CHAPTER VI

Contextual Issues

VI. CONTEXTUAL ISSUES

A. RELATIONSHIP BETWEEN SHORT-TERM USES AND MAINTENANCE OF LONG-TERM PRODUCTIVITY

Short-term uses and long-term productivity consists of short-term construction activities related to the build-out of the Project and the long-term benefits of the development.

Construction activities would result in short-term impacts involving temporary and permanent alteration of land for grading, site work, infrastructure and building. Localized degradation of air quality and increased noise levels would also occur in the short-term due to construction-related activities. Many short-term impacts can be avoided or mitigated by implementation of construction BMPs. Applicable BMPs include implementing erosion control measures, directing storm water run-off to detention/retention basins, and preventing the release of fuel or other contaminants. The tradeoffs among these short-term impacts are the increase in employment and immediate economic benefits of construction-related activities. These short-term impacts and benefits are documented in Section V of the DEIS.

In the long-term, the infrastructure and building construction conforming to the goals, objectives and policies of the MIP would produce both housing and jobs designed to accommodate the County's projected population growth. The delivery of a diverse range of housing within County designated "urban growth boundaries" is an underlying objective of the County-wide Policy Plan and MIP.

Ultimately, the long-term build-out of the project area will produce impacts that must be weighed against the Project's benefits. Increased development will lead to an increase in population of the immediate area, both in the form of residents living within the WCT or

employees commuting to the WCT during regular business hours. With the projected population increases, the volume of traffic coming in and out of, and passing through Waikapū will increase. This will affect regional traffic conditions by increasing volumes on the region's existing roadway network. As documented in Section V.D.1 of the DEIS, creative strategies involving roadway improvements and upgrades, transportation demand-management counter-measures, and innovative urban design approaches are required to mitigate the Project's traffic impacts. Likewise, an increase in population will produce greater demands upon the island's potable water resources, wastewater systems and public facilities including parks, schools, police and fire. These impacts and the necessary mitigative counter-measures are thoroughly documented in Sections V.C and D of the DEIS.

With regard to long-term productivity, the Project's urban design embraces the principles of New Urbanism and Smart Growth. Urban development in the mauka development is directed into a village core that encompasses the existing MTP retail and commercial buildings, lagoon and tropical gardens. Live-work, multi-family, small lot single-family and rural lots encircle the village green, with easy pedestrian and bicycle access to retail, commercial, parks and open space.

The makai development focuses onto a pedestrian-oriented main-street that accommodates mixed-use retail-residential, higher density multi-family, attached and detached single-family and small-lot single-family connected by walking and biking paths to the 12-acre elementary school and adjacent community park. A unique feature of the community is the approximate mile long landscaped internal greenway that links the Project's residential neighborhoods to mini-parks, the commercial district, elementary school and community park with a separated pedestrian and bicycle path.

Surrounding the urban development are 1077-acres of agricultural lands that are to support diversified agricultural development, community gardens, open land recreation and renewable energy production.

The WCT site plan was developed following the guiding principles found in the MIP and well-documented best planning practices for developing mixed-use communities. The project will

accommodate from 8.9% to 16.6% of the projected population growth through 2035. The Project will create new employment on-site and will be conveniently located to the island's primary employment centers in Wailuku-Kahului and South Maui. The economic impacts associated with the short and long-term implementation of the development are thoroughly documented in Section V.B.3-4 of the DEIS. The market demand for the project is thoroughly documented in Section II.E of the DEIS. The fiscal impact of the project is thoroughly documented in Section V.B.5 of the DEIS.

B. CUMULATIVE AND SECONDARY IMPACTS

Cumulative impacts are defined as the impact on the environment, which results from the incremental impact of an action when added to other past, present, and reasonably foreseeable future actions, regardless of what agency or person undertakes such other actions.

Secondary impacts are those that have the potential to occur later in time or farther in the future, but which are reasonably foreseeable. They can be viewed as actions of others that are taken because of the presence of the project. Secondary impacts from highway projects, for example, can occur because they can induce development by removing transportation impediments to growth.

The gradual build-out of the WCT will occur concurrently with population growth that is projected to occur within Wailuku-Kahului over the next several decades. Implementation of the Master Plan, when added to other adopted and proposed projects, may have a significant effect on a regional and island-wide scale.

As documented in Section II.D of the DEIS, the entire project area is located within the MIPs Small Town Growth Boundary. As described in Section V.B.1 of the DEIS, the resident population of Wailuku-Kahului as of mid-year 2015 was 57,616. According to County and State Forecasts, the 2035 resident population of Wailuku-Kahului may range from 78,764 to 97,080 persons. This is an increase in population of 21,148 to 39,464, which is an increase of 36.7% to 68.5%. The projected project population is 3,511 persons, which represents from 8.9% to 16.9%

of the projected population growth through 2035. There are several other projects planned for Central Maui over the next decade, some of which are in close proximity of the proposed project.

Taken together, regional population growth will increase demand on natural resources, infrastructure and public facility systems. To better manage the island's growth and its related impacts, the MIP identifies appropriate locations for development to occur. The MIP is intended to facilitate better planning for and coordination of the delivery of infrastructure and public facility systems in response to forecasted population growth.

As a precursor to preparing the MIP, the County of Maui prepared the following infrastructure and public facility technical studies: Infrastructure and Public Facilities Issue Paper (September 2007), Public Facilities Assessment Update (March 2007) and Infrastructure Assessment Update (May 2003). These studies assess the impact of the projected population growth on the island's infrastructure and public facility systems. In general, the studies conclude that on-going public and private sector investment will be necessary to accommodate growth through 2030.

This section identifies secondary and cumulative impacts that may result from the phased development of the Project:

Impacts to Natural and Environmental Resources

Assuming that all BMPs and mitigation measures documented in the DEIS are implemented and all permit-induced requirements are complied with no cumulative or secondary impacts are anticipated on the natural environment.

Flora and Fauna. Development of the WCT, together with other area projects, could have cumulative and/or secondary impacts on rare or endangered species of flora and fauna if natural habitats and/or species are directly or indirectly disturbed. As documented in Section IV.A.4 of the DEIS, the Project will not impact rare or endangered flora and fauna species. Adjacent proposed developments will be required to conduct flora and fauna surveys prior to development. These surveys will be reviewed by the U.S. Fish and Wildlife Service and mitigation counter-measures will be required if warranted. In consideration of existing State

and Federal regulations to protect rare and endangered species, there should be no significant cumulative and/or secondary impacts to flora and fauna resources arising from planned growth in the area.

Coastal Water Quality. Development of the WCT, together with other area projects, could have significant cumulative impacts to coastal water quality if BMPs are not strictly adhered to. During the construction phase, BMPs must be implemented to mitigate runoff of bare soils and other construction contaminants into drainageways and culverts. If not properly mitigated, the cumulative impact of these contaminants could impact coastal water quality.

During the Project's operation phase, any increase in runoff will be maintained on site as required by the County's drainage rules (See: Section V.D.3) Directing runoff into designated detention basins, together with filtration of contaminants from runoff, will mitigate the Project's impact to coastal waters. Likewise, future developments in the area will be required to implement similar mitigation measures as part of their operation phase BMPs. Therefore the Project, together with other planned projects in the area, should not have a significant cumulative impact on coastal water quality if construction and operation phase BMPs are strictly adhered to.

Agricultural Lands. As documented in Section V.A.7 of the DEIS, development of the WCT, together with other planned developments in the area, including those projects listed in Table 50, will result in the loss of agricultural lands to urban development. Table 50 identifies approximately 1,824 acres in Central Maui that have either been recently redesignated from the State Land Use Agricultural District to the Urban District or are planned for redesignation. In May 2012 the State Land Use Commission granted a District Boundary Amendment (DBA) from Agricultural to Urban for the lands comprising the Wai`ale Planned Growth Area and the Wai`ale Work Force Housing Project. The Wai`ale lands were generally considered low quality for agricultural use and were comprised mostly of E rated lands by the Land Study Bureau (LSB) and designated "Other" lands by the ALISH rating system.

Table 50: Planned Urbanization of Central Maui Agricultural Lands

Planned Urbanization of Central Maui Agricultural Lands				
Project	Acres	State Land Use	ALISH	LSB
Wai`ale Workforce Housing	50	Urban	N/A	N/A
Wai`ale Planned Growth Area	495	Urban	N/A	N/A
Pu'unani	209	Agriculture	Prime	A, B, E
Kāhili Rural Residential	218	Agriculture	Unclassified	E
Waikapū Country Town	502	Agriculture	Prime	A, B, E
Regional Park and Central Maui Facilities	350	Agriculture	Other	E, A, B
TOTAL	**1824**			

Maui County's proposed regional park and central Maui governmental facilities on 350 acres will also result in the loss of agricultural lands to urban use. However, these lands are also rated poorly for agricultural use. These lands are rated E by the Land Study Bureau and are designated "Other" lands by the ALISH rating system.

The proposed Kāhili rural residential development will also result in agricultural lands being reclassified to the State Rural District. However, these lands are also generally poorly suited to agricultural use. According to the Land Study Bureau, these lands are rated "E" and are "Unclassfied" by the ALISH rating system.

The agricultural lands comprising the WCT and the proposed Pu`unani project's agricultural lands are both highly productive for agricultural use. Together, these two projects will result in the urbanization of 704 acres of prime agricultural lands (495 acres for the WCT and 209 acres for Pu`unani). Cumulatively, the 704 acres represents about 0.85% of the 82,582 acres of agricultural lands on Maui that are rated by the LSB as A, B or C. The Project, together with future urbanization of Pu`unani, will result in a relatively small loss of prime agricultural lands on Maui.

In regards to secondary impacts, urban development can impact agricultural land uses in two ways. First, in certain circumstances, urbanization of agricultural lands can cause agricultural lands prices to go higher making it more cost prohibitive for farmers to buy or lease land to farm. Second, urban development can create use conflicts between farmers and urban

residents. In regards to the first issue, the establishment of Urban Growth Boundaries in the MIP will help to create more predictable development patterns. This will create more certainty in the urban and agricultural land markets; thereby, mitigating the escalation of agricultural land values. In regards to the second issue, HRS, Chapter 165 "Hawai'i Right to Farm Act" protects farmers from lawsuits filed by residents living within close proximity of agricultural operations. Future residents of the WCT will be notified prior to the purchase of property that agricultural activities will occur on abutting agricultural lands. In addition, the WCT will establish landscape planting around the perimeter of the property with a buffer to mitigate potential agricultural use conflicts.

As noted in Section V.A.7 of the DEIS, the WCTs agricultural component includes nearly 1,077 acres of land that will remain in agricultural use. Of these lands, approximately 800 acres will be permanently dedicated to agricultural use through a conservation easement. No residential structures will be permitted on these lands. The remaining 277 acres may be subdivided into as many as five large agricultural lots where a farm dwelling may be permitted. Within the agricultural lands, several hundred acres are proposed to be developed into a public and/or private agricultural park, which will help to facilitate Maui's agricultural development. As noted in Section V.A.7 of the DEIS, a significant impediment to agricultural development on Maui, and throughout the state, is the scarcity of agricultural land that is both readily available and affordable for long-term lease to diversified farmers. The establishment of a centrally located agricultural park within the 800-acre reserve, with access to affordable irrigation water, should help Maui farmers develop economically viable farms that can compete in local, mainland and international markets.

Potable Water Resources.

The Draft Maui County Water Use and Development Plan (WUDP), Central DWS District Update (November 2010) projects future water demand in Central Maui through 2030 based on projected population growth. The Draft Plan notes that water consumption for the DWS Central District System is projected to grow from about 25.5 MGD in 2015 to 34 MGD in 2030 (base case). As noted in previous sections of the DEIS, the WCT project population is estimated to be 3,511 persons, which represents from 16.6% to 8.9% of the projected population growth through 2035.

In planning for future source delivery the Draft WUDP assesses several "final candidate" strategies, including:

- Northward Basal Groundwater Well Development;
- Eastward Basal Groundwater Development;
- Nā Wai ʻEhā Surface Water Treatment;
- Desalination of Brackish Groundwater; and
- Maximization of Water Conservation and Recycled Wastewater.

In order to meet the projected demand, the County of Maui will need to invest considerable capital into new source development, transmission, storage and treatment. Prior to making these investments, extensive environmental analysis and a robust community outreach effort will be required to determine the preferred alternatives. This process will occur through the final update of the WUDP.

As discussed in Section V.D.4 of the DEIS, water and fire protection for the project will be provided from a private onsite water system. Five (5) wells have been drilled on the site. Three (3) wells have been designated for potable use and two (2) for non-potable purposes. The three potable water wells have been approved by the State of Hawaiʻi, Commission on Water Resource Management, for a total pumping capacity of 2,300 gallons per minute (gpm) or 3.312 MGD. In order to conserve potable water resources, the WCT will install a dual water system for potable water and irrigation water uses. It is estimated that the dual water system will reduce the project's potable water demand by up to one-third. Moreover, the project will require the installation of low flow fixtures throughout the project, and to further reduce demand for non-potable water, drip irrigation and planting of drought tolerant landscaping will be encouraged throughout the project.

All of the WCT wells are located within the Waikapū Aquifer, which the DLNR, Commission on Water Resources Management (CWRM), has designated a sustainable yield of 3 MGD. It is estimated that the Project's average daily demand for potable water will be about 646,000 GPD. With an approved pumping capacity of approximately 2,300 gallons per minute (gpm) by the

CWRM, the WCT will have additional potable water available to address other pressing community needs.

The development of the WCT is also not anticipated to negatively impact the County's potable ground waters. The Project's potable and non-potable water resources will be developed and managed in a manner that complies with all State and County laws. Moreover, in developing the property, BMPs will be implemented to mitigate potential impacts to the State's freshwater and estuarine environment.

Existing State and County water policies and plans are designed to protect Maui's water resources from over pumping. With these measures in place, significant cumulative and/or secondary impacts are not anticipated to threaten the long-term sustainability of the County's water resources.

Air Quality

The cumulative impact of the build-out of the WCT, together with other developments within the Waikapū area, may increase the amount of pollutants entering the atmosphere. These pollutants may be generated by an increase in demand for energy in the form of transportation fuels for automobiles and carbon-based fuels delivered by the Ma'alaea Power Plant. However, with the increasing cost-competitiveness of renewable energy, MECO has made significant strides in incorporating non-polluting renewable energy into its energy portfolio. This trend should be expected to continue as clean energy technologies improve and become cheaper overtime. Therefore, it is likely that even with greater demand for energy, ambient air quality will improve as cleaner energy sources are brought on-line.

Impacts to the Socio-Cultural Environment

The development of the WCT, together with other developments in Central Maui, will contribute to population growth, create jobs, and generate tax revenues. Together, the population associated with these projects will increase demands on infrastructure and public facility systems both locally and island-wide.

According to the MIP (December 2012), there will be a demand for an additional 29,589 housing units on Maui through 2030. Of these units, approximately 10,845 are expected to be built on lands not currently entitled for urban development.[xxviii] According to the WCTs Market Study (See: Appendix A), it is estimated the demand for new residential units in the Wailuku-Kahului study area will be from 9,647 to 16,814 units over the next 21 years (through 2035); including allowances for non-resident purchasers and vacancies, with a mid-point demand of 13,230 units.

The continued build-out of Central Maui will also change the area's urban design character and sense of place. Today, Wailuku-Kahului is a developing community with a number of undeveloped infill parcels intermixed with lower and medium-density residential, strip commercial, industrial, resort and public facility uses. In the coming years, pursuant to the land-use policies contained in the MIP and Wailuku-Kahului Community Plan, urban development will likely become more compact, mixed-use and interconnected. Networks of open-space, parks, bikeways, trails and pedestrian-oriented streets will link districts and neighborhoods together. An increase in population, including population associated with the WCT, may increase demand for coastal and inland active and passive recreation lands. The County's Infrastructure and Public Facilities Issue Paper (September 2007) recommends a pro-active public-sector strategy to acquire additional shoreline and inland park lands to accommodate the increasing demand for recreation and shoreline-based cultural activities. The County of Maui and State of Hawai'i have aggressively pursued open land acquisition in recent years. These purchases have included coastal lands (Pali to Puamana; North Shore Greenway; and Lipoa Point) and large-scale acquisitions of inland lands near Waikapū (Central Maui Regional Park; Central Maui Sports Complex) for active and passive recreation.

Moreover, MCC Title 18.16.320 requires a park land dedication, or cash-in-lieu fee payment, to mitigate the impact of growth on park and recreation facilities.

Infrastructure and Public Facilities

The phased build-out of the WCT, together with other developments in Wailuku-Kahului, will increase population; thereby, increasing the demand for infrastructure and public facility systems, including water, wastewater, and roadways; solid waste, schools, and parks; and medical facilities, public transit and government offices. The County's Infrastructure and Public

Facilities Issue Paper (September 2007) documents the impact of projected population growth on the County's infrastructure and public facility systems by region and identifies associated capital improvement projects to support this growth.

As documented in Section V.C-D of the DEIS, the WCT will mitigate its impact on infrastructure and public facility systems through a variety of on- and off-site infrastructure and public facility counter-measures. One such counter measure, as documented in Section V.D.5 of the DEIS, is the proposed development of significant off-site improvements to the County's wastewater transmission infrastructure along Wai`ale Road and Lower Main Street. Property taxes generated by the development, together with other planned projects in the area, will help fund County operations and capital improvement projects.

Secondary impacts could also result from investments into infrastructure and public facility improvements to support the Project. For example, development of the additional water capacity in Central Maui may induce further growth within Central Maui, since water availability is a significant development constraint. However, new water source development within the region is supported by both the MIP and the Water Use and Development Plan.

C. IRREVERSIBLE AND IRRETRIEVABLE COMMITMENTS OF RESOURCES

Build-out of the WCT will result in the irreversible and irretrievable commitment of certain natural and fiscal resources. Major resource commitments include the land and capital, construction materials, non-renewable resources, labor, and energy required for the Project's implementation. Impacts represented by the commitment of these resources must be weighed against the positive socio-economic benefits that could be derived from the project versus the consequences of either taking no action or pursuing another less beneficial use of the area.

When fully built out, the Project will provide housing, create employment and deliver supporting infrastructure and public facilities to create a "complete community". While development of the site will result in the need to commit certain natural and fiscal resources, justification for these investments is found in the MIP's policy to develop these lands in

accordance with the MIP's directed growth strategy and its goals, objectives and policies for the use of urban, rural and agricultural lands.

As with any construction activity, nonrenewable resources such as fossil fuel and construction material will be irrevocably committed. Labor will be required for planning, engineering, and construction. New residential, commercial, or employment uses will generate increases in the demand for water, electricity, and sewer services. Similar types of developments proposed on other parts of Maui will also generate demand for these resources. Chapters IV and V of the DEIS document the Project's short- and long-term impacts.

D. OFFSETTING CONSIDERATIONS OF GOVERNMENTAL POLICIES

The proposed project is consistent with State and County policies that identify the property for urban and rural expansion to accommodate the projected population growth in Central Maui. Other policies of the State and County promote the preservation of agricultural land. MIP Policy 7.1.1.f states:

> *Strongly discourage the conversion of productive and important agricultural lands (such as sugar, pineapple, and other produce lands) to rural or urban use, unless justified during the General Plan update, or when other overriding factors are present.*

The subject land was placed into a Small Town Growth Boundary during the General Plan 2030 update, when other overriding factors were present. These factors included the forecasted demand for additional urban lands to accommodate projected population growth and housing demand, the development suitability of the subject land, as well as its proximity to existing employment, infrastructure, public facility systems and existing urban development.

As documented in Section V.A.7 of the DEIS, the proposed action has been carefully analyzed for its short- and long-term impacts upon the agricultural industry. While urbanization of the project site will result in the loss of prime agricultural lands, it will not significantly impact the

short- or long-term viability of agriculture in Hawai'i or on Maui since an abundance of currently fallow former sugar and pineapple land is currently available elsewhere. The project will, however, help to address the current shortage of agricultural park lots on Maui by establishing a new private and/or public agricultural park within Central Maui.

E. UNRESOLVED ISSUES

The following issues remain unresolved at the time this document is being prepared:

Wastewater Treatment

As documented in Section V.D.5 of the DEIS, the WCT proposes to temporarily connect to the County's sewer system and complete the required upgrades to connect approximately 650 units, or an equivalent amount of generated wastewater, in the Phase I development. The Applicant is working with the DEM to establish an agreement for wastewater capacity in the County system. To service the remaining 750 residential units, commercial and public facility uses the Applicant will need to construct a stand-alone private wastewater treatment facility, or partner with other projects in the Waikapū area, such as A&B's Wai`ale project to construct a combined wastewater treatment plant. However, the treatment plant will be needed in about 2020 and the Applicant will continue to work with the County and other projects within the Waikapū area on a collaborative wastewater treatment facility.

Development of a package wastewater treatment facility will be subject to an Environmental Assessment, pursuant to HRS, Chapter 343.

Wai`ale By-pass Road Improvements

The Wai`ale Bypass Road is identified in the County's Fiscal Year 2016 Capital Improvement Program for funding between 2017 and 2021. The Wai`ale Bypass Road would extend from its existing terminus at Waiko Road to intersect Honoapi'ilani Highway approximately one mile south of Honoapi'ilani Highway/ Waiko Road. It is assumed that the bypass would be constructed as a two-way, two-lane roadway and left-turn pockets will be provided at key

intersections, including the bypass roadway's intersection with the project's "Main Street". The precise schedule for funding and development of this roadway is uncertain at this time.

Final Water Quality Testing

Pump tests and water quality testing for compliance with State DOH water quality standards is being conducted on the Project's three potable wells.

Renewable Energy Development

An important objective of the project is to off-set its energy consumption by developing on-site renewable energy systems. These systems may include photovoltaic panels that would be installed on the roofs of residential and commercial buildings, within parking areas and on "solar farms" within the WCTs agricultural lands. Development of these systems may be dependent upon many factors including financial viability and having access to MECO's electrical grid.

Amendments to Maui County Code (MCC) Chapter 19.33

Implementation of the WCT Master Plan will require the adoption of a Project District Ordinance, pursuant to MCC Chapter 19.58. The ordinance will relate to the types of uses permitted within the project, density of development, building massing, parking requirements, etc. It is not yet known whether the ordinance will be adopted through the legislative process. Should the ordinance not be adopted, or be revised significantly, then the ultimate mix of land uses and character of development may be affected.