need to be in place as the currently proposed plan and residents would be able to easily walk to the beaches. There would also be the same issues regarding interaction with subsistence fishermen, and there is the same potential for rubbish being littered in the areas between the subdivision and the beaches.

### **6.7.1.3 Comparative Analysis**

The economics of locating the subdivision further from the shoreline is discussed in more detail below.

Input from the community at Social Impact Assessment review meetings and at Cultural Impact Assessment meetings led to incorporating extraordinary measures to overcome potential problems in the Lā'au project that equalized the impacts, or lack of impacts between the proposed project and alternatives examined wherein the homes were relocated further mauka. These include:

#### **Visual Impact:**

- The CC&Rs will prevent houses of more than one-story being built.
- House sites will be pre-determined by MPL on lot plans.
- At least two-thirds of the lot must remain undisturbed.
- Natural materials must be used in house construction.
- Any colors used will be pre-determined and will blend with the landscape.

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- The front lots in the subdivision are setback at least 250 feet (and in some cases up to 1,000 feet or 1/4 -mile) from the registered shoreline. This is much further back from the shoreline than is usually the case e.g. the Kaluako'i subdivision.

Note: The Land Trust will be a party to the CC&R documents, and therefore, can enforce its provisions if they are not met by the homeowners, or even the Homeowners' Association representing the homeowners.

#### **Subsistence Protection:**

- A total of 254 acres of existing agricultural land behind the Conservation District of 180 acres adjacent to the beach is being designated as additional Conservation District land.
- This expanded Conservation District of 434 acres, where the community has access, will be under easement to the Land Trust.
- The area will be jointly managed by the homeowners and the Land Trust to ensure the easement provisions, which protect the cultural sites and guarantee subsistence practices for the community, are forever in place.
- Access to the area will only be by foot, from access points at each end of the subdivision.
- The lot owners and the Land Trust will employ Resource Managers to ensure those who visit the protected areas only take from the fishing resources what they can carry out.
- Lot owners will not be allowed to use pesticides or non-organic fertilizers to prevent dangerous materials leaching into the ocean.

Note: Contained in this Final EIS, is a Shoreline Access and Management Plan (Appendix B), developed by MPL in conjunction with the Moloka'i Land Trust, which will guide use of the Conservation District lands or shoreline areas in front of the subdivision.

#### **Lot Owner Interaction:**

- Each lot owner will be required under the CC&Rs to take a course, conducted by the Kupuna, only "Moloka'i style" and what is expected of them as new residents living at Lā'au Point.
- Restrictive CC&R provisions relating to energy and water conservation measures and the prohibition on vacation renting of the houses will mean that the Lā'au Point subdivision is not for everyone. Only conservation-minded people, who are likely to respect what is dear to the island, are likely to be potential buyers of Lā'au Point lots.
- As the Land Trust is a party to the CC&Rs, the lot owners and representatives of the Land Trust will meet regularly and inevitably discuss any issues of concern.

#### **Adverse Impacts from Run-off and Rubbish:**

- A Soils Survey commissioned following the filing of the Draft EIS, and as a result of questions concerning soil suitability for lot construction and house-building, is contained in this Final EIS. It projects no adverse impact from the types of soils at Lā'au Point. The report is summarized in Section 3.3.4 and the full report is provided as Appendix D.
- A preliminary drainage and construction plan has been aimed at preventing the existing runoff from the lands around Lā'au Point so that during and following construction, there will not longer be muddy brown water in the nearshore areas of Lā'au Point following heavy rains.



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- The lot plans shows that there will be no building or construction on all natural drainage ways and steep slopes above 50 percent.

Note: An exception of preventing existing runoff may be in the area of Kamāka‘ipō Gulch, a 128-acre cultural reserve that will be donated to the Land Trust. This area, on the western shoreline is rich in archeological sites that must be protected.

**Cultural Impacts:**

- The Moloka‘i Land Trust will ensure that all cultural sites and complexes are protected in the Lā‘au Point area under the subdivision plan.
- Archeologists and Land Trust cultural advisers will work closely with the construction team to ensure any potential sites are identified and the governing laws relating to protection of sites during a construction period are strictly adhered to.
- Once construction is complete, Resource Managers will be on-site to ensure the continual protection and enhancement of cultural complexes.

**6.7.1.4 The Economics of Lā‘au Mauka Developments**

In early 2005, MPL quantified the value loss from additional shoreline setbacks of lots that were more than 250 feet from the Lā‘au shoreline. It also conducted a “Lā‘au Shoreline setback study,” which looked at the impact on sale prices of lots at various distances from the shoreline.

The results of these studies, which were discussed and debated at length by the Land Committee of the EC Project #47 (Sustainable Development), were independently verified by the Hallstrom Group, a registered land valuation company which has been operating in Hawai‘i for many years.

The studies concluded that views of the ocean and shoreline, combined with ease of access to the shoreline, were the prime real estate value determinants in Hawai‘i. This is evidenced by the many developments throughout Hawai‘i that, in previous years, have allowed homes to be built right up adjacent to the shoreline; sometimes preventing access to beaches by the local community.

The studies provided that related to both factors of views and access was the factor of topography and how that affected the views and access to the shoreline.

The study projected that the potential revenue from the sale of the currently proposed Lā‘au lots was \$193 million. Lots, depending on their proximity to the ocean could range in price from:

- \$1.45 million for the ocean-front lots
- \$750,000 for those lots that overlooked the ocean, but were second-tier lots overlooking the oceanfront lots
- \$500,000 for ocean-view home sites that were further inland, were on the “third-tier,” and were a significant distance from the shoreline.

Pushing the subdivision back by another 200 feet was estimated by the studies to drop the overall lot sale prices by \$52 million or 27 percent, to \$141 million.

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Notable in this exercise was that the projected 60 rear lots did not change in sale price and remained at \$500,000, but the majority of the front lots dropped in value by 40 percent. Most were now projected to sell at \$870,000.

It was these studies, and the MPL's experiences with lot prices in the mauka areas of Kaluako'i, that formed the basis of projections for alternatives that were either one-half mile or one mile from the Lā'au shoreline.

MPL also checked its sale assumptions with local real estate agents and continues to update its database with sale prices of similar property.

In all cases, the model of costs to develop was the same as that used for the currently proposed Lā'au Point development, with factors such as the provision of services adjusted for location.

Below is a sensitivity analysis of lot sales price, with higher prices for lots shown to reflect a price at which the subdivision may be feasible, ignoring facts such as ability to sell and the issue of the need for additional water for a greater amount of lots.

In each case, the same cost to develop has been used Table 11 above. It is important to note that none of these proposed subdivisions will have close ocean views as a distance of one mile from the shoreline takes the subdivision over the ridge separating the Lā'au foreshore with the Maunaloa agricultural land.

MPL also reviewed a 300-lot two-acre subdivision one mile from the shoreline (shown in Table 12 below as D), as a comparison to the 600 lot two-acre subdivision (shown below as "A")

**Table 12. Additional Alternatives Analysis**

<u>Alternative</u>	<u>Price Per Lot Projected in EIS</u>	<u>Adjusted Lot Price</u>	<u>Profit contribution Pre-Funding Costs on Adjusted Lot Price</u>
<u>A. 600-lot 2-acre subdivision mauka of La'au Point</u>	<u>\$200,000</u>	<u>\$300,000 (50% increase in projected sale price)</u>	<u>\$61,700,000</u>
		<u>\$240,000 (Projected 20% increase)</u>	<u>\$28,600,000</u>
<u>B. 420-lot 10-acre subdivision mauka of La'au Point</u>	<u>\$275,000</u>	<u>\$400,000 (45% increase in projected sale price)</u>	<u>\$64,000,000</u>
		<u>\$330,000 (Projected 20% increase)</u>	<u>\$37,000,000</u>
<u>C. 50 lots mauka of La'au as proposed by Clark Stevens (ALDC)</u>	<u>\$875,000</u>	<u>\$1,000,000 (Projected 14% increase)</u>	<u>\$2,000,000</u>
<u>D. Adjusted 2-acre subdivision: Only 300 lots mauka of La'au Point</u>		<u>\$300,000</u>	<u>\$30,800,000</u>
		<u>\$240,000</u>	<u>\$14,300,000</u>

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MPL then reviewed these “adjusted” sales prices with recent sales of similar type lots at Pāpōhaku and Maunaloa to test the accuracy of the adjusted lot size pricing.

There is little of a comparable size, or without views, that have sold recently in either Maunaloa or Kaluako‘i.

The sale in 2006 of a similar lot (5-acres) without views achieved \$270,000 in Papohaku, but none without views have sold in 2007. In Maunaloa, 1/4-acre residential sites have sold as high as \$152,000. Other lots with close proximity views of the ocean have sold for about \$500,000, the same selling price as projected for the third-tier lots in the currently proposed Lā‘au Point plan.

Conclusion on sale prices that can be achieved in these options; original sale prices may have been conservative, but in the current market may be between \$20,000 and \$40,000 per lot lower than the market.

Although higher prices may now be able to be achieved for these revised alternatives, the issue of water source still remains the major stumbling block to any development. In these scenarios, each of the development option uses more water than the currently proposed Lā‘au Point plan. Developments of 10 acres or more are likely to be intended for some sorts of agricultural use and require additional irrigation water.

#### **6.7.2 Kaluako‘i Resort Condo Alternative**

Another question asked in many comment letters to the Draft EIS was “why can’t MPL just develop its entitled land at Kaluako‘i?” MPL further reviewed the Kaluako‘i Resort Condo alternative using plans drawn up in 1991 by the previous owners of Kaluako‘i on a site adjacent to the Paniolo Hale condominium units.

This proposal for 1,000 units generates \$38 million profit contribution, but uses a land area of not more than 100 acres. Each unit had a projected sale price of \$500,000 built at a cost of \$462,000.

To further examine this option MPL modeled 200 units, which produced a contribution, pre-funding of \$7,600,000. These were 1,200 sq ft two-bedroom units.

Only a condominium project in excess of 500 units would give a return equal to that of the currently proposed Lā‘au Point. However, with funding costs in excess of \$231 million, compared to the Lā‘au construction cost funding costs of about \$80 million, this is not an accepted alternative. Also, the ability to sell such a project is questionable.

The conclusion reached from further analysis of 1) moving lots further mauka and 2) the Kaluako‘i Condominium alternative, is that that the higher the price achieved per unit or lot, the less number of lots that need to be developed.

This, along with the high cost of funding and the of the additional water necessary for a greater number of homes, are the principal reasons MPL still believes the current Lā‘au Point

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development is the best alternative. Water use still remains a major barrier to larger-scale developments.

## **6.8 APPLICATION OF KEY CRITERIA IN ALTERNATIVE ANALYSIS**

### **6.8.1 Alternative Access to the Lā‘au Area**

#### **6.8.1.1 Benefits and Detriments of Limited Access**

One of the cornerstones of the Master Plan and the reluctant agreement by the Land Use Committee and the Moloka‘i Enterprise Community was that the development of the lands adjacent to Lā‘au Point would not lead to a further depletion of the subsistence resources so important to the Moloka‘i community. This was the strong advice of subsistence practitioners, and those with a long association with the Ahupua‘a of Kaluako‘i.

Experiences on Moloka‘i of access to the beaches at Kaluako‘i, and when Hale O Lono Harbor was open to the public, led by the Land Use Committee (on the recommendation of the Cultural Committee) to firmly resolve that multi-access points without restrictions over the entire property, not only at Lā‘au Point, would lead to abuse and over-harvesting of the scarce fishing resources.

This principle was also adopted by the Moloka‘i Land Trust, who on implementation of the Master Plan will control a significant portion of Molokai Ranch’s current shoreline.

The Moloka‘i Land Trust will only be allowing access by foot to its coastal lands within the 26,200 acres of donated MPL land. Visitors will need to take courses in conservation methods of fishing and hunting, and access for fishing, will be restricted at fish breeding times to particular areas. Community subsistence practitioners will only be able to take what they can carry themselves from the area. Conservation of the deer herd will be a primary focus for the Land Trust in granting hunting access.

To further support this belief that resource protection was paramount over free and open access, the Plan participants supported, and the Land Trust will seek to implement, a Subsistence Fishing Zone right around the property. In this zone, which would extend to the outer edge of the reef on the south shore and to 1/4-mile on the west and north shores, only community members could fish for subsistence purposes.

Plan participants saw no reason why this principle should not be adopted in relation to shoreline access within the Lā‘au Point development. It would protect the in-shore fisheries and grant access for genuine subsistence fisherman and practitioners. It would also assist in the MPL objective of “enhancing and improve the cultural and subsistence resources at Lā‘au Point”

Community members involved in the planning process realized this was at variance with the current Maui County subdivision ordinance which states that access points in a development must be available every 1,500 feet, but were determined to protect the cultural heritage of the area and the subsistence resources.

But it determined that access only from each end of the subdivision, with full-time “guardians” ensuring there was no over-fishing and that visitors had taken part in conservation instruction

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from the Land Trust, was the only method to ensure long-term protection of the resources, both cultural and subsistence.

### **6.8.1.2 Benefits and Detriments of Increased Access**

Letters have been received from community members and others questioning why the access ordinance is not being followed. Letters in opposition to the Master Plan's proposed access to La'au Point are summarized as follows:

- Anyone can walk along the beach, which is public space, and avoid the access points and control proposals.
- The subdivision should follow the County subdivision ordinance.
- Lot owners will have more access to the beaches than the community.
- Many community members would find it insulting to have to undergo education on conservation of the marine resources and care of cultural sites and complexes.

### **6.8.1.3 Access Comparative Analysis**

A primary goal and principal of the project adopted by the Land Trust and MPL is that protection of the resources should take priority over multi-access points throughout MPL lands, not only within the Lā'au development.

The principles utilized in the analysis of this access issue as it is applied in the alternatives is set out as follows:

- *Protection of Cultural Resources and the Spiritual Qualities Associated with the Solitude of the Area*

The west and south shorelines adjacent to Lā'au Point is where the proposed development is projected. According to the archaeological surveys and ethnographic documents there were settlement clusters around protected bays, such as at Kapukuwahine and Kanalukaha on the south shore. In addition, the Master Plan identified Kamāka'ipō as an important cultural and spiritual place.

Molokai Ranch proposes to change the State Land Use District boundaries of these areas from Agricultural to Conservation to protect the significant settlement areas and clusters along the west and south shores adjacent to Lā'au Point, notably at Kamaka'ipo, Kapukuwahine and Kanalukaha. These proposed archeologically significant areas are proposed for gifting to the Moloka'i Land Trust.

Lā'au Point, itself, can be considered a significant historic and cultural property. There are 51 acres at the Point, its coastline, and inland, which are owned by the federal government and managed by the U.S. Coast Guard. These 51 acres will remain undeveloped (Appendix I, page 79) and it is important to conserve the resources and spiritual qualities of Lā'au Point and of the west and south coastlines adjacent to Lā'au Point.

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Many community members have ascribed a spiritual quality of the Lā'au Point area because of its isolation and solitude. Perhaps there is no way to fully mitigate the impact upon the solitude that can now be enjoyed at Lā'au if the rural residential subdivision is approved, but it is very important to minimize such impact and protect the special quality of the area. Limiting access to a walking trail that is set back behind a row of kiawe and providing a clear demarcation between the private lots and the general public access areas can help protect the integrity of the shoreline and mitigate the impact of the house lots upon the shoreline. Conservation zones provided for in the CC&Rs will protect the spiritual quality of important complexes such as Kamāka'ipō.

- ***Providing More Access than In The Past***

The area proposed for development of the rural residential lots is on private property. This area has been privately owned since Charles Reed Bishop purchased the Kaluako'i ahupua'a in 1875, 132 years ago. Since 1875, the coastal areas where the rural residential lots are projected have only been accessible by foot. Limited vehicular access has only been available for shareholders, cowboys and employees of Molokai Ranch.

On the west, the closest access point for the general public to enter on foot was the main highway, until the development of the Pāpōhaku Subdivision opened an access point at what is called Dixie Maru Bay in the 1980s. The development of the "tentals" at Kaupoa opened vehicular access to guests of the Molokai Ranch Lodge and Beach Village as far as Kaupoa. An occasional special weekend rate for Moloka'i residents at the Beach Village has opened up the opportunity for vehicular to those Moloka'i residents while they are guests at the Beach Village.

On the south, the closest access point for the general public to enter on foot was at Pālā'au until access was opened to Hale O Lono Harbor in 1998.

The proposed access point on the west shore at the proposed West shoreline park and parking area (located at Kamāka'ipō Gulch) will be much closer than the current access point at Dixie Maru or even at the Kaupoa Beach Village.

The proposed access point on the south shore at the proposed South shoreline park and parking area (located at Pu'u Hakina) will be closer than the current access point at Hale O Lono.

In summary, given the history of the area, the proposed development will, in fact, increase access along the west and south coastal areas. As a means of limiting the impact upon subsistence resources with the increased access, vehicular access is proposed to be up as far as the two public access points, while walking access is unlimited. Access will also be increased for the general public on other lands granted to the Moloka'i Land Trust under the Master Plan.

- ***Important to Protect Subsistence Resources***

Traditionally, the west and south shoreline beach and nearshore ocean was accessed for subsistence by the Ranch shareholders, cowboys, employees and their 'ohana, and longtime residents of Maunaloa. It is not a recreational area because of the rough ocean conditions and strong currents. Seasonally, there is good surf at Pu'u Hakina and Kaupoa, which, under this proposal, will be open to vehicles.

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In order to protect the marine resources, the subsistence practitioners in the Moloka'i community had strongly urged that access be limited to foot access - so that the amount of resources harvested is limited to what can be carried out by each person. Access with vehicles and coolers will lead to over-harvesting of the resources. This advice is based upon the negative experience resulted with the opening of Kaluako'i in the 1970s, Pāpōhaku in the 1980s, and Hale O Lono in 1998. The abundant resources in each of these areas have been over-harvested.

In addition to limiting the area to foot access, rules and regulations on methods, bag limits, and seasonal harvesting under a community-based subsistence management fishing zone, as outlined in the Master Plan, will be implemented. Limited access in combination with rules and regulations which provide for accountability, a penalty process and a protocol for uses with established consequences for non-compliance are essential for the protection of the marine resources along the west and south coasts where the rural residential subdivision is being proposed.

## **6.8.2 Alternative Supplies of Water**

### **6.8.2.1 Summary**

Many letters and comments to the Draft EIS requested information on alternative supplies of water other than the Kākahale Well and whether there were other sources of water that MPL could use. Further information was also requested on MPL's analysis of the desalination option, use brackish water on its own lands at the west end, and use of the brackish well water from the Pālā'au Prawn Farm. The analysis of alternatives to the Kākahale Well includes consideration of the following issues raised by various comments to the Draft EIS:

- The impact of the well on neighboring wells and analysis concerning the Kākahale Well as contained in Section 4.9.2 (Water).
- How much of the 1,000,000 gpd groundwater MPL is requesting is allocated for future community use as opposed to the Lā'au development?

### **6.8.2.2 Additional Analysis has been Conducted on the Options to Kākahale**

MPL had presented and discussed a wide range of water alternatives at community meetings in Maunaloa, Kualapu'u, Kaunakakai, and Mana'e in mid-2006 so it could obtain more information from the community on the water issue prior to filing its Draft EIS. Based on these discussions, the principal developed by MPL was to minimize water use and, if possible, keep potable water consumption to existing limits with a minimal impact on other wells. This principal was applied in analyzing the implications of the various alternatives.

Under the Master Plan, MPL needs a total of 1,000,000 gals per day to meet the needs of community expansion (such as future affordable housing projects in Maunaloa and Kualapu'u, build out of the Industrial Park, etc.), and the needs of the La'au Point development.

A total of only 40% of the 1,000,000 gals from Kākahale that MPL is requesting will be effectively allocated for La'au Point residential uses. This is, as outlined in the Water Plan contained within the Master Plan, after MPL reallocates some current potable water (being used

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for non-potable uses) to future potable uses and uses non-potable Kāalahale water for non-potable uses throughout the property.

In July 2006, MPL presented the following table (Table 13) at community meetings throughout Moloka'i on its Water Plan under the heading: "Where Will the 1,000,000 gals of Water Go that MPL is Requesting?" The table below reflects potable and non-potable uses of water that are either taken directly from the Kāalahale source or are taken from potable sources as a result of non-potable water being utilized for things that are currently potable (or would otherwise be potable without the addition of the Kāalahale well) in other areas. In effect this shows the application of the Kāalahale water although some of the uses in the table are labeled as potable.

**Table 13. Proposed Use of Kāalahale Well**

<b>For Non-Lā'au Point Residential uses (60%):</b>	
Build-out of Maunaloa Village and the Industrial Park:	160,500 gpd
Build-out of Kaluako'i residential	158,000 gpd
Community Directed growth at Maunaloa/ Kualapu'u	200,000 gpd
Ranch Operations	41,500 gpd
<b>Total</b>	<b>560,000 gpd</b>
Lā'au Point Public Parks Irrigation	40,000 gpd
Lā'au Point Public Parks potable water	1,000 gpd
<b>Total Lā'au potable water</b>	<b>41,000 gpd</b>
<b>For La'au Point Residential uses (40%):</b>	
La'au Point Rural Lots potable water	96,000 gpd
La'au Point Rural Lot Irrigation	300,000 gpd
<b>Total</b>	<b>396,000 gpd</b>
<b>Total New Uses Shown</b>	<b>997,000 gpd</b>

MPL has asserted that the Lā'au Point development is not contingent on the Kāalahale Well. However, it is the most efficient and cost-effective source of non-potable water and it does not believe its use to the levels proposed will significantly impact other wells or DHHL's 2.905 million gallon reservation in the Kualapu'u Aquifer.

In the event Kāalahale Well water is not available there are alternative sources of non-potable water. Reclaimed water from the Pālā'au Shrimp Farm could be treated to make it suitable for irrigation purposes. Additionally, desalinization of either brackish water from West Moloka'i aquifers or sea water, are alternative sources of irrigation water.

Desalinization is not the preferred alternative because of the cost. As mentioned in MPL's Water Plan, desalting is still about four times more expensive on Moloka'i (not helped by the island's high energy costs) than developing an operating deep groundwater well.

#### **6.8.2.3 Alternative Water Sources Raised in Letters**

- *The Waiola Well*

MPL could go back to the Water Commission and ask to have the remand of the Waiola water use permit taken up again. However, MPL has said since the beginning of this planning process,



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that it does not need more potable water and that 1,000,000 gallons of brackish water would allow it to implement the Master Plan.

MPL has also said if the Master Plan is approved, it would abandon its application for this well. Accordingly, it would be inconsistent to use this source to complete our water infrastructure requirements. That having been said, MPL is aware of concerns in using the Kāalahale Well, and could reconsider this alternative.

The court held that although it had be shown that pumping from the proposed Waiola well would not adversely impact the existing DHHL wells in Kualapu'u, MPL had not provided evidence to show that pumping from the Waiola well would not impact DHHL's ability to withdraw its 2.905 reservation amount from the Kualapu'u aquifer.

MPL could ask that the proceedings be re-opened to give MPL the opportunity to address the two issues the Supreme Court identified as requiring further evidence. On MPL's request, the Water Commission has not yet re-opened those proceedings.

- **Pālā'au Prawn Farm Brackish Water**

Several years ago, this source was proposed to irrigate a proposed Molokai Ranch second golf course on the West End.

With chlorides in the 1,400 parts per million ranges, it is too salty for general irrigation usage and can be used with only a limited number of salt tolerant grasses or by blending with low chloride water. Additionally, the exiting water use permit is for 864,000 gpd of which about 700,000 could be available for reuse, is an insufficient amount to meet the irrigation needs of the Water Plan, in particular the planned expansion of the community areas of Kualapu'u and Maunaloa, areas that are within MPL's water service catchment. Lā'au Point and the future build-out of Kaluako'i could be served by this source. The cost to consumers of this water would be three times that of water from the Kāalahale Well because of the high cost of removing the salts.

- **Desalination**

The incentive for desalination is associated with costs. If the operational cost to desalinate water and the amortized capital costs become lower than the costs to pump and transmit water, we would choose to desalinate. Issues associated with the DHHL reservation and pipeline easements as well as the reliability of the MIS are added incentives.

After further investigation it has been determined that desalination is not a current reasonable economic alternative and it was therefore not included among those alternatives that were more rigorously explored.

As mentioned in MPL's water plan, desalting is still about four times more expensive on Moloka'i (not helped by the island's high energy costs) than developing an operating deep groundwater well.

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A pilot plan on O'ahu developed in the early 2000s still remains idle today because of escalating energy costs needed, in simple terms, to push the brackish water through a membrane to remove the salts.

MPL has previously been approached by two parties proposing desalination on Moloka'i as an economic business; neither party, following their detailed investigation, wished to continue with their plans for a desalination plant.

Desalination is therefore too expensive to be considered MPL's first choice of non-potable water. However, it is an alternative if water from the Kākahale Well is not available.

- **Collecting Catchment Water: Kaho'olawe –Style from the West End.**

While Kaho'olawe and West Moloka'i have similar rainfall amounts and patterns, surface water catchment on the West End is not a viable alternative to meet its non-potable water requirements.

The Kaho'olawe rainwater catchment system was designed to collect 640,000 gallons per year and was constructed in 2002 at a cost of \$3,000,000. A comparable system to meet the West end's long-term need of 1,000,000 gallons per day would have to be about 570 times larger. Assuming for comparison purposes, it could be built at half of the unit cost on Moloka'i that would still be over \$850 million dollars.

The reliability of surface water systems are subject to weather cycles. Extended dry periods lasting 5-10 years are not uncommon. For a surface catchment system to reliably meet customer needs, it would have to be sized to deliver the required quantities of water with due consideration to these extended dry periods. In other words, it would need to be "oversized" for normal weather to be able to supply the requirements during drought conditions. Groundwater systems are able to tap aquifers that have sufficient storage to deal with long-term weather cycles.

The Kaho'olawe system was chosen because other alternatives there do not exist.

- **Why Not Develop a Brackish Well on the West End?**

Eleven exploratory wells and boreholes have been drilled on the West End between 1945 and 1991. None of these wells produced water of usable quality, even for irrigation of salt-tolerant landscaping. All wells tapped into a thin, brackish to saline basal lens supported by only a modest amount of rainfall recharge. Several of the wells also exhibited geothermal heating. At Molokai's West End, the groundwater's potential use is limited to a source of feedstock for desalting.

## **6.9 POSTPONING ACTION PENDING FURTHER STUDY OR DELAYS**

Postponing or delaying the Lā'au Point project for reasons, such as allowing the ALDC to find the necessary funding to purchase Lā'au Point, puts MPL in the position of being unable to continue its ongoing operations on Moloka'i.

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MPL's cash flow is negative from its operations by approximately \$3.8 million per year, plus the cost of capital replacement items and repair and maintenance costs. The Lā'au Point project will provide the funds to re-open the Kaluako'i Hotel and revitalize the town of Maunaloa, enabling the company to realize economic returns on many of its land holdings that previously had no return.

MPL is the largest single private contributor to the island of Moloka'i. Without MPL, the island would lose \$9 million that it brings to the economy. This means that the \$9 million the company contributes directly and indirectly to the Moloka'i economy would be terminated: \$3.8 million in on-island wages and benefits, \$2.6 million annually in on-island supplier payments, \$850,000 in taxes; and \$1.9 million spent by tourists who stay at its tourism establishments.

Since MPL is cash negative, the shareholders will not permit this to continue without a solution. This solution was formulated over a two-year community process and the resultant *Community-Based Master Land Use Plan for Molokai Ranch*. If that process and its outcomes are not accepted, its only alternative is to find ways to reduce its overhead by shutting losing operations and selling off the property over time.

The most realistic method of achieving the maximum return for its properties is to sell the 101 parcels and other subdivided lots to individual buyers who will pay the best price.

The alternative of postponing action pending further study may allow some of the objectives of Lā'au Point to be met eventually. This alternative, however, is not considered acceptable for the following reasons:

- This EIS and its related technical studies provide a thorough evaluation of the Lā'au Point project's impacts and would provide for mitigation where warranted.
- Entitlement processing for Lā'au Point will include obtaining a State Land Use District Boundary Amendment, a Community Plan Amendment, a Change in Zoning, a Special Management Area Use Permit, and a County Special Use Permit. All of these steps provide for public input and comments, as well as opportunities for the public and decision makers to ask for more information or further study. Notwithstanding the entitlement process, community members engaged in a planning process to achieve the Plan in 2003. The Moloka'i community has been kept informed of the planning process and status of the project.
- There is need for the implementation of the *Community-Based Master Land Use Plan for Molokai Ranch*:
  - MPL is currently operating on a negative cash-flow basis, and needs funding for its current tourism and agricultural operations to ensure the continued employment of its current staff.
  - The community desires to renovate and re-open the 152-room Kaluako'i Hotel and upgrade the Kaluako'i Golf Course, which is considered crucial for revitalizing the Moloka'i economy and providing more than 100 jobs for Moloka'i residents.
  - The slow economy on Moloka'i is creating an out-migration of its young people. Moloka'i has not yet recovered from the plantation closures. The island still needs

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economic opportunities that will provide a diversity of jobs, including management positions and alternatives to the visitor industry. A viable MPL and the benefits of implementing the Plan will contribute to a more stable economy.

**Statement Regarding Detailed Analysis of Reasonable Alternatives** – MPL has addressed all of the rational alternatives that have been suggested. MPL has analyzed all of these alternatives to the degree necessary to determine which among them are reasonable and feasible alternatives. MPL then selected these reasonable and feasible alternatives for detailed analysis and study.

## **7.0 CONTEXTUAL ISSUES**

The proposed Lā‘au Point project is an integral part of the *Community-Based Master Land Use Plan for Molokai Ranch* (Plan), which has been described in this EIS. The relationship between the project and the Plan is symbiotic in that realization of the Plan requires project implementation. Further, the project’s scope and characteristics were initially designed and are enshrined in the Plan and the consensus reached during the public process of creating the Plan.

This EIS therefore incorporates the results of discussion and analysis of the Plan by consultants who analyzed the environmental, socio-economic, and cultural impacts of the Lā‘au Point project. A summary of key issues of the Lā‘au Point project within the context of the overall Plan is presented in this section.

### **7.1 RELATIONSHIP BETWEEN THE SHORT-TERM USES OF THE ENVIRONMENT AND THE MAINTENANCE AND ENHANCEMENT OF LONG-TERM PRODUCTIVITY**

The Lā‘au Point project site currently contains previously vacant pastureland. As described in Section 3.4 (Agricultural Impact), MPL maintains a long-term commitment to preserve agriculture through the use of proposed protective easements on more suitable lands it owns elsewhere as identified in the Plan. The project site is relatively dry, supporting mostly kiawe forest and shrub vegetative zones. Soil surveys indicate that the Lā‘au Point site contains very unproductive agricultural soils (see Section 3.3). In practice, much of the adjacent land on the Lā‘au Point parcel has been left fallow, used only for grazing or commercial tourism activities. The project site itself currently is not in use. Thus, the use of the Lā‘au Point site for a rural-residential community will not impact MPL’s long-term goals for protecting prime agricultural lands on Moloka‘i.

The site possesses physical attributes desirable as amenities in a low-density, rural-residential coastal community. These attributes include a superior location with regard to views, slope, climate, and proximity to an established resort (Kaluako‘i). Studies performed in preparation of this EIS indicate that the Lā‘au Point project will be compatible with the existing environment. Specific measures will mitigate any potential adverse environmental impacts in the design and long-term operation of the community.

Short-term uses and long-term productivity consist of the project’s short-term construction phases and the long-term benefits of the Lā‘au Point community after construction. Short-term construction impacts can be mitigated while they occur. The project will maintain high standards in design and construction, as established in its strict CC&Rs. A key element of these will be the inability of Lā‘au residents to change these covenants. The long-term environmental and social benefits of the Lā‘au Point project will be the establishment of permanent protection for archaeological and cultural sites placed in cultural protection zones and preserves, increased Conservation District areas along the shoreline, increased access for subsistence gatherers, the donation of 26,200 acres to the Land Trust (see Section 2.1.8), the donation of various community parcels and assets to the Moloka‘i CDC (see Section 2.1.9), and the perpetual funding source for the Moloka‘i Land Trust and CDC to carry out their missions.

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In the long-term, the development of the Lā'au Point project and the implementation of the *Community-Based Master Land Use Plan for Molokai Ranch* will contribute to substantial positive economic and social benefits as discussed throughout this EIS. The project will contribute to the maintenance and enhancement of long-term productivity for the people of Moloka'i in general.

## 7.2 CUMULATIVE AND SECONDARY IMPACTS

Cumulative and secondary impacts are impacts that may result from other reasonably foreseeable actions within the area, regardless of who initiates the action. To assess the cumulative and secondary impacts of the project in context with other projects, MPL has openly discussed its plans for Lā'au Point with Moloka'i community members and organizations through the Plan process and this EIS.

The Department of Hawaiian Homelands (DHHL) has been, and is, a major force for change in Moloka'i as its holdings comprise 25,889 acres, or 16 percent of the island's total acreage. Their 2005 *Moloka'i Island Plan* (MIP) is a regional 20-year visioning document that identifies future uses of its land holdings and homestead developments. Residential areas on DHHL lands on Moloka'i consist of 742 acres. The MIP proposes 417 new residential lots. The priority for residential uses will be focused on DHHL's lands in 'Ualapu'e, Kapa'akea, Makakupa'ia, and Kamiloloa.

The MIP also calls for agricultural lots in Ho'olehua. The plan cites the limiting factor for agricultural lots in Ho'olehua is securing an adequate provision of potable water to support the projected demand. Development of homes on these agricultural lots would be possible, but with strict farm-related conditions. DHHL's priority is to develop the residential lots mentioned above.

Some Hawaiian homesteaders, especially those with lots in Ho'olehua, feel that the greatest cultural impact of the Lā'au Point project is the MPL Water Plan (discussed Section 4.9.2 of this EIS and Section 6 of Appendix A). They feel that the proposed withdrawal of an additional ~~1,000,000 gallons per day~~ 1.0 mgd of brackish water for future non-drinking water needs of the project and other MPL properties from the Kākahale Well (as proposed in the Water Plan of Section 6 of Appendix A) will take away water that DHHL will need to support future expansion of agriculture and residential lots. Hawaiian homesteaders have particular interest as major users of Moloka'i's aquifers with first preference for groundwater reservations. As discussed more extensively in Section 4.9.2 (Water), it is highly unlikely that pumping 1.0 mgd from the Kākahale Well will have any measurable impact on the existing DHHL and DWS wells in Kualapu'u for several reasons. First, the Kākahale Well is down- and across-gradient from the DHHL and DWS wells. Second, the Kākahale Well is approximately 12,200 feet (2.31 miles) away from the DHHL and DWS wells; at that distance, it is unlikely that pumping 1.0 mgd will create a measurable effect. Third, there are known subsurface intrusives between the Kākahale and DHHL/DWS well sites, namely Pu'u Kākahale and Pu'u Luahine, which are barriers to ground water flow.

MPL and other agencies with interests in the future water needs of the island are actively working to find long-term solutions to the island's water allocation issues; the process is solution-oriented and not adversary as it may have previously been.

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The re-opening of the Kaluako'i Hotel will add 152 hotel rooms to the West End. To the extent that the development of Lā'au Point facilitates the reopening of the Kaluako'i Hotel, the reopening is roughly of the same extent that the hotel was operating at a few years ago such that the impacts of the hotel at that time are already known. There are also vacant residential and agricultural lots in Kaluako'i, Maunaloa, and Pāpōhaku that could be developed in the future. Cumulative and secondary impacts resulting from these projects and further development in the region are likely to include increased population and traffic, and greater demand on public infrastructure systems and services. Residents of Pāpōhaku Ranchlands and Kaluako'i would have a direct relationship with the Lā'au Point project. These areas are currently fairly isolated, and the project would bring increased activity due to the shared access road with Lā'au Point residents and those using the public shoreline access. ~~Those residents that live in the Kaluako'i and Pāpōhaku areas recognize that the~~ Upgraded roadways in the Kaluako'i and Pāpōhaku areas as a result of Lā'au Point project's infrastructure improvements should help to balance the impacts related to increased users and activities in the areas and could be considered to be a positive impact.

Regarding other MPL lands, currently, MLP does not have plans for developing any of the other MPL lands, including land adjacent to Hale O Lono Harbor and Kaluako'i. The *Community-Based Master Land Use Plan for Molokai Ranch* states that if demand for accommodation at the Kaluako'i Hotel warranted it, MPL at some time in the future, may seek to use some zoned land for an extension of the hotel, for a cultural center, and for hotel staff housing. However, as the currently proposed renovations of the hotel are not complete it will be many years before further expansion is contemplated. Therefore, plans for developing any other MPL lands cannot be said to be reasonably foreseeable for the purposes of this EIS.

Because of the vacation/second-home nature and anticipated low population at Lā'au Point (see Section 4.8.2), the project will place less strain on infrastructure and public services than other developments with full-time, year-round populations. In addition, tax revenues from the project are expected to contribute to State and County revenues in excess of the State and County costs incurred for public services, and thus contribute to the net benefit of the overall State and County tax base (see Section 4.8.4).

In terms of the real estate market and its effect on home prices and property taxes, the Lā'au Point project is physically separated from the rest of Moloka'i by hundreds of acres of Ranch land, and will be a unique market unto itself. Secondary impacts on nearby communities, if any, might only be potentially possible among the makai portions of the Kaluako'i lots, which have their own comparable market activity. In addition, the 24,950 acres designated for protective easements on lands held by the Moloka'i Land Trust will isolate and distinguish Lā'au Point from the rest of Moloka'i. The Hallstrom Group analysis (See Appendix L) concludes that property taxes of properties located in other parts of the island (and thus not competing in the same market or market area), and/or that have different highest and best use potentials, will not be directly affected.

Only to the extent there is new worker in-migration to the island to support or sustain the Lā'au Point project and its residents could there be some modest indirect impact on selected real estate activity elsewhere and prices. Offsetting this is the moratorium on further MPL land development as a result of the Land Trust and its easements, which will reinforce the status quo and limit further development.

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The Lā'au Point project itself is not anticipated to have any significant cumulative and secondary impacts upon public infrastructure and services. However, the implementation of specific Plan components calling for the provision of affordable housing and other CDC community development projects may result in increases in demand for police, fire, medical, education, and other public services.

Based on traffic study findings, traffic levels at the intersection of Maunaloa Highway at Kaluako'i Road will operate at an acceptable Level-of-Service (LOS); and therefore, no improvements are recommended to accommodate any cumulative impacts for the region (see Section 4.4). As the Lā'au Point project will mainly be vacation/second homes, there will be fewer commute trips and traffic will mostly be localized around Lā'au Point and the West End.

The project will develop its own wastewater treatment facility, and thus will not place additional burdens on the County for these resources or compete with other projects. Solid waste is likely to increase, but the County's Nā'iwa Sanitary Landfill is projected to have adequate capacity to accommodate residential and commercial waste through the year 2019 and the additional area that has been identified for future expansion, could provide for another 25 to 30 years of waste disposal service.

With the cumulative effects of increased housing and population from not only the Lā'au Point project but also other future developments, the community character of Moloka'i will experience change. This is an inevitable consequence of growth and has been occurring gradually as evident in Kaunakakai and Kualapu'u. The challenge facing political decision makers, business leaders, and the public in general is how to manage this opportunity to create a Moloka'i that everyone desires. In efforts to mitigate concerns over growth and help the community adapt to changing conditions, the Lā'au Point project provides MPL with the means to donate 26,200 acres to the Moloka'i community, to be managed by a Land Trust. This land will no longer be under private landownership as it will belong to the community to preserve without any development at all forever.

Growth in Moloka'i is a natural progression. The implementation of the *Community-Based Master Land Use Plan for Molokai Ranch* and the Lā'au Point project will provide the community with the tools to protect more than 50,000 acres of land from development. These lands, which are being managed by the Moloka'i Land Trust, can never be sold and through careful planning and proper land management practices, these valuable lands will be able to sustain the spiritual and physical health of the community for many years.

### **7.3 IRREVERSIBLE AND IRRETRIEVABLE COMMITMENTS OF RESOURCES**

The Lā'au Point project would result in the irreversible and irretrievable commitment of certain natural and fiscal resources. Major resource commitments include the project site and the money, construction materials, non-renewable resources, labor, and energy required for the project's completion. The impacts represented by the commitment of these resources, however, should be weighed against the positive socio-economic benefits that could be derived from the project versus the consequences of either taking no action or pursuing another less beneficial use of the property.



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In addition to irreversible and irretrievable commitments for land, money, construction materials, non-renewable resources, labor, and energy required, many community members' concerns center on the project's potential impacts to the Moloka'i way of life and valued natural, cultural, subsistence, and spiritual resources.

In Hawaiian tradition, Lā'au Point represents a point of no return. For those traveling by canoe from O'ahu to Moloka'i across the Kaiwi Channel, once Lā'au Point is sighted, there is no turning back to O'ahu. This concept has been generally applied to the issue of the Lā'au Point project.

Many Moloka'i residents feel that if the west and south shores adjacent to Lā'au Point are developed as proposed, that this will open up Moloka'i to new residents unfamiliar with the culture and way of life on Moloka'i and lead to irreversible cultural change. Concerns include:

- New residents at Lā'au Point may not be from Moloka'i and may not understand the Moloka'i lifestyle and subsistence practices.
- New homes at Lā'au Point will compete for water, which is a major islandwide issue.
- Limiting the shoreline to foot access helps to control access but will open up access sufficiently that it might impact resources, as the entry points through the proposed park sites located at each end of the project will be closer for those who now walk from Hale O Lono or Dixie Maru. If access is made easier, there will be more fishing and people.
- More people and the homes may affect the spiritual nature of the area.

To help minimize community concerns and impacts of the Lā'au Point project, the *Community-Based Master Land Use Plan for Molokai Ranch* provides measures which set unique precedents. These precedents are related to community planning, the creation of a Land Trust for the community, the donation of legacy lands to the land trust, the donation of easements to the land trust, and the protection of subsistence fishing, gathering, and hunting. The Plan also provides for CC&Rs that Lā'au Point homeowners will need to accept and agree to uphold to purchase a lot.

Regarding the irreversible and irretrievable effects of growth and development, there was strong community consensus that growth needs to be planned, slow, and controlled. Further, there was a sense of the "right type of growth." People wanted to be sure that new development would fit in. They were concerned that higher end housing would bring in new residents with values that conflict with Moloka'i Style. It was felt that community character would be affected by having luxury homes and affluent residents, particularly if the homes and property fences are very visible or prominent at Lā'au Point. The juxtaposition of natural beauty and expensive homes would be offensive for those who resent the presence of outsiders or structural development. On the other hand, existing residents may appreciate the ability to visit Lā'au Point, a previously inaccessible area, regardless of nearby uses.

The Plan embodies the Moloka'i style in several ways. Implementation of the Plan and the Lā'au Point project will protect over 55,000 acres from development, and allow for local control over land and other resources. It provides economic opportunities for people to care for their families through employment and affordable housing. The Plan promotes the protection of subsistence gathering activities and seeks to implement the permanent protection and preservation of large tracts of land that include large acreages of cultural sites and lands that can be used for agricultural purposes. The protection of these lands from further development in perpetuity is

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designed to thereby maintain the rural open space character of the West End and offset any irreversible and irretrievable effects to the natural and human environments.

#### **7.4 PROBABLE ADVERSE ENVIRONMENTAL EFFECTS THAT CANNOT BE AVOIDED**

**Land Use Character** - An important objective of the Lā'au Point project is to retain Moloka'i's rural island character. MPL has limited development to only eight percent of the Lā'au parcel. This keeps the remainder of the Lā'au's 6,348-acre parcel in open space. Also, in designing the Lā'au Point project, there were many conscious decisions regarding the strict CC&Rs to be attached to the homeowners that would ensure that the project is in character with Moloka'i's rural landscape and lifestyle. If the project is implemented, over 55,000 acres of MPL's current land holdings (control to be transferred to the Land Trust control land donations and easements) will be protected from further development. This will prevent significant changes in future settlement patterns throughout the West End.

**Visual Resources** – With the Lā'au Point project, existing views mauka from the shore will change from vacant land to low density, rural-residential homes. The natural area along the shoreline will be preserved within the expanded the State Conservation District. This expanded Conservation District will buffer views from the shoreline toward the homes. A key design element of Lā'au Point is the 250-foot setback from the shoreline for lots and the additional 50-foot setback from the makai lot lines to any buildings. These setback distances are greater than what is normally approved throughout the State of Hawai'i. With strict CC&Rs, the homes at Lā'au Point will be subject to height and building design restrictions that require the home to blend in with surrounding landscape.

**Population** – The project's population at build-out will account for a very small portion of the population forecasted for Moloka'i in 2025. The permanent Lā'au Point population will account for two percent of the forecasted Moloka'i population of 8,068 persons in 2025. During peak seasons, the on-site population will account for six percent of the island population, and, on the average, Lā'au Point residents will make up three percent of the island's population. Lā'au Point's population will be well within the population forecast for Moloka'i and will therefore have an insignificant impact on population counts.

The low occupancy rates of vacation/second homes should serve to minimize the need for county services to Lā'au Point residents and lessen any impacts of the added residents on the rural and uncrowded character of Moloka'i. At full build-out, projected to occur after 20 years (but based on experience at Pāpōhaku, this could more likely be at one percent per year as has been the trend there), it is anticipated that permanent residents (persons staying at Lā'au Point 180 or more days per year) will occupy up to 60 of the homes (30 percent) and seasonal residents would occasionally occupy the remainder.

**Social Impact** – While there may be differences in values and lifestyle of new residents, community cohesion is anticipated to grow over time if residents can come to appreciate the contributions of more recent residents, and the latter have learned to work within the framework of the local community.

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The Lā'au Point project will provide 200 homes on approximately 400 acres of presently vacant land. Based on the demographic patterns at other seasonal communities in Hawai'i and what has been observed at Kaluako'i, it is expected that most Lā'au Point residents will be empty nesters, and in pre-retirement or retirement. The average number of persons per household at Lā'au Point is expected to be 2.9. At the end of the projected lot sales period in 2012, it is projected that there will be 12 permanent residents at Lā'au Point. Project build-out is estimated to take 16 years at a rate of only 11 permanent residents per year. At final build-out in 2023, the population of Lā'au Point will be approximately 174 permanent residents (persons staying at Lā'au Point 180 or more days per year) and a maximum of 325 seasonal residents (KBCG 2006a). This will account for only two percent of the population forecasted for 2025. The likelihood of these new residents having significant influence in changing Moloka'i's social and political structure is low.

**Spiritual Resources** – The Lā'au area is generally regarded by some as a special place of spiritual mana and power. The overall spiritual quality of the Lā'au area as a wahi pana and wahi kapu cannot be quantified and deserves recognition and respect. The Lā'au Point project will have an impact upon the solitude and spiritual resources now existing. This impact can be minimized, however, by reinforcing the importance the homeowners and Moloka'i community working together to educate each other about the area's uniqueness. The Plan calls upon the leadership of the Moloka'i Land Trust to bring various sectors of the community together in a working relationship to ensure that the spiritual, physical, and natural resources of the area are properly cared for.

The locations of the house lots and protection of cultural sites should serve to create a sense of respect for the area. For example, it is important to note that the 200 homes will be on relatively large lots (approximately two acres each) which provides for a very low-density rural setting. Under the CC&Rs, only 30 percent of the lot can be disturbed for home building, landscaping, etc. Homes will be sited appropriately to avoid a dense urban-like character. Further, with a projected average occupancy of approximately 30 percent, there will be relatively few residents in the area.

The establishment of Cultural Protection Zones (as discussed in Sections 2.3.1 and 4.1) will help protect the spiritual quality of important cultural complexes, such as at Kamāka'ipō Gulch. Limiting access to a walking trail and providing a clear demarcation between the private lots and the general public access areas can help protect the integrity of the shoreline and mitigate the impact of the house lots.

**Subsistence Fishing and Gathering** – The experience of fishing in an isolated, pristine, and spiritual area (Lā'au Point) will be affected by the Lā'au Point project. To mitigate impacts, the Plan seeks to establish a subsistence fishing zone, which will require special legislation to be enacted by the State legislature. A shoreline management plan will be developed and adopted to control access and (through legal and enforceable means) the use of the land and ocean resources to ensure the continuance of the resources for future generations.

During the research for the cultural impact assessment, participants at community meetings and interviews spoke of the south and west coasts adjoining Lā'au Point and the nearshore water as their "icebox." It is a place where fishermen usually go to get fish, 'opihi and crab, for parties and gatherings of their large extended families. A major concern is that the proposed Lā'au Point project will greatly hinder ongoing traditional gathering activities currently enjoyed at Lā'au

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Point. The sentiment from subsistence practitioners is that newcomers will be insensitive and intolerable of subsistence activities in what new homeowners and visitors perceive to be their front yards.

Traditionally, Lā'au Point was not a place that was fished on a regular basis because it is isolated and difficult to reach. Resources have declined in the area with an increase in heavy seasonal harvesting by boaters from O'ahu. Subsistence fishermen also expressed concerns that the opening of nearby Hale O Lono Harbor to general public access had severely decreased the marine resources there.

**Solid Waste** – As detailed in Section 4.9.4, there will be solid waste generated during construction and after development of the Lā'au Point project. Lā'au Point will encourage recycling; solid waste that cannot be recycled will be disposed in the County's Nā'iwa Sanitary Landfill. It is projected that Nā'iwa Landfill will have adequate capacity to accommodate residential and commercial waste through the year 2019, and a 10-acre parcel adjacent to the current site that has been identified for future expansion, could provide for another 25 to 30 years of waste disposal service.

**Police Services** - The Lā'au Point project will impact police protection services due to increase of people and activity on and around the project site. There will be homes on the property, and increased activity resulting from public parks and more public shoreline accesses. Lā'au Point is very remote and the population in the Kaluako'i region is dispersed. More conservation land will be accessible for cultural and subsistence uses. To mitigate impacts, road access to the project area and shoreline will be improved. Further, in creating measures to protect coastal resources and the community, the management of conservation lands by the homeowners and Land Trust will effectively help to deter trespassing, loitering, and property crime.

**Fire Protection and Emergency Services** - The Lā'au Point project will impact fire protection services due to the increased demand generated by additional population, the presence of more structures, and increased activity at the parks and along the shoreline. To mitigate impacts, on-site roads will be improved and emergency access to the shoreline provided.

**Medical Facilities** - The Lā'au Point project may impact hospital services by increasing the service area and population. It is anticipated that on-site residents will be older than the general population, and thus may require a higher level of service. The low level of permanent population will help to offset impacts on health care services.

**Air Quality** – In the short-term, construction for Lā'au Point will unavoidably contribute to air pollutant concentrations due to fugitive dust releases at construction areas; however, appropriate mitigation measures will help to establish controls, and it is anticipated that no State or Federal air quality standards will be violated during or after the construction of Lā'au Point. Over the long-term, an air quality modeling analysis of estimated community-related traffic indicates that even during worst-case conditions predicted concentrations of pollutants will remain well below State and Federal standards.

**Noise** – Construction of Lā'au Point will generate short-term noise impacts during daytime time hours. Noise from construction activity will comply with State Department of Health noise regulations. Traffic-generated noise is predicted to be imperceptible to people with normal

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hearing. After the establishment of Lā'au Point, the ambient quality of the site will be changed from vacant to residential sound patterns which include cars entering and exiting the community, and other sounds from human habitation.

#### **7.4.1 Rationale for Proceeding with Lā'au Point Notwithstanding Unavoidable Effects**

In light of the above-mentioned unavoidable effects, the Lā'au Point project should proceed because any negative impacts will be minimized or offset by substantial positive benefits for the community of Moloka'i from the implementation of the *Community-Based Master Land Use Plan for Molokai Ranch*. In providing the rationale, it is important to understand the larger context of the proposed Lā'au Point project, which is the key to the implementation of the Plan. Initiated in 2003 and developed jointly by the Moloka'i Enterprise Community (EC) and MPL as an innovative solution to address Moloka'i's time-worn problems, the Plan cannot be implemented unless the Lā'au Point project is allowed to proceed. The Lā'au Point project is the economic engine that makes the rest of the Plan possible. All of the elements of the Plan which directly benefit the community are predicated on the transfer of land assets and funding that the Lā'au Point project will provide.

Ever since the pineapple plantations ceased all cultivation in the mid-1980s, the Moloka'i community has grappled with the issue of revitalizing the island's economy and providing jobs for its residents. At the same time, Molokai Ranch was doing the same in an effort to preserve and protect its assets and investments. Throughout the 1990s and until 2003, the Ranch and its parent company, Brierley Investments (later to become BIL International Limited), had isolated itself from the Moloka'i community through a lack of consultation with the community on its development plans. As a result, Molokai Ranch's plans for use of its lands generally met with strong community opposition. Meanwhile, Molokai's economy continued to suffer.

In 2003, MPL, which had acquired the abandoned Kaluako'i Hotel two years earlier, and the Moloka'i Enterprise Community (EC), a 501(c)(3) non-profit organization, whose mission is to help Moloka'i residents empower themselves to implement their community strategic plan and, thereby, control their own destiny, began meeting together to discuss a mutual interest in re-opening the Kaluako'i Hotel. Out of those discussions grew a partnership of the EC and MPL to create a visionary plan for Molokai Ranch's 60,000+ acres that would reflect the kind of community the residents desired.

The resultant *Community-Based Master Land Use Plan for Molokai Ranch* is the product of more than 150 community and special interest group meetings, the majority of which every member of the community was invited to take part in. More than 1,000 Moloka'i residents participated in the planning process, which involved long hours of impassioned debate, critical thinking, and soul-searching. This comprehensive land-planning process, certainly the most unique ever to have taken place in Hawai'i, will hopefully lead to long term positive solutions for Molokai's past problems.

The prospect of MPL lands being split up and sold off to offset continuing deficits in Ranch operations, or BIL selling MPL because it would never be economically viable, and the community facing the resultant prospect of never again being able to have the opportunity of planning its future, made the urgency of reaching consensus on the Plan of critical importance to

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both the EC and local MPL staff. The community itself faced the potential loss of employee jobs which would surely have far reaching effects on the island economy.

As the largest private employer on the island, MPL currently employs 140 people. In the 12 months ended June 2006, the company directly contributed the following \$9 million to the Molokai economy:

- A total of \$3.8 million in wages and benefits to its on-island employees.
- More than \$2.5 million in payments to on-island suppliers of services to its Lodge, Beach Village, golf course and maintenance operation.
- A total of \$853,000 in local government and State government taxes.
- Its tourism operations brought more than \$1.8 million to the island in spending on rental cars, local airline tickets and spending on activities on-island.

On one hand, the Moloka'i community desired to protect this economic base and create new job opportunities by re-opening the Kaluako'i Hotel, while at the same time preserving its rural way of life. More importantly, they saw it as a unique opportunity to empower themselves and control their own destiny by planning their future. These combined complementary interests made the Lā'au Point project of critical importance to both MPL and the EC.

As recognized by both supporters and opponents of the Lā'au Point project, the Plan is not perfect but it represents a historic good faith effort on the part of MPL and the EC to create a sustainable economic solution that will protect cultural integrity of a unique Hawaiian island community. The Plan created a partnership between a company and its island neighbors and contributed to personal growth for those involved in the process. More importantly, the Plan process set the stage for Moloka'i's future – a future in which self-determination by the island's residents is assured.

In the rationale to proceed, the overall Plan was considered in the assessment of the benefits, impacts and mitigation measures of the proposed development project at Lā'au Point. While this EIS identifies those unavoidable effects of developing the property itself, clearly there are profound and unprecedented features in the Plan that will benefit future generations of the island as a whole for years to come. The Plan identifies these benefits with substantial positive impacts including:

- Land donation of 26,200 acres to the Moloka'i Land Trust.
- 24,950 acres put into permanent Agricultural and Open Space Easements.
- 434 acres of Conservation District around Lā'au Point.
- Two new public shoreline access parks.
- 1,100 acres of land and other cash assets donated to the Moloka'i Community Development Corporation.
- Renovation and re-opening of the Kaluako'i Resort, resulting in more than 100 jobs.
- Increased access for subsistence hunting and gathering in West Moloka'i, by enshrining access on property titles.
- Establishment of a subsistence fishing zone, which will require special legislation.
- Wages, taxes, and overall positive economic impacts of the community.

Moreover, it is not only the quantity, but also the quality of the culturally and archaeologically rich lands that are being gifted in fee title ownership that is significant. The ancient burial

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grounds of Kawa'aloa, the birthplace of the hula at Ka'ana and the Hula Piko at Maunaloa, the Makahiki grounds of Nā'iwa, the fishing village of Kawakiu, the fishing grounds of Halena and Mokio are premier Native Hawaiian legacy lands of great significance to Native Hawaiians throughout the islands.

While the economic related benefits of Lā'au Point are many, there are the unavoidable impacts upon the social, cultural, and natural environments of the larger community that must be mitigated through the Plan. While the Plan protects significant subsistence resources on the northeast shoreline of Moloka'i from Kalaupapa to 'Īlio Point to Kepuhi from development, the southwest shore from Kaupoa to Hale O Lono will contain rural residential homes. Extraordinary measures are incorporated into the Plan to buffer and protect the subsistence and cultural rural resources from negative impacts. These include:

- Upholding and assuring Native Hawaiian rights of access for cultural, subsistence and spiritual purposes.
- Creating sizeable conservation zones and buffer areas to protect the cultural sites and shoreline area.
- Limiting shoreline access to a foot trail.
- Ending commercial hunting so that Moloka'i Kama'āina can legally engage in subsistence hunting on Ranch lands.
- Hiring ~~community cultural and natural resource managers~~ Resource Managers who will work with the community to monitor every phase of the project, from clearing and grading, to construction and when the new homeowners move in.
- Orienting homeowners to appreciate and support the unique and special way of life on Moloka'i as the "Last Hawaiian Island."

The findings of the cultural and social impact assessments provide further rationale for proceeding with the project based on community input. People who were active in the formation of the Plan as well as non-participants felt that the Plan is a rare and unique opportunity which offers many benefits to the Moloka'i community. Given over three decades of conflicts between the community and Molokai Ranch, the Plan provides mutually beneficial results.

**Support for the Plan** - Interestingly, the Maunaloa community and longtime employees of Molokai Ranch, people who have the most direct and longtime experience with the project area, are concerned and reluctant about the development, but are more willing to acknowledge and support the right and the need of the Ranch to seek the development. They felt that the negative impacts could be managed if the development would conform to the strict CC&Rs outlined in the Plan. They are confident that their community can work together with the project's resource managers to provide stewardship over the marine resources that they rely upon for subsistence. They also felt that the negative impacts would be offset with the gifting of important legacy lands to the community. The Maunaloa kūpuna felt that the Plan, of which Lā'au Point is a part, provides for the community to manage and monitor the proposed development.

Those of the community who wholeheartedly approved of the Plan tended to accept the Lā'au Point project as a satisfactory trade-off. They believed that the Plan's long-term and far-reaching benefits outweigh potential negative impacts of the project. Supporters of the Plan felt it embodies Moloka'i style in several ways. It allows for local control over land and other resources. It helps people survive by providing economic opportunities and provisions for

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affordable housing. The Plan promotes subsistence gathering and ensures the protection and preservation of large tracts of land. This will protect these lands from further development in perpetuity, thereby maintaining the rural open space character of the West End.

For Plan proponents, their approach to protecting Moloka'i is to be proactive in determining the island's destiny. The lack of control due to landownership and land use issues implies an unknown future and possible proposals that could threaten the island, its people and its resources. They have chosen to solve this problem by coming up with a Plan that brings more community control over land resources through land ownership, resource management, and land use controls.

In addition, many longtime adversaries of Molokai Ranch, who were involved in developing the Plan, were willing to allow the project to proceed under guidelines and conditions agreed to over the course of a two-year planning process. For them, it was a process of negotiating a lasting settlement of a 30-year struggle with Molokai Ranch over extravagant development schemes and the extractive use of millions gallons of water. The proposed Lā'au Point project was difficult for some to accept and at that point some withdrew their support. However, the majority of the planning group persisted in their support for the *Community-Based Master Land Use Plan for Molokai Ranch* as a reasonable and balanced approach that empowers the community to manage premier Native Hawaiian legacy lands, control population growth and land speculation, and monitor the one last major development on Molokai Ranch lands.

This local control over portions of the Lā'au Point project is reassuring for those who have mixed feelings. The Land Trust will manage the shoreline conservation area in partnership with the new homeowners' association. The Land Trust will also manage Kamāka'ipō Gulch and oversee other significant resources in the project site.

Further, it is felt that the low-density nature of the project, buffer zones, and shoreline access are positive features compared to higher density housing developments. The project is also preferable to what has occurred on the East End, where change has been scattered, uncontrolled, and subtle. With Lā'au Point, the community knows what will happen.

For those that initially opposed the project, ideally for them, no change should come to Lā'au Point. Nevertheless, some are willing to accept the project because they understand the economic reality and that the implementation of the Plan in its entirety is dependent on the implementation of the project. The project will provide the springboard for the Plan. These people envision a significant legacy through Plan implementation, one that will persevere through future generations. For them, because the Plan is Moloka'i Style, the project is also Moloka'i Style because of its relationship to the Plan.

**Opposition to Plan** - For Plan opponents, however, the Lā'au Point project is the heart of the problem and not a solution. They focus on Lā'au Point because for them, it signifies a threat to the people, the environment, the Hawaiian culture, and Moloka'i Style. Their approach to solving the problem is to fight its approval and implementation. Indeed, there have been strong public statements by project opponents that they will do whatever it takes to stop the project.

The uniqueness of this situation is the relationship between a specific development proposal and a plan that extends far beyond project boundaries. While Plan opponents put up signs and



organize protests, Plan proponents are attempting to find solutions to age-old issues by exploring mechanisms for coming up with a resource management program and establishing a Land Trust and a Community Development Corporation. Hence, while both sides are seeking to protect Moloka‘i, their strategies are divergent.

**Making an Informed Decision** - For those who are not strongly aligned with either side, the prominent issue is the Lā‘au Point project. Activist efforts have drawn attention away from the Plan by narrowing their opposition to the project itself. People seem very aware of the Lā‘au Point project and less knowledgeable about the overall Plan. It was easier for them to address the project than to discuss the Plan.

Based on the issues presented, many residents of Moloka‘i share the same values of Moloka‘i Style and have the same passion and commitment to protect the island. It is to their advantage to know about the Plan and the project so that they understand the full implication of both. However, many have indicated that they would not attend public meetings because they dislike the antagonism and conflict. To help them make an informed decision, every effort is being made and will continue to be made to share information with them in a non-confrontational environment that encourages constructive dialogue (see Section 2.4).

In its final analysis, the government agencies who are responsible for decisions about the future of the land and natural resources of Moloka‘i must weigh the cultural impacts and benefits of the proposal to develop the west and south shoreline of the island of Moloka‘i in consultation with the people of Moloka‘i who depend upon these resources for subsistence, cultural, and spiritual purposes.

## **7.5 UNRESOLVED ISSUES**

Unresolved issues are invariably associated with projects in the planning and preliminary design stages, or due to negotiation of complicated agreements for such a unique project, primarily because there is so much reliance on the Moloka‘i Land Trust for such things as monitoring access to the shoreline, and the enforcement of the project’s CC&Rs.

Notwithstanding MPL’s efforts, some aspects of the water issue remain unresolved between stakeholders at this stage of the planning process, as well as the final completion of several agreements between the Land Trust and MPL as mentioned in the previous paragraph.

### **7.5.1 Water**

**Water**— In ~~connection~~ conjunction with the participants who were involved in preparing the Community-Based Master Land Use Plan for Molokai Ranch, MPL developed a proposed Water Plan. A key feature of the Water Plan is that only existing sources, at currently permitted amounts, will be utilized to meet all of the potable water needs for the current customers of the ~~two~~ three private water systems operated by MPL and MPL’s future developments proposed under the *Community-Based Master Land Use Plan for Molokai Ranch*. These sources include the permitted 1,018,000 gpd from Well 17 in the Kualapu‘u Aquifer and surface water from the Molokai Ranch Mountain Water system. The constructed, but currently unused, Kākahale well in the Kamiloloa Aquifer is being proposed as a new non-potable water source. The Kākahale

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Well was drilled in 1969 to provide drinking water to Kaluako'i. However, due to the brackish water quality, the well was never used as a production well.

The Kākahale Well is an ideal source of non-potable water. The well is owned by MPL and already constructed (though not in production). More importantly, because the well site is hydro geologically isolated by subsurface intrusive structures, withdrawing water from the Kākahale Well is unlikely to have any adverse impact on existing wells in the Kualapu'u aquifer, on DHHL's ability to withdraw its 2.905 mgd reservation amount from the Kualapu'u aquifer, or the development of potable water in the Kamiloloa aquifer.

In the Water Plan, MPL proposes that water from Well 17 be used solely for potable water needs. Irrigation uses, currently permitted under the Well 17 permit, will be supplied from other sources. Under this plan, MPL will not need to seek any more potable water than what is currently developed. MPL will sign covenants preventing it from ever seeking further potable water permits from the State Commission on Water Resource Management (CWRM), and will abandon the Waiola Well application.

The MIS was planned, designed, and constructed under a special Act of Congress (Reclamation Act of 1954) to develop surface water and high-level groundwater (Wells 0855-01, -02, and -03) in Waikolu Valley in northeastern Moloka'i to irrigate farmlands in central and western parts of the island. The MIS originally served large-scale pineapple operations, but was converted to serve diversified agriculture after the pineapple operations closed in the late 1970s. The system also serves the native Hawaiian homesteads in Ho'olehua, and pursuant to HRS section 168-4, Hawaiian homesteads have a prior right to two-thirds of the water currently developed by the MIS. The MIS transports 1,500,000 gpd via a 10-mile transmission link to an open reservoir at Kualapu'u, where it is stored prior to entering a distribution network extending from Ho'olehua to Mahana.

When originally constructed, the MIS was administered by the State Board of Land and Natural Resources (BLNR). In 1975, the BLNR entered into an agreement (the Agreement) with Kaluako'i Corporation (Kaluako'i), renting "space" in the MIS for Kaluako'i to transport water from Well 17 to Mahana. Under the terms of the Agreement, Kaluako'i would pump water from Well 17 into the MIS system and withdraw the water at Mahana. At Mahana, the Well 17 water is then treated to potable standards and used to supply potable water to Maunaloa town, the Pāpōhaku and Kaluako'i subdivisions, the Kaluako'i condominiums, and for other residential purposes as well as to meet the potable water needs of the resort areas on the West End. To account for potential system losses along the way, Kaluako'i was allowed to withdraw a lesser amount than was put in from Well 17. Additionally, Kaluako'i paid lease rent to the MIS. The Agreement was for the use of "excess capacity" in the system and provided that if there was no longer sufficient capacity in the system then the use would have to be relinquished on reasonable notice. As a result of the Agreement no other infrastructure to transport Well 17 water to the West end of Moloka'i was put into place.

The 1975 Agreement was extended by the BLNR in 1985. In 1988, Kaluako'i assigned its interest in the Agreement to Kukui (Moloka'i), Inc. (KMI), which assignment was consented to by the BLNR.

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Effective July 1, 1989, administration and management of the MIS was transferred from the BLNR to the State Department of Agriculture (DOA). In December 1989, the Agreement was amended to reflect the statutory transfer to the DOA.

Subsequently, the Agreement was extended twice through December 31, 2005. In late 2001, KMI assigned the Agreement to Kaluako'i Water, LLC (KWLLC), a Hawai'i limited liability company wholly owned by Molokai Properties Limited. The DOA acknowledged the assignment in early 2002.

Prior to and following the Agreement termination date of December 31, 2005, KWLLC and the DOA have been engaged in negotiations for the continued use of the MIS to transport Well 17 water to Mahana, and the DOA has conducted community meetings on the matter. By September 2007, a further extension to the Agreement was in the final stages of being completed following community input on aspects of the Agreement. The Agreement had been open for public input on Moloka'i before the MIS Advisory Board prior to its execution by the parties.

The extension agreement had not been executed when, on September 12, 2007, DOA, through its Deputy Attorney General, officially determined that any agreement for the continued use of the MIS by KWLLC would be subject to the preparation of an environmental disclosure document pursuant to HRS Chapter 343. As of this writing, KWLLC continues to utilize the MIS to transport water; however, the DOA's Deputy Attorney General indicated in writing that the practice should cease pending preparation of the environmental disclosure document. Currently, there is no alternative means of transporting water from Well 17 to end users in Kaluako'i. Several alternatives are possible, each of which requires acquisition of new easements or modification of existing easements, as well as engineering and cost studies. These items have to be addressed before MPL can rationally identify the practicable alternatives.

The MIS currently transports up to 1.018 mgd of water (12-month moving average) pumped from Well 17 to Mahana for distribution to existing, current users in Kaluako'i. Well 17 water will continue to be used by Kaluako'i customers whether or not the Lā'au Point project is approved. Thus, the issue of how to transport water from Well 17 to either Mahana or to Kaluako'i will have to be resolved regardless of the Lā'au Point project. Inasmuch as the MIS issue affects existing, current uses, there is an element of urgency, and it is likely that the MIS issue will be resolved prior to any discretionary land use decisions being made on the Lā'au Point project. Therefore, the decisions made with respect to continued use of the MIS may have to be made without consideration of the Lā'au Point project.

Because there are existing customers in Kaluako'i dependent upon Well 17 water, water will have to somehow be transported from Well 17 to the facilities owned by MPL for further distribution to end users at Kaluako'i. Either the MIS will continue to be used or alternate infrastructure will be developed for this purpose. Either way, the infrastructure used to transport water from Well 17 to MPL distribution facilities will also be used to transport potable water to Lā'au Point. Therefore, even if use of the MIS to transport Well 17 water is discontinued, there will be a means of getting potable water to Lā'au Point. The decisions made with respect to this MIS issue, however, will affect infrastructure planning for the transport and distribution of potable water to Lā'au Point.

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These water system improvements will need to be developed with the cooperation and consent of the County of Maui (DWS) and the CWRM. ~~MPL will work~~ has been working with the DWS and Department of Hawaiian Homes Lands (DHHL) to meet their future water needs, and all requirements of the CWRM. MPL must seek a water use permit from the State CWRM for its Kākahale Well, and to vary the supply areas of its current permits.

For many participants in the community meetings, water is the primary cultural resource. They feel that drawing brackish water out of the Kākahale Well will have a huge impact on the culture and way of life on Moloka'i. They expressed concern that the additional water proposed to be drawn out of the Kākahale Well, even if it is brackish, will strain and diminish the water table on Moloka'i, increasing salinity levels of ocean discharge and in neighboring wells. They refer to findings in the Waiola Well Water Use Permit contested case before the Hawai'i State Commission on Water Resource Management which examined the potential impacts of withdrawing groundwater and affecting shoreline seepage on near shore marine resources makai of Kākahale.

Hawaiian homesteaders, especially those with lots in Ho'olehua, feel that the greatest cultural impact of the Lā'au Point project is the MPL Water Plan (discussed in Section 6 of Appendix A and Section 4.9.2 of this EIS). They feel that the withdrawal of an additional 1,000,000 gallons per day of brackish water from the Kākahale Well will take away water that DHHL will need to support future expansion of agriculture and residential lots on their Moloka'i lands.

MPL unquestionably supports the reservation of 2.9 million gallons reserved in the Kualapu'u aquifer for Hawaiian homestead users. ~~At an average of 1,000 gallons per day, this amounts to drinking water for an additional 2,900 homesteads. A recent study by DHHL's consultants indicates that even after building out both Ho'olehua and Kalama'ula under DHHL's *Moloka'i Island Plan*, there will still be 698,900 gpd in the Kualapu'u Aquifer reserved for DHHL. This gives confidence that DHHL's future water needs are well protected. The recent two-dimensional modeling completed by USGS as part of the Kaunakakai Stream Ecosystem Restoration Project, gives additional confidence that the Kākahale Well will have minimal impact on DHHL.~~

MPL has long acknowledged publicly that its water use would yield to DHHL's priority reservation rights to water. Further mitigation measures for potential water impacts are discussed in Section 4.9.2 of this EIS.

MPL is actively working with DHHL, the County of Maui DWS, and the US Geological Survey to comprehensively evaluate and seek a solution to Moloka'i's cumulative water demands and resources. The goal is to appropriately locate wells and manage pumping such that all of the parties will be able, to the greatest extent possible, withdraw sufficient water to meet their needs. It is expected that many of Moloka'i's water issues will be addressed by a comprehensive modeling analysis. ~~Although the~~ The specifics of the water resource issues and modeling analysis have yet to be are currently being identified by DHHL, Maui DWS, MPL, the CWRM, and other homeowner associations and the study is likely to commence later in 2007. ~~MPL has long acknowledged publicly that its water use would yield to DHHL's priority reservation rights to water. Further mitigation measures for potential water impacts are discussed in Section 4.9.2 of this EIS.~~

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MPL is participating in these studies and cooperative efforts notwithstanding the fact that it is highly unlikely that pumping 1.0 mgd from the Kākahale Well will diminish the other parties' ability to develop the water they need, or, conversely, that water withdrawals by others will impact MPL's ability to withdraw 1.0 mgd from the Kākahale Well.

In the event Kākahale Well water is not available, however, there are alternative sources of non-potable water. Reclaimed water from the Pālā'au Shrimp Farm could be treated to make it suitable for irrigation purposes. Additionally, desalinization of either brackish water from West Moloka'i aquifers or sea water are alternative sources of irrigation water.

Therefore, the currently unresolved issue of water should not forestall proceeding with required approvals for the Lā'au Point project because:

1. It is highly unlikely that pumping 1.0 mgd from the Kākahale Well will diminish other parties' ability to develop the water they need, or, conversely, that water withdrawals by others will impact MPL's ability to withdraw 1.0 mgd from the Kākahale Well.; and
2. In the event Kākahale Well water is not available, there are alternative sources of non-potable water available to MPL: a) reclaimed water from the Pālā'au Shrimp Farm could be treated to make it suitable for irrigation purposes; and b) desalinization of either brackish water from West Moloka'i aquifers or sea water are alternative sources of irrigation water.

#### **7.5.2 Lā'au Point Homeowners' CC&Rs**

The details and draft provisions outlining the Lā'au Point CC&Rs are referred to extensively in Section 2.3.6 (Covenants).

The CC&Rs, which also detail design guidelines for houses within the project area, were under review by the Moloka'i Land Trust at the time of the filing of this Final EIS and were not finalized. The Moloka'i Land Trust will: 1) be a party to the CC&Rs; 2) have a seat on the homeowner's association; and 3) be the CC&Rs enforcing organization.

The principal and important covenants relating to no further subdivision, restricting the use of water over the entire project and the allocation of income to the Community Development Corporation from lot sales are immutable and already have been agreed to.

MPL will have the draft CC&Rs available prior to the LUC hearings on the State Land Use District Boundary Amendment petition so the views of Commissioners may be incorporated into the final CC&Rs. It is not usual to complete CC&Rs until after a project is given approval, but in this instance MPL believes input is important prior to their finalization.

#### **7.5.3 Easement Over Expanded Conservation District Lands**

The *Community-Based Master Land Use Plan for Molokai Ranch* calls for the Moloka'i Land Trust to hold an easement (Easement) over 306 acres of the expanded Conservation District area of 434 acres (the remaining 128 acres of the 434-acre expanded Conservation District will be held by the Land Trust in fee, as will the 17 acres of parks). The Land Trust and the Lā'au Point homeowners will jointly manage the 434-acre expanded Conservation District and the 17 acres

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of parks (total 451 acres) through participation on a “council” of homeowners and Land Trust representatives and nominees.

The easement, to be held by the Moloka'i Land Trust over the 306 acres, will incorporate the provisions of the Shoreline Access and Management Plan (SAMP) which is included in Appendix B. The SAMP was approved by the Moloka'i Land Trust in August 2007.

The Moloka'i Land Trust will require the easement be in place prior to the project's implementation.

#### **7.5.4 Moloka'i Community Development Corporation**

The Moloka'i Community Development Corporation (CDC), responsible for the implementation of the affordable housing provisions anticipated under the *Community-Based Master Land Use Plan for Molokai Ranch*, will be incorporated by October 2007 and registered as a State entity.

Currently in preparation is the CDC's strategic plan to implement the affordable housing provisions in line with the CDC's funding sources of: 1) five percent of net lot sales; and 2) the use of land donated to the CDC as part of the implementation of the *Community-Based Master Land Use Plan for Molokai Ranch*. References to the CDC's mission statement and activities are further outlined in Section 2.1.9 (Moloka'i Community Development Corporation (CDC)).

## **8.0 CONSULTED PARTIES AND PARTICIPANTS IN THE EIS PROCESS**

Community organizations and members, as well as various Federal, State, and County agencies, were consulted in the preparation of the *Community-Based Master Land Use Plan for Molokai Ranch* and this EIS (see Section 2.4 and ~~Table 2~~ Table 4). The EISPN was distributed to the following agencies, organizations, and individuals. Comment letters received on the EISPN are included in Section 11.0.

### **County of Maui**

- Department of Planning
- Department of Fire Control & Public Safety
- Department of Housing & Human Concerns
- Department of Parks & Recreation
- Police Department
- Department of Public Works & Environmental Management
- Department of Water Supply
- Mayor’s Office of Economic Development

### **State of Hawai‘i**

- ~~State Land Use Commission (LUC)~~
- Department of Accounting and General Services
- Department of Agriculture
- Department of Business, Economic Development & Tourism (DBEDT)
- Department of Business, Economic Development & Tourism - Land Use Commission (LUC)
- Department of Business, Economic Development & Tourism - Office of Planning
- Department of Business, Economic Development & Tourism, Energy - Resources & Technology Division
- Department of Education
- Department of Hawaiian Homelands
- Department of Health - Environmental Planning Office
- Department of Health - Office of Environmental Quality Control
- Department of Land and Natural Resources
- Department of Land and Natural Resources - Historic Preservation Division
- Department of Transportation
- Office of Hawaiian Affairs
- University of Hawai‘i Environmental Center

### **Federal**

- U.S. Army Engineer Division
- U.S. Fish and Wildlife Services

**Organizations & Individuals**

- Maui Electric Company, Ltd.
- Hawaiian Telcom
- Honolulu Advertiser
- Honolulu Star-Bulletin
- Molokai Dispatch
- Moloka'i Public Library
- Moloka'i Planning Commission
- Governor Linda Lingle
- Senator Daniel Inouye
- Maui County Council
- Moloka'i Enterprise Community
- Maunaloa Community Council
- The Homestead Association
- Land Trust Steering Committee
- Moloka'i Irrigation System Advisory Board
- Various residents of Moloka'i

**EIS Consulted Parties**

Title 11, Chapter 200, HAR, §11-200-15, Consultation Prior to Filing a Draft Environmental Impact Statement, states: "Upon publication of a preparation notice in the periodic bulletin, agencies, groups, or individuals shall have a period of thirty days from the initial issue date in which to request to become a consulted party and to make written comments regarding the environmental effects of the proposed action."

The following individuals requested to become a consulted party during the EISPN comment period:

- Kimo Frankel, Native Hawaiian Legal Corporation
- Lynn Decoite, Moloka'i Homestead Farmers Alliance
- Stephen Morgan
- Glenn Teves
- DeGray Vanderbilt
- Tom Holloman

A meeting with Consulted Parties was held on Moloka'i on August 25, 2006.



## 9.0 LIST OF PREPARERS

The ~~Draft~~ Final EIS has been prepared by PBR HAWAII, 1001 Bishop Street, ASB Tower, Suite 650, Honolulu, Hawai‘i, 96813, which includes the following people:

Thomas S. Witten, ASLA	President
Tom Schnell, AICP	Senior Associate/ <u>Project Manager</u>
<del>Alan Suwa</del>	<del>Senior Planner/Project Manager</del>
Audrey Tantamjarik	Planner
Etsuyo Kila	Planner, Cartography
Chris Chavez	Graphic Designer

Several key technical consultants were employed to provide specific assessments of environmental factors for this project. These consultants and their specialty are listed below:

<b>Name</b>	<b>Area of Expertise</b>
Barry Neal, B. D. Neal & Associates	Air Quality Impact Assessment
Maurice Major, Cultural Landscapes Hawai‘i	Archeological Inventory Survey
Davianna McGregor	Cultural Impact Assessment
<u>Yvonne Izu</u> , Morihara, Lau & Fong LLP	Water Plan Analysis
<u>Myron Nomura</u> , Engineering Concepts, Inc.	Wastewater Design
Berna Cabacungan, Earthplan	Social Impact Assessment
Warren Unemori, Warren S. Unemori Engineering, Inc.	Drainage and Engineering
Clive Jones, Knowledge Based Consulting Group	Economic and Fiscal Impacts; Market Support for Real Estate Development
James Hallstrom, Jr., The Hallstrom Group	Analysis of Impact on Real Property Taxes
Bill Garnett	Botanical Survey
Phillip L. Bruner	Avifaunal and Feral Mammal Survey
<u>George Krasnick</u> , The Environmental Company, Inc.	Marine Biological and Water Quality Baseline Surveys
D.L. Adams Associates, Ltd.	Noise Assessment
<u>Phillip Rowell</u> , Phillip Rowell & Associates	Traffic Impact Assessment
<u>Clayton S. Mimura</u> , Geolabs, Inc.	<u>Geotechnical Engineering Reconnaissance</u>

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## **10.0 REFERENCES**

- Baker, H.L. et al. (1965). *Detailed Land Classification, Island of Hawai'i*. L.S. Land Study Bureau, University of Hawai'i.
- B.D. Neal & Associates. (2006). *Lā'au Point Subdivision Project Air Quality Impact Assessment*. Kailua-Kona, Hawai'i: Prepared for Molokai Properties Limited.
- Bonk, W. (1954). *Archaeological Excavations on West Molokai*. University of Hawai'i: Master of Arts Thesis, Department of Anthropology.
- Bruner, P.L. (2005). *Avifaunal and Feral Mammal Field Survey of Moloka'i Ranch, Lā'au Point Property, Moloka'i*. Laie, Hawai'i: Prepared for Molokai Properties Limited.
- Burthchard, G. & Athens, S. (2000). *Archaeological Reconnaissance of the Pāpōhaku Aerial Gunnery Range, Kaluako'i Ahupua'a, Island of Moloka'i, Hawai'i*. Prepared by International Archaeological Research Institute, Inc.
- Coulter, J.W. (1931). *Population and Utilization of Land and Sea in Hawaii, 1853*. Honolulu, Hawai'i: Bishop Museum.
- County of Maui. (1990). *General Plan of the County of Maui 1990 Update*. Wailuku, Hawai'i.
- County of Maui. (2001). *Moloka'i Community Plan*. Wailuku, Hawai'i.
- County of Maui, Office of Economic Development. (2005). *Maui County Data Book 2005*. Wailuku, Hawai'i.
- Dixon, B. & Major, M. (1993). *Kapukahehu to Pu'uhakina: An Archaeological Inventory Survey of Southwest Moloka'i*. On file at Bishop Museum, Department of Anthropology.
- D.L. Adams Associates, Ltd. (2006). *Environmental Noise Assessment Report: Lā'au Point, Moloka'i, Hawai'i*. Kailua, Hawai'i: Prepared for Molokai Properties Limited.
- Earthplan. (2006). *Lā'au Point Social Impact Assessment*. Hawai'i: Prepared for Molokai Properties Limited.
- Engineering Concepts, Inc. (2006). *Wastewater Treatment Design and Operating Aspects*. Design and Write-up prepared for Molokai Properties Limited.
- Garnett, W. (2006). *Lā'au Point Plant Survey*. Hawai'i: Prepared for Molokai Properties Limited.
- Geolabs, Inc. (2007). *Geotechnical Engineering Reconnaissance, Lā'au Point Development, TMK: (2) 5-1-02:30; (2) 5-1-06:157; 5-1-08:03, 04, 06, 07, 13, 14, 15, 21, and 25, West Moloka'i, County of Maui, Hawai'i*. Honolulu, Hawai'i. Prepared for Molokai Properties Limited.

**LĀ 'AU POINT**  
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- Group 70 International. (2005). *Moloka'i Island Plan*. Honolulu, Hawai'i: Prepared for the State Department of Hawaiian Homelands.
- Hallstrom Group, Inc. (November 14, 2006). *Impact of Lā'au Point Development on Real Property Taxes*. Honolulu, Hawai'i: Letter prepared for Molokai Properties Limited.
- Hawai'i State Department of Agriculture. (1977). *Agricultural Lands of Importance to the State of Hawai'i*. Honolulu, Hawai'i.
- Ishikawa, Morihara, Lau & Fong LLP. (2006). *Analysis of the Water Plan for the Community-Based Enterprise Community/Molokai Ranch Master Land Use Plan*. Honolulu, Hawai'i.
- Juvik, S.P. & Juvik, J.O. (Eds.) (1998). *Atlas of Hawaii. 3rd Edition*. Honolulu: University of Hawai'i Press.
- Knowledge Based Consulting Group (KBCG). (2006a). *Economic and Fiscal Impacts of the Proposed Lā'au Point Residences on Moloka'i*. Larkspur, California: Prepared for Molokai Properties Limited.
- Knowledge Based Consulting Group (KBCG). (2006b). *Market Support for Real Estate Development at Lā'au Point, Moloka'i*. Larkspur, California: Prepared for Molokai Properties Limited.
- Macdonald, G. A., Abbott, A.T., & Peterson, F.L. (1983). *Volcanoes in the Sea: The Geology of Hawai'i*. Honolulu: University of Hawai'i Press.
- Major, M. (2006). *Papohaku to Hakina, Ahupua'a o Kaluako'i, Island o Moloka'i (Portions of TMK 5-1-02-030, 5-1-08-4 through 15, -19, and -23), Revised Archaeological Mitigation Plans: Preservation, Data Recovery, Monitoring, Burial Treatment*. Richmond, Virginia: Prepared for Molokai Properties Limited.
- Major, M. (2006). *Papohaku to Hakina, Ahupua'a o Kaluako'i, Island o Moloka'i (Portions of TMK 5-1-02-030, 5-1-08-4 through 15, -19, and -23), Revised Archaeological Data Recovery Plan*. Richmond, Virginia: Prepared for Molokai Properties Limited.
- Major, M. (2006). *Papohaku to Hakina, Ahupua'a o Kaluako'i, Island o Moloka'i (Portions of TMK 5-1-02-030, 5-1-08-4 through 15, -19, and -23), Revised Burial Treatment Plan*. Richmond, Virginia: Prepared for Molokai Properties Limited.
- Major, M. (2007). *Papohaku to Hakina, Ahupua'a o Kaluako'i, Island o Moloka'i (Portions of TMK 5-1-02-030), Revised Preservation Plan*. Richmond, Virginia: Prepared for Molokai Properties Limited.
- Major, M. (2007). *Papohaku to Hakina, Ahupua'a o Kaluako'i, Island o Moloka'i (Portions of TMK 5-1-02-030), Revised Monitoring Plan*. Richmond, Virginia: Prepared for Molokai Properties Limited.

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### *Draft-Final Environmental Impact Statement*

---

- McGregor, D.P. (2006). *Moloka'i Responsible Tourism Initiative: A Community-Based Visitor Plan for Moloka'i*. Honolulu, Hawai'i: Prepared for Ke 'Aupuni Lōkāhi – Moloka'i Enterprise Community.
- McGregor, D.P. & McNamara, S. (2006). *Cultural Impact Assessment for Lā'au Point Rural-Residential Development, Kaluako'i, Island of Moloka'i, of Molokai Properties Limited dba Molokai Ranch*. Honolulu, Hawai'i: Prepared for Molokai Properties Limited.
- Menzies, A. (1920). *Hawaii Nei 120 Years Ago*. Honolulu, Hawai'i: W.F. Wilson.
- Moloka'i Enterprise Community (EC). (2006). Website: <http://www.molokaieec.org/home.html>
- Monsarrat, M.D. (1884-1894.) *Diary of Molokai Survey & Field Notebooks 1-8, Reg. No. 357 – 365*. In Hawai'i State Survey's Office, Honolulu.
- Ne, H. (1992). *Tales of Moloka'i*. Lā'ie, Hawai'i: The Institute for Polynesian Studies.
- Pukui, M. K. (1957). *Hawaiian-English Dictionary*. Honolulu, Hawai'i: University of Hawai'i Press.
- R.M. Towill Corporation. (July 2002). *Public Facilities Assessment Update County of Maui*. Report prepared for County of Maui Department of Planning.
- Rowell, P. (2006). *Traffic Impact Assessment Report, Lā'au Point Subdivision, Moloka'i, Hawai'i*. Honolulu, Hawai'i: Prepared for Molokai Properties Limited.
- SMS. (June 2002). *Maui County Community Plan Update Program: Socio-Economic Forecast, Phase I Report, Final Version*.
- State of Hawai'i Department of Business, Economic Development & Tourism (DBEDT), Research and Economic Analysis Division, Hawaii State Data Center. (2001). *2000 Census Tract Names and 1990 and 2000 Resident Population for the State of Hawai'i*. Honolulu, Hawai'i.
- State of Hawai'i Department of Education (DOE). (2006). *Official Enrollment Count 2005-2006 School Year*. Accessed from DOE website: <http://doe.k12.hi.us/reports/enrollment.htm>
- State of Hawai'i Department of Labor & Industrial Relations (DLIR). (2006). Maui County Profile. Accessed from DLIR website: <http://www.hiwi.org>
- Stokes, J.F.G. (1909). *Molokai, Survey of Heiau*. Honolulu, Hawai'i: Bishop Museum Archives.
- Strong, H. (1971). *A Preliminary Survey of Kamakaipo Gulch Habitation Area, Molokai*. On file at University of Hawai'i.
- Summers, C. (1971). *Molokai: Site Survey*. Honolulu, Hawai'i: Pacific Anthropological Records No. 14. Department of Anthropology, Bernice Pauahi Bishop Museum.

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### Draft-Final Environmental Impact Statement

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- The Environmental Company, Inc. (TEC). (2006). *Marine Biological and Water Quality Baseline Surveys: Lā'au Point, Moloka'i*. Honolulu, Hawai'i: Prepared for Molokai Properties Limited.
- Townscape, Inc. (2005). *Community-Based Master Land Use Plan for Molokai Ranch*. Honolulu, Hawai'i: Prepared for Moloka'i Enterprise Community: Land Use Committee and Molokai Properties Limited.
- United States Department of Agriculture, Soil Conservation Service. (1972). *Island of Kauai, Oahu, Maui, Molokai, and Lanai, State of Hawaii*.
- Warren S. Unemori Engineering, Inc. (~~2006a~~) (2007). *Preliminary Engineering Report, Lā'au Point Project at West Moloka'i, Hawai'i, TMK: 5-1-02:Portion of 30*. Wailuku, Maui, Hawai'i: Prepared for Molokai Properties Limited.
- Warren S. Unemori Engineering, Inc. (~~2006b~~) (2007). *Preliminary Drainage Report, Lā'au Point Project at West Moloka'i, Hawai'i, TMK: 5-1-02:Portion of 30*. Wailuku, Maui, Hawai'i: Prepared for Molokai Properties Limited.
- Wiesler, M. (1984). *Impressions of Prehistory: An Arcaheological Survey of Selected Area of Southwest Moloka'i, Hawaiian Islands*. Honolulu, Hawai'i: Bishop Museum, Department of Anthropology.

## **11.0 COMMENTS ON THE ENVIRONMENTAL IMPACT STATEMENT PREPARATION NOTICE AND RESPONSES**

The environmental impact statement preparation notice (EISPN) was sent to the following agencies, organizations, and individuals. The public comment period on the EISPN was from June 8, 2006 to July 10, 2006. Where indicated, the agency, organization, or individual submitted comments. Comment letters and responses are provided in Volume 2 (Comments and Responses) of this Final EIS.

**Table 14. EISPN Comments Received**

<b>AGENCY</b>	<b>EISPN MAIL DATE</b>	<b>COMMENT DATE</b>
<b>State</b>		
State Land Use Commission	5-26-06	-
Department of Agriculture	5-26-06	-
Department of Business, Economic Development & Tourism (DBEDT)	5-26-06	-
DBEDT – Energy, Resources & Technology Division	5-26-06	-
DBEDT – Office of Planning	5-26-06	7-24-06
Department of Defense – Civil Defense	5-26-06	7-5-06
Department of Hawaiian Homelands	5-26-06	-
Department of Health – Environmental Planning Office	5-26-06	7-6-06
Department of Health – Maui District Health Office	5-26-06	-
Department of Health – Office of Solid Waste Management	5-26-06	7-19-06
Department of Health – Office of Environmental Quality Control	5-26-06	7-7-06
Department of Land & Natural Resources (DLNR)	5-26-06	-
DLNR – Commission on Water Resource Management	5-26-06	-
DLNR – State Historic Preservation Division	5-26-06	6-9-06
Department of Transportation	5-26-06	7-7-06
Office of Hawaiian Affairs	5-26-06	7-5-06
University of Hawai‘i Environmental Center	5-26-06	-
<b>Federal</b>		
US Army Corps of Engineers	5-26-06	-
US Fish & Wildlife Service	5-26-06	-
<b>County of Maui</b>		
Department of Fire Control & Public Safety	5-26-06	-
Department of Housing & Human Concerns	5-26-06	7-13-06
Department of Parks & Recreation	5-26-06	7-7-06
Department of Planning	5-26-06	5-30-06
Department of Public Works & Environmental Management	5-26-06	6-21-06
Department of Water Supply	5-26-06	6-27-06
Mayor’s Office of Economic Development	5-26-06	-

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<b>AGENCY</b>	<b>EISPN MAIL DATE</b>	<b>COMMENT DATE</b>
Police Department	5-26-06	7-6-06
<b>Private Companies, Organizations, and Individuals</b>		
Maui Electric Company, Ltd.	5-26-06	6-29-06
Hawaiian Telcom	5-26-06	-
Moloka'i Library	5-26-06	-
Molokai Dispatch	5-26-06	-
Honolulu Advertiser	5-26-06	-
Honolulu Star-Bulletin	5-26-06	-
Moloka'i Planning Commission	5-26-06	-
Moloka'i Enterprise Community	5-26-06	-
Maunaloa Community Council	5-26-06	-
The Homestead Association	5-26-06	-
Moloka'i Irrigation System Advisory Board	5-26-06	-
Land Trust Steering Committee	5-26-06	-
Governor Linda Lingle	5-26-06	-
Senator Daniel Inouye	5-26-06	-
Councilmember Danny Mateo	5-26-06	-
Councilmember G. Riki Hokama	5-26-06	-
Councilmember Robert Carroll	5-26-06	-
Councilmember Michelle Anderson	5-26-06	-
Councilmember JoAnne Johnson	5-26-06	-
Councilmemeber Dain Kane	5-26-06	-
Councilmember Michael Molina	5-26-06	-
Councilmember Joseph Pontanilla	5-26-06	-
Councilmember Charmaine Tavares	5-26-06	-
William Akutagawa	5-26-06	-
Richard Cooke III	5-26-06	-
Cheryl Corbiell	5-26-06	-
David Lunney	5-26-06	-
Colette Machado	5-26-06	-
Edwin Misaki	5-26-06	-
Stady Helm-Crivello	5-26-06	-
<b>EIS Consulted Parties</b>		
Kimo Frankel, Native Hawaiian Legal Corporation		7-7-06
Lynn Decoite, Molokai Homestead Farmers Alliance		7-6-06
Glenn Teves		7-7-06
Steve Morgan		7-10-06
DeGray Vanderbilt		6-10-06
Stanley Casacio		6-21-06
Thomas Holloman		6-16-06



## **12.0 COMMENTS AND RESPONSES ON THE DRAFT ENVIRONMENTAL IMPACT STATEMENT**

The Draft EIS was sent to the following agencies, organizations, and individuals. The original 45-day public comment period on the Draft EIS was from December 23, 2006 to February 6, 2007. Based on community requests, MPL extended the comment deadline period to end on February 23, 2007, allowing a 63-day comment period. Where indicated, the agency, organization, or individual submitted comments. Comment letters and responses are provided in Volume 2 (Comments and Responses) of this Final EIS. All response letter attachments are consolidated in a separate section following the letters.

**Table 15. Draft EIS Comments Received**

<b><u>AGENCY</u></b>	<b><u>DRAFT EIS MAIL DATE</u></b>	<b><u>COMMENT DATE</u></b>
<b><u>State</u></b>		
<u>State Land Use Commission</u>	<u>12-23-06</u>	<u>2-21-07</u>
<u>Department of Accounting &amp; General Services (DAGS)</u>	<u>12-23-06</u>	<u>2-1-07</u>
<u>Department of Agriculture</u>	<u>12-23-06</u>	
<u>Department of Business, Economic Development &amp; Tourism (DBEDT)</u>	<u>12-23-06</u>	
<u>DBEDT – Strategic Industries Division</u>	<u>12-23-06</u>	<u>1-12-07</u>
<u>DBEDT – Office of Planning</u>	<u>12-23-06</u>	<u>2-2-07</u>
<u>Department of Defense – Civil Defense</u>	<u>12-23-06</u>	
<u>Department of Education (DOE)</u>	<u>12-23-06</u>	<u>2-2-07</u>
<u>DOE – Maunaloa Elementary School</u>	<u>1-17-07</u>	
<u>Department of Hawaiian Homelands (DHHL)</u>	<u>12-23-06</u>	<u>2-23-07</u>
<u>Department of Health (DOH) – Environmental Planning Office</u>	<u>12-23-06</u>	<u>1-31-07</u>
<u>DOH – Maui District Health Office</u>	<u>12-23-06</u>	<u>1-31-07</u>
<u>DOH – Office of Environmental Quality Control</u>	<u>12-23-06</u>	<u>2-15-07</u>
<u>Department of Land &amp; Natural Resources (DLNR)</u>	<u>12-23-06</u>	
<u>DLNR – Commission on Water Resource Management</u>	<u>12-23-06</u>	<u>1-10-07</u>
<u>DLNR – Division of Forestry and Wildlife, Division of State Parks, Engineering Division</u>	<u>12-23-06</u>	<u>2-7-07</u>
<u>DLNR – Office of Conservation &amp; Coastal Lands (OCCL)</u>	<u>12-23-06</u>	<u>2-23-07</u>
<u>DLNR – Division of Aquatic Resources (DAR)</u>	<u>12-23-06</u>	<u>3-6-07</u>
<u>DLNR – State Historic Preservation Division (SHPD)</u>	<u>12-23-06</u>	<u>1-11-07 &amp; 1-31-07</u>

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<b>AGENCY</b>	<b><u>DRAFT EIS MAIL DATE</u></b>	<b><u>COMMENT DATE</u></b>
<u>Department of Transportation (DOT)</u>	<u>12-23-06</u>	<u>2-6-07</u>
<u>DOT-Airports Division</u>	<u>12-23-06</u>	
<u>Office of Hawaiian Affairs (OHA)</u>	<u>12-23-06</u>	<u>2-23-07</u>
<u>University of Hawai'i (UH) Environmental Center</u>	<u>12-23-06</u>	<u>2-5-07</u>
<u>UH Water Resources Research Center</u>	<u>12-23-06</u>	
<u>UH College of Tropical Agriculture and Human Resources (CTAHR) Cooperative Extension Service</u>		<u>2-22-07</u>
<u>UH Maui Community College-Moloka'i Education Center</u>	<u>2-6-07</u>	<u>2-22-07</u>
<b><u>Federal</u></b>		
<u>NOAA National Marine Fisheries Service</u>	<u>12-23-06</u>	<u>2-5-07</u>
<u>US Army Corps of Engineers</u>	<u>12-23-06</u>	<u>3-23-07</u>
<u>US Coast Guard</u>		<u>3-19-07</u>
<u>US Fish &amp; Wildlife Service</u>	<u>12-23-06</u>	
<u>USDA Natural Resources Conservation Service</u>	<u>12-23-06</u>	
<b><u>County of Maui</u></b>		
<u>Corporation Counsel</u>	<u>12-23-06</u>	
<u>Cultural Resources Commission (CRC)</u>	<u>12-23-06</u>	<u>2-23-07</u>
<u>Department of Finance</u>	<u>12-23-06</u>	
<u>Department of Fire Control &amp; Public Safety</u>	<u>12-23-06</u>	<u>12-28-06</u>
<u>Department of Housing &amp; Human Concerns</u>	<u>12-23-06</u>	
<u>Department of Parks &amp; Recreation</u>	<u>12-23-06</u>	
<u>Department of Planning</u>	<u>12-23-06</u>	<u>1-23-07</u>
<u>Department of Public Works &amp; Environmental Management</u>	<u>12-23-06</u>	<u>1-22-07</u>
<u>Department of Water Supply</u>	<u>12-23-06</u>	<u>2-20-07</u>
<u>Maui Civil Defense Agency</u>	<u>12-23-06</u>	
<u>Mayor's Office of Economic Development</u>	<u>12-23-06</u>	
<u>Moloka'i Planning Commission</u>	<u>12-23-06</u>	<u>2-21-07</u>
<u>Police Department</u>	<u>12-23-06</u>	
<b><u>Elected Office</u></b>		
<u>Governor Linda Lingle</u>	<u>12-23-06</u>	
<u>US Senator Daniel Inouye</u>	<u>12-23-06</u>	
<u>Maui Mayor Charmaine Tavares</u>	<u>12-23-06</u>	
<u>State Senator Kalani English</u>	<u>12-23-06</u>	
<u>State Senator Clayton Hee</u>	<u>12-23-06</u>	<u>2-21-07</u>
<u>State Representative Mele Carroll</u>	<u>12-23-06</u>	
<u>Councilmember Riki Hokama (Chair)</u>	<u>12-23-06</u>	
<u>Councilmember Danny Mateo</u>	<u>12-23-06</u>	<u>12-7-06</u>

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<b>AGENCY</b>	<b>DRAFT EIS MAIL DATE</b>	<b>COMMENT DATE</b>
<u>Councilmember Michelle Anderson</u>	<u>1-2-07</u>	<u>2-23-07</u>
<b><u>Local Utilities</u></b>		
<u>Hawaiian Telcom</u>	<u>12-23-06</u>	
<u>Maui Electric Company, Ltd.</u>	<u>12-23-06</u>	<u>1-22-07</u>
<b><u>Private Organizations</u></b>		
<u>Earthjustice</u>	<u>1-11-07</u>	
<u>Kako'o Oiwī</u>		<u>2-23-07</u>
<u>Life of the Land</u>		<u>2-5-07</u>
<u>Moloka'i Enterprise Community</u>	<u>12-23-06</u>	
<u>Moloka'i Homestead Farmers Alliance</u>	<u>12-23-06</u>	
<u>Native Hawaiian Legal Corporation</u>	<u>12-23-06</u>	<u>2-1-07 &amp; 2-22-07</u>
<u>Save Lā'au 'Ohana</u>		<u>2-23-07</u>
<u>Sierra Club Maui Group</u>		<u>2-23-07</u>
<b><u>Media</u></b>		
<u>Honolulu Advertiser</u>	<u>12-23-06</u>	
<u>Honolulu Star-Bulletin</u>	<u>12-23-06</u>	
<u>Maui News</u>	<u>12-23-06</u>	
<u>Molokai Dispatch</u>	<u>12-23-06</u>	<u>2-23-07</u>
<u>Moloka'i Island Times</u>	<u>12-23-06</u>	
<u>Pacific Business News</u>	<u>12-23-06</u>	
<b><u>Libraries</u></b>		
<u>Moloka'i Library</u>	<u>12-23-06</u>	
<u>Hawai'i State Main Library</u>	<u>12-23-06</u>	
<u>Regional Libraries (Pearl City, Kaneohe, Kaimuki, Lihue, Kahului, and Hilo)</u>	<u>12-23-06</u>	
<u>DBEDT Library</u>	<u>12-23-06</u>	
<u>UH Hamilton Library</u>	<u>12-23-06</u>	
<u>Legislative Reference Bureau</u>	<u>12-23-06</u>	
<u>Maui Community College Library</u>	<u>12-23-06</u>	
<b><u>Individuals</u></b>		
<u>Adam Mick</u>		<u>2-20-07</u>
<u>Ana Sibayan</u>		<u>2-21-07</u>
<u>Andra Morrow</u>		<u>2-23-07</u>
<u>Anuheā Naeole</u>		<u>2-21-07</u>
<u>Aolani Ahina</u>		<u>2-21-07</u>
<u>Asuka Hirabe</u>		<u>2-23-07</u>
<u>Barbara and Keith Rasmussen</u>		<u>2-22-07</u>
<u>Blossom Brown</u>		<u>2-23-07</u>
<u>Bridget Mowat</u>		<u>1-10-07</u>
<u>Bryson Santiago</u>		<u>1-10-07</u>
<u>Carol Hinton</u>		<u>1-10-07</u>

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<b><u>AGENCY</u></b>	<b><u>DRAFT EIS MAIL DATE</u></b>	<b><u>COMMENT DATE</u></b>
<u>Carrie-Ann Kaauwai</u>		<u>2-21-07</u>
<u>Catherine Wharton</u>		<u>2-23-07</u>
<u>Chantey Uahinui</u>		<u>2-21-07</u>
<u>Chase Will</u>		<u>2-21-07</u>
<u>Cheryl Pritchard</u>		<u>2-23-07</u>
<u>Chris Cramer</u>		<u>1-6-07</u>
<u>Chris Grean</u>		<u>2-22-07</u>
<u>Chuck Everhart</u>		<u>1-10-07</u>
<u>Clifford Bermudes</u>		<u>2-21-07</u>
<u>Corey-lynn Remegio</u>		<u>2-21-07</u>
<u>Dale Gammie</u>		<u>2-22-07</u>
<u>Darlene Toth</u>	<u>12-23-06</u>	<u>2-12-07</u>
<u>DeGray Vanderbilt</u>	<u>12-23-06</u>	<u>2-23-07</u>
<u>Drake Wells</u>		<u>1-10-07 &amp; 2-22-07</u>
<u>Elizabeth Johnson</u>		<u>1-30-07</u>
<u>Ella Alcon</u>		<u>2-19-07</u>
<u>Emrick Bailey</u>		<u>2-23-07</u>
<u>Ernest Puaio</u>	<u>12-23-06</u>	
<u>Eugene Kirkham</u>	<u>12-23-06</u>	
<u>Faith Tuipulotu</u>	<u>12-23-06</u>	
<u>Farhod Family</u>		<u>2-22-07</u>
<u>Fay Huff</u>		<u>2-23-07</u>
<u>Francis Alcain</u>		<u>2-23-07</u>
<u>Gandharva Mahina Hou Ross</u>		<u>2-20-07</u>
<u>George Mokuau</u>	<u>12-23-06</u>	
<u>Glenda Mawae</u>		<u>1-10-07</u>
<u>Glenn Teves</u>	<u>12-23-06</u>	<u>2-22-07</u>
<u>Hana K. Yasso</u>		<u>2-22-07</u>
<u>Harry K. Purdy III</u>	<u>12-23-06</u>	<u>2-21-07</u>
<u>Jaissuinin Cariceo</u>		<u>1-10-07</u>
<u>James Puaa Spencer</u>		<u>2-21-07</u>
<u>Jane Teves</u>	<u>12-23-06</u>	
<u>Jasper Kahoiwai</u>		<u>2-21-07</u>
<u>Jeannine Johnson</u>		<u>1-9-07</u>
<u>Jennie Manlutac</u>		<u>2-23-07</u>
<u>Jill Mulholland</u>		<u>2-20-07</u>
<u>Jocelyn Doane</u>	<u>1-23-07</u>	
<u>John Lyle</u>		<u>1-16-07</u>
<u>John Wainwright</u>	<u>12-23-06</u>	
<u>Jon Givens</u>		<u>1-31-07</u>
<u>Joseph Farber</u>		<u>2-23-07</u>

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<b><u>AGENCY</u></b>	<b><u>DRAFT EIS MAIL DATE</u></b>	<b><u>COMMENT DATE</u></b>
<u>Joseph K</u>		<u>2-21-07</u>
<u>Joseph LaRosa</u>		<u>2-21-07</u>
<u>Joseph O'Leary</u>		<u>1-23-07 &amp; 2-21-07</u>
<u>Josh Pastrana</u>		<u>1-10-07</u>
<u>Judith Mick</u>		<u>2-18-07</u>
<u>Julie Lopez</u>	<u>12-23-06</u>	
<u>Kainalu Purdy</u>		<u>2-21-07</u>
<u>Kalimakuhilani Sukanuma</u>		<u>2-23-07</u>
<u>Kammy Purdy</u>		<u>1-17-07</u>
<u>Karen Ashley</u>		<u>2-14-07</u>
<u>Karen Holt</u>		<u>2-23-07</u>
<u>Kathy Bennett</u>	<u>12-23-06</u>	
<u>Kauwila Hanchett</u>		<u>2-20-07</u>
<u>Kawaiola Agader</u>		<u>2-21-07</u>
<u>Kegal-Joe Tancayo</u>		<u>2-21-07</u>
<u>Ken Bare</u>		<u>2-23-07</u>
<u>Keoki Mollena-Akina</u>		<u>2-21-07</u>
<u>Keoni Lindo</u>	<u>1-17-07</u>	
<u>Kevin Brown</u>		<u>2-23-07</u>
<u>Kevin Kahana-Kalua</u>		<u>2-21-07</u>
<u>Kian Phillips</u>		<u>2-21-07</u>
<u>Kim Kido</u>		<u>2-23-07</u>
<u>Kirk Kiaha</u>		<u>2-21-07</u>
<u>Kodah Kalawe-English</u>		<u>2-21-07</u>
<u>Kyle Kaiama</u>		<u>2-21-07</u>
<u>Lawrence Aki</u>	<u>12-23-06</u>	
<u>Lea Malia Kanehe, Esq.</u>		<u>2-23-07</u>
<u>Lehua Shelley</u>		<u>2-23-07</u>
<u>Leila Stone</u>		<u>1-10-07</u>
<u>Lopaka Ocampo</u>		<u>1-10-07</u>
<u>Loretta Ritte</u>		<u>1-10-07</u>
<u>Lori Buchanan</u>	<u>12-23-06</u>	
<u>Lorina Young</u>		<u>2-21-07</u>
<u>Louise Bush</u>		<u>2-21-07</u>
<u>Makaila Purdy</u>		<u>2-22-07</u>
<u>Malia Akutagawa</u>	<u>12-23-06</u>	<u>2-23-07</u>
<u>Malia Locey</u>	<u>12-23-06</u>	
<u>Malia Waits</u>		<u>1-10-07 &amp; 1-29-07</u>
<u>Mark Ignash</u>		<u>2-23-07</u>
<u>Marlene Purdy</u>	<u>12-23-06</u>	
<u>Martin Kahae</u>	<u>12-23-06</u>	

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<b>AGENCY</b>	<b>DRAFT EIS MAIL DATE</b>	<b>COMMENT DATE</b>
<u>Marty Johnston</u>		<u>2-23-07</u>
<u>Matt Yamashita</u>		<u>2-23-07</u>
<u>Melody Vila</u>		<u>2-23-07</u>
<u>Mike &amp; Michele Pate</u>		<u>2-7-07</u>
<u>Moke Kim, Jr.</u>	<u>12-23-06</u>	
<u>Paulette Rodriguez Lopez</u>		<u>2-23-07</u>
<u>Penelope Spiller</u>	<u>12-23-06</u>	
<u>Peniela Penniman</u>		<u>2-23-07</u>
<u>Rachelle Kupau</u>		<u>1-10-07</u>
<u>Raina A Puaoi</u>		<u>2-21-07</u>
<u>Randy Bautista</u>		<u>2-21-07</u>
<u>Ricky Greenleaf</u>		<u>2-21-07</u>
<u>Rydge-Alan Villa</u>		<u>2-21-07</u>
<u>Sasha Spiller-Reiff</u>	<u>12-23-06</u>	
<u>Scot Schafer</u>		<u>1-10-07</u>
<u>Shardae MM Calairo</u>		<u>2-21-07</u>
<u>Shona Barnes</u>		<u>2-19-07</u>
<u>Sis Naehu</u>		<u>1-10-07</u>
<u>Stanley Casacio</u>	<u>12-23-06</u>	
<u>Steve Morgan</u>	<u>12-23-06</u>	<u>2-23-07</u>
<u>Susannah Iott &amp; Jeffrey Friedman</u>		<u>1-24-07</u>
<u>Tearo Keanini</u>		<u>2-21-07</u>
<u>Tiare Ritte-Manangan</u>		<u>1-10-07</u>
<u>Timothy Matross</u>		<u>2-21-07</u>
<u>Tom Holloman</u>	<u>12-23-06</u>	
<u>Trevor Gilligan</u>		<u>2-23-07</u>
<u>Trisha Kehaulani Watson</u>	<u>12-23-06</u>	<u>2-23-07</u>
<u>Tyson Santiago</u>		<u>1-10-07</u>
<u>Valerie Monson</u>		<u>1-23-07</u>
<u>Vanda Hanakahi</u>	<u>12-23-06</u>	
<u>Victoria Kapuni</u>		<u>1-10-07 &amp; 2-21-07</u>
<u>Walter Ritte, Jr.</u>		<u>1-10-07</u>
<u>William Kalipi, Sr.</u>	<u>12-23-06</u>	
<u>Yvonne Everhart</u>		<u>1-10-07</u>

All response letter attachments are consolidated in a separate section. Response letter attachments include:

- Revised Section 2.1.8 (Molokai Land Trust)
- Revised Section 2.1.9 (Moloka'i Community Development Corporation (CDC))
- Revised Section 2.3.6 (Covenants)
- Revised Section 2.4 (Community Meetings and Involvement)

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- Revised Section 3.6 (Flora)
- Revised Section 3.7 (Fauna)
- Revised Section 3.8 (Marine Environment)
- Revised Section 4.3 (Trails and Access)
- Revised Section 4.9.1 (Drainage)
- Revised Section 4.9.2 (Water)
- Revised Section 6.0 (Alternatives)
- Revised Section 7.5 (Unresolved Issues)
- Revised Permits & Approvals
- February 13, 2007 SHPD Correspondence
- June 21, 2007 NOAA Correspondence
- NOAA NMFS Draft EIS response letter
- Proposed Land Trust Donations and Easements
- First Land Trust Donation – Mokio Parcel

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