



MAUI TOMORROW

Protecting Maui's Future

April 23, 2012

Approving Agency: State Land Use Commission luc@dbedt.hawaii.gov
P.O. Box 2359, Honolulu, Hawai'i 96804.
Contact: Dan Davidson

Re: Comments on DEIS for Proposed Olowalu Town Master Plan TMK (2) 4-8-003: 84, 98-118 and 124

Aloha Mr. Davidson, Commissioners and Staff,

Maui Tomorrow Foundation, Inc appreciates the opportunity to comment on the DEIS for the Proposed Olowalu Town Master Plan. We understand this DEIS was prepared in order to review the impacts and mitigations that would result from the reclassification of 636 acres of agricultural land into the state Urban Land Use boundary and the subsequent construction of 1,500 new residences, a wastewater treatment plant, commercial areas, a realignment of Honoapiilani Hwy, construction of other roads, parks, new wells and other infrastructure.

We appreciate that many of the concerns commented on in the EISPN have been discussed in some form in the DEIS. However, a number of significant concerns are not discussed or been given sufficient information. We ask that the following topics be clarified.

Proposed Boundary Amendment Action- Compliance with LUC Rules:

§15-15-77 HAR: *Decision-making criteria for boundary amendments, in Section 5. of 15-15-77 asks that decision making include consideration of: "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;"*

Past commitments have been made by co-applicant, Olowalu Elua LLC to existing homeowners and county regulatory agencies. Many of these commitments have been ignored, possibly due to the cost of compliance. Will the many complex and expensive actions referred to in the applicant's DEIS be implemented if the Boundary Amendment is granted? These measures would be vital to mitigate the impacts of this development.

How will existing homeowner parcels, owned by other entities, be connected to the proposed community? The project will cause major changes to the original design of the existing Olowalu Mauka subdivision plan, which was accepted by Maui County in 2002. These impacts should be clearly identified on comparative maps, and discussed.

Extensive green way easements surrounding Olowalu Mauka are recorded on the 2002 subdivision maps, along with a second ingress/egress route for the community but don't appear in the Olowalu Town plan.

The DEIS states that its scope covers an area of approximately 700 acres, and includes lands beyond the 636-ac project footprint, but provides no details on how the existing Olowalu Mauka will be serviced in the new community.

One greenbelt area is pictured on maps in the Olowalu Mauka vicinity, but the others, clearly marked as easements on the subdivision map, appear to be replaced by proposed rural subdivisions thus impacting existing property owners.

The Land Use Commission (LUC) is presented maps showing the 23 parcels involved with the proposed project but don't make clear that the majority of lands proposed for the new project Olowalu Town, were also part of the former 39 lot subdivision ("Olowalu Mauka") created in 1999- 2001.

The 39 agricultural parcels were created under Maui County Ordinance 2372 which amended MCC Title 18.04.20 Subdivision procedures to allow "consolidation and re-subdivision" of existing "developable lots" of 1,500 sq. feet or more. Olowalu Mauka was not required to go through the County's formal subdivision review process. Instead, the county allowed twenty-nine Royal Patent or Grant parcels, four formerly subdivided parcels, two road remnant lots and 3 portions of other lots with existing TMKs, to undergo "consolidation and re-subdivision" into Lots 1 through 39 of the new Olowalu Mauka subdivision. This resulted in a one-time "lot line readjustment" with a prohibition on further consolidation and re-subdivision provided in Ordinance 2372. It is our understanding from the DEIS and, based upon 2002 Olowalu Elua Plat map for the Olowalu Mauka lot line adjustment, a number of these formerly consolidated and re-subdivided lots, such as lots 16, 17, 19, 20, 22, 23, 24, 38, 36, 39, are being proposed to be re-subdivided as part of the Olowalu Town Master Plan process, and further broken down into other rural, urban and ag house sites.

The county has informed the applicants that their SMA permit for the 39 parcels is no longer valid and that conditions of SMA approval have not been met. It is unclear if the 23 subdivided lots that are the basis of this proposed action have been formally subdivided. The intention of the streamline procedure of Ordinance 2372 is not to create additional developable lots. Whether further subdivision of these lands, is a permissible action, under existing county law, should be clarified by state and county agencies.

Several of the lots may have been sold to the Olowalu Mauka homeowner's association but never utilized for their intended purpose. These same lots appear to be proposed for a boundary amendment consideration and use for rural subdivisions, roadways or other improvements without owner's being consulted. This should be addressed in the FEIS.

A map should be provided in the FEIS that overlays the original parcels involved in the Olowalu Mauka subdivision and indicates which parcels or portions thereof, are under jurisdiction of the homeowner's association or other private owners, and what their role would be in the Olowalu Mauka Master Plan. Impacts to existing residents must be discussed in the EIS to comply with HRS Ch 343.

Maui Island Plan Consistency:

HRS CH 343 requires an EIS to fully discuss viable project alternatives. This DEIS fails the most basic level of consistency with Maui County community and general plans. Maui Island Plan (MIP) maps are included in an obscure Appendix ("O") at the end of Vol. II of the DEIS, with no

discussion of the discrepancies in the recommendations shown for Olowalu Town on the three maps.

LUC rules require the proposed District Boundary Amendment (DBA) to be consistent with state and county long range plans. The West Maui Community Plan shows the subject parcel as Agricultural and strongly recommends that continued status. Three MIP maps show different recommendations of West Maui Urban and Rural Growth Boundaries. The proposed project, as shown on maps throughout the DEIS, does not conform to any of these three recommendations. This is not mentioned in the DEIS as the document states that the Olowalu Master Plan has been recommended by both GPAC and Maui Planning Commission MIP review.

The General Plan Advisory Committee (GPAC) MIP map shows mauka portions of Olowalu Town in a rural and urban growth boundary, but deletes the northern makai section of the project. The Maui Planning Commission MIP map shows mauka portions of Olowalu Town in a rural and urban growth boundary, but deletes the entire makai section of the project. The Maui Planning Director's MIP map shows only the existing uses in the Olowalu area. The Planning Department has consistently not supported including the Olowalu Town in the Rural or Urban growth Boundary. No map or text in the DEIS refers to any of these three scenarios.

The Olowalu Town DEIS does not reveal that all versions of the MIP West Maui directed growth maps show a surplus of several thousand units over the actual projected housing demand if Olowalu is included.

The LUC should consider that Olowalu Town is proposed for an area with no existing public infrastructure and potentially high impacts to natural and cultural resources. Many expensive and non-traditional design options are being proposed to "prove" that the project will do no harm and provide beneficial services. If these proposed actions are not followed during the development process, it is almost certain that serious impacts will occur and promised benefits will not be realized.

Historically, after LUC and county approvals are given appropriate conditions projects pass through successive ownerships. Succeeding owners often petition authorities to be relieved of the very same conditions that were considered essential to mitigate public and agency concerns. The result is environmental degradation and loss of promised public benefits.

We see from comments in the DEIS that both the County and State Planning offices asked for much more detailed maps and other needed information to be included in the DEIS but appear to be overlooked in the DEIS.

Key issues:

Affordable Housing

The DEIS offers no specifics as to how the 50% affordable housing mentioned on p. 24 will be provided. It states the average market priced home is expected to be \$600,000 and that the project will comply with the county's Residential Workforce Housing Policy. That policy now provides that developers, where market price units are \$600,000 or less, need only to supply 25% of the unit count within the HUD affordable guidelines. Will an agreement be signed that obligates present or future owners to provide 50% affordable units, regardless of county statute provisions allowing less units to satisfy affordable housing requirements?

Public Services:

Schools - Will Olowalu have onsite schools for its 462 students? Other developments of this size have substantial discussions with the state DOE in place by the time of their DEIS. This project appears to only to discuss "impact fees" with the DOE, not the building of future schools, yet its literature describes children walking to nearby schools. Impact fees would suggest that students would attend schools in Lahaina, but the DEIS assumes schools would be onsite and does not account for traffic impacts of transporting students to Lahaina schools or explain if there is a level of impact fee that could actually provide the facilities needed for the 400 plus students over a ten year horizon. Would the Olowalu schools be private? A project that expects to be completed in 10 years should have a firmer plan for this essential community amenity.

Fire Station - Olowalu is a high impact fire area. Developing the area and providing firebreaks will not free it from fire danger, as the majority of past wildfires came from lands either to the east or west, outside the subject lands and fanned by high winds, common in Olowalu. USGS Maui Hazard Maps rate the Olowalu area as a "high" fire risk and the county fire department thought a fire station in the area would be a "good idea," but key information is missing. How much would it cost to build and staff such a facility? Where would funding come from? How long would it take to implement that process? What impacts to existing Lahaina fire /emergency services are anticipated if Olowalu Town develops and no fire station is available on site? How will these be mitigated?

Also of key importance is the availability of sufficient water supply for fire flow requirements to serve an urbanized Olowalu area. While fire flow requirements in terms of number of gallons per unit or number of hydrants needed, are listed in various sections of the report, no overall fire flow water demand figure is mentioned. This information is usual in EIS documents.

Fire flow demand is listed but not calculated to reflect in the project's potable or non-potable water use demand totals. If such figures were provided, based upon the standards listed in the DEIS, over 2 million gallons of (presumably non-potable) water would be needed over a 24 hour period to effectively control fire outbreak. The storage capacity of the existing reservoirs still used onsite is not given but historic reviews note that two reservoirs had a combined capacity of 1mgd. This is half of what would be needed during a fire event.

The DEIS should make clear how many of the 4 existing reservoirs are planned to be used; what their combined capacity is; what other mitigations are needed to provide adequate fire flow resources; and if provision of this amount of water for fire flow could impact ag, domestic or traditional and customary water uses in the project area.

Police Services - The existing Olowalu area has a low demand for police services. That will change if Olowalu Town proceeds. The DEIS states that areas will be "provided" in the Master Plan for public facilities such as police station, library, fire station, schools, etc. but it should be specific about the projected building and staffing costs for these services; expected timing of a future police facility and what impacts the additional development areas at Olowalu would have on existing Lahaina public safety services. The DEIS should state if land for future public safety facilities will be donated or offered for sale to respective county departments.

Infrastructure

Potable Water - Information provided in the DEIS regarding both demand and availability of potable water resources for the project is inconsistent. How much water the Olowalu hydrological unit (surface and stream water) has available and where it should go is left largely unexplored by this DEIS, even with the 21 page "Impact on Water Resources Report" in Appendix. C.

The average Olowalu household will use between 250 and 550 gpd of potable water and between 590 and 785 gpd of potable, non-potable and reclaimed water combined. This assumption is made with no statistics that households in Olowalu or other dry areas of West Maui maintain similar usage rates.

Olowalu aquifer's sustainable yield of 2 mgd is underestimated and may be as high as 6 or 7 mgd due to recharge data updated by USGS in a 2007 study. The DEIS does not refer to other USGS studies showing a trend of diminishing rainfall levels in West and Central Maui, or the latest USGS report (2012) which specifically re-evaluates Olowalu's recharge data downward from the 2007 study.

The assumption is made that the primary well for the Olowalu private water system, which has never undergone substantial pumping for any period of time, is capable of increasing its production ten fold with no impacts on groundwater or stream flow even though the Olowalu well is in close proximity to Olowalu stream and their water chemistry appears to link them to the same basal source.

It is also assumed that additional wells, planned in the vicinity of the existing well and proposed to serve the Olowalu system, will have no impacts on stream flows, cultural uses of the stream water or near shore discharges of freshwater necessary for the marine ecosystem. General trends in the area would indicate otherwise.

Another assumption is that consistent low chloride levels in the low elevation Olowalu well will remain reliable even if pumping increases from 50,000 gpd to over half a million gpd with no cumulative impacts on water quality. These assumptions have not been tested.

No drought water management plan for the development is discussed, even though world weather trends forecast increasing drought conditions and the project's consultant acknowledged the plantation wells became too salty for agriculture during a 1970s drought (with a pumping demand of several mgd)

The Olowalu Town water use analyses assumes that .7 mgd average, up to 1 mgd maximum of potable water will be withdrawn from Olowalu aquifer at project build out. A recently released USGS water modeling study for West Maui, commissioned by Maui County, bases its calculations of safe yield for Olowalu aquifer on groundwater withdrawals of no more than .53 mgd by 2030. The difference is not mentioned in the DEIS. The FEIS should be updated to reflect this study.

Nearly five thousand residents, businesses and public facilities could be dependent upon the Olowalu well system for their only water supply. The DEIS fails to discuss any plans to install a monitoring well to track the health of the aquifer that currently has very limited data. It refers to Commission on Water Resource Management (CWRM) and Department of Health (DOH) requiring monitoring data, but does not clarify that this will consist of limited water testing and continuing pump reports, not assessments of the aquifer health and water levels.

No mention is made in water calculations if ohana units will be permitted in Olowalu above the stated unit counts which could affect water calculations

Inconsistencies in Data Provided:

The DEIS states that current potable water use on the private Olowalu Water system is 75,000 gal/day (.075mgd) and that the water company relies on one well with a reported average pumping of 55,000 gal/day (.055 mgd). Does .055 mgd or .075 mgd represent current average usage of the system?

Potable Water Demand Forecasts are Unrealistically Low:

CWRM, the county's Dept of Water Supply (DWS) and others have commented that the project's projected potable water use of 250 to 550 gpd per dwelling unit, 590 gpd total water use for multifamily and 785 mgd total use for single family units is unsupported and does not reflect any recognized county planning standard. 1000 gpd/household is a minimum standard in dry areas of Maui. The Olowalu EISPN in 2010 projected water use of .75 mgd. The DEIS specifies .7 mgd., 500,000 gpd less yet the difference is not addressed.

EPA estimates average American water use at around 100 gal/day per individual for potable purposes. Olowalu Town DEIS is assuming that 930 residential units, both single and multi family will use less than 70 gal/person/day. While water conservation is desirable and needed, it is unlikely, without some sort of stringent "enforcement" that these idealized demand figures will be the norm. It is not made clear if this strict water budget will mean that private swimming pools (which require potable water) will be prohibited.

The DEIS provides a list of very low projected water demands both for potable water and for potable, non-potable and reclaimed water use combined (Table I2 in Append. C. Water Resources study), but does not say how they will be achieved except that the non-potable system providing stream water will relieve potable demand and stream flows will remain the same, due to ditch repairs.

Will this strict water type separation need to be monitored or enforced? If there is no enforcement proposed, the FEIS should examine project impacts based upon a more realistic potable and non-potable water demand. It appears the demand calculations are being manipulated to not exceed the sustainable yield limits of the aquifer as this does not reflect current use patterns.

Current Water Use Patterns in Olowalu: current use = 75,000 gal/day potable water. Existing residential hookups = 25 to 30 plus the plantation manager's house, Olowalu store and restaurant, and Camp Olowalu. The estimated 35 users dividing the 75,000 demand would mean 2,142 gpd per hookup. Current domestic users have access to well over 1000 gpd average per hookup with usage going higher in dry summer months.

Is it realistic to assume that future users will limit their total use (potable & non-potable) to 600 to 785 gpd or assume that 1500 housing units will use 225-550 gpd of potable water consistently? The DEIS provides no detailed use figures for present potable and non-potable system users.

Kapaiki Village has 13 hookups. Olowalu Mauka has 7. If the DEIS provided us with use figures for these residences (which are readily available from company billing records) we could have a better idea of realistic water use by future residents.

The DEIS acknowledges that the Olowalu Water Company has been operating at a substantial loss over the past few years, and has recently sought and been granted a rate hike by the PUC. Will the Olowalu Water Company realistically be able to invest in the upfront infrastructure promised in the DEIS? Does it plan to sell shares? No strategy for its viability is discussed, yet it will be the sole source for any future resident's water supply.

The FEIS should include two additional analyses of residential potable water use:
Analysis 1 - Use of at least 500 gal/day /housing unit for a total potable demand of .9 mgd and a peak demand of 1.35 mgd. Comments from the Maui DWS Aug. 2010 letter noted: water demand would be between 900,000 and a little more than 2 mgd of water "according to system standards." The Department reminded the applicant that the Olowalu aquifer sustainable Yield is 2 mgd.

Analysis 2 - Use of 1000 gpd for the 450 units not served by non-potable systems = .45 mgd and 500 gpd day for the 930 units that have access to dual systems =.465 mgd
This scenario would project a demand of 1.22 mgd with a peak demand of 1.83 mgd.

This scenario would project potable use at full build out at the present sustainable yield of Olowalu aquifer and should be discussed in the FEIS as this may prove to be the project's actual water demand. Given that the average water use of West Maui residents with no access to non-potable systems is 1200 to 1500 gpd or higher, these analyses should be considered.

Groundwater Impacts:

Pioneer Mill wells in the area pumped brackish water during plantation operations. Olowalu Elua Water Company should conduct substantial testing of its existing wells before committing to a project of this size. While abbreviated water quality samplings from two of the three system wells and Olowalu stream were included in the DEIS, they were in a format that was difficult to interpret. It seems the project's consultant is depending on the Olowalu wells steady performance under low pumping demands to demonstrate that no further information about the aquifer's characteristics is needed.

The DEIS states that CWRM, Public Utilities Commission (PUC) and DOH will make sure the system is sound and functioning properly. MTF believes that 10 day well testing at successively higher rates should be conducted. The test should record chloride, nitrate and head levels observed in the subject well, as well as fluctuations in stream flows. Test results should be included in the FEIS.

Stream Waters:

No figure is given for current stream water withdrawals through the existing non-potable system. Information provided in the DEIS agriculture use discussion states that at least 50,000 gpd is currently utilized for 30 acres of agricultural activities. Is it realistic to assume that only .39 mgd of stream water would be needed if two-thirds of the residents are depending on non-potable water for irrigation, with some are engaged in agriculture on 161 acres set aside for that purpose? If present levels of agricultural water demands (1,600 gal per ac) extended to the 161 acres, agricultural water demand alone could be .268 mgd. This combined with the surface water allotted in the DEIS for conservation lands, 112,500 gpd, results in a total of .38 mgd required for these two activities, virtually all of the proposed supply. The FEIS should present more realistic alternative stream water use scenarios and analyze potential impacts.

How much stream water is currently utilized by local residents with kuleana rights; are there unmet claims or needs? 112,500 gpd of stream water is allotted for conservation lands in the water demand table; if kalo water use is included in that allotment, it should be made clear.

The DEIS Water Impacts report (Appendix. C) concludes that a 6% reduction of coastal groundwater discharge in Olowalu would have no impact on the near shore fisheries. No studies were given to support this conclusion. The Impact report quotes USGS gaging records from the

1960's that showed 20% of Olowalu stream flow reaching the ocean annually. USGS recently completed a West Maui groundwater study and included a model where stream flows were restored from Ukumehame to Honokowai to prolong aquifer life. The FEIS should consult with USGS staff and include any updated information available on Olowalu stream flows beyond the one visual observation referred to.

The water impact report also assumed that over the years hydrological conditions would remain static, even as increased groundwater pumping was needed. The FEIS should work with the USGS now completed computer model of West Maui hydrological conditions. Several scenarios of pumping and well location should be considered in light of impacts of well draws on "leakage of high level groundwater." (the consultant's description). Such groundwater may be a part of an "unconfined aquifer "supplying Olowalu stream.

Former Olowalu Plantation wells were located near reservoirs and may have depended upon them leaking for groundwater recharge. The FEIS should report any current pump tests that show the backup viability of Pump O, now that the nearby reservoir is dry. Also, it should be determined how much leakage is occurring from the unlined reservoir still in use near the Olowalu Mauka subdivision; what its capacity is; and whether there are plans to line it as part of the ditch system repairs described.

Careful monitoring of the Olowalu aquifer and stream needs to be part of any development process. It has been noted in the DEIS that Olowalu stream has gaining and losing sections connected with what may be an unconfined aquifer. USGS studies point out that under light well pumpage 100 percent of the water supplied to a well comes from ground-water storage. Over time, and heavier pumping, this can change as underground water sources for the stream are "captured" by the well. Over the course of years, the well's dominant water source, particularly wells in an unconfined aquifer, commonly changes from ground-water storage to surface water and "the stream flow in general is reduced as an effect of pumpage."

The newest USGS (Gingerich & Engott, 2012) groundwater study of West Maui suggests that Olowalu stream provides 1.98 mgd of groundwater recharge to Olowalu aquifer. The report also notes that groundwater discharge at the coast in the Olowalu and Launiupoko areas has diminished over time. This updated information and consultation with USGS should be incorporated into the project's water planning model in the FEIS.

Although it is assumed that Olowalu Town's fire flow requirements will be met by non-potable surface water, this use was not included in the projected .39 mgd non-potable surface water use figure. The FEIS should address this issue, discuss actual cumulative amounts of water needed for fire flow, where it will be stored and any impacts the demand for 2 mg of fire flow over 24 hr would have on water resources over a variety of seasons. This is especially critical since low rainfall months where stream flows may be low, are usually high fire risk times.

There is no discussion of water operational needs of the proposed wastewater treatment facility. Will it depend upon treated effluent for backwashing filters and other standard maintenance or will additional surface water be needed for operational use? If so, how much would be required, and where are these amounts shown in the project's water demand calculations?

No specifics on the proposed hydro-electric facility was included in the DEIS. Would such a facility require additional diversions or modifications? Would there be impacts to stream life? The project consultant suggested that "due to high amount of ground seepage, even if dam were removed, the stream would still be intermittent" (Nance 2011) but offered no proof. Would

any future hydro-electric installation preclude additional stream flow restoration? Please discuss in the final EIS.

The applicant's water consultant refers to Olowalu Stream having a base flow of 4 mg between the years 1911-1967. It is clear from reports on file and company records that the plantation was often short of stream water, hence the drilling of the groundwater wells. The FEIS should acknowledge that rainfall conditions in Central and West Maui post 1967 have steadily declined, according to USGS report-5103 (Engott and Vana, 2007).

Reduction of demand for stream water in the Olowalu project to .39 mgd is dependent in part on production and availability of reclaimed waste water from the project being treated at its wastewater facility. The DEIS (p. 158) gives a figure of .24 mgd of treated effluent available for irrigation, but does not specify how many residences would need to be in place before that amount is reached. A different figure of .391 mgd of available effluent is given in Appendix C. Table 2: "R-1 treated Effluent available for Irrigation Re-use". Which figure is correct?

Is there a back up plan if the community develops more slowly than expected and only minimal effluent is available for many years; would landscape design be modified accordingly? The FEIS should discuss the timing, phasing of pipe infrastructure to deliver the reclaimed water, and residential build out level necessary to produce enough effluent to relieve pressure on stream resources.

Wastewater:

No costs are given for the proposed state-of-the-art wastewater facility. In Appendix B (Preliminary Engineering Report- p. 9) estimated dry weather wastewater discharge was 533,000 gal day. In Appendix C. (Table 2) it is stated that 391,380 gpd of wastewater effluent is available for irrigation. In the body of the DEIS the figure of 24,000 gpd of irrigation effluent is given without explanation for the difference; please clarify in the FEIS.

The DEIS refers to a 2-acre constructed wetland in conjunction with the waste water treatment facility (WTF) for storm events, then states that the wetland will use .14 mgd of effluent. Please state the wetland's capacity and whether it will function year round or only for storm events.

The WTF Plan (p.166 fig 19) does not show the proposed wetlands in relationship to the WTF or distance to the ocean. Is the proposed plant within 100 meters, 1000 meters; is it subject to sea level rise? The proposed Olowalu sewer system relies on pumping; is there a back-up generator incorporated into the plan if power supplies fail? How much sludge or "bio-solids" will be generated from the WTF and where will it go? Please clarify in FEIS.

What is the capacity of the WTF's R-1 water storage tank and how does a "soil aquifer treatment system" function? Please state in FEIS how many existing Olowalu residences and businesses have septic systems and whether they will be able to hook up to the WTF, and if so, the expected cost to hook up.

The DEIS water report concludes (on p. 13) that the availability of R-1 wastewater will "significantly reduce demand for ground water resources". Since no integrated information is provided in the DEIS regarding existing use of stream water in the Olowalu system by cultural reserve users, farmers or homeowners, what is this statement based on? Will single family homeowners be able to use the reclaimed water for landscaping? The FEIS should provide specific comparison figures.

There are several natural drainage ways in the proposed vicinity of the WTF. Will these affect the plant's performance or put it at risk of overflow during storm events? The facility's general location is not discussed, except in terms of its proximity to the county waste transfer station.

Drainage:

Pg. 4 of the Preliminary Engineering Report (Append. B) refers to natural features in the Olowalu area such as "Pu'u Kaiwaloa." The report may be referring to Pu'u Kilea which is a natural feature while Wa'iwaloa is a heiau site. If this is an error, please correct.

Appendix B also refers to "several un-named drainage ways including Olowalu stream." (p. 5) Obviously Olowalu stream is a named drainage way. Several other gulches in the Olowalu area appear to have names on Maui County's large format resource maps of the area. The report should reveal that Olowalu stream drainage has been altered from its original path. The existence of the ditch and reservoir systems should also be included in the drainage discussion.

The Brown-Caldwell report (appendix B-1) in the DEIS spoke to the need to "aggressively implement" BMP's outlined in report due to the project's location adjacent to "one of the most significant, accessible coral reef systems on the island of Maui."

MTF requests the FEIS include an analyses of what the potential impacts would be if the Olowalu project is approved and these practices are only partially implemented or implementation is delayed. The FEIS should also discuss the cost of implementing all recommended BMPs and how this will affect the cost of a single dwelling.

The Brown and Caldwell report states their conclusions are "Based upon info provided by Olowalu Town, LLC. Unless otherwise expressly indicated, consultants have made **NO INDEPENDENT INVESTIGATION AS TO VALIDITY, COMPLETENESS OR ACCURACY OF SUCH INFORMATION.**" Independent investigation should be required for a project promoted as "ahupua'a based."

On p.19 of Appendix C the report assumes that the construction of retention basins may "improve runoff conditions in Olowalu during smaller storm events" yet no empirical proof from West Maui has been offered. The FEIS should provide facts to support this statement.

The DEIS states that the project has 140 acres of "green space" available for drainage use, 15 to 20% to be used for storm water retention basins. The DEIS should include a map indicating the design of basin system. Does any of the "green space" proposed for drainage lie adjacent to the cultural preserve areas, burial areas, and cultural sites or are they in a separate protective zone. MTF requests that the FEIS include a map of retention areas overlaid on cultural site locations to clarify and avoid unintended consequences.

On p. 8 Appendix -B the DEIS states: Onsite and underground detention basins located within park and green space will have a storage capacity of 105 ac ft and are expected to reduce present run off by 10%. Overflow from the basins will continue down stream at "no greater than pre-development rates" therefore there will be no "adverse affect on downstream properties." This statement does not analyze if there are already adverse affects to the shoreline and marine environment under current conditions?

The DEIS fails to mention who or what monitoring program will be used to evaluate the effectiveness of the basins and other BMP practices. Who is responsible for maintaining the basins and will homeowners be able to afford the upkeep? Other retention basins in West Maui

have proven ineffective because they were neglected. The FEIS should clarify monitoring and maintenance efforts.

A statement is made that Olowalu's marine life, reefs and near shore waters have had "limited" impact from human activities, therefore a water quality report was prepared to address any potential impacts. The DEIS dismisses the possibility that low-lying areas of the project site, have functioned in the past as intermittent wetlands providing run-off filtration areas during storm events. Now that these areas are proposed for high-density residential development, please provide information on how retention basins placed elsewhere on the property provide the same capacity to protect the reef. Could the project be designed to avoid development in natural, low lying retention areas?

MTF asks that the FEIS address these topics under the "Alternatives" Section

Traffic Impacts:

Substantial traffic impacts of this project are not addressed in the DEIS's Traffic Impact Analyses Report. (TIAR) Impacts to Honoapiilani Hwy are not discussed, other than the relocated segment of the highway proposed to pass through the project. Traffic bottlenecks that may occur at either end of the new alignment are not addressed.

The Olowalu TIAR assumes that Honoapiilani Hwy will become four lanes on the Lahaina side of the project. This widening project may be on a STIP list but it's unclear when funding would be available. The likelihood of this road being built concurrently with any future Olowalu project should not be treated as an automatic mitigation for the traffic impacts that urbanization of Olowalu will bring to the area's only through road.

The DEIS states that the existing Honoapiilani Hwy will become a "low-volume, low speed coastal roadway." It appears from the maps included that the applicants propose to remove several segments of the road and merge the former State ROW lands into their project lands. The DEIS does not discuss if this removal would lead to coastal access challenges.

The phasing of various roadway infrastructure projects is not discussed. Would portions of Olowalu be built before Honoapiilani Hwy is moved inland? What are the impacts from the disruption in traffic patterns on the existing highway? How many phases will the project's construction have? The DEIS is a disclosure document and should contain this information.

Since it is unclear whether the Olowalu project will have new residential neighborhoods before the realigned roadway is constructed the DEIS should discuss impacts and mitigations such as a temporary traffic light during high use times to allow pedestrians and bicyclists to cross the road safely. Impacts of construction vehicles in the area should also be discussed.

The DEIS notes that the newly aligned Honoapiilani Hwy will have two primary access points but the map provided in the DEIS appears to have a confusing web of roads for navigation through Olowalu. It appears that this new "small town" built around "walking" will be separated by a 200 ft wide road right of way.

Natural Environment:

Flood and Tsunami Hazards and Sea Level Rise - The Olowalu area faces multiple natural hazard risks as it is an area of high winds, wild fires, low lying erosion-prone coasts, is subject to flooding from storm events, tsunami inundation and seismic activity. The DEIS downplays these factors and emphasizes compliance with county building codes as the only needed mitigation. Avoidance of high impact areas should be discussed.

The DEIS (p. 8) stated "In Olowalu, erosion rates and potential impacts from sea level rise have not been identified." This is not entirely accurate. There are historic (1912-1997) coastal erosion rate maps for Olowalu posted at: <ftp://soest.hawaii.edu/coastal/webftp/Maui/Posters/Olowalu.jpg>

USGS has a synopsis of impacts affecting Olowalu in their web-based "Index to Technical Hazard Maps." The region is described as "moderate to high" in the USGS Overall Hazard Assessment due to "the low coastal slope." The tsunami hazard is ranked "high along this entire low-lying coast." The report concludes that the "erosion threat is ranked moderately high" beyond Hekili Pt. and "sea level and volcanic/seismic hazards are moderately high because of the low coastal slope and Olowalu's location within seismic hazard zone." Information such as this should be incorporated into an environmental document as it describes the surrounding environment as assessed by hazard management professionals.

A map should be provided in the DEIS of the proposed housing unit locations, parks, open space etc. overlaid on the FEMA Special Flood Hazard Areas, as well as the County Planning Department's Sea Level Rise Maps. The State Office of Planning asked for such a map to be included in their 2010 EISPN comments., but no action was taken.

Coastal Access:

The DEIS refers to a 150 ft set back along the shore. It should be clarified if this 150 buffer includes an 100 ft-wide state beach reserve along much of the oceanfront portion of the Olowalu property. If it does, it would be more accurate to describe a fifty-foot shoreline setback buffer beyond the existing beach reserve. The FEIS should discuss why a two hundred ft building setback is not proposed: 100 ft state reserve and a 100 ft buffer beyond that.

How many additional coastal access points will be created; how much parking area will be provided; and will current cultural and recreational access be impacted by the proposed Honoapiilani road realignment and removal of road segments? Will the land that was public right of way remain public? Where will new camping areas be established? The FEIS should provide specific information comparing present and future coastal access in the Olowalu area.

Coastal Zone Impacts:

The DEIS shows the SMA zone as affecting very little of the proposed project yet the Maui County Planning Department points out that the entire project area will need to comply with SMA permit review. The FEIS should make this clear and discuss strategies to meet coastal zone policies, including improved access. While the DEIS promises the project will have "minimal grading" no specific amount of cubic yards moved is given to qualify that statement as accurate. Coastal grading is already going on what appears to be Olowalu Elua land near Camp Pecusa. Is this part of the Master Plan?

Wetlands:

On p. 27 the DEIS claims the project "does not endanger any wetland" and affirms that there are no wetlands nearby or in project area. It is our understanding that lands in Ukumehame are considered wetlands. An area of "gley soils" consistent with intermittent wetlands is found near burial site no. 4693 in the Makai section of Olowalu Elua land. The area is recorded in Fredricksen's 1999 AIS. Olowalu needs functional wetlands to keep its reefs healthy.

Marine Resource Impacts:

Scientists, researchers, recreational users and regulatory agencies agree that the reef system from Olowalu to Ukumehame is outstanding in its variety of species and biological importance. They also agree that this is the last well functioning reef system on the West Maui coast.

The importance of this reef was so great that in 2000 Native Hawaiian group Na Kupuna O Maui attempted to intervene in the SMA permit process for the proposed Olowalu Mauka subdivision. As a result of a private settlement for the intervention, Na Kupuna O Maui was given around \$20,000 to use for a marine resources baseline study of the area's reefs, marine water quality and biological diversity.

Dr. Eric Brown was contracted to do the study which was designed to span both wet and dry seasons. The study results were published in 2003 and were included in the Olowalu Town EISPN (2010). It was the understanding of Na Kupuna O Maui that periodic updates of the baseline study would be done to monitor the effects, if any, of the development of the Olowalu Mauka subdivisions and the two makai subdivisions. The funding provided was sufficient for a two year process and appears to have been utilized. No additional monitoring work appears to have been done until the recent study by Dr. Dollar. It is essential that the FEIS discuss the applicant's plans for ongoing monitoring of the marine ecosystem in Olowalu and adaptive management strategies to deal with any impact trends identified.

Comments on Appendix D-Marine Resources Report:

The Olowalu Town DEIS includes a report dealing with marine resources and analyses of potential impacts to near shore waters. The project consultant spent four days surveying the area, conducting one water quality sampling, and his conclusions downplay any potential impacts to the area.

Earlier baseline studies of this same reef from ca. 2000-2001 (Brown, et al, 2003) included varied seasonal components but their conclusions are not referred to in the DEIS. The current marine resource study results support a forgone conclusion of "no impacts" as long as Best Management Practices (BMP) are implemented but does not discuss what would happen if BMP's are not followed, or prove ineffective. This is the key information required under Ch 343 guidelines and discussion of impacts is incomplete without this comparison.

Successive West Maui coastal and coastal uplands developments have made the same assumption: retention basins would be in place; BMP's would be followed; there would be no impacts yet the reefs of Honolua, Kaanapali, and Napili have been degraded. The reefs of Kahekili have declined sharply in the last decade and only the Olowalu reef has held its own.

This is not mentioned in the Appendix D report on Marine Waters and Biotic Resources. Nor is it mentioned that Olowalu's marine consultant was a frequent consultant on other West Maui projects where his reports also reached the conclusion that with proper mitigation there would be no impacts.

The DEIS Marine Resources study states that the near shore "mixing zone" for groundwater and seawater is restricted to tens of meters from shore yet experienced divers have observed that daily afternoon wind and waves mix surface freshwater into the water column beyond this near shore groundwater discharge area where it interacts with the reef ecosystem. Studies at Kahekili reef in Kaanapali illustrate that ground water goes beyond the "mix zone."

Scientists have observed elevated nitrogen levels at many natural dry land areas on Maui. One explanation given is that many common plants fix their own nitrogen (i.e. kiawe) and this excess

nitrogen enters into the ground water. Areas like Olowalu have fairly high nitrogen levels entering the system and this has likely been the case for hundreds of years. As a result the ecosystem has likely adapted to this condition. Local fish and sea urchins keep the nitrogen fed limu population down. Changes to this system, like alterations in the amount and location of groundwater discharges, can have substantial impact on the reef ecosystem in that area. We can not predict what these impacts will be yet the DEIS does not acknowledge even the possibility of these future impacts.

Groundwater discharges will likely decrease 6% but it is presumed to have no effect on marine ecosystems since the consultant concludes that "at present, groundwater is so restricted in distribution that there is no effect on marine community structure." Dr. Dollar and Tom Nance offer no sound scientific proof for this statement. Future development patterns may cause groundwater now discharged in one location to be reduced but may increase in other locations from irrigation and other alterations on land. A city of 1,500 units will significantly increase the water use on land and water will seep into the ground and enter the water somewhere. These changes are likely to affect the marine ecosystems in some form. The DEIS ignores the need to consider the likely effect of changes in groundwater discharge patterns by avoiding any in-depth research and offering an unverified assumption as fact.

The developers state that the use of treated effluent for irrigation will have no influence on marine ecosystems but treated effluent may seep into the ground and work its way to the ocean. The project's marine consultant does not comment on whether this may happen in locations not adapted to this type of groundwater discharge.

They also state that aggressive use of retention basins will improve conditions resulting in less sediment run-off. While sediment retention in the Olowalu area can be absorbed it should be improved after over 100 years of sugar farming. It is important to note that Olowalu's low lands are mostly undeveloped at this point, allowing heavy rainfall to flood the area and be absorbed with less impact on residents and near shore waters.

Development proposed for these lowlands will change this pattern as increased urbanization means more roads, homes, lawns and other surfaces that do not naturally retain rainfall. Water will move down slope more quickly and this will result in increased land-based pollution reaching the reef. Despite engineering claims made in the DEIS, it is unlikely that a development of this scale will improve overall conditions.

It is stated that individual residences and structures will use rain gardens to minimize run-off, and this will minimize impacts the project might have on near shore water quality. Building and landscape design and individual efforts have an important role to play in minimizing non-source pollution and runoff impacts but no solid evidence is offered regarding what proportion of residents will participate or how many structures will incorporate these measures into their design and maintenance. It should be acknowledged that under the most likely scenario there will be an overall increase in impervious surfaces that will likely increase run-off. The DEIS should evaluate the possible impacts of run-off rather than taking the position that it will never reach the ocean as this has not proved true anywhere on Maui.

Dr. Dollar's observation, taken over a brief time span, that the number of large fish on Olowalu reef is very low most likely due to fishing pressure, does not match the observations of ongoing researchers in the area who characterize Olowalu as one of Maui's "prime marine ecosystems." Researchers point out that overall, fish biomass in Olowalu is equal to that of most of our Marine Life Conservation Districts, where fishing is prohibited or strictly regulated. These researchers

describe Olowalu's offshore reef structure as: "very healthy, diverse and provides excellent structured fish habitat. Even with heavy fishing pressure, we regularly see large parrotfish in this area."

The DEIS should examine whether a major development would change the existing marine ecosystem. Unlike the project consultant, local marine researchers characterize Ukumehame/Olowalu reef complex as "the last well functioning large coastal reef flat along the leeward side of Maui." It is home to some of the rarest coral species still remaining on Maui. Marine scientists, cultural practitioners, and researchers urge policy makers to seriously consider the consequences of development in this area.

The conclusion of the Olowalu marine resources consultant that as long as BMPs are utilized and retention basins maximize sediment trapping, "there is no rationale to indicate potential changes that could be considered negative impacts to the marine environment" is not based on sufficient research and does not take into account other reviews of the area such as Dr. Brown's earlier baseline study.

In Conclusion:

The Olowalu Town DEIS is missing essential information needed to evaluate the project's impacts to local residents, natural resources, and existing infrastructure. As such it does not comply with HAR 11-200-16: "*The environmental impact statement shall contain an explanation of the environmental consequences of the proposed action. The contents shall fully declare the environmental implications of the proposed action and shall discuss all relevant and feasible consequences of the action.*"

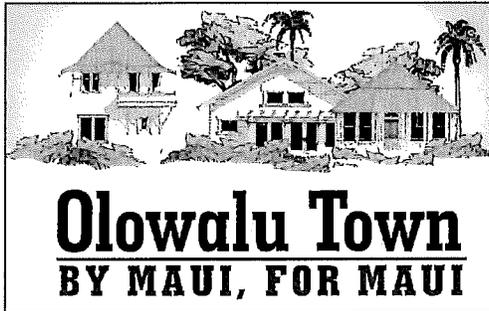
The DEIS does not conform to the West Maui Community Plan (1996). It ignores the major changes in project design recommended and shown in adopted maps of citizen advisory groups who reviewed the project for inclusion in the Maui Island Plan, (MIP) yet repeatedly refers to the fact that both bodies recommended the project be included in the MIP growth boundaries.

The Olowalu Town DEIS does not review, describe, or consider any meaningful alternative design, density or configurations for the project that could reduce its environmental impacts.

Such alternatives could include:

- A smaller project footprint and unit-count to avoid impacts to groundwater supplies
- Deletion of development areas maikai of the current Honoapiilani Hwy (as recommended by the Maui Planning Commission and adopted in their MIP map)
- Project redesign to avoid development in low lying regions along the existing highway.
- Minimizing urban elements of the project into a smaller footprint
- 5. Proposing a similar project design in a more inland location

Because the DAR does not discuss any of these alternatives it does not comply with disclosure and discussion standards required under HAR 11-200-17: "*The draft EIS shall describe in a separate and distinct section alternatives which could attain the objectives of the action, regardless of cost, in sufficient detail to explain why they were rejected. The section shall include a rigorous exploration and objective evaluation of the environmental impacts of all such alternative actions. Particular attention shall be given to alternatives that might enhance environmental quality or avoid, reduce, or minimize some or all of the adverse environmental effects, costs, and risks*" including alternatives related to different design or details of the proposed actions which would present different environmental impacts. In each case, the



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October 26, 2015

Maui Tomorrow Foundation
55 N. Church Street
Wailuku, Hawaii 96793

SUBJECT: Draft Environmental Impact Statement for the Proposed Olowalu Town Master Plan at Olowalu, Hawaii

Dear Sir:

Thank you for your Foundation's letter of April 23, 2012 providing comments on the Draft Environmental Impact Statement (EIS) for the Olowalu Town Master Plan (OTMP). Also, since your letter, two (2) Alternatives are under consideration. Alternative 1 includes the lands mauka and makai of Honoapiilani Highway and Alternative 2 includes only the lands mauka of the highway. Further, we offer the following information to the comments noted in your letter.

Comment No. 1:

Proposed Boundary Amendment Action- Compliance with LUC Rules:

§15-15-77 HAR: Decision-making criteria for boundary amendments, in Section 5. of 15-15-77 asks that decision making include consideration of: "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;"

Past commitments have been made by co-applicant, Olowalu Elua LLC to existing homeowners and county regulatory agencies. Many of these commitments have been ignored, possibly due to the cost of compliance. Will the many complex and expensive actions referred to in the applicant's DEIS be implemented if the Boundary Amendment is granted? These measures would be vital to mitigate the impacts of this development.

Response:

The Applicants for the OTMP project are Olowalu Town, LLC and Olowalu Ekolu, LLC which are separate entities from Olowalu Elua, LLC. To clarify, therefore, Olowalu Elua, LLC is not a party to the State Land Use Commission (LUC) petition.

We acknowledge the LUC as a matter of practice, includes a condition of approval during the State District Boundary Amendment process that requires compliance with the representations and commitments made by the Applicants. Both Olowalu Town, LLC and Olowalu Ekolu, LLC will respect and comply with all conditions of the LUC.

Comment No. 2:

How will existing homeowner parcels, owned by other entities, be connected to the proposed community? The project will cause major changes to the original design of the existing Olowalu Mauka subdivision plan, which was accepted by Maui County in 2002. These impacts should be clearly identified on comparative maps, and discussed.

Extensive green way easements surrounding Olowalu Mauka are recorded on the 2002 subdivision maps, along with a second ingress/egress route for the community but don't appear in the Olowalu Town plan.

Response:

During implementation of the OTMP, Luawai Street will be reconfigured but will continue to provide access to the 14-lot Olowalu Mauka Subdivision parcels. The OTMP includes park lands and rural lots adjacent to the 14-lot Olowalu Mauka Subdivision. The State Land Use Conservation District lands adjacent to the 14-lot Olowalu Mauka Subdivision will not be affected by the State District Boundary Amendment.

During implementation of the OTMP, new subdivision maps will be filed with the County of Maui which will replace the 2002 maps. The existing greenways within the 14 lots of the Olowalu Mauka Subdivision will remain. The new greenways proposed for the OTMP will connect to these existing greenways in the 14-lot Olowalu Mauka Subdivision. The network of greenways will expand into the proposed OTMP which will eventually provide an open space buffer between the OTMP and 14-lot Olowalu Mauka Subdivision, as well as a connection to commercial/office, public/quasi-public and recreational uses in the OTMP.

The reconfigured roadway system in the OTMP will include several accesses to the existing Honoapiilani Highway while limiting access to the relocated Honoapiilani Highway to three (3) access points as coordinated with the State of Hawaii Department of Transportation.

Comment No. 3:

The DEIS states that its scope covers an area of approximately 700 acres, and includes lands beyond the 636-ac project footprint, but provides no details on how the existing Olowalu Mauka will be serviced in the new community.

Response:

As noted in the Draft Environmental Impact Statement (EIS), the existing infrastructure (i.e. water and roadways) in Olowalu will be upgraded during implementation of the OTMP. The 14-lot Olowalu Mauka Subdivision will continue to be serviced by this infrastructure, which will be upgraded as part of the development of the OTMP.

Comment No. 4:

One greenbelt area is pictured on maps in the Olowalu Mauka vicinity, but the others, clearly marked as easements on the subdivision map, appear to be replaced by proposed rural subdivisions thus impacting existing property owners.

Response:

As previously mentioned, during implementation of the OTMP, the existing greenways within the 14-lot Olowalu Mauka Subdivision will remain. New greenways are proposed for the OTMP which will connect to these existing greenways. The new greenways proposed by the OTMP will require reconfiguration of the existing easements outside of the 14-lot Olowalu Mauka Subdivision as part of the plans for the rural lots.

Comment No. 5:

The Land Use Commission (LUC) is presented maps showing the 23 parcels involved with the proposed project but don't make clear that the majority of lands proposed for the new project Olowalu Town, were also part of the former 39 lot subdivision ("Olowalu Mauka") created in 1999- 2001.

The 39 agricultural parcels were created under Maui County Ordinance 2372 which amended MCC Title 18.04.20 Subdivision procedures to allow "consolidation and re-subdivision" of existing "developable lots" of 1,500 sq. feet or more. Olowalu Mauka was not required to go through the County's formal subdivision review process. Instead, the county allowed twenty-nine Royal Patent or Grant parcels, four formerly subdivided parcels, two road remnant lots and 3 portions of other lots with existing TMKs, to undergo "consolidation and re-subdivision" into Lots 1 through 39 of the new Olowalu Mauka subdivision. This resulted in a one-time "lot line readjustment" with a prohibition on further consolidation and re-subdivision provided in Ordinance 2372. It is our

understanding from the DEIS and, based upon 2002 Olowalu Elua Plat map for the Olowalu Mauka lot line adjustment, a number of these formerly consolidated and re-subdivided lots, such as lots 16, 17, 19, 20, 22, 23, 24, 38, 36, 39, are being proposed to be re-subdivided as part of the Olowalu Town Master Plan process, and further broken down into other rural, urban and ag house sites.

The county has informed the applicants that their SMA permit for the 39 parcels is no longer valid and that conditions of SMA approval have not been met. It is unclear if the 23 subdivided lots that are the basis of this proposed action have been formally subdivided. The intention of the streamline procedure of Ordinance 2372 is not to create additional developable lots. Whether further subdivision of these lands, is a permissible action, under existing county law, should be clarified by state and county agencies.

Response:

The original Olowalu Mauka Subdivision included 23 parcels identified in the OTMP. The original agricultural subdivision was processed pursuant to Ordinance No. 2372 which allowed the consolidation and resubdivision of the lots. However, in order to further subdivide and develop these parcels, additional land use entitlements are required. Such entitlements will be obtained by the Applicants prior to implementation of the OTMP. The 14-lot Olowalu Mauka Subdivision is not part of the OTMP and no additional entitlements are being sought by the Applicants for development within the Olowalu Mauka Subdivision. To summarize, no additional developable lots were created, in conformance with Ordinance No. 2372.

As noted previously, Olowalu Town LLC and Olowalu Ekolu, LLC are separate entities from Olowalu Elua, LLC, who was the applicant in the Special Management Area (SMA) Permit granted by the Maui Planning Commission for the Olowalu Mauka Subdivision. Compliance to conditions of approval is the responsibility of Olowalu Elua LLC with enforcement by the Maui Planning Department. By letter dated December 16, 2010 (See **Exhibit "1"**) the Planning Department determined that Olowalu Elua, LLC was in compliance with the conditions of approval and subsequently processed and approved a new SMA Permit for Driveway "D" and related improvements. Refer to **Exhibit "2"**. As may be required by the County of Maui, the Applicants for the OTMP will seek appropriate SMA Permits prior to construction of the various Master Plan components located within the SMA.

Comment No. 6:

Several of the lots may have been sold to the Olowalu Mauka homeowner's association but never utilized for their intended purpose. These same lots appear to be proposed for

a boundary amendment consideration and use for rural subdivisions, roadways or other improvements without owner's being consulted. This should be addressed in the FEIS.

A map should be provided in the FEIS that overlays the original parcels involved in the Olowalu Mauka subdivision and indicates which parcels or portions thereof, are under jurisdiction of the homeowner's association or other private owners, and what their role would be in the Olowalu Mauka Master Plan. Impacts to existing residents must be discussed in the EIS to comply with HRS Ch 343.

Response:

Figure 4 in the Draft EIS identifies the fourteen (14) lots in the Olowalu Mauka Subdivision under the jurisdiction of the homeowner's association which lots were either sold or are available for sale and are not included in the OTMP. As such, the 14 lots in the Olowalu Mauka Subdivision are not included in the OTMP and will not be included in the Applicants' Petition for a District Boundary Amendment. The OTMP includes lands adjacent to the 14-lot Olowalu Mauka subdivision. Those lands are proposed for reclassification into the State Land Use Rural District in accordance with the Maui Island Plan (MIP).

Comment No. 7:

Maui Island Plan Consistency:

HRS CH 343 requires an EIS to fully discuss viable project alternatives. This DEIS fails the most basic level of consistency with Maui County community and general plans. Maui Island Plan (MIP) maps are included in an obscure Appendix ("O") at the end of Vol. II of the DEIS, with no discussion of the discrepancies in the recommendations shown for Olowalu Town on the three maps.

LUC rules require the proposed District Boundary Amendment (DBA) to be consistent with state and county long range plans. The West Maui Community Plan shows the subject parcel as Agricultural and strongly recommends that continued status. Three MIP maps show different recommendations of West Maui Urban and Rural Growth Boundaries. The proposed project, as shown on maps throughout the DEIS, does not conform to any of these three recommendations. This is not mentioned in the DEIS as the document states that the Olowalu Master Plan has been recommended by both GPAC and Maui Planning Commission MIP review.

The General Plan Advisory Committee (GPAC) MIP map shows mauka portions of Olowalu Town in a rural and urban growth boundary, but deletes the northern makai section of the project. The Maui Planning Commission MIP map shows mauka portions of Olowalu Town in a rural and urban growth boundary, but deletes the entire makai

section of the project. The Maui Planning Director's MIP map shows only the existing uses in the Olowalu area. The Planning Department has consistently not supported including the Olowalu Town in the Rural or Urban growth Boundary. No map or text in the DEIS refers to any of these three scenarios.

Response:

Since filing of the Draft EIS, the Maui County Council completed its review of the MIP and adopted the MIP via Ordinance No. 4004 in December 2012. The MIP included portions of the OTMP in the Urban and Rural Growth Boundaries. Although the Directed Growth Map excluded the area makai of Honoapiilani Highway, the MIP states the following:

"The future delineation of potential urban growth areas makai of the existing Honoapiilani Highway may be undertaken in conjunction with updates or amendments to the West Maui Community Plan."

The decision making criteria for boundary amendments under the LUC rules includes the requirement that the LUC "specifically consider" various criteria, including that "In establishing the boundaries of the districts in each county, the commission shall give consideration to the general plan, and community, development, or community development plans of the county in which the land is located." See HAR Section 15-15-77. The Final EIS addresses MIP considerations including goals, objectives, policies and implementing actions of the MIP. See **Exhibit "3"**. We note that the Final EIS addresses the MIP's alternative in greater detail.

Comment No. 8:

The Olowalu Town DEIS does not reveal that all versions of the MIP West Maui directed growth maps show a surplus of several thousand units over the actual projected housing demand if Olowalu is included.

Response:

As mentioned previously, the MIP has been adopted by the County of Maui and includes the OTMP and its 1,500 housing units. During the MIP review process, the General Plan Advisory Committee (GPAC), Maui Planning Commission (MPC) and Maui County Council (Council) were aware that the demand projections and projects included in the growth boundaries, including Olowalu Town (OT), would exceed the projections. Notwithstanding, we understand that the projections prepared by the Planning Department held value and purpose with respect to guiding land use allocation decisions during the MIP development process.

Comment No. 9:

The LUC should consider that Olowalu Town is proposed for an area with no existing public infrastructure and potentially high impacts to natural and cultural resources. Many expensive and non-traditional design options are being proposed to “prove” that the project will do no harm and provide beneficial services. If these proposed actions are not followed during the development process, it is almost certain that serious impacts will occur and promised benefits will not be realized.

Response:

The OTMP is anticipated to take ten (10) years to complete, and will involve detailed review at the State and County level. The OTMP is proposed as a Project District, and portions of the OTMP are located in the Special Management Area (SMA). With this in mind, additional permits and public reviews will be required which include approvals from the Maui Planning Commission. The County of Maui and the public will have the opportunity to monitor the progress of the OTMP and to ensure that reliable and environmentally sound public infrastructure is provided. The systematic and comprehensive nature of the development process ensures that impacts to natural and cultural resources are appropriately mitigated.

Comment No. 10:

Historically, after LUC and county approvals are given appropriate conditions projects pass through successive ownerships. Succeeding owners often petition authorities to be relieved of the very same conditions that were considered essential to mitigate public and agency concerns. The result is environmental degradation and loss of promised public benefits.

Response:

Any amendments to project approvals that may be sought in the future will follow the procedures established by the agency having jurisdictional authority, which includes a process for public participation. Prior to any amendments being granted, the Applicants will need to provide adequate information to the agency to ensure there is no environmental degradation or loss of public benefits. In general, authorities issuing discretionary approvals will delete conditions of approval only after evidence of compliance has been submitted.

Comment No. 11:

We see from comments in the DEIS that both the County and State Planning offices asked for much more detailed maps and other needed information to be included in the DEIS but appear to be overlooked in the DEIS.

Response:

The County and State Planning Offices request for detailed maps and other needed information were addressed in our responses to the agencies. Attached for your information are copies of our letters to the Maui Planning Department and the State of Hawaii Office of Planning. See **Exhibit "4"** and **Exhibit "5"**.

Comment No. 12:

Affordable Housing:

The DEIS offers no specifics as to how the 50% affordable housing mentioned on p. 24 will be provided. It states the average market priced home is expected to be \$600,000 and that the project will comply with the county's Residential Workforce Housing Policy. That policy now provides that developers, where market price units are \$600,000 or less, need only to supply 25% of the unit count within the HUD affordable guidelines. Will an agreement be signed that obligates present or future owners to provide 50% affordable units, regardless of county statute provisions allowing less units to satisfy affordable housing requirements?

Response:

The OTMP is in the initial entitlement process with the LUC. As the project progresses through the various land use entitlements processes, we expect that specific conditions relating to the number and types of units and other restrictions related to workforce housing will be identified by and discussed with the reviewing State of Hawaii and County of Maui agencies. In recent years, the standard practice of the Maui County Council has been to impose a condition that requires for each market unit constructed, a corresponding workforce unit is built. The Applicants will comply with workforce housing conditions associated with the respective land use approvals.

Comment No. 13:

Schools - Will Olowalu have onsite schools for its 462 students? Other developments of this size have substantial discussions with the state DOE in place by the time of their DEIS. This project appears to only to discuss "impact fees" with the DOE, not the building of future schools, yet its literature describes children walking to nearby schools.

Impact fees would suggest that students would attend schools in Lahaina, but the DEIS assumes schools would be onsite and does not account for traffic impacts of transporting students to Lahaina schools or explain if there is a level of impact fee that could actually provide the facilities needed for the 400 plus students over a ten year horizon. Would the Olowalu schools be private? A project that expects to be completed in 10 years should have a firmer plan for this essential community amenity.

Response:

The OTMP includes public areas where public amenities, such as a school can be accommodated. The Applicants have had preliminary discussions with the State Department of Education (DOE) but it has not progressed to the level where specific educational facility type or governance model has been developed. In this regard, Olowalu Town, LLC and Olowalu Ekolu, LLC will continue its dialogue with the DOE and other education stakeholders to further develop educational facility concepts and alternatives.

The implementation of a school for the OTMP is anticipated to extend beyond the initial housing development phase of the project. During the initial construction and occupancy of the OTMP, students from OTMP will be bussed to existing schools in the West Maui District. Discussion with the bus transportation coordinator with the DOE indicates there is adequate bus service to accommodate future students. The use of student bus transportation is expected to minimize the need to use private vehicles to transport students to existing schools in West Maui, thereby minimizing traffic impacts on Honoapiilani Highway. See **Exhibit “6”**.

As noted in the Draft EIS, the applicants will be subject to the West Maui School Impact Fees established by the DOE. The impact fees analyzed population growth and projected housing units (single-family and multi-family) in West Maui, projected the future school facilities needed to accommodate growth and estimated the cost of construction to provide these facilities. Based on these factors, the DOE adopted the West Maui School Impact Fees which the Applicants understand the OTMP will be subject to.

Comment No. 14:

Fire Station - Olowalu is a high impact fire area. Developing the area and providing firebreaks will not free it from fire danger, as the majority of past wildfires came from lands either to the east or west, outside the subject lands and fanned by high winds, common in Olowalu. USGS Maui Hazard Maps rate the Olowalu area as a “high” fire risk and the county fire department thought a fire station in the area would be a “good idea,” but key information is missing. How much would it cost to build and staff such a facility? Where would funding come from? How long would it take to implement that

process? What impacts to existing Lahaina fire /emergency services are anticipated if Olowalu Town develops and no fire station is available on site? How will these be mitigated?

Also of key importance is the availability of sufficient water supply for fire flow requirements to serve an urbanized Olowalu area. While fire flow requirements in terms of number of gallons per unit or number of hydrants needed, are listed in various sections of the report, no overall fire flow water demand figure is mentioned. This information is usual in EIS documents.

Fire flow demand is listed but not calculated to reflect in the project's potable or non-potable water use demand totals. If such figures were provided, based upon the standards listed in the DEIS, over 2 million gallons of (presumably non-potable) water would be needed over a 24 hour period to effectively control fire outbreak. The storage capacity of the existing reservoirs still used onsite is not given but historic reviews note that two reservoirs had a combined capacity of 1mgd. This is half of what would be needed during a fire event.

Response:

As noted in your comments, the Department of Fire and Public Safety (DFPS) sees opportunity to improve fire mitigation conditions. The OTMP would benefit the community in regards to fire protection, life safety, and emergency medical services. According to the DFPS, the subject project should diminish the likelihood of wildfires in the area, provided the project includes measures to address impacts from wildfires that originate on surrounding areas, such as greenways that provide defensible space for the outer edges of the project site.

In discussions with the DFPS, a new fire station is expected to require a total of 15 personnel to cover three (3) shifts with five (5) personnel each. According to DFPS a new fire station will require a fully equipped fire engine which is estimated to cost approximately \$1 million. To operate the new fire station will cost approximately \$1.25 million annually. The DFPS estimated that a new fire station will cost \$11 million to construct. Funding mechanisms for a new fire station will be identified in coordination with the County of Maui once a capital improvement programming timeline for the project is better defined. See **Exhibit "7"**.

The OTMP is in the preliminary stages of the land entitlement process and at this stage we are unable to provide specific development parameters for the fire station. It should be noted that the Maui County Council and Maui Planning Commission during the County land use entitlements, including the Project District processing, will consider public service requirements for the project, including fire protection services. It is

anticipated that detailed project phasing and concurrency requirements will be addressed at this later stage of land use approvals.

Until a new fire station is constructed in the OTMP, the existing services from the Lahaina Fire Station, which covers the area from Lahaina to the Pali, will be utilized. As with other development projects, the applicants will work with State and County agencies to ensure that public amenities, including the new fire station, are available for the future community. Where partnerships with other private development and government entities are possible, such partnerships for funding as well as land acquisition will be pursued.

The DFPS confirmed in their April 25, 2012 comment letter that the proposed water supply for fire protection is in line with the Department's current standards. However, when detailed plans are submitted in the subdivision process or finalization of the project's design, the DFPS will provide additional comments on the project. Our water resources and engineering consultants also confirmed there are adequate water resources available to accommodate the OTMP, including fire protection. The OTMP is conceptual and identifies preliminary uses, standards and estimated water usage for the proposed development, which will be continually refined during the processing of the land use entitlements and ministerial permits required by the County of Maui.

With respect to fire flow, the Preliminary Engineering Report (Appendix "B" in the Draft EIS), utilizes a standard of 2,000 gallons per minute for a two (2) hour duration. Design of the fire water system will utilize the foregoing standard, which is considered an acceptable basis of design by the Department of Water Supply.

Comment No. 15:

The DEIS should make clear how many of the 4 existing reservoirs are planned to be used; what their combined capacity is; what other mitigations are needed to provide adequate fire flow resources; and if provision of this amount of water for fire flow could impact ag, domestic or traditional and customary water uses in the project area.

Response:

Two (2) existing lined reservoirs connected to the existing non-drinking water system will remain in use by the OTMP. These reservoirs consist of the linear-shaped reservoir just below the existing 0.5 million gallon (MG) drinking water storage tank, and the reservoir north of Puu Kilea. Refer to Figure 18 in the Draft EIS. These reservoirs can be used to supplement fire protection for the OTMP. The source of water for the non-drinking water system, including these reservoirs, is from the existing diversion ditch at Olowalu Stream. The OTMP's non-drinking water system, including R1 water from the wastewater treatment facility, will be utilized primarily for irrigation purposes and its use

during emergencies to supplement fire protection in OTMP is not expected to impact agriculture, domestic or traditional and customary water uses in the project area.

Comment No. 16:

Police Services - The existing Olowalu area has a low demand for police services. That will change if Olowalu Town proceeds. The DEIS states that areas will be "provided" in the Master Plan for public facilities such as police station, library, fire station, schools, etc. but it should be specific about the projected building and staffing costs for these services; expected timing of a future police facility and what impacts the additional development areas at Olowalu would have on existing Lahaina public safety services. The DEIS should state if land for future public safety facilities will be donated or offered for sale to respective county departments.

Response:

In discussions with the Maui Police Department (MPD), OTMP at full build-out is expected to require an additional patrol beat. A new patrol beat will require six (6) police officers to cover a 24-hour period over a seven-day work week and would operate out of the Lahaina Police Station. According to the MPD, a new Police Station in OTMP will not be required. However, if deemed necessary in the future, a police substation can be accommodated in OTMP. Refer to **Exhibit "7"**.

As noted previously for the new fire station, the OTMP is in the preliminary stages of the land entitlement process and at this stage, we are unable to provide more detailed program and service parameters for police protection. However, the Applicants will work with State and County agencies to ensure that police services are available for the future community. As previously mentioned, where partnerships with other private development and government entities are possible, such partnerships for funding will be pursued.

Comment No. 17:

Potable Water - Information provided in the DEIS regarding both demand and availability of potable water resources for the project is inconsistent. How much water the Olowalu hydrological unit (surface and stream water) has available and where it should go is left largely unexplored by this DEIS, even with the 21 page "Impact on Water Resources Report" in Appendix C.

The average Olowalu household will use between 250 and 550 gpd of potable water and between 590 and 785 gpd of potable, non-potable and reclaimed water combined. This assumption is made with no statistics that households in Olowalu or other dry areas of West Maui maintain similar usage rates.

Response:

According to our water resources consultant, the water use amounts in the Draft EIS are year-round averages and are appropriate for the lot sizes and the market of the residential units for the project. The excessive residential water use in Kihei, Wailea, and Makena is driven by extensive landscape irrigation in upscale residential projects and is not comparable to the proposed OTMP which will be constructed under the principles of New Urbanism which focus on larger public spaces instead of expanded private yards. Such public spaces are proposed to incorporate sustainable principles such as drought tolerant landscaping, water efficient irrigation, and utilize non-drinking water.

We note that according to the Olowalu Water Company (OWC), the single-family residential usage in Kapaiki Village between January to October 2014 was approximately 450 gpd. The Department of Water Supply (DWS) for single-family units utilizes 600 gpd and 560 gpd for multi-family units, which is greater than the current water usage in Olowalu. The DWS standard includes water used for domestic purposes, including household irrigation.

Comment No. 18:

Olowalu aquifer's sustainable yield of 2 mgd is underestimated and may be as high as 6 or 7 mgd due to recharge data updated by USGS in a 2007 study. The DEIS does not refer to other USGS studies showing a trend of diminishing rainfall levels in West and Central Maui, or the latest USGS report (2012) which specifically re-evaluates Olowalu's recharge data downward from the 2007 study.

The assumption is made that the primary well for the Olowalu private water system, which has never undergone substantial pumping for any period of time, is capable of increasing its production ten fold with no impacts on groundwater or stream flow even though the Olowalu well is in close proximity to Olowalu stream and their water chemistry appears to link them to the same basal source.

It is also assumed that additional wells, planned in the vicinity of the existing well and proposed to serve the Olowalu system, will have no impacts on stream flows, cultural uses of the stream water or near shore discharges of freshwater necessary for the marine ecosystem. General trends in the area would indicate otherwise.

Another assumption is that consistent low chloride levels in the low elevation Olowalu well will remain reliable even if pumping increases from 50,000 gpd to over half a million gpd with no cumulative impacts on water quality. These assumptions have not been tested.

Response:

According to the project's water resources consultant, the diminishing rainfalls cited in your comment are from the 2012 Rainfall Atlas of Hawaii by the University of Hawaii Geography Department and not from the U.S. Geological Survey (USGS). The Atlas presents rainfalls over the 30-year base period, from 1978 to 2007, and notes that these amounts are less than during the period covered by the prior 1976 Atlas. These reduced rainfalls are incorporated in the USGS-completed recharge in USGS Scientific Investigative Report 2007-5103 by Engott and Vana. The principle author of the 2012 Rainfall Atlas, Dr. Thomas Gimbelluca (Professor of Geography, University of Hawaii Manoa), stated during his presentation of the Atlas to the State LUC that he expected a further decrease in rainfall on the order of 5 to 10 percent in the coming century.

The more recent USGS study cited, USGS Scientific Investigations Report 2012-5010 by Gingerich and Engott, does modify the method of computing recharge in the earlier 2007 USGS report. These modifications resulted in a slight increase in the weighted average recharge in the Olowalu Aquifer over the 1926 to 2004 period, 16.12 million gallons per day (MGD) (USGS, 2007) versus 17.15 MGD (USGS, 2012). (Source: Table B-1 in Appendix B of USGS Scientific Investigations Report 2012-5010).

For planning purposes, USGS analyzed five (5) land use (LU) scenarios, two (2) of which were under drought conditions. Scenarios LU2 and LU3 are the closest representative scenario to the proposed OTMP. These hypothetical land use and rainfall calculations in Table B-1 have less recharge amounts, 14.47 MGD (LU2) and 14.53 MGD (LU3). These are hypothetical scenarios and are still far greater recharge amounts than the 3.89 MGD calculation of recharge utilized by the Commission on Water Resource Management (CWRM) in 1990 which is the basis for the 2.0 MGD sustainable yield figure. Under any scenario, hypothetical or otherwise, groundwater recharge is far greater than 3.89 MGD.

Comment No. 19:

No drought water management plan for the development is discussed, even though world weather trends forecast increasing drought conditions and the project's consultant acknowledged the plantation wells became too salty for agriculture during a 1970s drought (with a pumping demand of several mgd).

Response:

The Draft EIS noted that the plantation wells ("O" Pump and "N" Pump) pumped 1.0 MGD of slightly brackish irrigation water for large scale sugarcane cultivation which ceased in 1999. The agricultural uses proposed in the OTMP will be less than historically experienced and primarily located along Olowalu Stream. As such, surface

water sources will likely be used to meet agricultural water demands. As noted in the Draft EIS, historically, the ditch system has averaged four (4) to five (5) MGD and daily flows have rarely dropped below two (2) MGD. With the reduction in farmlands, as well as utilizing modern agricultural techniques such as hydroponics, it is anticipated that substantially less irrigation water will be required and during drought conditions there should be adequate water to accommodate agriculture.

Drinking water for the OTMP is proposed to be accommodated by the existing Olowalu-Elua well and an upgraded drinking water transmission system, as well as additional wells to be constructed. To obtain certification as a LEED Neighborhood Development, the OTMP will incorporate water efficiency measures in building design and in landscaping, as well as utilize the R-1 recycled water for irrigation. These measures will reduce the drinking and non-drinking water needs for the project to ensure that during drought conditions there is adequate water for the residents and visitors in OTMP.

Comment No. 20:

The Olowalu Town water use analyses assumes that .7 mgd average, up to 1 mgd maximum of potable water will be withdrawn from Olowalu aquifer at project build out. A recently released USGS water modeling study for West Maui, commissioned by Maui County, bases its calculations of safe yield for Olowalu aquifer on groundwater withdrawals of no more than .53 mgd by 2030. The difference is not mentioned in the DEIS. The FEIS should be updated to reflect this study.

Response:

According to the project's water resources consultant, your comment that the 2012 USGS study based its calculation of "safe yield for the Olowalu Aquifer on groundwater withdrawals of no more than 0.53 MGD by 2030" is a misunderstanding of the withdrawal simulations done in the study. There are no "safe yield" simulations in the USGS report. They are simply simulations of possible future pumping scenarios. For the Olowalu Aquifer, the assumption made for its simulation was that all groundwater withdrawal would be from one well, the Olowalu-Elua well (State No. 4936-01) and does not account for the additional wells that are proposed for the OTMP. It should be noted that at the assumed rate of pumpage from the Olowalu-Elua well, in the USGS simulation, no salinity issue materialized over the 30-year period of simulation (Source: page 43 and Figure 25 on page 45 of USGS Scientific Investigations Report 2012-5010).

Comment No. 21:

Nearly five thousand residents, businesses and public facilities could be dependent upon the Olowalu well system for their only water supply. The DEIS fails to discuss any plans to install a monitoring well to track the health of the aquifer that currently has very

limited data. It refers to Commission on Water Resource Management (CWRM) and Department of Health (DOH) requiring monitoring data, but does not clarify that his will consist of limited water testing and continuing pump reports, not assessments of the aquifer health and water levels.

Response:

We agree that any and all legitimate monitoring of the groundwater in an aquifer is of value. However, the Applicants have been advised the most direct indication of an aquifer's status (health) is the salinity of its pumping wells. Such monitoring and reporting is a requirement of any Well Construction/Pump Installation permit. At the level of pumping at present and as forecasted with the development of the OTMP, such monthly monitoring and reporting will be conducted. To date, for example, there has been no change in the low salinity of water pumped by the Olowalu-Elua well. Additional wells appropriately spaced over the Olowalu Aquifer are proposed to ensure that the existing Olowalu-Elua well is not adversely impacted.

Comment No. 22:

No mention is made in water calculations if ohana units will be permitted in Olowalu above the stated unit counts which could affect water calculations.

Response:

OTMP will provide an opportunity for resident lot owners to install ohana units on their property. Although it is anticipated that some owners will exercise this option there are others who will not. Planning for infrastructure utilizes historical information available for Maui Island, such as the average water use in a region by general use categories (i.e. single family, multi-family, commercial, etc.). These historic averages include ohana units that have been built on existing lots. The consultants utilized the available County criteria in their analysis of the water demand for the OTMP.

Comment No. 23:

Inconsistencies in Data Provided:

The DEIS states that current potable water use on the private Olowalu Water system is 75,000 gal/day (.075mgd) and that the water company relies on one well with a reported average pumping of 55,000 gal/day (.055 mgd). Does .055 mgd or .075 mgd represent current average usage of the system?

Response:

Current usage of the existing private drinking water system is approximately 55,000 gpd (OWC, 2014). Since the 14-lot Olowalu Mauka subdivision properties are not fully developed, an estimated total demand of 75,000 gpd was utilized to include the built out demand that is not part of the OTMP.

Comment No. 24:

Potable Water Demand Forecasts are Unrealistically Low:

CWRM, the county's Dept of Water Supply (DWS) and others have commented that the project's projected potable water use of 250 to 550 gpd per dwelling unit, 590 gpd total water use for multifamily and 785 mgd total use for single family units is unsupported and does not reflect any recognized county planning standard. 1000 gpd/household is a minimum standard in dry areas of Maui. The Olowalu EISPN in 2010 projected water use of .75 mgd. The DEIS specifies .7 mgd. 500,000 gpd less yet the difference is not addressed.

EPA estimates average American water use at around 100 gal/day per individual for potable purposes. Olowalu Town DEIS is assuming that 930 residential units, both single and multi family will use less than 70 gal/person/day. While water conservation is desirable and needed, it is unlikely, without some sort of stringent "enforcement" that these idealized demand figures will be the norm. It is not made clear if this strict water budget will mean that private swimming pools (which require potable water) will be prohibited.

The DEIS provides a list of very low projected water demands both for potable water and for potable, non- potable and reclaimed water use combined (Table I2 in Append. C. Water Resources study), but does not say how they will be achieved except that the non-potable system providing stream water will relieve potable demand and stream flows will remain the same, due to ditch repairs.

Response:

We appreciate the opportunity to clarify water demand standards referenced in your comment. According to the Preliminary Engineering Report (Appendix B of the Draft EIS) the estimated daily consumption for the single-family units was 550 gallons/unit for units without non-drinking water services and 275 gallons/unit for units with non-drinking water service. For the multi-family units, the report estimates 400 gallons/unit for those units without non-drinking water service and 225 gallons/unit for units with non-drinking water service. The standards used are based on similar projects and a comparison with standards used by other counties in Hawaii.

For planning purposes the Department of Water Supply (DWS) utilizes 600 gallons per day (gpd) of drinking water for a single-family unit and 560 gpd for a multi-family unit. The DWS standard is based on the average daily drinking water consumption for residential units on Maui Island which includes landscape irrigation and any recreational use of drinking water such as swimming pools. The highest water usage is for single-family units. For planning purposes, the maximum possible single-family and multi-family units were estimated as 900 single-family and 600 multi-family. Based on DWS standards, the estimated maximum water usage is approximately 951,000 gpd. However, the use of sustainable design measures, recycled water and conservation is expected to reduce consumption as noted in the Preliminary Engineering Report.

Since the preparation of the Environmental Impact Statement Preparation Notice (EISPN), the engineering consultant has obtained more specificity in the proposed uses, as well as conservation measures to be implemented in the OTMP which resulted in a reduction in the estimated water demand for the project. As the project progresses toward implementation, further refinement of the OTMP is expected with further revisions anticipated for these estimates.

Regarding your comment on the possible prohibition of private swimming pools, at this time the Applicants do not plan to establish such restrictions in the OTMP. The OTMP is proposed to be a Project District requiring multi-tiered approvals from the County of Maui. Through the project district process, the project plans will be reviewed by the Maui Planning Department, as well as by the Applicants' design review committee, to ensure that sustainable measures identified in the Draft EIS are implemented.

To ensure the projected low water demand identified in Table 2 of Appendix "C" of the Draft EIS is achieved, the Applicants propose to incorporate water efficiencies and conservation measures identified in LEED 2009 for Neighborhood Development (Draft EIS, Appendix "A-1") which reduces consumption and promotes re-use of water.

Comment No. 25:

Will this strict water type separation need to be monitored or enforced? If there is no enforcement proposed, the FEIS should examine project impacts based upon a more realistic potable and non-potable water demand. It appears the demand calculations are being manipulated to not exceed the sustainable yield limits of the aquifer as this does not reflect current use patterns.

Response:

As required by the State of Hawaii Department of Health (DOH), the drinking and non-drinking water systems will be clearly marked as separate systems. To ensure compliance, future buyers will be notified of the separate systems, as well as

requirements to maintain proper warnings on the non-drinking water system within their properties. The treatment and distribution of the drinking and non-drinking water systems will be maintained by the OWC which is regulated by the Public Utilities Commission (PUC).

Planning for infrastructure utilizes historical information available for Maui Island, such as the average water use in a region by general use categories (i.e., single family, multi-family, commercial, etc.). As stated previously, use of DWS standards estimated drinking water demand of the proposed 1,500 units as approximately 951,000 gpd. However, use of sustainable design measures, recycled water and conservation is expected to reduce consumption.

Comment No. 26:

Current Water Use Patterns in Olowalu: current use = 75,000 gal/day potable water. Existing residential hookups = 25 to 30 plus the plantation manager's house, Olowalu store and restaurant, and Camp Olowalu. The estimated 35 users dividing the 75,000 demand would mean 2,142 gpd per hook up. Current domestic users have access to well over 1000 gpd average per hookup with usage going higher in dry summer months.

Is it realistic to assume that future users will limit their total use (potable & non-potable) to 600 to 785 gpd or assume that 1500 housing units will use 225-550 gpd of potable water consistently?

The DEIS provides no detailed use figures for present potable and non-potable system users.

Kapaiki Village has 13 hookups. Olowalu Mauka has 7. If the DEIS provided us with use figures for these residences (which are readily available from company billing records) we could have a better idea of realistic water use by future residents.

Response:

The current users are not included in the OTMP and their water usage is not expected to change. However, their existing usage of 55,000 gpd has been included in the estimated water demand, in addition to the future demand of 75,000 gpd from the full build-out of the 14-lot Olowalu Mauka Subdivision. We note that the OTMP will be designed to incorporate water conservation measures, including the R-1 recycled water transmission system for irrigation purposes. Future purchasers are buying into a sustainable community with these proposed water conservation measures. A market advantage for buying into the OTMP will be the attractiveness of living within a sustainable community. With this conservation framework in mind, it is realistic to

assume that the future users will limit their use of water consistent with the estimated water demand.

In this regard, both Kapaiki Village and Olowalu Mauka Subdivision are traditional residential and agricultural areas which are not deemed comparable to the OTMP. Information from the OWC indicates that between January to October 2014, the average water use in Kapaiki Village was approximately 450 gpd.

As noted previously, the current usage of the existing private drinking water system is approximately 55,000 gpd (OWC, 2014). Being that the 14-lot Olowalu Mauka subdivision properties are approximately half developed, an estimated total demand of 75,000 was utilized to represent the built out demand not part of the OTMP.

Comment No. 27:

The DEIS acknowledges that the Olowalu Water Company has been operating at a substantial loss over the past few years, and has recently sought and been granted a rate hike by the PUC. Will the Olowalu Water Company realistically be able to invest in the upfront infrastructure promised in the DEIS? Does it plan to sell shares? No strategy for its viability is discussed, yet it will be the sole source for any future resident's water supply.

Response:

Improvements to the OTMP's water system will be undertaken by the Applicants and dedicated to the OWC. The OWC is regulated by the PUC. The PUC will review the financial capability of the OWC to provide reliable services to existing and future users of the private water system. Any rate increases that may be sought to finance the operation of the OWC will also require approval from the PUC.

Comment No. 28:

The FEIS should include two additional analyses of residential potable water use:

Analysis 1 - Use of at least 500 gal/day /housing unit for a total potable demand of .9 mgd and a peak demand of 1.35 mgd. Comments from the Maui DWS Aug. 2010 letter noted: water demand would be between 900,000 and a little more than 2 mgd of water "according to system standards." The Department reminded the applicant that the Olowalu aquifer sustainable Yield is 2 mgd.

Analysis 2 - Use of 1000 gpd for the 450 units not served by non-potable systems = .45 mgd and 500 gpd day for the 930 units that have access to dual systems =.465 mgd. This scenario would project a demand of 1.22 mgd with a peak demand of 1.83 mgd.

This scenario would project potable use at full build out at the present sustainable yield of Olowalu aquifer and should be discussed in the FEIS as this may prove to be the project's actual water demand. Given that the average water use of West Maui residents with no access to non-potable systems is 1200 to 1500 gpd or higher, these analyses should be considered.

Response:

We appreciate your comments, however, as noted previously, for planning purposes the DWS utilizes 600 gpd of water for a single-family unit and 560 gpd for a multi-family unit. The DWS standards are based on the average daily consumption for potable use, landscape irrigation, and other uses of residences on Maui Island.

Comment No. 29:

Groundwater Impacts:

Pioneer Mill wells in the area pumped brackish water during plantation operations. Olowalu Elua Water Company should conduct substantial testing of its existing wells before committing to a project of this size. While abbreviated water quality samplings from two of the three system wells and Olowalu stream were included in the DEIS, they were in a format that was difficult to interpret. It seems the project's consultant is depending on the Olowalu wells steady performance under low pumping demands to demonstrate that no further information about the aquifer's characteristics is needed.

The DEIS states that CWRM, Public Utilities Commission (PUC) and DOH will make sure the system is sound and functioning properly. MTF believes that 10 day well testing at successively higher rates should be conducted. The test should record chloride, nitrate and head levels observed in the subject well, as well as fluctuations in stream flows. Test results should be included in the FEIS.

Response:

As stated in the Draft EIS, development of the drinking water wells for the OTMP will comply with the requirements of the CWRM, PUC and DOH. The Applicants will conduct testing of the wells in accordance with the requirements of these agencies.

Comment No. 30:

Stream Waters:

No figure is given for current stream water withdrawals through the existing non-potable system. Information provided in the DEIS agriculture use discussion states that at least 50,000 gpd is currently utilized for 30 acres of agricultural activities. Is it realistic to assume that only .39 mgd of stream water would be needed if two-thirds of the residents are depending on non-potable water for irrigation, with some are engaged in agriculture on 161 acres set aside for that purpose? If present levels of agricultural water demands (1,600 gal per ac) extended to the 161 acres, agricultural water demand alone could be .268 mgd. This combined with the surface water allotted in the DEIS for conservation lands, 112,500 gpd, results in a total of .38 mgd required for these two activities, virtually all of the proposed supply. The FEIS should present more realistic alternative stream water use scenarios and analyze potential impacts.

How much stream water is currently utilized by local residents with kuleana rights; are there unmet claims or needs? 112,500 gpd of stream water is allotted for conservation lands in the water demand table; if kalo water use is included in that allotment, it should be made clear.

Response:

According to the Water Resources Study, historically Olowalu Stream supplied four (4) to five (5) MGD of stream water for irrigation purposes, with daily flows rarely dropping below two (2) MGD. With the demise of sugarcane cultivation, much of this water is not being utilized.

In addition, two (2) existing skimming wells (Olowalu Shaft and Pump N) are located on the project site that are not currently being used for irrigation purposes. These wells can be used as a back-up source for non-drinking water, if needed. Without the R-1 recycled water, there is adequate stream and brackish well water for non-drinking water use. In the effort to create a sustainable community, R-1 recycled water is proposed to be utilized for irrigation purposes.

Water usage data for those using water from Olowalu Stream are not recorded separately for those who have kuleana claims. As such, we are unable to provide this information. To our knowledge, we are unaware of any complaints of unmet kuleana claims or needs. The stream water currently diverted in the OCR is being used for kalo cultivation, as well as establishing other native plants.

Comment No. 31:

The DEIS Water Impacts report (Appendix. C) concludes that a 6% reduction of coastal groundwater discharge in Olowalu would have no impact on the near shore fisheries. No studies were given to support this conclusion. The Impact report quotes USGS gaging records from the 1960's that showed 20% of Olowalu stream flow reaching the ocean annually. USGS recently completed a West Maui groundwater study and included a model where stream flows were restored from Ukumehame to Honokowai to prolong aquifer life. The FEIS should consult with USGS staff and include any updated information available on Olowalu stream flows beyond the one visual observation referred to.

The water impact report also assumed that over the years hydrological conditions would remain static, even as increased groundwater pumping was needed. The FEIS should work with the USGS now completed computer model of West Maui hydrological conditions. Several scenarios of pumping and well location should be considered in light of impacts of well draws on "leakage of high level groundwater." (the consultant's description). Such groundwater may be a part of an "unconfined aquifer "supplying Olowalu stream.

Former Olowalu Plantation wells were located near reservoirs and may have depended upon them leaking for groundwater recharge. The FEIS should report any current pump tests that show the backup viability of Pump O, now that the nearby reservoir is dry. Also, it should be determined how much leakage is occurring from the unlined reservoir still in use near the Olowalu Mauka subdivision; what its capacity is; and whether there are plans to line it as part of the ditch system repairs described.

Response:

The Water Resources report calculated the coastal groundwater discharge into Olowalu would be reduced by six (6) percent. It makes no conclusion that the discharge would have no impact on the near shore fisheries. The evaluation of impacts on the marine biota was presented in the Assessment of Marine Water Chemistry and Biota Community Structure Report (Appendix D in the Draft EIS.). The detailed evaluation of impacts on the marine biota considered the reduction of groundwater discharge as one factor. The comprehensive analysis in Appendix D determined that the main stressor of coral and marine biota is due to sediment discharge into the ocean.

Thank you for the information on the 2012 USGS study which included seven (7) 30-year simulations for West Maui. Simulation 3 used projected withdrawal rates and locations using 2000–04 land use without plantation-scale agriculture and 1926–2004 rainfall assuming no injection wells. Based on the 2000–04 land use, withdrawal in the Olowalu region would not meet the cautionary yield for withdrawal (salinity from 1 to 2

percent that of seawater) or threatened yield (salinity greater than 2 percent that of seawater). The consultant for the Water Resources report is familiar with the 2012 USGS Study and its value as a reference document. The Water Resources report, however, is a site specific analysis of the hydrology of the project area and the potential changes that may occur during project buildout.

The Water Resources report concluded that with implementation of proposed sustainability measures, the total draft from OTMP will be less than 1.0 MGD, which is less than the conservative sustainable yield for the Olowalu Aquifer of 2.0 MGD. Also, in Table 2 of the report (Appendix C in the Draft EIS), the estimated total non-drinking water use is 0.6 MGD with implementation of proposed sustainability measures. In conjunction with the proposed maintenance of the Olowalu Ditch, non-drinking water can be consistently provided. In extreme drought situations resulting in a deficit in the Olowalu Ditch system, either Well No. 4937-01 or Well No. 4837-01 could provide additional non-drinking water.

The Applicants do not have plans at this time to repair the existing unlined reservoir and ditch systems. As such, we are unable to address how much leakage is occurring or plans to repair the ditch systems. Should the Applicants decide to initiate these repairs, appropriate environmental and permit review will be undertaken.

Comment No. 32:

Careful monitoring of the Olowalu aquifer and stream needs to be part of any development process. It has been noted in the DEIS that Olowalu stream has gaining and losing sections connected with what may be an unconfined aquifer. USGS studies point out that under light well pumpage 100 percent of the water supplied to a well comes from ground-water storage. Over time, and heavier pumping, this can change as underground water sources for the stream are "captured" by the well. Over the course of years, the well's dominant water source, particularly wells in an unconfined aquifer, commonly changes from ground-water storage to surface water and "the stream flow in general is reduced as an effect of pumpage."

The newest USGS (Gingerich & Engott, 2012) groundwater study of West Maui suggests that Olowalu stream provides 1.98 mgd of groundwater recharge to Olowalu aquifer. The report also notes that groundwater discharge at the coast in the Olowalu and Launiupoko areas has diminished over time. This updated information and consultation with USGS should be incorporated into the project's water planning model in the FEIS.

Response:

For clarification, the Draft EIS did not state that "*Olowalu Stream was gaining and losing sections connected with what may be an unconfined aquifer*". According to the water resources consultant, the proposed two (2) new wells will draw water from an aquifer with a 5-foot water level which is the same as the existing Well No. 4936-01. The base flow in the adjacent stream on the other hand comes from high level groundwater compartments further inland with water levels at hundreds to several thousand feet above sea level. The existing and proposed wells will not draw water from these compartments and will not impact stream flow.

As with all wells approved by the CWRM, DOH and PUC monitoring of the wells will be required throughout its use. These agencies have the regulatory authority to require changes in the approvals should it be determined that adverse impacts are occurring.

As noted previously, the water resources consultant is familiar with the 2012 USGS Study.

Comment No. 33:

Although it is assumed that Olowalu Town's fire flow requirements will be met by non-potable surface water, this use was not included in the projected .39 mgd non-potable surface water use figure. The FEIS should address this issue, discuss actual cumulative amounts of water needed for fire flow, where it will be stored and any impacts the demand for 2 mg of fire flow over 24 hr would have on water resources over a variety of seasons. This is especially critical since low rainfall months where stream flows may be low, are usually high fire risk times.

Response:

Fire protection will be provided by the OTMP's water system. The non-drinking water and reclaimed water systems will not encompass the entire project limits. Fire flow requirements will be met in accordance with the DFPS and DWS standards and by constructing adequate storage as part of the development, meeting the required fire flow rate for a 2-hour duration.

Comment No. 34:

There is no discussion of water operational needs of the proposed wastewater treatment facility. Will it depend upon treated effluent for backwashing filters and other standard maintenance or will additional surface water be needed for operational use? If so, how much would be required, and where are these amounts shown in the project's water demand calculations?

Response:

The proposed wastewater reclamation facility will produce recycled water that will be used for its non-drinking water operational needs. Filter backwash flow and other standard maintenance needs like foam suppression sprays and screening washers return water to the treatment process. Therefore, these internal recycle flows must be accounted for during the wastewater treatment facility design process, but do not impose an additional water demand on the development.

Comment No. 35:

No specifics on the proposed hydro-electric facility was included in the DEIS. Would such a facility require additional diversions or modifications? Would there be impacts to stream life? The project consultant suggested that "due to high amount of ground seepage, even if dam were removed, the stream would still be intermittent" (Nance 2011) but offered no proof. Would any future hydro-electric installation preclude additional stream flow restoration? Please discuss in the final EIS.

Response:

A hydro-electric facility may be considered for the OTMP. However, at this preliminary stage of infrastructure systems analysis, we are unable to provide specifics on a future hydro-electric facility at this time. Should the Applicants decide to develop such a facility, appropriate environmental and permit review will be undertaken.

Comment No. 36:

The applicant's water consultant refers to Olowalu Stream having a base flow of 4 mg between the years 1911-1967. It is clear from reports on file and company records that the plantation was often short of stream water, hence the drilling of the groundwater wells. The FEIS should acknowledge that rainfall conditions in Central and West Maui post 1967 have steadily declined, according to USGS report-5103 (Engott and Vana, 2007).

Response:

As noted on page 7 of the Water Resources Study (Appendix C of the Draft EIS), the average flowrate over the 56 year period of record was 4.8 MGD. The records indicate this flowrate was available 98 percent of the time. During times of maintenance, less stream water was diverted and the ditch flowrate was lower than 2.0 MGD due to shutdowns for maintenance, rather than actual low flows.

USGS Scientific Report 2007-5103 utilized monthly rainfall information from rain gage 4887 (Puu Kukui). Mean monthly rainfall information was obtained through Giambelluca and others (Rainfall Atlas of Hawaii, 1986). In the study, three (3) rain gages were selected to be representative of low (Kihei), medium (Wailuku) and high (Puu Kukui) rainfall conditions. The USGS Scientific Report 2007-5103 did not indicate that rainfall conditions in Central and West Maui post 1967 have steadily declined.

Comment No. 37:

Reduction of demand for stream water in the Olowalu project to .39 mgd is dependent in part on production and availability of reclaimed waste water from the project being treated at its wastewater facility. The DEIS (p. 158) gives a figure of .24 mgd of treated effluent available for irrigation, but does not specify how many residences would need to be in place before that amount is reached. A different figure of .391 mgd of available effluent is given in Appendix C. Table 2: "R-1 treated Effluent available for Irrigation Re-use". Which figure is correct?

Is there a back up plan if the community develops more slowly than expected and only minimal effluent is available for many years; would landscape design be modified accordingly? The FEIS should discuss the timing, phasing of pipe infrastructure to deliver the reclaimed water, and residential build out level necessary to produce enough effluent to relieve pressure on stream resources.

Response:

Thank you for informing us of the discrepancy between the Draft EIS and Table 2 in Appendix C of the Draft EIS. As noted in the Waste Management Plan, Appendix N of the Draft EIS, the correct figure of 0.24 MGD of treated effluent is available for irrigation.

Recycled water production rates are established by the volume of wastewater produced by the development. The wastewater and recycled water systems have been planned and will be designed in accordance with Hawaii Administrative Rules (HAR) 11-62 which requires the use of applicable County wastewater flow standards. Experience has shown that the County wastewater flow standards are conservative, resulting in wastewater and recycled water systems that are somewhat larger in capacity than required. This extra capacity is an asset for environmental protection purposes because wastewater treatment includes biological processes that can be upset if overloaded. For water resources planning purposes, the recycled water production rates were "derated" based on experience at other projects in Hawaii to reflect expectations. Furthermore, recycled water supply will vary from day to day based on wastewater generation rates. Per the wastewater plan, if necessary, surface water from Olowalu Stream and brackish groundwater from existing wells may be used to supplement recycled water supply to meet the irrigation demands of the recycled water

users. This includes irrigation demands during the early period of development when recycled water production will be significantly less than the demand.

As noted previously, until such time as sufficient R-1 recycled water is available for irrigation use, non-drinking water from Olowalu Stream will be utilized.

The OTMP is in the preliminary phase of the various entitlements and permits required for the project, specific plans of the R-1 water system are not provided in the EIS. Instead general parameters are provided. During each phase of Master Plan implementation, greater specificity regarding system designs will be provided.

Comment No. 38:

Wastewater:

No costs are given for the proposed state-of-the-art wastewater facility. In Appendix B (Preliminary Engineering Report- p. 9) estimated dry weather wastewater discharge was 533,000 gal day. In Appendix C. (Table 2) it is stated that 391,380 gpd of wastewater effluent is available for irrigation. In the body of the DEIS the figure of 24,000 gpd of irrigation effluent is given without explanation for the difference; please clarify in the FEIS.

Response:

A preliminary estimate of cost for the wastewater facility is approximately \$15 million at full build-out. As the project progresses to the design stage, the cost for the wastewater facility will be further refined.

As noted previously, the correct R-1 recycled water to be used is estimated as 0.24 MGD. Approximately 0.39 MGD of surface water will be used for irrigation. The project's preliminary estimate is that the wastewater facility will process approximately 391,380 gpd of dry weather effluent of which approximately 0.24 MGD will be processed into R-1 recycled water since a portion of the effluent water is lost during the treatment process.

Comment No. 39:

The DEIS refers to a 2-acre constructed wetland in conjunction with the waste water treatment facility (WTF) for storm events, then states that the wetland will use .14 mgd of effluent. Please state the wetland's capacity and whether it will function year round or only for storm events.

The WTF Plan (p.166 fig 19) does not show the proposed wetlands in relationship to the WTF or distance to the ocean. Is the proposed plant within 100 meters, 1000 meters; is it subject to sea level rise? The proposed Olowalu sewer system relies on pumping; is there a back-up generator incorporated into the plan if power supplies fail? How much sludge or "bio-solids" will be generated from the WTF and where will it go? Please clarify in FEIS.

What is the capacity of the WTF's R-1 water storage tank and how does a "soil aquifer treatment system" function? Please state in FEIS how many existing Olowalu residences and businesses have septic systems and whether they will be able to hook up to the WTF, and if so, the expected cost to hook up.

Response:

Recycled water will be added to the constructed wetland and soil aquifer treatment system throughout the year to maintain the health and vigor of the wetland vegetation and to maintain a wetland habitat. During periods of extended wet weather, when recycled water production exceeds recycled water demand, the excess recycled water will be sent to the constructed wetland and soil aquifer treatment system where it will receive additional natural treatment. Figure 3-1 in the wastewater report shows the schematic wastewater management system for the OTMP. As the project progresses through the various land entitlements, we expect development and design parameters will be expanded and refined estimates will be made available.

The treated overflow from the constructed wetland will be routed to the soil aquifer treatment system for disposal. The wetland is sized to treat the entire peak day wet weather flow from the wastewater treatment plant, approximately 2.01 MGD, as shown in Table 2-4 in the wastewater report. As such, the constructed wetland and soil aquifer treatment system will serve as an excess recycled water holding area during periods of extended wet weather when recycled water production exceeds demand.

The constructed wetland, soil aquifer treatment system, and wastewater treatment plant locations are shown in Figure 3-2 of the wastewater report. The wastewater treatment plant will be constructed above the flood elevation and will be protected from tsunami inundation as described on page 4-5 of the wastewater report. There will be a backup generator at the wastewater treatment plant as shown in page 4-4 of the wastewater report. Wastewater pump stations within OTMP will have emergency generators in accordance with State requirements.

At buildout, the wastewater treatment plant is expected to produce approximately nine (9) wet tons of dewatered sludge per week - about one (1) truckload. On page 4.4 of the wastewater report, the dewatered sludge will be hauled to the Central Maui Landfill for co-composting with green waste.

The R-1 storage tank volume will be approximately 1.0 MG. The soil aquifer treatment system and how it functions is described on page 8-3 of the wastewater report.

Currently, all residences and businesses in Olowalu are on an individual wastewater treatment system. As development is implemented and the wastewater transmission lines are constructed nearby, existing residences and businesses will have the opportunity to connect to the system. At this early phase of the project, we are unable to estimate the cost of such hook up to the proposed system.

Comment No. 40:

The DEIS water report concludes (on p. 13) that the availability of R-1 wastewater will “significantly reduce demand for ground water resources”. Since no integrated information is provided in the DEIS regarding existing use of stream water in the Olowalu system by cultural reserve users, farmers or homeowners, what is this statement based on? Will single family homeowners be able to use the reclaimed water for landscaping? The FEIS should provide specific comparison figures.

Response:

The use of R-1 recycled water for irrigation purposes is expected at full buildout to reduce the use of surface and groundwater resources for irrigation purposes, and is expected to significantly reduce the demand for such resources within the OTMP. This will allow water from the Olowalu Stream to be used by other users such as the OCR and farmers and reserve groundwater for drinking water use. Except as may be necessary due to unforeseen circumstances, such as a drought, the existing brackish wells may be used to temporarily supplement irrigation water use.

It is anticipated that at full buildout there will be sufficient R-1 recycled water to be utilized in the parks and open spaces. If permitted by the DOH, homeowner associations for entire subdivisions may be permitted to use the reclaimed water in the common areas. However, the individual single-family homeowners will not be able to utilize the reclaimed water at this time since the DOH currently prohibits the use of recycled water on single-family parcels.

Comment No. 41:

There are several natural drainage ways in the proposed vicinity of the WTF. Will these affect the plant's performance or put it at risk of overflow during storm events? The facility's general location is not discussed, except in terms of its proximity to the county waste transfer station.

Response:

As noted on pages 4-4 and 4-5 of the wastewater report, storm water originating mauka of the wastewater reclamation facility parcel will be routed around or piped under the facility to preclude flooding. Storm water originating on the wastewater treatment plant parcel will be collected and held in an onsite retention basin or will be connected to the storm water system that is developed for the rest of the OTMP. The tops of the wastewater process tanks will be above the 100-year flood elevation to prevent storm water from entering the tanks, in accordance with State regulations. Also, the facility will be constructed outside of the tsunami inundation zone.

As noted previously, Figure 3-2 of the wastewater report identifies the location of the wastewater reclamation facility.

Comment No. 42:

Drainage:

Pg. 4 of the Preliminary Engineering Report (Append. B) refers to natural features in the Olowalu area such as "Pu'u Kaiwaloa." The report may be referring to Pu'u Kilea which is a natural feature while Wa'iwaloa is a heiau site. If this is an error, please correct.

Appendix B also refers to "several un-named drainage ways including Olowalu stream." (p. 5) Obviously Olowalu stream is a named drainage way. Several other gulches in the Olowalu area appear to have names on Maui County's large format resource maps of the area. The report should reveal that Olowalu stream drainage has been altered from its original path. The existence of the ditch and reservoir systems should also be included in the drainage discussion.

Response:

Thank you for the clarification. We acknowledge the natural feature in the Preliminary Engineering Report (PER) is Pua Kilea and Olowalu Stream is a named drainageway and has been realigned from its original course. Also, the USGS map for Olowalu has been reviewed by the engineering consultant to confirm the names of any named drainageways and, except for Olowalu Stream, there are no other named drainageways.

Comment No. 43:

The Brown-Caldwell report (appendix B-1) in the DEIS spoke to the need to "aggressively implement" BMP's outlined in report due to the project's location adjacent to "one of the most significant, accessible coral reef systems on the island of Maui."

MTF requests the FEIS include an analyses of what the potential impacts would be if the Olowalu project is approved and these practices are only partially implemented or implementation is delayed. The FEIS should also discuss the cost of implementing all recommended BMPs and how this will affect the cost of a single dwelling.

The Brown and Caldwell report states their conclusions are “Based upon info provided by Olowalu Town, LLC. Unless otherwise expressly indicated, consultants have made NO INDEPENDENT INVESTIGATION AS TO VALIDITY, COMPLETENESS OR ACCURACY OF SUCH INFORMATION.” Independent investigation should be required for a project promoted as “ahupua’a based.”

Response:

The BMP guidance documents prepared by the Applicants’ consultants will be utilized by future developers within the OTMP. The protection of natural resources are important to the Applicants and these guidance documents will not be optional to future developers. In this regard, the Final EIS will assume that BMP measures will be implemented to the fullest extent and in a timely manner.

As noted previously, the OTMP is in the preliminary stage of the various land entitlements and permits required for the project, site specific BMP plans are not provided in the EIS. Instead, general parameters are provided. During each phase of Master Plan implementation, greater specificity will be provided. At such time, the impact on housing cost can be better determined.

In discussions with the consultant, we note that the “validity, completeness or accuracy” statement is standard language included in all Brown & Caldwell reports. This qualifying statement is not viewed as compromising the integrity of the report’s analysis.

Comment No. 44:

On p.19 of Appendix C the report assumes that the construction of retention basins may “improve runoff conditions in Olowalu during smaller storm events” yet no empirical proof from West Maui has been offered. The FEIS should provide facts to support this statement.

Response:

The project drainage system will be designed to meet County standards based on a 50-year or 100-year design storm, as applicable. As there are no existing drainage facilities on the property, the addition of onsite retention basins and BMPs will reduce the runoff continuing downstream during smaller storm events.

Comment No. 45:

The DEIS states that the project has 140 acres of “green space” available for drainage use, 15 to 20% to be used for storm water retention basins. The DEIS should include a map indicating the design of basin system. Does any of the “green space” proposed for drainage lie adjacent to the cultural preserve areas, burial areas, and cultural sites or are they in a separate protective zone. MTF requests that the FEIS include a map of retention areas overlaid on cultural site locations to clarify and avoid unintended consequences.

On p. 8 Appendix -B the DEIS states: Onsite and underground detention basins located within park and green space will have a storage capacity of 105 ac ft and are expected to reduce present run off by 10%. Overflow from the basins will continue down stream at “no greater than pre-development rates” therefore there will be no “adverse affect on downstream properties.” This statement does not analyze if there are already adverse affects to the shoreline and marine environment under current conditions?

Response:

The PER estimates that approximately 15 to 20 percent of the “green space” will be utilized for the retention basins or approximately 21 to 28 acres. As such, there is more than adequate land area during subsequent design phases to ensure that the proposed retention basins do not impact culturally sensitive areas.

Rules for the Design of Storm Drainage Systems in the County of Maui requires drainage systems to be designed that will “not adversely affect downstream and adjoining properties”. The drainage system will be designed to, at a minimum, meet this criteria, but it is too early in the planning process to determine the specifics of the drainage basin locations and sizes. Existing storm water runoff sheet flows across existing undeveloped lands and into the ocean. After development, stormwater runoff will be collected and conveyed to drainage retention systems which will allow for storage, settlement, infiltration, and evaporation prior to any release.

Comment No. 46:

The DEIS fails to mention who or what monitoring program will be used to evaluate the effectiveness of the basins and other BMP practices. Who is responsible for maintaining the basins and will homeowners be able to afford the upkeep? Other retention basins in West Maui have proven ineffective because they were neglected. The FEIS should clarify monitoring and maintenance efforts.

Response:

At this phase in the planning process, conceptual stormwater quality enhancements are being proposed. As Olowalu Town, LLC and Olowalu Ekolu, LLC progress through the process, refinement of the drainage plan will be developed with more specificity in the enhancements to be utilized. Olowalu Town, LLC and Olowalu Ekolu, LLC are not at the phase of the OTMP where monitoring programs, including the organizational context for accountability and responsibility, have been formulated. However, by the construction phase of the OTMP monitoring programs will be developed and reviewed by the appropriate agencies in conjunction with the issuance of construction permits.

During the initial phase of the development of the project, Olowalu Town, LLC and Olowalu Ekolu, LLC will be responsible for the maintenance of the basins. As noted above, at this early phase, the entity that will ultimately be responsible in the long term management of the monitoring programs, has not been identified.

Comment No. 47:

A statement is made that Olowalu's marine life, reefs and near shore waters have had "limited" impact from human activities, therefore a water quality report was prepared to address any potential impacts. The DEIS dismisses the possibility that low-lying areas of the project site, have functioned in the past as intermittent wetlands providing run-off filtration areas during storm events. Now that these areas are proposed for high-density residential development, please provide information on how retention basins placed elsewhere on the property provide the same capacity to protect the reef. Could the project be designed to avoid development in natural, low lying retention areas?

Response:

To meet the certification requirements of Leadership in Energy and Environmental Design for Neighborhood Development (LEED ND), the OTMP proposes to utilize strategies aimed at improving performance, in particular, the stewardship of resources, such as, but not limited to ocean and marine resources. A Handbook for Stormwater Reclamation and Reuse Best Management Practices in Hawaii was used as guidance in preparing the Stormwater Quality Enhancements Report which took a comprehensive look at the Olowalu ahupuaa from the mountains to the ocean. Low Impact Development (LID) or nontraditional measures are proposed to improve the method in which stormwater runoff is handled. Natural solutions such as green space, bio-retention gardens, vegetated swales, etc. are proposed in conjunction with traditional retention systems.

The stormwater quality enhancements are proposed to be incorporated into the OTMP from the mauka lands to the makai lands in order to reduce the amount of stormwater

runoff before it reaches the ocean. These enhancements will also improve the water quality of runoff. The goal of the OTMP is to retain stormwater runoff within the project as much as possible. The water quality of runoff that may eventually sheet flow into the ocean is expected to be improved over the existing runoff that flows through the existing culverts to the ocean. These measures are designed to protect ocean and marine resources.

During subsequent planning and design phases, consideration will be given to retaining as much of the natural low lying areas as green space.

Comment No. 48:

MTF asks that the FEIS address these topics under the "Alternatives" Section Traffic Impacts:

Substantial traffic impacts of this project are not addressed in the DEIS's Traffic Impact Analyses Report. (TIAR) Impacts to Honoapiilani Hwy are not discussed, other than the relocated segment of the highway proposed to pass through the project. Traffic bottlenecks that may occur at either end of the new alignment are not addressed.

Response:

Consultation with the State of Hawaii, Department of Transportation (HDOT) helped to define the geographic limits of the Preliminary Traffic Impact Analysis Report (TIAR) included as Appendix "M" of the Draft EIS. Since then, a new TIAR has been prepared in consultation with HDOT. The TIAR addresses traffic impacts associated with the OTMP and identifies appropriate mitigation measures. A copy of the TIAR is provided. See **Exhibit "8"**. As the project progresses through the entitlement and permitting process, additional traffic assessments will be prepared if required by the County or the HDOT.

Comment No. 49:

The Olowalu TIAR assumes that Honoapiilani Hwy will become four lanes on the Lahaina side of the project. This widening project may be on a STIP list but it's unclear when funding would be available. The likelihood of this road being built concurrently with any future Olowalu project should not be treated as an automatic mitigation for the traffic impacts that urbanization of Olowalu will bring to the area's only through road.

Response:

We note that the TIAR does assume that the four-lane bypass highway will continue and connect to the future planned widening towards Lahaina. The Environmental

Assessment for the portion of the highway from Lahaina to Olowalu is currently under review by the HDOT. Continuation of the bypass highway through Olowalu will be coordinated with this portion of the bypass. To the extent practicable, the bypass highway will be implemented with the implementation of the OTMP. To the extent that implementation phasing of the highway and OTMP is not aligned, coordination with HDOT will be undertaken to identify interim mitigation measures.

Comment No. 50:

The DEIS states that the existing Honoapiilani Hwy will become a "low-volume, low speed coastal roadway." It appears from the maps included that the applicants propose to remove several segments of the road and merge the former State ROW lands into their project lands. The DEIS does not discuss if this removal would lead to coastal access challenges.

Response:

The OTMP proposes realignment of the existing Honoapiilani Highway to the bypass highway at both ends of the highway as it traverses OTMP. To the extent that portions of the existing ROW can be utilized to enhance coastal access and use, it is the Applicants' goal to integrate excess State ROW into the makai lands to create a system of public open space and parks to the shoreline. As the OTMP is developed, parking areas and recreational amenities will be constructed to improve the recreational use of the shoreline.

Comment No. 51:

The phasing of various roadway infrastructure projects is not discussed. Would portions of Olowalu be built before Honoapiilani Hwy is moved inland? What are the impacts from the disruption in traffic patterns on the existing highway? How many phases will the project's construction have? The DEIS is a disclosure document and should contain this information.

Since it is unclear whether the Olowalu project will have new residential neighborhoods before the realigned roadway is constructed the DEIS should discuss impacts and mitigations such as a temporary traffic light during high use times to allow pedestrians and bicyclists to cross the road safely. Impacts of construction vehicles in the area should also be discussed.

The DEIS notes that the newly aligned Honoapiilani Hwy will have two primary access points but the map provided in the DEIS appears to have a confusing web of roads for navigation through Olowalu. It appears that this new "small town" built around "walking" will be separated by a 200 ft wide road right of way.

Response:

Implementation of the OTMP will begin with backbone infrastructure systems, including water, wastewater and roadway facilities needed to initiate each specific increment of residential and commercial development. The spatial progression of development will, in part be determined by market conditions, but will by necessity, include the provision of market and workforce housing. In general, the Applicants will develop commercial elements of the OTMP in coordination with development of residential components, and will coordinate with governmental agencies such as the Department of Education, Department of Fire and Public Safety and Department of Parks and Recreation to ensure that applicable provisions of law are addressed to meet public facility development requirements.

It is anticipated that a portion of the OTMP will be constructed prior to relocation of Honoapiilani Highway inland. In this initial phase of the OTMP, the existing intersection improvements on Honoapiilani Highway consisting of turning lanes, acceleration and deceleration lanes, will be utilized and should not disrupt traffic on the highway. As development of the OTMP progresses, improvements including the construction of the bypass highway, will be coordinated with the HDOT to ensure the safe movement of traffic through OTMP. The specifics of construction phasing for the highway will be developed as OTMP moves to the design phases of implementation.

As the OTMP nears the engineering design phase, a construction traffic management plan (TMP) will be prepared and reviewed by the appropriate agencies. Upon approval, the construction TMP will be implemented.

As noted in the Draft EIS and Figure 4 in the Draft EIS, at the request of HDOT, two (2) primary mauka to makai access points from the bypass highway is proposed and an additional third access entering from the south side of Olowalu from the proposed bypass to Honoapiilani Highway. Pedestrian and bicycle access across the bypass highway is proposed to cross via grade separations or under proposed bridges that will be required to cross existing gulches.

Comment No. 52:

Natural Environment:

Flood and Tsunami Hazards and Sea Level Rise - The Olowalu area faces multiple natural hazard risks as it is an area of high winds, wild fires, low lying erosion-prone coasts, is subject to flooding from storm events, tsunami inundation and seismic activity. The DEIS downplays these factors and emphasizes compliance with county building codes as the only needed mitigation. Avoidance of high impact areas should be discussed.

The DEIS (p. 8) stated "In Olowalu, erosion rates and potential impacts from sea level rise have not been identified." This is not entirely accurate. There are historic (1912-1997) coastal erosion rate maps for Olowalu posted at: <ftp://soest.hawaii.edu/coastal/webftp/Maui/Posters/Olowalu.jpg>

USGS has a synopsis of impacts affecting Olowalu in their web-based "Index to Technical Hazard Maps." The region is described as "moderate to high" in the USGS Overall Hazard Assessment due to "the low coastal slope." The tsunami hazard is ranked "high along this entire low-lying coast." The report concludes that the "erosion threat is ranked moderately high" beyond Hekili Pt. and "sea level and volcanic/seismic hazards are moderately high because of the low coastal slope and Olowalu's location within seismic hazard zone." Information such as this should be incorporated into an environmental document as it describes the surrounding environment as assessed by hazard management professionals.

A map should be provided in the DEIS of the proposed housing unit locations, parks, open space etc. overlaid on the FEMA Special Flood Hazard Areas, as well as the County Planning Department's Sea Level Rise Maps. The State Office of Planning asked for such a map to be included in their 2010 EISPN comments, but no action was taken.

Response:

Since the publication of the Draft EIS, the Department of Planning (PD), in conjunction with the University of Hawaii School of Ocean and Earth Science Technology (SOEST), has developed coastal erosion maps for Olowalu. According to the study, the Olowalu area has experienced an average Annual Erosion Hazard Rate (AEHR) of -0.4 ft. per year. The northern portion of Olowalu nearest Honoapiilani Highway has experienced an average AEHR reflective of the area while the southern portion has experienced moderate erosion at -0.5 ft. per year. The OTMP has an existing minimum shoreline setback of 150 feet. Based on the AEHR methodology in the Shoreline Setback Rules of the Maui Planning Commission, the shoreline setback for the makai property would average 45 ft., which is less than the existing 150 feet shoreline setback.

The current prediction is that sea level rise will be one (1) foot by 2050 and three (3) feet by 2100 (UH Sea Grant Program). At the recommendation of the PD, the Sea Level Rise Map for Olowalu forecasted by the National Oceanic and Atmospheric Administration (NOAA) Office for Coastal Management was reviewed. NOAA's forecast of a three (3) feet or one (1) meter (m) sea level rise in Olowalu is forecasted to remain close to the shoreline area. Utilizing a map scaling methodology, inundation from sea level rise is forecasted to be less than 150 feet from the shoreline by the year 2100. See **Exhibit "9"**.

The EIS has been revised to include information from the USGS Technical Hazard Map for the Olowalu region. See **Exhibit "10"**.

Figure 15 has been included in the EIS that overlays the 2012 FIRM over the conceptual land use plan. See **Exhibit "11"**.

Comment No. 53:

Coastal Access:

The DEIS refers to a 150 ft set back along the shore. It should be clarified if this 150 buffer includes an 100 ft-wide state beach reserve along much of the oceanfront portion of the Olowalu property. If it does, it would be more accurate to describe a fifty-foot shoreline setback buffer beyond the existing beach reserve. The FEIS should discuss why a two hundred ft building setback is not proposed: 100 ft state reserve and a 100 ft buffer beyond that.

Response:

The 150 ft. setback is based on criteria set forth in the MPC Shoreline Setback Rules. The MPC, in adopting the Rules, established the buffer area for development for shoreline properties. In the case of Olowalu, the MPC, through previous SMA permitting decisions, required the maximum setback, as well as maintaining a minimum width of 50 ft. for public access along the shoreline recognizing the effects of shoreline erosion. The OTMP proposes to maintain the 150 ft. shoreline setback as measured from a certified shoreline survey and maintaining a minimum width of 50 ft. for public access throughout the project.

Comment No. 54:

How many additional coastal access points will be created; how much parking area will be provided; and will current cultural and recreational access be impacted by the proposed Honoapiilani road realignment and removal of road segments? Will the land that was public right of way remain public? Where will new camping areas be established? The FEIS should provide specific information comparing present and future coastal access in the Olowalu area.

Response:

Conceptually, some of the area makai of Honoapiilani Highway is proposed to remain in the OCR, and other makai areas will be developed as open space and park. This will maintain existing cultural and recreational access as well as create greater access for the public in conjunction with amenities such as parking, restrooms, recreational

facilities, etc. The existing Camp Olowalu, which is a component of the OTMP, is proposed to remain in the general location, as well as the existing segment of Honoapiilani Highway through OTMP. A segment of Honoapiilani Highway currently undergoing shoreline erosion may be realigned further inland but will continue to remain as a public right of way and the existing right-of-way could be included in the proposed open space or park. It is anticipated that State right of way lands which may be integrated in the makai park and open space system will continue to remain in the public domain. As we progress towards development of the OTMP, additional specificity will be developed to address access, rights-of-way, parking and uses within the open space and park areas, and related design considerations. In this regard, specifics with respect to new camping areas will be determined in the future.

Comment No. 55:

Coastal Zone Impacts:

The DEIS shows the SMA zone as affecting very little of the proposed project yet the Maui County Planning Department points out that the entire project area will need to comply with SMA permit review. The FEIS should make this clear and discuss strategies to meet coastal zone policies, including improved access. While the DEIS promises the project will have "minimal grading" no specific amount of cubic yards moved is given to qualify that statement as accurate. Coastal grading is already going on what appears to be Olowalu Elua land near Camp Pecusa. Is this part of the Master Plan?

Response:

The DEIS, Chapter III, Section H, evaluates the OTMP in the context of the goals, objectives and policies of Chapter 205A, HRS, Coastal Zone Management (CZM) and the Special Management Area (SMA) Rules of the MPC. As the project progresses and prior to construction, Olowalu Town, LLC and Olowalu Ekolu, LLC will prepare and process appropriate SMA applications with the PD to ensure compliance with Chapter 205A, HRS and the SMA Rules of the MPC.

In this regard, at the time of SMA permit application preparation, the Applicants will coordinate with the Planning Department to confirm the scope of coverage for the application.

As we are in the preliminary state of the various land entitlements and permits required for the project, specific grading plans have not been included in the EIS. Instead, general parameters are provided. During each phase of Master Plan implementation, greater specificity regarding grading plans and designs will be provided. Minimizing earthwork operations is the goal for feasible and practical site development. At the time

of your comment, the grading work at Camp Olowalu (formerly Camp Pecusa) was for the construction of intersection "D" and a new driveway access to Camp Olowalu identified in SMA Permit No. 2010/0008 for the Olowalu Mauka Subdivision which was approved on March 22, 2011 by the MPC.

Comment No. 56:

Wetlands:

On p. 27 the DEIS claims the project "does not endanger any wetland" and affirms that there are no wetlands nearby or in project area. It is our understanding that lands in Ukumehame are considered wetlands. An area of "gley soils" consistent with intermittent wetlands is found near burial site no. 4693 in the Makai section of Olowalu Elua land. The area is recorded in Fredricksen's 1999 AIS. Olowalu needs functional wetlands to keep its reefs healthy.

Response:

The Applicants' biologist review of the project site and did not identify any wetlands within the OTMP. The existence of gley soils is one (1) factor utilized to determine if a wetland is present. Other considerations include hydrology and flora. A review of the project area indicates that there are no significant wetlands in the OTMP.

Comment No. 57:

Marine Resource Impacts:

Scientists, researchers, recreational users and regulatory agencies agree that the reef system from Olowalu to Ukumehame is outstanding in its variety of species and biological importance. They also agree that this is the last well functioning reef system on the West Maui coast.

The importance of this reef was so great that in 2000 Native Hawaiian group Na Kupuna O Maui attempted to intervene in the SMA permit process for the proposed Olowalu Mauka subdivision. As a result of a private settlement for the intervention, Na Kupuna O Maui was given around \$20,000 to use for a marine resources baseline study of the area's reefs, marine water quality and biological diversity.

Dr. Eric Brown was contracted to do the study which was designed to span both wet and dry seasons. The study results were published in 2003 and were included in the Olowalu Town EISPN (2010) . It was the understanding of Na Kupuna O Maui that periodic updates of the baseline study would be done to monitor the effects, if any, of the development of the Olowalu Mauka subdivisions and the two makai subdivisions.

The funding provided was sufficient for a two year process and appears to have been utilized. No additional monitoring work appears to have been done until the recent study by Dr. Dollar. It is essential that the FEIS discuss the applicant's plans for ongoing monitoring of the marine ecosystem in Olowalu and adaptive management strategies to deal with any impact trends identified.

Response:

The reef fronting Olowalu is a well-functioning reef system on the West Maui Coast. To maintain and enhance this system, the Stormwater Quality Enhancements Plan is proposed to reduce stormwater runoff and improve water quality. Since 2000, the applicants have engaged the native Hawaiian community, including Na Kupuna O Maui, to obtain their input in planning for the OTMP utilizing the Hawaiian ahupuaa system of land management. Towards understanding the outcomes of this land management system, it is the Olowalu Town, LLC and Olowalu Ekolu, LLC's intent to formulate and implement additional monitoring protocols.

A monitoring program will serve to verify if, and to what extent, environmental factors change from the pre-OTMP development baseline as a result of the OTMP. Such a monitoring program could provide a link between changes in water quality parameters, such as sediment discharge changes over time, and response by the reef community.

Comment No. 58:

Comments on Appendix D-Marine Resources Report:

The Olowalu Town DEIS includes a report dealing with marine resources and analyses of potential impacts to near shore waters. The project consultant spent four days surveying the area, conducting one water quality sampling, and his conclusions downplay any potential impacts to the area.

Earlier baseline studies of this same reef from ca. 2000-2001 (Brown, et al, 2003) included varied seasonal components but their conclusions are not referred to in the DEIS. The current marine resource study results support a forgone conclusion of "no impacts" as long as Best Management Practices (BMP) are implemented but does not discuss what would happen if BMP's are not followed, or prove ineffective. This is the key information required under Ch 343 guidelines and discussion of impacts is incomplete without this comparison.

Successive West Maui coastal and coastal uplands developments have made the same assumption: retention basins would be in place; BMP's would be followed; there would be no impacts yet the reefs of Honolulu, Kaanapali and Napili have been degraded. The

reefs of Kahekili have declined sharply in the last decade and only the Olowalu reef has held its own.

This is not mentioned in the Appendix D report on Marine Waters and Biotic Resources. Nor is it mentioned that Olowalu's marine consultant was a frequent consultant on other West Maui projects where his reports also reached the conclusion that with proper mitigation there would be no impacts.

The DEIS Marine Resources study states that the near shore "mixing zone" for groundwater and seawater is restricted to tens of meters from shore yet experienced divers have observed that daily afternoon wind and waves mix surface freshwater into the water column beyond this near shore groundwater discharge area where it interacts with the reef ecosystem. Studies at Kahekili reef in Kaanapali illustrate that ground water goes beyond the "mix zone."

Response:

Olowalu Town, LLC and Olowalu Ekolu, LLC have similar concerns as Maui Tomorrow regarding the health of the reefs at Olowalu. We recognized that the areas cited in your comments looked at traditional engineering measures to handle stormwater runoff. OTMP took a different approach involving the native Hawaiian ahupuaa system of land management from the mountains to the ocean in developing the Stormwater Quality Enhancements Report. LID or nontraditional measures are proposed to improve the method in which stormwater runoff is handled. Natural solutions such as green space, bio-retention gardens, vegetated swales, etc. are proposed in conjunction with traditional subsurface retention systems.

The stormwater quality enhancements are proposed to be incorporated into the OTMP from the mauka lands to the makai lands in order to reduce the amount of stormwater runoff before it reaches the ocean. These enhancements will also improve the water quality of runoff. The goal of the OTMP is to retain stormwater runoff within the project as much as possible beginning at the residential lots (i.e. rooftops) by collecting runoff in bio-retention gardens to commercial developments (i.e. building roofs and parking lots) by utilizing landscape areas, vegetated swales and subsurface retention systems. The water quality of runoff that may eventually sheet flow into the ocean is expected to be improved over the existing untreated runoff that flows through the existing culverts directly into the ocean. These measures are anticipated to protect ocean and marine resources.

Should these measures not be implemented, as noted in the marine assessment, sediment discharge will continue to impact the coral reefs. To ensure compliance each developable site within OTMP will be required to implement the BMP measures outlined in the Stormwater Quality Enhancement Report.

Regarding your comments on the reefs at Kahekili, for clarity, the conditions off Kahekili differs from Olowalu. Impacts at Kahekili are from groundwater intrusion while at Olowalu impacts are from sediment discharge from Olowalu Stream. Also, according to our water quality consultant the terminology "mix zone" is the area where groundwater occurs and by the measured water chemistry at any particular time of sampling. It is not a specific location and varies both temporarily and spatially based on a particular set of conditions determined by groundwater input and physical conditions at one point in time. At the time of the marine water quality surveys at Olowalu, the mixing zone was confined to a narrow zone near the shoreline.

We note that Dr. Dollar's independent report was conducted specifically for the Applicants and are not related to other projects in the West Maui region.

Comment No. 59:

Scientists have observed elevated nitrogen levels at many natural dry land areas on Maui. One explanation given is that many common plants fix their own nitrogen (i.e. kiawe) and this excess nitrogen enters into the ground water. Areas like Olowalu have fairly high nitrogen levels entering the system and this has likely been the case for hundreds of years. As a result the ecosystem has likely adapted to this condition. Local fish and sea urchins keep the nitrogen fed limu population down. Changes to this system, like alterations in the amount and location of groundwater discharges, can have substantial impact on the reef ecosystem in that area. We can not predict what these impacts will be yet the DEIS does not acknowledge even the possibility of these future impacts.

Response:

We acknowledge that groundwater input to the ocean is a natural process that has been occurring throughout time, and coral reefs and other marine communities have adapted to these inputs. An example of the ability to adapt is a comparison of West Maui to the west coast of the island of Hawaii (West Hawaii). Groundwater input in terms of both volume and elevated nutrient concentrations on West Maui are substantially lower than on West Hawaii and the nutrient delivery to nearshore water at West Hawaii is substantially greater than West Maui. Yet coral communities off West Hawaii are probably the most prolific in the entire state, and marine algae is nearly absent from this coastline (particularly in terms of nuisance blooms). In addition, physical mixing processes (wind, waves) in West Hawaii are far less in degree than in Maui resulting in larger areas of groundwater influence.

From the documented cases at various locations around the State it is possible to predict the results of groundwater nutrient loading as a result of changes on land.

Comment No. 60:

Groundwater discharges will likely decrease 6% but it is presumed to have no effect on marine ecosystems since the consultant concludes that “at present, groundwater is so restricted in distribution that there is no effect on marine community structure.” Dr. Dollar and Nance offer no sound scientific proof for this statement. Future development patterns may cause groundwater now discharged in one location to be reduced but may increase in other locations from irrigation and other alterations on land. A city of 1,500 units will significantly increase the water use on land and water will seep into the ground and enter the water somewhere. These changes are likely to affect the marine ecosystems in some form. The DEIS ignores the need to consider the likely effect of changes in groundwater discharge patterns by avoiding any in-depth research and offering an unverified assumption as fact.

The developers state that the use of treated effluent for irrigation will have no influence on marine ecosystems but treated effluent may seep into the ground and work its way to the ocean. The project’s marine consultant does not comment on whether this may happen in locations not adapted to this type of groundwater discharge.

Response:

As previously noted, based on documented scenarios at other locations around the state, it is possible to predict the results in groundwater nutrient loading as a result of changes in land use. The decrease of groundwater discharges by approximately 6 percent and the no effect conclusion of the consultants is based on both the data collected at the site and the existing body of knowledge of the effects of groundwater in nearshore waters.

According to the wastewater management plan (Appendix N in the Draft EIS), OTMP will include an extensive water recycling program to put treated wastewater to beneficial use. DOH regulations require that recycled water be applied at rates that do not exceed the irrigation and nutrient requirements of the vegetation. Excess recycled water will receive further polishing treatment in the constructed wetland prior to additional land treatment in a soil aquifer treatment system. Recycled water percolating into the ground will mix with existing groundwater and is not expected to impact groundwater discharge into the ocean.

Comment No. 61:

They also state that aggressive use of retention basins will improve conditions resulting in less sediment run-off. While sediment retention in the Olowalu area can be absorbed it should be improved after over 100 years of sugar farming. It is important to note that

Olowalu's low lands are mostly undeveloped at this point, allowing heavy rainfall to flood the area and be absorbed with less impact on residents and near shore waters.

Development proposed for these lowlands will change this pattern as increased urbanization means more roads, homes, lawns and other surfaces that do not naturally retain rainfall. Water will move down slope more quickly and this will result in increased land-based pollution reaching the reef. Despite engineering claims made in the DEIS, it is unlikely that a development of this scale will improve overall conditions.

Response:

For clarification, although there are undeveloped lowlying areas on the mauka lands the majority of stormwater runoff from the mauka lands are currently exiting directly into the ocean through the existing culverts under Honoapiilani Highway depositing sediments into the ocean. A portion of the stormwater runoff on the makai open lands percolate into the ground while the excess runoff sheet flows into the ocean.

As noted previously, approximately 223 acres of green space is planned within the OTMP of which approximately 21 to 28 acres will be used for retention basins. The LID or stormwater quality enhancements propose to reduce and treat runoff from the initial sources of the increases (i.e. building rooftops) through onsite measures such as rain gardens. Runoff not treated onsite will be handled by retention measures (i.e. perforated pipes) designed to handle larger runoff in stages as it moves down slope before it reaches the ocean. The intent of these measures is to handle runoff mauka of Honoapiilani Highway. These enhancements are also expected to improve the water quality of runoff.

However, should runoff sheet flow into the ocean the utilization of the proposed LID or stormwater quality enhancements are expected to improve the water quality of runoff and protect ocean and marine resources.

Further, development in the OTMP on the makai side of Honoapilliani Highway is limited, with most of the lands kept in a cultural reserve, open space and park for recreational and cultural purposes. During subsequent planning and design phases, consideration will be given to retaining as much of the natural low lying areas as green space.

Comment No. 62:

It is stated that individual residences and structures will use rain gardens to minimize run-off, and this will minimize impacts the project might have on near shore water quality. Building and landscape design and individual efforts have an important role to play in minimizing non-source pollution and runoff impacts but no solid evidence is

offered regarding what proportion of residents will participate or how many structures will incorporate these measures into their design and maintenance. It should be acknowledged that under the most likely scenario there will be an overall increase in impervious surfaces that will likely increase run-off. The DEIS should evaluate the possible impacts of run-off rather than taking the position that it will never reach the ocean as this has not proved true anywhere on Maui.

Response:

Page 5-1 of the Stormwater Quality Enhancements Report (Appendix "B-1", Draft EIS) lists a menu of potential LID stormwater quality measures to be considered in development of the OTMP. Implementation of the OTMP will include stormwater BMP guidance documents developed for the community. All lots and developments in the OTMP will incorporate as many stormwater quality enhancement measures as may be practicable. These measures are expected to reduce the amount of runoff and enhance the quality of runoff that occurs.

In addition, the OTMP will have retention basins sized to contain at minimum the increase in runoff due to the development for the 100-year storm event in accordance with Maui County standards. The combination of the development stormwater quality enhancement measures and detention basins will create a system that is expected to contain stormwater in excess of Maui County standards.

We note that under certain high intensity rainfall conditions, runoff may reach the ocean. The mitigation measures proposed for the OTMP are intended to improve the quality of stormwater which may ultimately be discharged to the ocean.

Comment No. 63:

Dr. Dollar's observation, taken over a brief time span, that the number of large fish on Olowalu reef is very low most likely due to fishing pressure, does not match the observations of ongoing researchers in the area who characterize Olowalu as one of Maui's "prime marine ecosystems." Researchers point out that overall, fish biomass in Olowalu is equal to that of most of our Marine Life Conservation Districts, where fishing is prohibited or strictly regulated. These researchers describe Olowalu's offshore reef structure as: "very healthy, diverse and provides excellent structured fish habitat. Even with heavy fishing pressure, we regularly see large parrotfish in this area."

The DEIS should examine whether a major development would change the existing marine ecosystem. Unlike the project consultant, local marine researchers characterize Ukumehame/Olowalu reef complex as "the last well functioning large coastal reef flat along the leeward side of Maui." It is home to some of the rarest coral species still

remaining on Maui. Marine scientists, cultural practitioners, and researchers urge policy makers to seriously consider the consequences of development in this area.

The conclusion of the Olowalu marine resources consultant that as long as BMPs are utilized and retention basins maximize sediment trapping, "there is no rationale to indicate potential changes that could be considered negative impacts to the marine environment" is not based on sufficient research and does not take into account other reviews of the area such as Dr. Brown's earlier baseline study.

Response:

Unlike researchers who conduct observations over a larger span of time, the observations made by our marine consultant were to determine the likely marine biotic community and conditions of the area in order to evaluate potential impacts that may result from OTMP. At the time of the field survey there was a paucity of large fish observed, which is typical of reefs in the main Hawaiian Islands as a result of fishing pressure. Further, the size of fish does not necessarily equate to biomass. The most important determinate of fish abundance is the higher complexity of the bottom at Olowalu. Biomass at Olowalu may be equivalent to the Marine Life Conservation Districts.

We acknowledge the reef structure and function at Olowalu is unique primarily due to the physical structure of the area in terms of oceanographic structure and protection from storm waves. This will not change with changes in land use. The major impacts to the reef at present are a result of input of sediment from lands that are not pristine and have been affected over time by human activities. However, such activities are reversible. The implementation of recommended non-traditional stormwater measures is expected to reduce sedimentation and result in improvements to the marine environment.

Comment No. 64:

In conclusion:

The Olowalu Town DEIS is missing essential information needed to evaluate the project's impacts to local residents, natural resources, and existing infrastructure. As such it does not comply with HAR 11-200-16: "The environmental impact statement shall contain an explanation of the environmental consequences of the proposed action. The contents shall fully declare the environmental implications of the proposed action and shall discuss all relevant and feasible consequences of the action."

The DEIS does not conform to the West Maui Community Plan (1996). It ignores the major changes in project design recommended and shown in adopted maps of citizen

advisory groups who reviewed the project for inclusion in the Maui Island Plan, (MIP) yet repeatedly refers to the fact that both bodies recommended the project be included in the MIP growth boundaries.

Response:

Preparation of the EIS includes review of your cited documents, as well as available reports by other researchers to address your comments. We recognize the HRS Chapter 343 review as a process which involves revisions to the Draft EIS to address comments received. In this regard, we believe that the Final EIS has been prepared in accordance with the criteria for an EIS pursuant to HAR 11-200-16. Furthermore, the content requirements for a Draft EIS under HAR Section 11-200-17 have been met.

We have noted that the Draft EIS may not be in alignment with the West Maui Community Plan and that a Community Plan Amendment will be required to address the recently adopted MIP. As you know, the MIP has been adopted by the County of Maui and portions of the OTMP is within the UGB and RGB. Importantly, the MIP states that “the future delineation of potential urban growth areas makai of the existing Honoapiilani Highway may be undertaken in conjunction with updates or amendments to the West Maui Community Plan”.

Comment No. 65:

The Olowalu Town DEIS does not review, describe, or consider any meaningful alternative design, density or configurations for the project that could reduce its environmental impacts.

Such alternatives could include:

- *A smaller project footprint and unit-count to avoid impacts to groundwater supplies*
- *Deletion of development areas maikai of the current Honoapiilani Hwy (as recommended by the Maui Planning Commission and adopted in their MIP map)*
- *Project redesign to avoid development in low lying regions along the existing highway.*
- *Minimizing urban elements of the project into a smaller footprint*
- *5. Proposing a similar project design in a more inland location*

Because the DAR does not discuss any of these alternatives it does not comply with disclosure and discussion standards required under HAR 11-200-17: “The draft EIS shall describe in a separate and distinct section alternatives which could attain the objectives of the action, regardless of cost, in sufficient detail to explain why they were rejected. The section shall include a rigorous exploration and objective evaluation of the

environmental impacts of all such alternative actions. Particular attention shall be given to alternatives that might enhance environmental quality or avoid, reduce, or minimize some or all of the adverse environmental effects, costs, and risks” including alternatives related to different design or details of the proposed actions which would present different environmental impacts. In each case, the analysis shall be sufficiently detailed to allow the comparative evaluation of the environmental benefits, costs, and risks of the proposed action and each reasonable alternative. For any agency actions, the discussion of alternatives shall include, where relevant, those alternatives not within the existing authority of the agency.”

Response:

The proposed OTMP is a refinement of the preferred alternative reached during a community-based planning effort that reviewed numerous alternatives in the context of the principles of “Smart Growth”. The participants of “Olowalu Talk Story” during the community-based planning effort considered suggested alternatives for a smaller unit count, deletion of the areas makai of Honoapiilani Highway, avoidance of environmentally sensitive areas and consideration of a more mauka location. The various alternatives were evaluated by the participants in relationship to the historic, cultural and environmental constraints of Olowalu. The various alternatives were refined into the OTMP included in the Draft EIS.

The planning process undertaken by Olowalu Town, LLC and Olowalu Ekolu, LLC involved an extensive evaluation of alternatives. As noted previously, the OTMP in the Draft EIS is a refinement of these alternatives and have been evaluated in the Draft EIS.

The MIP Alternative, which addresses lands mauka of the existing Honoapiilani Highway, meets your request for 1) a smaller footprint, 2) delete development makai of Honoapiilani Highway, 3) avoid development in low lying regions and 4) propose a more inland location. The MIP Alternative will be included in the Final EIS. As such, the EIS discussion of Alternatives meet the standards under HAR 11-200-17. See **Exhibit “12”**.

Comment No. 66:

The DEIS dismisses the idea that the project could have secondary and cumulative impacts even though the project proposes urbanizing an area that last had a significant population several hundred years ago. We ask that the LUC find the project’s DEIS incomplete.

Response:

As noted previously, Chapter 343 HRS defines a process which involves revisions to the Draft EIS to address comments received. As required, the Draft EIS contained a discussion on cumulative and secondary impacts. That discussion has been expanded in the Final EIS, which addresses foreseeable secondary and cumulative impacts. See **Exhibit "13"**.

Thank you for your participation in the Chapter 343, Hawaii Revised Statutes review process. A copy of your letter and this response letter will be included in the Final EIS. Should you wish to receive a copy of the Final EIS document or portion thereof, please submit your request in writing to Munekiyo Hiraga at 305 High Street, Suite 104, Wailuku, Hawaii 96793 (Attention: Colleen Suyama).

Very truly yours,



William Frampton
Olowalu Town LLC



David Ward
Olowalu Town LLC

WF:DW

Enclosures

cc: Peter Martin, Olowalu Ekolu, LLC
Tom Nance, Water Resource Engineer
Craig Lekven, Brown & Caldwell
Steven Dollar, Marine Research Consultants, Inc.
Stacy Otomo, Otomo Engineering, Inc.
Roger Dyar, Transportation Engineer
Jennifer Lim, Carlsmith Ball, LLP
Colleen Suyama, Munekiyo Hiraga

CHARMAINE TAVARES
Mayor

KATHLEEN ROSS AOKI
Director

ANN T. CUA
Deputy Director



COUNTY OF MAUI
DEPARTMENT OF PLANNING

December 16, 2010

CERTIFIED MAIL -- #7008 0500 0002 0444 6310

Mr. Peter Martin, President
Olowalu Elua Associates, LLC
33 Lono Avenue, Suite 450
Kahului, Hawaii 96732

Dear Mr. Martin:

SUBJECT: SECOND NOTICE OF WARNING - REQUEST FOR SERVICE NO. 10-0000452: FAILURE TO COMPLY WITH SPECIAL MANAGEMENT AREA (SMA) USE PERMIT FOR THE OLOWALU SUBDIVISION, LOCATED AT OLOWALU, ISLAND OF MAUI, HAWAII; TMK(S): (2) 4-8-003:005, 10 (POR.), 41, 42, 43, 50 (POR.), 63 (POR.), AND 78 (POR.); AND (2) 4-8-004:011, 12, 13, 14, 15, AND 16 (SM1 99/0021)

The County of Maui (County) issued a Second Notice of Warning on June 29, 2010, to clarify action steps that needed to be implemented in order to bring the Olowalu Mauka Subdivision project (Project) into SMA compliance. From that June 29, 2010 date, the Department of Planning (Department) has worked with the developer to further review each of the outstanding issues.

Condition No. 32, requiring the completion of roadway improvements to the Honoapiilani Highway, is stated as follows: *"That roadway improvements to Honoapiilani Highway, including left-turn storage lanes, acceleration and deceleration lanes, driveway connections, etc., as identified in the applicant's Traffic Impact Assessment Report (TIAR), and as required by the Department of Transportation shall be provided in conjunction with the development of the subdivision. The roadway improvements shall be reviewed and approved by the Department of Transportation. Construction of the improvements shall be completed prior to occupancy of the agricultural lots unless a phasing plan for the improvements is reviewed and approved by the Department of Transportation."*

At the time of the June 29, 2010 letter, the Department did not have any documentation that a phasing plan had been approved and therefore, was of the opinion that the project was not in compliance with Condition No. 32. In light of the June 29, 2010 opinion that Condition No. 32 had not been adequately met, the Department determined that the project was not in compliance with Conditions 2, 4, 8, 11, and 12.

250 SOUTH HIGH STREET, WAILUKU, MAUI, HAWAII 96793
MAIN LINE (808) 270-7735; FACSIMILE (808) 270-7834
CURRENT DIVISION (808) 270-8205; LONG RANGE DIVISION (808) 270-7214; ZONING DIVISION (808) 270-7253

EXHIBIT 1

Mr. Peter Martin, President
December 16, 2010
Page 2

Subsequently, the developer in a letter dated October 25, 2010 as attached, provided documentation from the State Department of Transportation (DOT), Maui District Office, that a verbal agreement between Olowalu Elua Associates and the DOT established a phasing plan per Condition No. 32 which stated the following: *"DOT will permit issuance of building permits for dwellings on up to 50% of lots 1-14 in the Olowalu Mauka subdivision prior to construction of the Driveway "D" intersection in its new location."* Additionally, the developer has submitted an application for a new SMA permit for the relocation of Driveway "D".

With such a phasing plan confirmed by the DOT, the Department believes that the developer has adequately addressed the issues raised regarding Condition Nos. 2, 4, 8, 11, 12, and 32 in the Department's June 29, 2010 letter at this time. It is only until very recently that fifty percent (50%) of the lots 1-14 in the Olowalu Mauka subdivision have commenced construction. As the project has now reached this 50% threshold referenced in the phasing plan, completion of Driveway "D" and associated roadway improvements must commence.

Three (3) other conditions of concern were brought to the Department's attention. These conditions were of concern as a matter of continuing project monitoring. Condition No. 14 concerns the development of a phased greenway system. A site visit by the Department required that the developer give an accounting of the live trees and plants by species that have been planted to date. Additional mitigation and planting was required in order to bring the project into compliance. Some plantings had died over time and certain species were replaced.

Condition No. 19 concerns archaeological and site preservation with both long and short-term milestones. No specific timetable was developed for preservation. A recent site-visit confirms that the Olowalu Cultural Reserve is working on preservation throughout the site and has prioritized each of the projects. Therefore, the Department is satisfied that the developer is working on both short-term and long-range preservation projects, and this issue has been adequately addressed by the developer at this time.

Finally, Condition No. 33 was adhered to when a light bulb of a lower wattage was replaced, as required by the conditions of approval.

The developer has given evidence of a phasing plan for subdivision development and improvements to the Honoapiilani Highway. Additionally, a new SMA application for the relocated Driveway "D" has been received by the Department, and mitigation measures for other conditions have been completed or shall be according to a priority phasing plan. Based on the information available to the Department, the issues referenced in the Department's June 29, 2010, Second Notice of Warning has been adequately addressed at this time.

Mr. Peter Martin, President
December 16, 2010
Page 3

Thank you for your cooperation in addressing this matter. The Department looks forward to processing the new SMA application for the proposed Driveway "D" and related project improvements. Should you require further clarification, please contact Staff Planner Kurt Wollenhaupt at kurt.wollenhaupt@mauicounty.gov or at (808) 270-1789.

Sincerely,



KATHLEEN ROSS AOKI
Planning Director

Attachment

xc: Ann T. Cua, Deputy Planning Director
Clayton I. Yoshida, AICP, Planning Program Administrator
Aaron H. Shinmoto, PE, Planning Program Administrator (2)
Kurt F. Wollenhaupt, Staff Planner
Michael Hopper, Attorney, Corporation Counsel
Jay Arakawa, Supervisory Zoning Inspector
Michael T. Munekiyo, AICP, Principal, Munekiyo & Hiraga, Inc.
Colleen Suyama, Project Manager, Munekiyo & Hiraga, Inc.
David Ward, Frampton & Ward LLC
Dean Frampton, Frampton & Ward LLC
Project File
General File

KRA:KFW:vb

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ALAN M. ARAKAWA
Mayor

WILLIAM R. SPENCE
Director

MICHELE CHOUTEAU McLEAN
Deputy Director



APR 14 2011

COUNTY OF MAUI
DEPARTMENT OF PLANNING

April 7, 2011

CERTIFIED MAIL - #7008 1140 0002 4319 5575

Mr. Peter K. Martin
Olowalu Elua Associates, LLC
33 Lono Avenue, Suite 450
Kahului, Hawaii 96732

Dear Mr. Martin:

SUBJECT: SPECIAL MANAGEMENT AREA (SMA) USE PERMIT APPROVAL FOR THE RELOCATION OF DRIVEWAY "D" FOR THE OLOWALU MAUKA SUBDIVISION AND RELATED IMPROVEMENTS AT THE INTERSECTION OF HONOAPILANI HIGHWAY AND LUAWAI STREET, OLOWALU, MAUI, HAWAII; TMK: (2) 4-8-003:084 (POR.), 101 (POR.), 102 (POR.), AND 118 (POR.) (SM1 2010/0008)

At its regular meeting on February 8, 2011, the Maui Planning Commission (Commission) conducted a public hearing on the above request, and further deliberated on the application at the Commission's meetings of February 22, 2011, and March 22, 2011. The Applicant for the SMA application is Olowalu Elua Associates, Peter K. Martin.

After due deliberation, the Commission voted to grant approval of the SMA Use Permit, subject to the following twelve (12) Standard Conditions and six (6) Project Specific Conditions:

STANDARD CONDITIONS:

1. That construction of the proposed project shall be initiated by **March 31, 2014**. Initiation of construction shall be determined as construction of on-site and/or off-site improvements, issuance of a foundation permit and initiation of construction of the foundation, or issuance of a grading permit and initiation of grading, whichever occurs first. Failure to comply within this three (3) year period will automatically terminate this SMA Use Permit unless a time extension is requested no later than ninety (90) days prior to the expiration of said three (3) year period. The Planning Director (Director) shall review and may approve a time-extension request, but may forward said request to the Commission for review and approval.

250 SOUTH HIGH STREET, WAILUKU, MAUI, HAWAII 96793
MAIN LINE (808) 270-7735; FACSIMILE (808) 270-7834
CURRENT DIVISION (808) 270-8205; LONG RANGE DIVISION (808) 270-7214; ZONING DIVISION (808) 270-7253

EXHIBIT 2

2. That the construction of the project shall be completed within two (2) years after the date of its initiation. Failure to complete construction of this project will require unfinished portions of the project to obtain a new SMA Use Permit unless a time extension is requested no later than ninety (90) days prior to the expiration of said two (2) year period. A time extension shall be requested no later than ninety (90) days prior to the completion deadline. The Director shall review and may approve a time-extension request, but may forward said request to the Commission for review and approval.
3. That the permit holder or any aggrieved person may appeal to the Commission any action taken by the Director on the subject permit no later than ten (10) days from the date the Director's action is reported to the Commission.
4. That appropriate measures shall be taken during construction to mitigate the short-term impacts of the project relative to dust and soil erosion from wind and water, ambient noise levels, and traffic disruptions.
5. That the subject SMA Use Permit shall not be transferred without prior written approval in accordance with Section 12-202-17(d) of the *Special Management Area Rules of the Maui Planning Commission*. However, in the event that a contested case hearing preceded issuance of said SMA Use Permit, a public hearing shall be held upon due published notice, including actual written notice to the last known addresses of parties to said contested case and their counsel.
6. That the Applicant, its successors, and permitted assigns shall exercise reasonable due care as to third parties with respect to all areas affected by subject SMA Use Permit and shall procure at its own cost and expense, and shall maintain during the entire period of this Special Management Area Use Permit, a policy or policies of comprehensive liability insurance in the minimum amount of ONE MILLION AND NO/100 DOLLARS (\$1,000,000.00) naming the County of Maui as an additional named insured, insuring and defending the Applicant and County of Maui against any and all claims or demands for property damage, personal injury, and/or death arising out of this permit, including but not limited to: (1) claims from any accident in connection with the permitted use, or occasioned by any act or nuisance made or suffered in connection with the permitted use in the exercise by the Applicant of said rights; and (2) all actions, suits, damages, and claims by whomsoever brought or made by reason of the non-observance or non-performance of any of the terms and conditions of this permit. A copy of a policy naming County of Maui as an additional named insured shall be submitted to the Department of Planning (Department) within ninety (90) calendar days from the date of transmittal of the Decision and Order.
7. That full compliance with all applicable governmental requirements shall be rendered.

8. That the Applicant shall submit plans regarding the location of any construction related structures such as, but not limited to trailers, sheds, equipment and storage areas and fencing to be used during the construction phase to the Department for review and approval.
9. That the Applicant shall submit to the Department five (5) copies of a detailed report addressing its compliance with the conditions established with the subject SMA Use Permit. A Preliminary Report shall be reviewed and approved by the Department prior to issuance of a grading permit. A Final Compliance Report shall be submitted to the Department, within thirty (30) days of acceptance of the highway improvements by the State Department of Transportation (DOT).
10. That the Applicant shall develop the property in substantial compliance with the representations made to the Commission in obtaining the SMA Use Permit, and with preliminary plans outlined by the Department in the Staff Report presented to the Commission on February 8, 2011, and supplemental documents presented at the Commission's February 22, 2011, and March 22, 2011, meetings. Failure to so develop the property may result in the revocation of the permit.
11. That appropriate energy conservation measures shall be incorporated into the project, as applicable, which may include but are not limited to, energy conserving building materials, solar water heaters, state of the art air conditioning systems, photo voltaic systems, etc.
12. That all exterior illumination, if applicable, shall consist of fully shielded downward lighting throughout the project.

PROJECT SPECIFIC CONDITIONS:

13. That the project shall be reviewed for compliance with all applicable State and County requirements, during the grading permit application process, including receiving final approval from the State DOT prior to construction initiation.
14. That construction and demolition waste shall be disposed of in the Maui Construction & Demolition Landfill or at a certified site other than the County Landfill.
15. That the Applicant will submit domestic and irrigation calculations prepared, signed, and stamped by a certified engineer or architect during the grading permit process and provide domestic, irrigation and fire protection in accordance with system standards, as applicable for any irrigated landscaping.
16. That the Applicant utilize Best Management Practices (BMPs) designed to minimize infiltration and runoff from construction and vehicle operations, and implement the following mitigation measures:

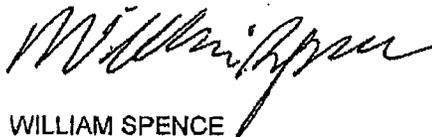
Mr. Peter K. Martin, Olowalu Elua Associates, LLC
April 7, 2011
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- a. Prevent cement products, oil, fuel, and other toxic substances from falling or leaching into the water;
 - b. Properly and promptly dispose of all loosened and excavated soil and debris material from drainage structure work; and
 - c. Keep runoff on-site.
17. That the Applicant shall meet all requirements of the Department of Fire and Public Safety with regards to required fire code standards for this project.
18. That the Applicant shall post a bond with the County of Maui by procedures and policies approved by the Director, Finance Director, and Corporation Counsel in the amount of \$675,000.00, to be held as a guarantee of project completion. The bond shall be posted within thirty (30) days of project approval by the Commission and the State DOT (whichever is later). Completion of the project per the preliminary plans approved by the Commission and in accordance with the timetable set out under these conditions, unless an extension is approved by the Commission, and upon receipt of acceptance of the highway improvements by the State DOT for the project shall deem the project complete and the bond shall be released to the Applicant or designated representative.

Further, the Commission adopted the Report and Addendum Reports, and Addendum Recommendation, prepared by the Department for the February 8, 2011, February 22, 2011, and March 22, 2011, meetings as the Findings of Fact, Conclusions of Law, and Decision and Order, attached hereto and made a part hereof. Parties to proceed before the Commission may obtain Judicial Review of Decision and Orders issued by the Commission in the manner set forth in Chapter 91-14, Hawaii Revised Statutes.

Thank you for your cooperation. If additional clarification is required, please contact Staff Planner Kurt Wollenhaupt at kurt.wollenhaupt@mauicounty.gov or at (808) 270-1789.

Sincerely,



WILLIAM SPENCE
Planning Director

Mr. Peter K. Martin, Olowalu Elua Associates, LLC
April 7, 2011
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xc: Clayton I. Yoshida, AICP, Planning Program Administrator
Aaron H. Shinmoto, PE, Planning Program Administrator (2)
Kurt F. Wollenhaupt, Staff Planner
Ferdinand Cajigal, PE, State Department of Transportation
Glenn Okimoto, Director, State Department of Transportation
Department of Public Works
Department of Water Supply
Department of Fire and Public Safety
Police Department
Department of Environmental Management
Maui Electric Company
Dean Frampton, Frampton & Ward, LLC
Dave Ward, Frampton & Ward, LLC
Michael Munekiyo, AICP, Munekiyo & Hiraga, Inc.
CZM File (SM1)
Project File
General File

WRS:KFW:sa

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~~project and will incorporate innovative, efficient, and sustainable technologies to minimize adverse impacts to the environment.~~

~~The Master Plan will preserve important open space and cultural resources. Approximately 223 acres of parks and open space will be provided. In addition, no development will occur within 150 feet of the shoreline.~~

The development of the Master Plan ~~both Alternatives 1 and 2~~ embodies the core principles advocated by the Countywide Policy Plan. Importantly, since 2005, the Maui community, especially the Olowalu community, has been involved in the project's planning process. Respecting its natural environment and cultural heritage, ~~the Master Plan is both Alternatives 1 and 2~~ are modeled after the Hawaiian ahupua`a system of land use recognizing the importance of Olowalu Stream and the connection between the ocean and mountain environments, as well as the rich cultural heritage of the area. ~~The Master Plan Both Alternatives 1 and 2~~ incorporates the principles of sustainability, cultural preservation and economic diversity to create neighborhoods sensitive to its environment and cultural heritage.

~~The Master Plan Both Alternatives 1 and 2~~ proposes to establish an economic base consisting of agriculture, community needs, and support services and new entrepreneurialism to support the community's sustainability goals. The Master Plan ~~is for Alternatives 1 and 2~~ is envisioned to disperse population growth into a distinct community from Lāhainā Town separated by agricultural open space and topographic boundaries. The Master Plan ~~alternatives~~ includes retaining approximately 28 acres of agricultural lands in Olowalu as 14 agricultural homesteads and, as part of well as expand the OCR in order to perpetuate native Hawaiian agricultural practices.

In summary, ~~the Master Plan is both Alternatives 1 and 2~~ are consistent with the themes and principles of the Countywide Policy Plan.

Maui Island Plan

~~The second component of the Maui County General Plan 2030 is the MIP. The MIP will set forth an islandwide land-use strategy for Maui and encompasses a managed and directed growth plan which includes the delineation of urban and rural growth boundaries. The MIP has undergone review by the GPAC and the MPC and is currently under review by the Maui County Council. Both the GPAC and MPC recommended the inclusion of the Master Plan in the MIP. The Planning Director's transmittal of the MIP to the Maui County Council on~~

October 16, 2009 excluded the Master Plan from the MIP's directed growth boundaries. While the process for review and approval of the MIP is ongoing, the applicant will continue to be an active participant in the MIP process. Due to the uncertainties surrounding the timing of the County Council's approval of the MIP and the lengthy entitlement process for the proposed project, the applicant is continuing to proceed with land entitlement applications for the proposed project while the MIP review continues. If the MIP is adopted prior to the submittal of the Final EIS, the Final EIS will address the project's compliance with the MIP goals, objectives, and policies. It is noted that the respective regional community plans will be updated following the adoption of the MIP. Refer to **Appendix "O"**. The MIP is applicable to the island of Maui only, providing more specific policy-based strategies for population, land use, transportation, public and community facilities, water and sewage systems, visitor destinations, urban design, and other matters related to future growth.

As provided by Chapter 2.80B, the MIP shall include the following components:

1. *An island-wide land use strategy, including a managed and directed growth plan*
2. *A water element assessing supply, demand and quality parameters*
3. *A nearshore ecosystem element assessing nearshore waters and requirements for preservation and restoration*
4. *An implementation program which addresses the County's 20-year capital improvement requirements, financial program for implementation, and action implementation schedule*
5. *Milestone indicators designed to measure implementation progress of the MIP*

It is noted that Ordinance No. 4004 does not address the component relating to the implementation program. Chapter 2.80B of the Maui County Code, relating to the General Plan, was amended via Ordinance No. 3979, October 5, 2012, to provide that the implementation program component be adopted no later than one (1) year following the effective date of Ordinance No. 4004. In December 2013 and March 2014, the Council approved time extensions for approval and adoption of the implementation chapter of the MIP. The implementation program component of the MIP was adopted by Ordinance No. 4126 on May 29, 2014.

The MIP addresses a number of planning categories with detailed policy analysis and recommendations which are framed in terms of goals, objectives, policies and implementing actions. These planning categories address the following areas:

1. *Population*
2. *Heritage Resources*
3. *Natural Hazards*
4. *Economic Development*
5. *Housing*
6. *Infrastructure and Public Facilities*
7. *Land Use*

An essential element of the MIP is its directed growth plan which provides a management framework for future growth in a manner that is fiscally, environmentally, and culturally prudent. Among the directed growth management tools developed through the MIP process are maps delineating UGB, small town boundaries (STB), and RGB. The respective boundaries identify areas appropriate for future growth and their corresponding intent with respect to development character.

The MIP designates Olowalu as an appropriate location for future growth on its Directed Growth Maps. The mauka portion of the proposed Master Plan for Alternative 1 is located within the UGB and RGB. The lands makai of Honoapi`ilani Highway in Alternative 1 are not included in the UGB. However, the MIP states that “the future delineation of potential urban growth areas makai of the existing Honoapi`ilani Highway may be undertaken in conjunction with updates or amendments to the West Maui Community Plan” (MIP at 8-64). Such delineation may consider the need to protect adjacent coastal and marine ecosystems (including the reefs at Olowalu), enhance public shoreline access and open space, and implement the proposed Pali to Puamana Parkway plan. See **Figure 29** and **Appendix “R”**.

Alternative 2 does not include the makai lands and is in the UGB and RGB in the MIP. Refer to **Figure 29** and **Appendix “R”**.

In addition, both Alternatives 1 and 2 have been reviewed with respect to pertinent goals, objectives, policies and implementing actions of the MIP. A summary of policy statements most relevant to the proposed action is provided below:

CHAPTER 1 POPULATION

Goal: Maui’s people, values, and lifestyles thrive through strong, healthy, and vibrant island communities.

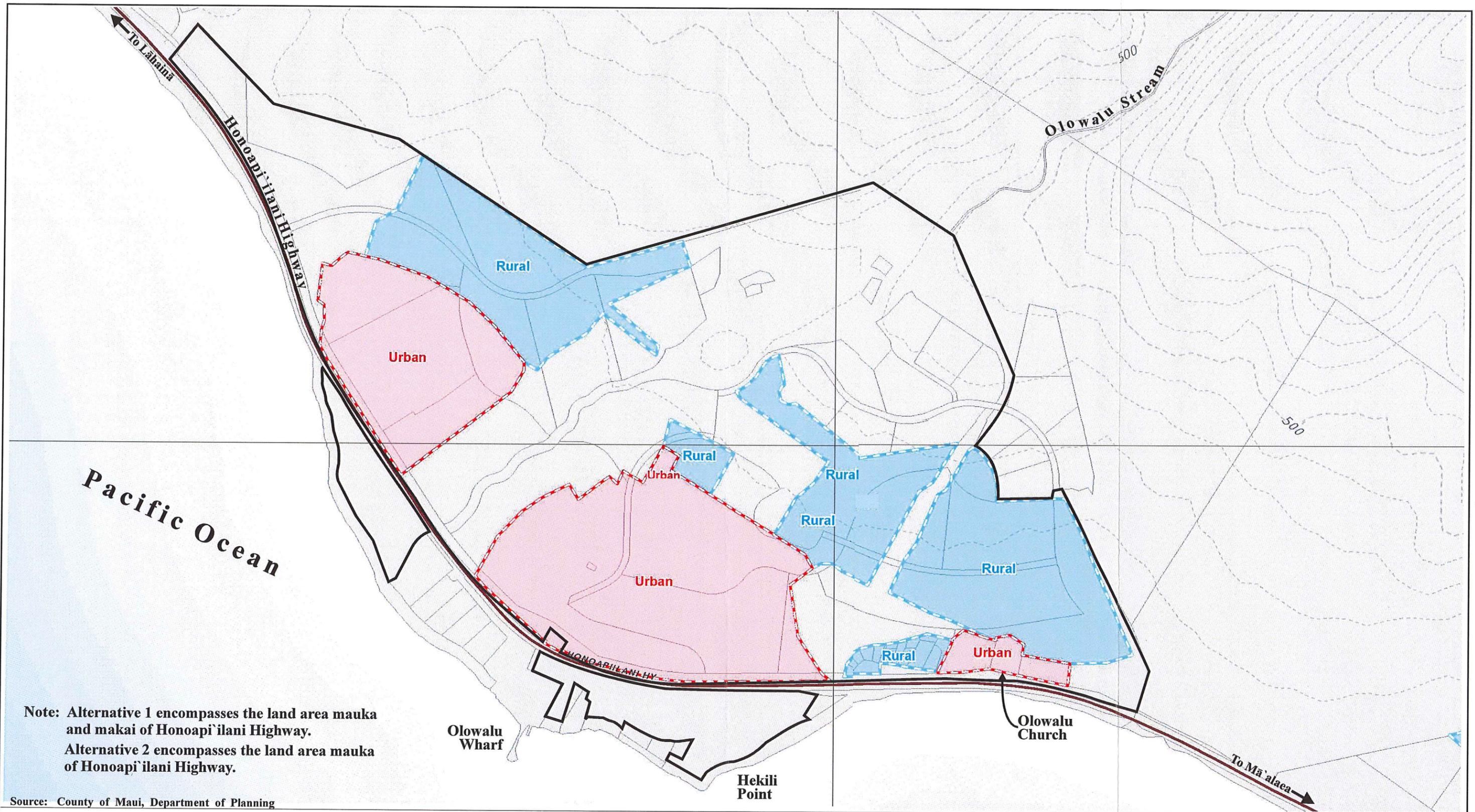


Figure 29

Proposed Olowalu Town Master Plan
 Maui Island Plan Map

NOT TO SCALE



Objective: Greater retention and return of island residents by providing viable work, education, and lifestyle options.

Policy: Expand housing, transportation, employment, and social opportunities to ensure residents are able to comfortably age within their communities.

CHAPTER 2 HERITAGE

Cultural, Historic, and Archaeological Resources

Goal: Our community respects and protects archaeological and cultural resources while perpetuating diverse cultural identities and traditions.

Objective: An island culture and lifestyle that is healthy and vibrant as measured by the ability of residents to live on Maui, access and enjoy the natural environment, and practice Hawaiian customs and traditions in accordance with Article XII, Section 7, Hawai'i State Constitution, and Section 7-1, Hawai'i Revised Statutes (HRS).

Policies: Ensure traditional public access routes, including native Hawaiian trails, are maintained for public use.

Support the education of visitors and new residents about the customs and etiquette of the Hawaiian culture, as well as other cultures.

Objective: Enhance the island's historic, archaeological, and cultural resources.

Policy: Support opportunities for public involvement with the intent to facilitate the protection and restoration of historic and archeological sites, including consultation with stakeholders.

Shoreline, Reefs, and Nearshore Waters

Goal: An intact, ecologically functional system of reef, shoreline, and nearshore waters that are protected in perpetuity.

Objective: Improved reef health, coastal water quality, and marine life.

Policy: Create additional mechanisms, where needed, to contain and control runoff and pollution.

Objective: Water quality that meets or exceeds State Clean Water Act standards.

Policies: Reduce the amount of impervious surface and devise site plan standards that aim to minimize storm runoff and Nonpoint Source (NPS) pollution.

Require an on-site monitoring program, where applicable, when grading may pose a threat to water quality or when recommended in the Erosion and Sediment Control Plan (ESCP).

Avoid development actions that impair Maui's reef systems and remove identified stressors.

Phase out cesspools and restrict the use of septic systems in ecologically sensitive coastal areas by converting to environmentally-friendly alternative sewage treatment systems, and connecting to central sewerage systems when and where feasible.

Prohibit the development of new wastewater injection wells, except when unavoidable for public health and safety purposes.

Implementing Action: Transition from the use of wastewater injection wells to appropriate, environmentally sound methods of wastewater disposal, and promote the beneficial reuse of wastewater effluent.

Objective: Acquire additional shoreline lands and shoreline access rights.

Watersheds, Stream and Wetlands

Goal: Healthy watersheds, streams, and riparian environments.

Objective: Greater protection and enhancement of watersheds, streams, and riparian environments.

Policies: All present and future watershed management plans shall incorporate concepts of ahupua`a management based on the interconnectedness of upland and coastal ecosystems/species.

Support regulations to require developments to utilize ahupua`a management practices.

Work with private and non-profit entities to educate the public about the connection between upland activities within the watershed and the impacts on nearshore ecosystems and coral reefs.

Objective: Decreased NPS and point source pollution.

Policies: Support the use of Low Impact Development (LID) techniques such as those described in the State of Hawai`i LID Practitioner's Guide (June 2006), as amended.

Encourage farmers and ranchers to use agricultural Best Management Practices (BMPs) to address NPS pollution.

Objective: Greater preservation of native flora and fauna biodiversity to protect native species.

Policies: Work with appropriate agencies to eliminate feral ungulate populations and invasive species.

Support the work of conservation groups and organizations that protect, reestablish, manage, and nurture sensitive ecological areas and threatened indigenous ecosystems.

Implementing Action: Develop strategic partnerships with conservation groups and organizations to maximize Federal, State, County, and private funding; and increase cooperation to achieve conservation goals.

Objective: Enhance the vitality and functioning of streams, while balancing the multiple needs of the community.

Wildlife and Natural Areas

Goal: Maui's natural areas and indigenous flora and fauna will be protected.

Objective: A comprehensive management strategy that includes further identification, protection, and restoration of indigenous wildlife habitats.

Policy: Identify and inventory the following:

- (1) Natural, recreational, and open space resources;
- (2) Flora and fauna with medium, high, and very high concentrations of threatened or endangered species; and
- (3) Location and extent of invasive species.

Objective: A decrease in invasive species through programs and partnerships that eradicate undesirable species and protect native habitat.

Objective: Greater protection of sensitive lands, indigenous habitat, and native flora and fauna.

Policies: Secure an interconnected network of sensitive lands, greenways, watercourses, and habitats.

Protect Maui's sensitive lands.

Scenic Resources

Goal: Maui will continue to be a beautiful island steeped in coastal, mountain, open space, and historically significant views that are preserved to enrich the residents' quality of life, attract visitors, provide a connection to the past, and promote a sense of place.

Objective: A greater level of protection for scenic resources.

Policies: Protect views to include, but not be limited to, Haleakalā, ʻĪao Valley, the Mauna Kahalawai (West Maui Mountains), Puʻu Oʻlaʻi, Kahoʻolawe, Molokini, Molokaʻi, and Lānaʻi, Mauna Kea, Mauna Loa, sea stacks, the Pacific Ocean, and significant water features, ridgelines, and landforms.

Protect “night sky” resources by encouraging the implementation of ambient light ordinances and encouraging conversion of all sources that create excessive light pollution, affecting our ability to view the stars.

Protect ridgelines from development where practicable to facilitate the protection of public views.

Protect scenic resources along Maui’s scenic roadway corridors.

Implementing Action: Establish design guidelines that integrate techniques such as development clustering, greenbelts, and open space buffers, site plan configuration to protect view planes, building design and height limitations, setbacks from public roadways, landscaping, and other techniques.

CHAPTER 3 NATURAL HAZARDS

Goal: Maui will be disaster resilient.

Objective: Greater protection of life and property.

Policy: Encourage the use of construction techniques that reduce the potential for damage from natural hazards.

CHAPTER 4 ECONOMIC DEVELOPMENT

Economic Diversification

Goal: Maui will have a balanced economy composed of a variety of industries that offer employment opportunities and well-paying jobs and a business environment that is sensitive to resident needs and the island’s unique natural and cultural resources.

Objective: A more diversified economy.

Policies: Support the creation of new jobs and industries that provide a living wage.

Facilitate and expedite permits and approvals.

Objective: Increase activities that support principles of sustainability.

Policies: Support industries that are sustainable, and culturally and environmentally sensitive.

Encourage and support local businesses.

Support the development of economic development clusters in targeted industry sectors.

Encourage all businesses to save energy, water, and other resources.

Objective: Improve the island's business climate.

Policies: Ensure an adequate supply of affordable workforce housing.

Develop neighborhoods and communities that are attractive to the workforce of a diversified economy.

Visitor Industry

Objective: Comprehensively manage future visitor-unit expansion.

Policy: Allow, where permitted by the community plan, the development of business hotels and small, sensitively-designed inns.

Agriculture

Goal: Maui will have a diversified agricultural industry contributing to greater economic, food, energy security, and prosperity.

Policies: Strive to substitute food/agricultural product imports with a reliable supply of locally produced food and agricultural products.

Encourage growing a diverse variety of crops and livestock to ensure the stewardship of our land while safeguarding consumer safety.

Implementing Action: Encourage the development of community gardens, including gardens on greenbelts that separate communities.

Emerging Sectors

Goal: A diverse array of emerging economic sectors.

Policy: Support new industries that are environmentally and culturally sensitive such as health and wellness, sports and outdoor activities, cultural activities, the arts, film-making, entertainment, and digital media.

Small Business Development

Goal: Small businesses will play a key role in Maui's economy.

Policies: Assist traditional "mom and pop" business establishments.

Support community markets and venues that sell locally-made produce, goods, and services.

Health Care Sector

Goal: Maui will have a health care industry and options that broaden career opportunities that are reliable, efficient, and provide social well-being.

Objective: Expand the economic benefits of the health care sector.

Policy: Encourage expansion and improved access to emergency care in all communities.

Education and Workforce Development

Goal: Maui will have effective education and workforce development programs and initiatives that are aligned with economic development goals.

Policy: Encourage the education and training of our residents to meet the needs of a diversified economy.

CHAPTER 5 HOUSING

Goal: Maui will have safe, decent, appropriate, and affordable housing for all residents developed in a way that contributes to strong neighborhoods and a thriving island community.

Objectives: More livable communities that provide for a mix of housing types, land uses, income levels, and age.

Provide affordable housing, rental or in fee, to the broad spectrum of our island community.

Provide infrastructure in a more timely manner to support the development of affordable housing.

Policies: Prioritize the development of infrastructure that supports the development of affordable housing.

Tailor infrastructure requirements to correspond with appropriate level-of-service standards to help control housing costs and to maintain safety.

Objectives: A wider range of affordable housing options and programs for those with special needs.

Reduce the cost to developers of providing housing that is affordable to families with household incomes 160 percent and below of annual median income.

Policy: Require the construction of affordable for-sale and rental housing units as part of the construction of new housing developments.

CHAPTER 6 INFRASTRUCTURE AND PUBLIC FACILITIES

Wastewater

Goal: Maui will have wastewater systems that comply with or exceed State and Federal regulations; meet levels-of-service needs; provide adequate capacity to accommodate projected demand; ensure efficient, effective, and environmentally sensitive operation; and maximize wastewater reuse where feasible.

Policy: Establish new wastewater treatment plant(s) outside the tsunami zone.

Objective: Adequate levels of wastewater service with minimal environmental impacts.

Policies: Meet or exceed all State and Federal standards regulating wastewater disposal or reuse.

Strongly encourage the phase out of cesspools.

Objective: Increase the reuse of wastewater.

Water

Goal: Maui will have an environmentally sustainable, reliable, safe, and efficient water system.

Objectives: More comprehensive approach to water resources planning to effectively protect, recharge, and manage water resources including watersheds, groundwater, streams, and aquifers.

Increase the efficiency and capacity of the water systems in striving to meet the needs and balance the island's water needs.

Policies: Maximize the efficient use of reclaimed wastewater to serve non-drinking water needs.

Acquire and develop additional sources of drinking water.

Transportation

Goal: An interconnected, efficient, and well-maintained, multimodal transportation system.

Objective: Provide for a more integrated island-wide transportation and land use planning program that reduces congestion and promotes more efficient (transit-friendly) land use patterns.

Policies: Plan for an integrated multi-modal transportation system comprised of public transit, bicycle, pedestrian, automobile, and other transportation modes.

Refocus transportation investment from the construction of additional roadways only for the automobile to the expansion of a multimodal transportation system.

Encourage the use of “complete streets” design methods.

Objective: Safe, interconnected transit, roadway, bicycle, equestrian, and pedestrian network.

Policies: Ensure transit-, roadway-, and pedestrian-facilities design and level-of-service standards respect the unique character of our communities.

Prioritize transportation improvements list to cost-effectively meet existing and future needs consistent with the MIP.

Require new development, where appropriate, to integrate sidewalks, pathways, bikeways, and transit infrastructure into new commercial and residential projects while enhancing community character.

Transit

Goal: An island-wide transit system that addresses the needs of residents and visitors and contributes to healthy and livable communities.

Objective: An integrated transit system that better serves all mobility needs of Maui's residents and visitors.

Policies: Maximize access to public transit in town centers, commercial districts, and employment centers.

Expand regional and inter-regional transit services, where appropriate, in heavily traveled corridors and within communities.

Increase the frequency of current service, add additional bus routes as demand requires, and transition to nonpolluting transit vehicles, as funding permits.

Provide adequate transit infrastructure (e.g., bus pullouts, waiting benches and shelters, signs) along existing and future transit right-of-ways.

Parks

Goal: Maui will have a diverse range of active and passive recreational parks, wilderness areas, and other natural-resource areas linked, where feasible, by a network of greenways, bikeways, pathways, and roads that are accessible to all.

Policies: Support, consistent with the MIP, the implementation of open-space and recreational plans, such as the Pali to Puamana Parkway Master Plan and the *Upcountry Greenways Master Plan*.

Utilize the ahupua`a approach by integrating mauka-to-makai natural landscapes into an island-wide parks and recreation functional plan.

Provide a balanced mix of passive and active parks, including neighborhood, community, and regional parks, in each community plan area.

Objective: Achieve parks and recreation opportunities to meet the diverse needs of our community.

Policies: Establish appropriate level-of-service standards at the neighborhood, community, and regional levels.

Identify and acquire parks and recreational facilities that address existing park inadequacies and complement and enhance neighborhoods, communities, and natural land features.

Design park facilities to preserve and enhance natural site characteristics, maximize views, protect environmental and cultural sites, and minimize water demands.

Acquire lands along the shoreline, between coastal roadways and the ocean.

Encourage the development of regional parks, district parks, and greenways in a manner that helps to contain sprawl, provide separation between distinct communities, or offer open space within urban communities.

Require large master-planned communities that incorporate a mixture of park facilities pursuant to parks standards and functional plans.

Support public-private partnerships to implement the acquisition and development of parks when consistent with the General Plan.

Objective: An expanded network of greenways, trails, pathways, and bikeways.

Policies: Link existing and future park sites, natural areas, the shoreline, and residential areas with a network of bikeways, pedestrian paths, trails, and greenways.

Collaborate with the State and private land owners to ensure perpetual access and proper stewardship of traditional trails and access systems.

Public Facilities

Goal: Maui will have adequate public facilities that meet the diverse needs of residents.