

Chapter : Long-Range Implementation Plan

Providing adequate public facilities and infrastructure is essential for the growth of communities, public health and safety, and maintaining the quality of the natural and built environments. The overall responsibility



of infrastructure and service delivery on Maui has shifted among the Federal, State, and County government and the private sector. During the early to mid 1900's, the sugar and pineapple plantations and ranching played a major role in community building on Maui. The Federal, State, and County governments began to play a greater role in public facilities and infrastructure with the advent of World War II and the phase-out of plantation camps. From 1959 to the mid 1970's, the Federal government played a significantly greater role in funding public facilities and infrastructure, particularly highways and wastewater treatment facilities.

IMPLEMENTATION

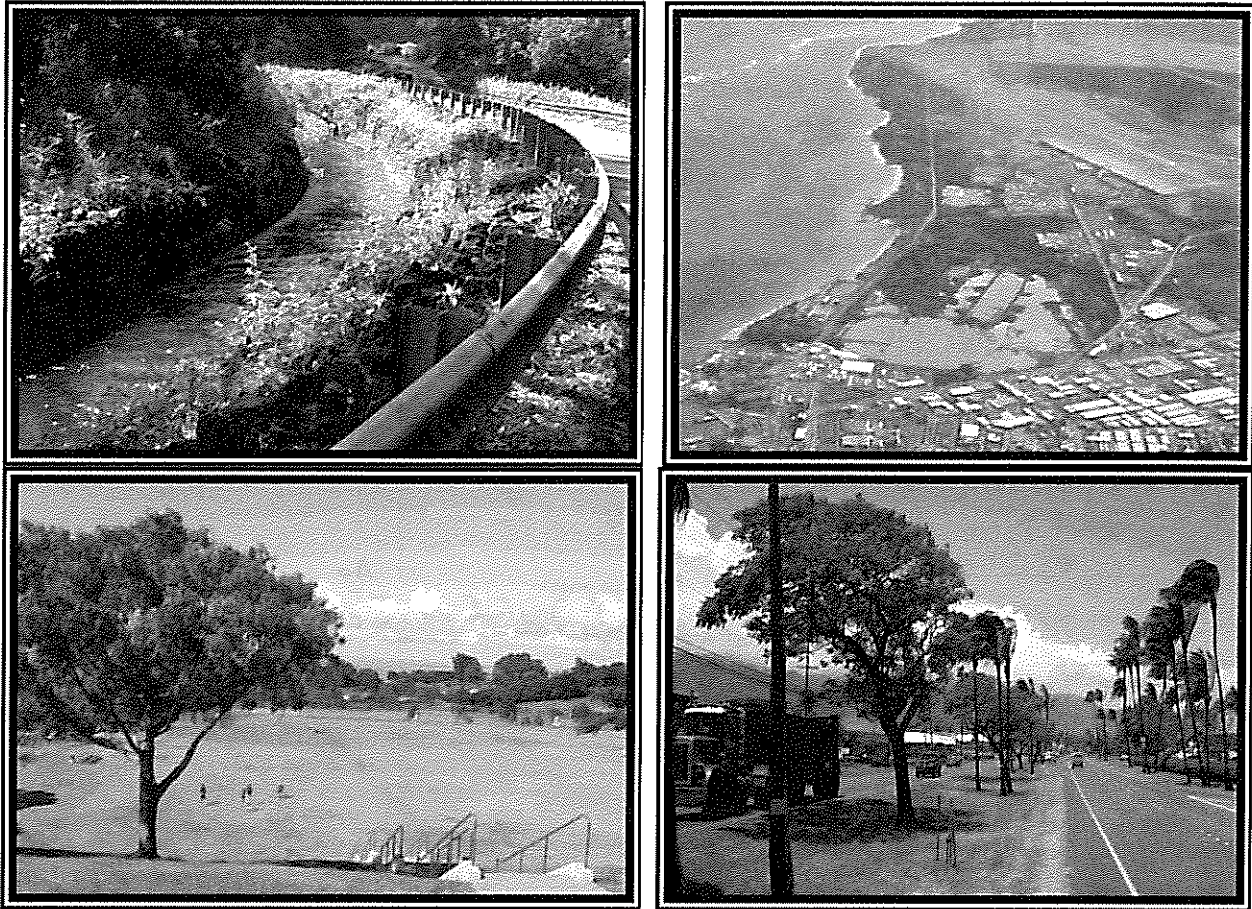
Since the mid 1970's, federal funding for public infrastructure improvements began to decrease with more of the cost being shifted to State and local governments. This funding trend has added to the financial burden of State and County governments nationwide. Traditionally, Maui County has relied on property tax revenues as its primary revenue source for funding infrastructure and public facilities. However, with increased financial burden imposed by the lack of Federal support and community resistance to increasing property taxes, the County has required contributions and/or fees from developers to help mitigate the impacts resulting from their developments.

Today, Maui is facing several infrastructure planning challenges. These include the following:

- Aging Infrastructure & Public Facilities;
- Infrastructure Demand Outpacing Revenues;
- Intergovernmental and Intragovernmental Coordination; and
- A Need for a Clear County Policy on Infrastructure Provision and Growth.

To meet the on-going challenges of providing public facilities and infrastructure, the County will need to develop alternative funding sources, improve the planning and implementation process, and seek greater private sector participation in the financing of facilities.

The purpose of this chapter is to establish a broadly defined infrastructure strategy and policy framework to strengthen infrastructure planning and delivery on Maui, and to identify short, medium, and long-term capital projects and costs to address existing service deficits and projected growth to 2030.



Photos: Illustrate examples of infrastructure/public facilities including water (Iao Stream), airports (Kahului Airport), parks (at Eddie Tam), and roads (Hana Highway)

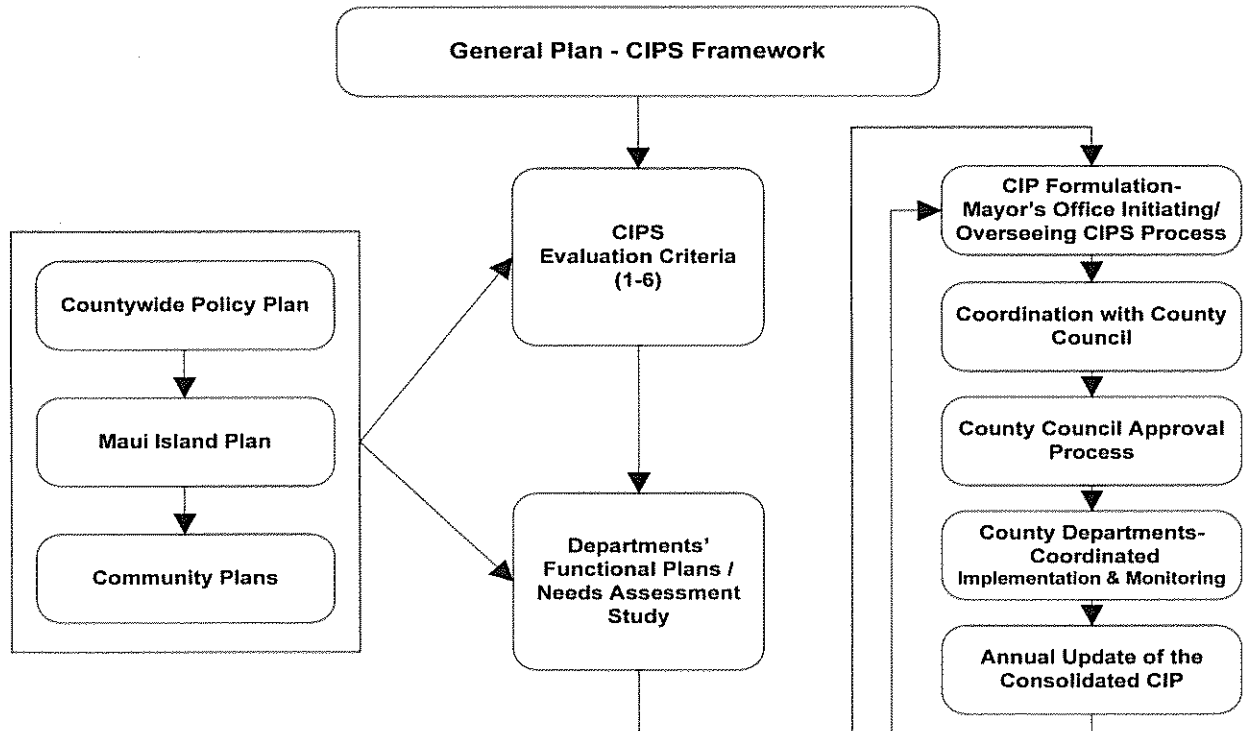
COORDINATED INFRASTRUCTURE PLANNING STRATEGY (CIPS)

The coordinated Infrastructure Planning Strategy is designed to provide an efficient and equitable means of planning and financing infrastructure improvements. The funding strategy will address infrastructure expansion, existing deficiencies, as well as repair and maintenance of existing systems and facilities.

The Coordinated Infrastructure Planning Strategy (CIPS) is intended to improve the implementation of infrastructure projects by merging long-term planning, project development, and facility maintenance. CIPS will result in a more coordinated, transparent, and efficient process for linking General Plan goals with infrastructure investment policy. Figure 9-1 depicts the General Plan - CIPS framework.

The Capital Improvement Plan (CIP) is an important framework to implement land use policies in the General Plan and various Community Plans as related to public facilities and infrastructure. The CIP would include a 1-year plan (detailed), a 5-year plan (specific), 10-year plan (general) and a 20-year plan (very general).

Figure 9 - 1: General Plan – CIPS Framework Diagram



The goals of the CIPS are to:

1. Develop a framework to better link and coordinate capital improvement programming and land use decisions with the urban form and design goals envisioned in the General Plan;
2. Create a long term prioritized implementation schedule for major CIP projects;
3. Develop a long range budget for major CIP projects and identify major expenditures and controversial or difficult issues in advance;
4. Implement a consistent methodology for planning, design, construction and maintenance of major assets;
5. Assess staffing, equipment, and office space needs; and
6. Train, empower, and retain staff to accomplish identifiable tasks.

IMPLEMENTATION

The development of CIPS will fall within the framework of the Countywide Policy Plan, Maui Island Plan, Maui's six (6) Community Plans, and the Molokai and Lanai Community Plans. Population forecasts for a 20-year timeframe and urban and rural growth areas identified in the Maui Island Plan will provide the basis for infrastructure planning for Maui Island. The CIPS will require each department to prepare a 20-year CIP for each island and a broad range of estimated budgets consistent with population forecasts and the Countywide Policy Plan, Maui Island Plan, and Community Plans.

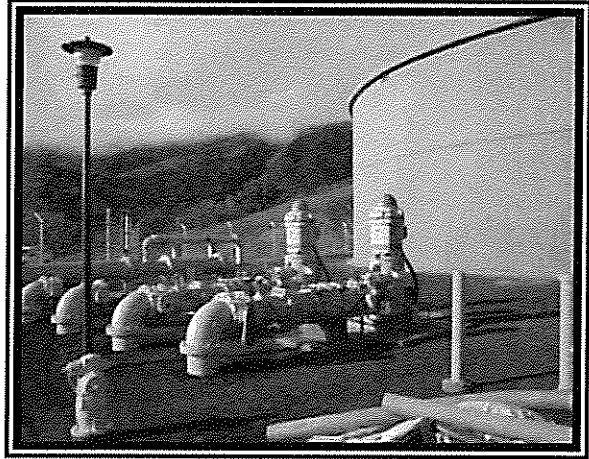


Photo: Example of a project that could be included in the CIP, storage facility installations

The Capital Improvement Plan will include maps delineating the location of CIP projects and a summary analysis of the purpose, intent, anticipated cost, priority, and implementation schedule associated with regional and sub-regional projects. Lastly, the CIPS will have an objective rating system which includes criteria that are appropriate for each facility type. Examples of potential criteria include, but are not limited to, legal mandates; public health and safety; major increases to quality of life; efficiency upgrades; planning consistency; and cost-benefit relationship.

In conclusion, the CIPS is proposed as a framework and process to improve CIP implementation in accordance with the Countywide Policy Plan, Maui Island Plan, and Community Plans. A key emphasis, however, will be placed on flexibility. The plan should be able to respond to changing conditions, taking advantage of new revenue sources, and realizing the fiscal constraints of the County together with the ability to provide and maintain its facilities.

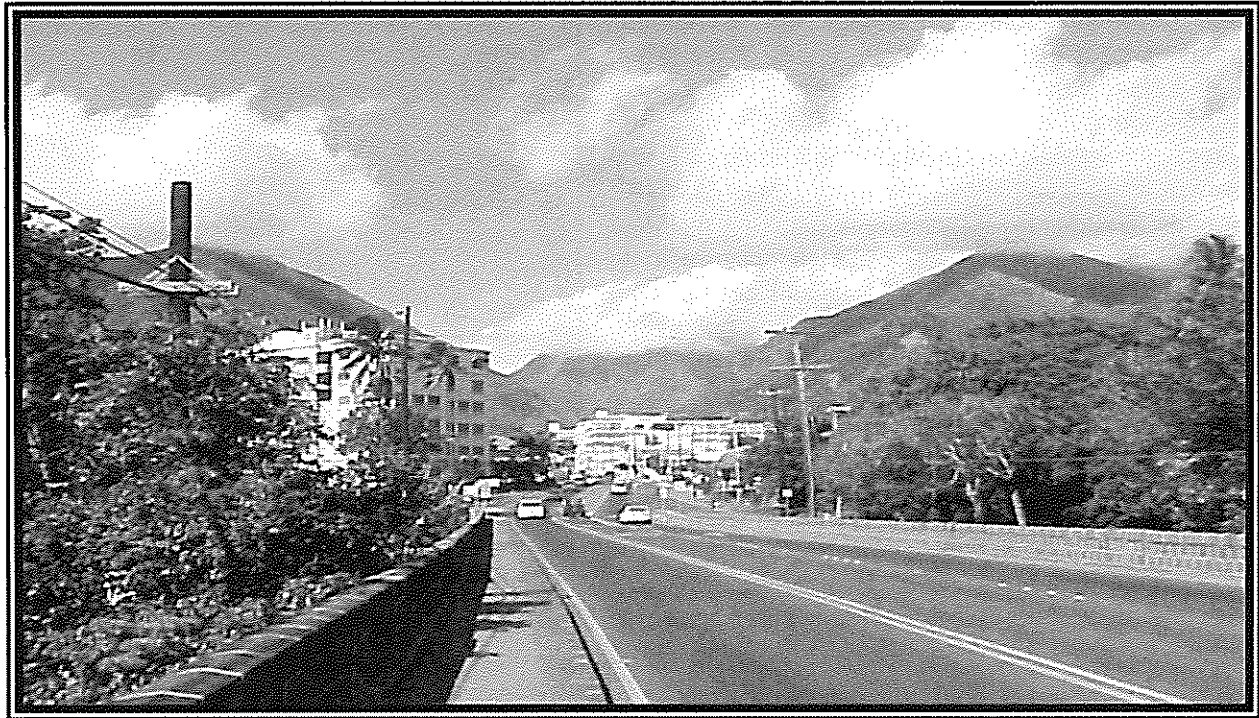


Photo: Main Street in Wailuku-Road improvement projects could be funded through the CIP process

CAPITAL IMPROVEMENT REQUIREMENTS AND FINANCING

The purpose of this section is threefold:

1. Provide the County's policy regarding the role and responsibility of the public and private sectors for providing infrastructure and public facilities;
2. Identify major regional capital improvement projects necessary to address existing service deficits and projected growth to 2030;
3. Identify potential funding mechanisms to finance future CIP projects; and
4. Ensure that capital improvement projects are scheduled and constructed in a timely manner.

The infrastructure funding strategy provides an efficient and equitable means of planning and financing infrastructure improvements. Major County capital improvement projects and potential funding mechanisms are discussed by each County agency and include solid waste, water, wastewater, roads, transit, parks, and public safety.

Infrastructure Planning and Finance Policy Framework

The County CIP funding strategy is comprised of four policy statements with underlying strategies to effectuate the policies.

1. Infrastructure Services Policy:

The County will be responsible for designating new growth areas and the associated areas where infrastructure and public facilities will be supported.

IMPLEMENTATION

The County Infrastructure Services Policy shall be implemented by way of the following strategy:

- A. *Urban/Rural Growth Boundaries:*** Through the General Plan process, urban and rural growth boundaries will demark the extent to which Maui's urban and rural areas will be allowed to grow. Urban density development will be allowed only within the urban growth boundaries.
- B. *Urban Service Areas:*** Urban service areas generally correspond with urban growth areas and will be serviced by infrastructure and public services. Establishing Urban Service Areas allows the county to plan for future growth and make appropriate plans and infrastructure improvements to provide services in the most economical and efficient manner. The County will not support urban density development outside of these areas.
- C. *Needs Assessment Study:*** Each County agency responsible for infrastructure and facility delivery on Maui will periodically conduct a needs assessment study to assess needed improvements and associated costs to address current infrastructure and facility capacity deficiencies and future requirements generated by new growth. State agencies responsible for infrastructure and facility delivery on Maui will be encouraged to conduct needs assessment studies.
- D. *Level-of-Service Standards:*** The County will establish community appropriate level-of-service standards, minimum acceptable (baseline) and desired, for each infrastructure and public facility system to ensure adequate services are provided to residents within the urban service areas. The County will encourage State agencies to also establish level-of-service standards.

2. Infrastructure Expansion Policy:

Developers will be responsible for public facility and infrastructure expansion costs associated with their projects.

The Infrastructure Expansion Policy will be implemented by way of the following strategy:

- A. *New Developments/Subdivision Exactions for On-Site Improvements:*** As a condition of subdivision or development approval, the County will require new developments to construct on-site water, roads, wastewater, park facilities, and other on-site infrastructure and public facilities pursuant to County standards. Upon completion of construction, the County may require the developer to dedicate the infrastructure/facilities to the County. Developments may also be required to donate easements or other types of partial rights to the County. In addition, developments shall provide regular reports on the status of private infrastructure and provide financial assurance, such as bonding, to ensure enforcement of needed corrective action(s) or uninterrupted operation (in case of bankruptcy, abandonment, or any other default on financial obligation).
- B. *Impact Fees and/or Special Taxing Districts for Regional Improvements:*** Impact fees are designed to mitigate the impact of new development on infrastructure and public facility systems. Impact fees are one-time payments made by the development; fees are typically passed on to either the seller of land or homebuyer to pay for the cost of infrastructure caused by new development. These fees would be assigned on a per-unit (residential, visitor accommodation unit) or square footage (commercial/industrial) basis to pay a pro-rata share of the projected cost to expand off-site infrastructure and public facility systems. These fees cannot be used to pay for existing deficiencies outside of the scope of the project. Funds generated from the fees would be

placed in a trust to pay for designated capital expansion projects within the service district that the project is located.

Special Taxing Districts can also be established to help fund regional infrastructure projects. The purpose of these Districts is to create a predictable revenue stream that can pay for all or a portion of the debt service associated with large capital projects. Special Taxing Districts provide several benefits, including:

- Removal of high up-front regional infrastructure costs to developments: These costs are financed through the issuance of long-term government bonds and paid back through special taxes paid by the landowner/developer and eventually the homebuyer.
- Reduction in purchase price paid by homebuyers: The special tax paid by the homebuyer may be less than the cost of financing additional debt in private equity markets to support a higher home price. In addition, special taxes are generally structured to be tax deductible on the Federal Tax Return, which also benefits the homebuyer.
- County Benefit: The primary benefit to the County is the avoidance of risk associated with a large capital outlay for infrastructure, since a predictable revenue source is earmarked to pay the debt service.

3. Infrastructure Concurrency Policy:

Necessary regional public facility and infrastructure capacity improvements shall be constructed prior to or concurrently with development of planned growth areas. Improvements will be constructed in accordance with the County's Needs Assessment Study and level-of-service standards. The Infrastructure Concurrency Policy shall be implemented by way of the following strategy:

- A. Coordinated Infrastructure Planning Strategy (CIPS):*** The CIPS is intended to improve the way Maui County implements infrastructure projects by merging long-term planning, project development, and facility maintenance. CIPS will create a long-term implementation schedule and budget for major CIP projects that are coordinated with land use decisions.
- B. CIP Programming:*** The County will have a clear and predictable method for CIP programming based on the CIPS. The CIPS will be prepared by County Departments and will be flexible and is subject to final approval, through the budgeting process, by the County Council.
- C. Infrastructure Funding Strategy:*** To ensure that no ambiguities exist regarding infrastructure funding responsibilities, the County will establish the infrastructure funding strategy. This strategy will ensure that infrastructure improvements are implemented prior to or concurrent with development by the responsible party depending on the nature of the infrastructure project.

Each agency will prepare a Revenue Expense Analysis analyzing short, mid, and long-term capital costs against existing and projected revenues. Based upon this analysis, traditional and alternative revenue sources will be adjusted accordingly to ensure that minimum community Level of Service (LOS) standards are complied with. The following methodology will be used to prepare the Revenue Expense Analysis:

Revenue Expense Analysis Methodology	
Step 1:	LOS Standards Identify both minimum acceptable and desired LOS standards.
Step 2:	Existing Deficiencies Evaluate existing deficiencies based on established LOS standards and calculate costs associated with addressing deficiencies.
Step 3:	New Growth Identify future infrastructure needs based on projected population growth and calculate costs associated with providing needed improvements.
Step 4:	Revenue Expenditure Analysis Analyze projected revenues and expenditures and identify funding shortfalls.
Step 5:	Funding Strategies Develop a funding strategy to pay for improvements necessary to address existing deficiencies and a funding strategy to pay for improvements needed to accommodate new growth.
Step 6:	Revenue Sources Analyze the desirability of each revenue source for its equity, predictability, risk, and overall cost to the County. Once the funding strategy is adopted, funds collected from each source should be adjusted accordingly to meet the community's minimum LOS standards.

4. Existing Deficiencies Policy:

The County will be responsible for funding operations and capital improvements to address existing deficiencies of County-owned and operated systems.

The Existing Deficiencies Policy shall be implemented by way of the following strategy:

- A. Identify existing service deficiencies and project future operations and maintenance needs:** Using the CIPS, Needs Assessment Study, and adopted level-of-service standards, the County will identify existing service deficiencies and projected operations and maintenance needs. The County will provide revenues sufficient to maintain the minimum acceptable level-of-service standards over the 20-year planning horizon. The County will encourage the State to upgrade its facilities to meet the County's LOS standards.
- B. Address structural imbalance between revenue needs and expenditures for infrastructure systems:** Through development of traditional and alternative funding sources the County will address projected revenue and expenditure imbalances necessary to achieve the adopted minimum level-of-service standards. This strategy will be two-fold:
 - 1. Increase Revenues from Traditional Funding Sources:** The County and State may need to raise water service fees, sewer rates, land fill fees, gas taxes, property taxes, and other traditional funding sources to ameliorate existing capacity deficits and provide adequate maintenance of existing service systems. Traditional revenue sources will be easier to utilize during the short- to medium-term because they already exist. However, during the long-term, alternative revenue sources may better allocate infrastructure costs to those that are the primary beneficiaries of the subject developments.
 - 2. Develop and Utilize Alternative Funding Sources:** Numerous alternative funding sources could be used to finance major CIP projects. Some of these sources are currently available while others would require enabling legislation or voter approval before they

could be utilized. Table 9-1 Description of Alternative Revenue Sources, and Table 9-2, Sources of Existing or Potential Revenues for Infrastructure, describe alternative revenue sources that the County could pursue to raise needed revenues.

Table 9 - 1: Description of Alternative Revenue Sources

Funding Source	Description
Public Private Partnerships	Partnering with private sector providers to design, finance, build, and/or operate infrastructure systems and public facilities may be an appropriate and cost-effective alternative to more traditional revenue sources. The chief advantage of such partnerships is that infrastructure can often times be brought to the community faster, and at a significantly lower cost, than projects implemented solely by the public sector. Public-Private Partnerships come in many different forms including Build Operate and Own (BOO), Build Operate and Transfer (BOT), and Private Finance Initiatives (PFI). Depending upon the circumstances, private sector involvement can vary from minimal to extensive.
Strategic Budget Allocations	Strategic Budget Allocations are when a designated portion of a tax bill or a rate bill, such as a sewer rate bill, is deposited into a special fund. The fund is invested, and the interest earned re-invested, with the funds being earmarked for specific future CIP projects.
Trust Funds	Similar to Strategic Budget Allocations, monies in trust funds are generally provided from a percentage of tax revenues that are dedicated to a specific investment area. Trust Funds provide a dedicated funding source and are less expensive in the long-term than bonds or loans. These funds could be established to help pay for major upgrades and repair of existing systems.
Special District Financing	Special District Financing, i.e. Special Taxing Districts, Benefit Assessment Districts, Business Improvement Districts, Redevelopment Districts, can be established to help fund major upgrades to utility services within a designated area. The establishment of these districts often requires the approval of area landowners affected by the improvements. Revenues are typically generated through special levies, assessments, or tax increment financing. This method of funding is equitable since those most likely to benefit from the public investment are those paying for the services. Planned Growth Areas as well as Redevelopment areas are likely candidates for such funding programs.
State and Federal Funding	Although State and Federal funding have declined in the last few years, the County should continue to explore these governmental funding sources to finance major CIP projects. The primary State funding source relied upon by the County is the State Revolving Fund (SRF) for water and wastewater CIP projects. Potential Federal funding sources also include the U.S. Environmental Protection Agency (EPA), Federal Transit Administration (FTA), U.S. Department of Agriculture (USDA), U.S. Department of Housing and Urban Development (HUD), and the U.S. Department of Commerce Economic Development Agency.
Congestion Pricing / Tolls / Rental Car Tax	Congestion pricing is the practice of charging motorists more to use a road during periods of the heaviest use. Tolls charge motorists for the use of roads, regardless of the time of use. Congestion pricing and tolls have a high correlation between those that benefit from road use and those that pay for road improvements. Congestion pricing reduces automobile use during periods of peak congestion. Congestion pricing and tolls encourage commuters to use alternative forms of transportation. Many communities levy taxes on rental cars to finance capital improvements. Such a tax can have the added benefit of encouraging transit use.

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Funding Source	Description
Urban Road and Rural Road Maintenance Districts	Urban Road Maintenance Districts (URMD) and Rural Road Maintenance Districts (RRMD) could be established to help fund roadway operation and maintenance in both urban and rural areas. Revenues generated within the district can be based upon the assessed value of property.
Street Utility Fees	A Street Utility Fee could be established through the current utility billing system to collect revenue to fund capital projects to address current roadway deficits.
Residential Landfill Disposal Fees	Currently the County does not charge residential customers for dumping at the landfills. If fees were established for residential dumping it could generate additional revenues for the Solid Waste Division. The County will need to ensure that new fees do not lead to an increase in littering.
Real Estate Excise Tax (REET)	REET consists of money derived from a dedicated percentage of the selling price of real property. Funds collected through a REET can be placed in a special fund to help fund CIP operations, maintenance and expansion projects. REET revenues will fluctuate with the local real estate market, which affects the amount of money collected annually from this source. Several mainland communities currently use REET to help fund capital projects. Set asides typically range from one-quarter percent to one percent of the selling price of real property.
Transfer of Development Rights (TDR)	TDR's can be a helpful tool to reduce the cost of acquiring coastal lands and open space. Through a TDR program, the County could relocate potential development from areas where proposed land use or environmental impacts are considered undesirable to another site chosen on the basis of its ability to accommodate additional units of development beyond that for which it was zoned, with minimal environmental, social and aesthetic impacts. A key strategy of the County's shoreline and open space land acquisition program should be the implementation of a TDR program.
Business Improvement Districts	Business Improvement Districts operate like Benefit Assessment Districts but are directed towards improving the business climate within a defined area. Business Improvement Districts commonly fund activities such as streetscape beautification, park maintenance, and public safety. Maui's various commercial districts, including downtown Wailuku and the surrounding Redevelopment Area, downtown Kahului, Paia, and Kihei could benefit from the establishment of Business Improvement Districts.
Benefit Assessment Districts	Benefit Assessment Districts have become an increasingly popular financing tool used by local governments to help fund park, library, fire, flood control, and other capital projects. Properties within a Benefit Assessment District have an annual levy placed on their properties to help fund projects within the district. Many agencies throughout California have established annual park maintenance and future capital replacement benefit assessments in the range of \$100 to \$300 or more per year. These funds are used to finance capital improvements, land acquisition and related long-term debt service, as well as the costs of on-going maintenance. A Benefit Assessment can be applied to a neighborhood, special district, or larger geographical areas such as a Community Plan District, or the entire island.

IMPLEMENTATION

Table 9 - 2: Sources of Existing or Potential Revenues for Infrastructure

Infrastructure	Operation & Maintenance	Capital Investment (Deficits)	Capital Investments (Growth)
Wastewater	Monthly sewer fees ¹	Wastewater hook-up (impact) fees	Wastewater hook-up (impact) fees
	Monthly reclaimed water fees	Bond financing and SRF loans based on rate revenues and fees	Subdivision exactions for on-site improvements
	Special District Financing	Special District Financing	Bond financing & SRF Loans based on rate revenues & fees Impact Fees for regional improvements Public-private partnerships Special District Financing
Water	Monthly water fees	Water system development (impact) fees	Wastewater hook-up (impact) fees
	Water system development (impact) fees	Bond financing and SRF loans based on rate revenues and fees	Subdivision exactions for on-site improvements
	Special District Financing	Special District Financing	Bond financing & SRF Loans based on rate revenues & fees Impact Fees for regional improvements Public-private partnerships Special District Financing
Roadways	Federal and State Funding Sources	Federal and State Funding Sources	Federal and State Funding Sources
	County Gas Tax	County Gas Tax	Subdivision exactions for on-site improvements
	Urban/Rural Road Maint. Districts	Congestion pricing / tolls	Impact Fees
	County Gas Tax	Street Utility Fee	Public-private partnerships
Transit	Federal and State Funding Sources	Federal and State Funding Sources	Federal and State Funding Sources
	County Gas Tax	County Gas Tax	Subdivision exactions for on-site improvements
	Urban/Rural Road Maint. Districts	Congestion pricing / tolls	Impact Fees
	County Gas Tax	Street Utility Fee	Public-private partnerships
Parks	General Fund revenues	General Fund revenues	Subdivision exactions for on-site improvements
	Benefit Assessment District	Bond financing based on GF revenues	Impact fees
		Maui Open Space Preservation Fund	Transfer of Development Rights
		Benefit Assessment District Real Estate Excise Tax	
Solid Waste	Landfill disposal and collection fees	Landfill disposal and collection fees	Landfill disposal and collection fees
	Grant Revenues	Grant Revenues	Grant Revenues
		User charge & bond financing based on user charge	Bond financing based on collection fees
Police / Fire	General Fund revenues	General Fund revenues	General Fund revenues
		Special District Financing	Impact fees
		Bond financing based on GF & alternative revenue sources	Bond financing based on GF & alternative revenue sources

¹ Revenues that are currently used (existing) are indicated with **E** sign. Revenues that are proposed as potential new funding sources are indicated with **P** sign.

IMPLEMENTATION

Capital Improvements and Financing

The following section identifies major CIP projects necessary to address existing service deficits and projected growth to 2030, and potential funding sources by infrastructure system. Implementation costs and dates provided below are estimates and have not been adjusted for inflation. Date ranges include: 2010 to 2015; 2016 to 2021; and 2022 to 2030. Identification of projects in this CIP plan does not legally bind the County to implementing these improvements; rather, the plan provides a guide for implementation of major projects to 2030.

WATER – MAJOR CAPITAL IMPROVEMENTS

Major projected capital costs to 2030 will be in the following areas: 1) Source development; 2) Improvement, replacement, and upgrade of waterlines; 3) Construction and replacement of water tanks; 4) Expansion and improvement of treatment plants; and 5) Construction of new reservoirs. The majority of Maui's water infrastructure systems were constructed decades ago and are in need of major repairs and in some instances complete replacement. According to the Department of Water Supply (DWS), the overall condition of all the water infrastructure is in fair to poor condition, especially transmission lines. Major repairs and replacements will be required to ensure the reliability of the island's water distribution system.

The following is a summary of the major capital improvement requirements for Maui's regional systems.

Table 9 - 3: Major Capital Improvement Projects – Water Systems

Project	Timing	Estimated Cost
<i>Central Maui Water System</i>		
Source development to meet demand to 2030. The <i>Water Section</i> of Chapter 7 outlined five source development options for the Central Maui Water System. A wide range of costs exist for source development depending of the combination of new sources pursued. Costs for the development of individual sources ranged from \$5 million to \$126 million, with total cost for source development likely falling in the upper range, or more, due to the need for a combination of new sources.	On-going	TBD
Waiale Water Treatment Plant	2010-2015	\$25 million
Waihee Water Treatment Plant	2016-2021	\$17 million
<i>West Maui Water System</i>		
Expand Lahaina Water Treatment Plant to treat potential additional withdrawals from the Honokohau Tunnel	2010-2015	\$11 million
Source development of Honolua, Honokowai, or Honokohau aquifers	2016-2021	\$20 million
<i>Upcountry Water System</i>		
Lower Kula Reservoir	2010-2015	\$65 million

Current Revenues versus Projected Expenditures

Current DWS resources will not be able to keep pace with projected expenditures as operating and capital expenses increase.

The Department's CIP expenses can be broken down into the following two categories: repair and maintenance; and growth-serving capital improvements. Due to the age of the island's water infrastructure, extensive repairs and replacements to water lines, tanks, well pumps, treatment facilities,

and other water system components will be necessary to address current deficiencies and ensure the reliability of County water supply systems.

As the island's population grows to 2030, water systems will need to be expanded to serve new growth areas. Additionally, acquiring additional water sources will be necessary to address the growing demand for water.

Funding Strategy

The County will need to raise revenues from current revenue sources and pursue additional sources to fund the Department's growing operational and capital expenses. The Department's funding strategy will follow the policies and strategies outlined at the beginning of this section.

1. Repair and Upgrades of Existing Facilities

Repairs, maintenance, and upgrades of existing water supply facilities and infrastructure should be borne by all service users. These costs are currently paid for through rates charged to individual customers, which make the distribution of such costs more equitable throughout the community. Water Service Fees are the primary funding source for maintaining existing facilities.

- **Water Service Fees:** Bi-monthly water service fees are the primary revenue source for water supply operations, as well as repair, maintenance, and upgrades to existing systems. To address rising operating and maintenance costs and to continue to strive for self-sufficiency, the Department will need to continually increase its rates. The Department has estimated that the County will need to increase water service rates by 70% between 2007 and 2025 to adequately fund maintenance and upgrade projects.

2. Facility Expansion

Costs associated with water supply storage and distribution system expansion should be borne by new development to ensure that costs are distributed equitably to uses benefiting from the improvements. The primary funding mechanisms for funding infrastructure expansion will be subdivision exactions, impact fees and or special taxing districts. Tables 9-1 (Description of Alternative Revenue Sources) and 9-2 (Sources of Existing or Potential Revenues for Infrastructure) identify additional funding opportunities to support water facility expansion.

ROADWAYS – MAJOR CAPITAL IMPROVEMENTS

The following is a summary of the major capital improvement requirements for roads for each Community Plan region. The primary source relied upon for this section was the *Maui Island Traffic Impact Fee Report and Comprehensive Roadway Master Plan* (November, 2006) prepared by Kaku Associates for the County of Maui, Department of Planning. Both State highway and County road improvements necessary to accommodate island growth to 2030 are listed. However, State highway improvement costs are only presented for informational purposes and are not the financial responsibility of the County. Cost estimates for County roads will be funded through a combination of Federal, State, and County funds.

IMPLEMENTATION

Table 9 - 4: Major Capital Improvement Projects – Roadways

Project	Timing	Estimated Cost
<i>Central Maui Roadways</i>		
Secure right-of-way (ROW) and construct Kahului Airport By-Pass (State)	2016-2021	(\$13 million)
Secure ROW and construct Waiale Connector between Waiale and Maui Lani	2016-2021	\$13.7 million
Secure ROW and construct Lono Avenue extension to Kuihelani Highway	2016-2021	\$1.3 million
<i>Kihei-Makena Roadways</i>		
Secure ROW and construct Kihei North-South Collector Road	2016-2021	\$37.6 million
<i>West Maui Roadways</i>		
Secure ROW and construct Lahaina Bypass from Keawe Street to Lahainaluna Road (State)	2010-2015	(\$45 million)
Construct Keawe Street extension	2010-2015	\$4 million
Secure ROW and construct Honoapiilani widening from Aholo Street to Lahainaluna Road (State)	2010-2015	(\$11.5 million)
Secure ROW and construct Lahaina Bypass from Lahainaluna Road to Launiupoko (State)	2016-2021	(\$56.2 million)
Secure ROW and construct Mill Street extension from Aholo Street to Keawe Street (Conceptual)	2016-2021	\$23.8 million
Secure ROW and construct Lahaina Cane Haul Road from Ukumehame to Aholo Street (Conceptual)	2022-2030	\$17.5 million
<i>Paia-Haiku Roadways</i>		
Secure ROW for Hana Highway Bypass (State)	2022-2030	(\$12.4 million)

Current Revenues versus Projected Expenditures

Capital Improvement Project expenses can be broken down into the following two categories: repair and maintenance; and growth-serving capital improvements. Due to the level of use of many of Maui's roadways, repairs and replacements such as road resurfacing and bridge replacement will be necessary to ensure the reliability of the island's roadway network.

As the island's population grows to 2030, roadway systems will need to be expanded to service new growth areas.

Funding Strategy

To cover growing operational and capital expenses, revenues will need to increase. Addressing escalating expenses will require a combination of increasing current revenue sources and pursuing additional sources.

1. Repair and Upgrades of Existing Facilities

Repairs, maintenance, and upgrades of existing roadways should be borne by all service users. These costs are currently paid by the highway fund which is funded by the fuel tax, franchise tax, and weight tax. These taxes could be increased to provide more funding for repairs, maintenance, and upgrades to existing roads.

- **Fuel Tax:** The fuel tax is based on the number of gallons of fuel purchased. It’s one of the most direct user related source of funds available since the amount paid by drivers is proportional to trip length.
- **Franchise Tax:** The franchise tax is collected from a tax on 2.5% of annual gross receipts from electric light and power companies operating as public utilities in the County of Maui.
- **Weight Tax:** The weight tax is collected at a rate of one and one-fourth cents per pound of net weight for passenger vehicles, trucks, and non-commercial vehicles not exceeding 6,500 pounds, and two cents per pound of net weight for all other motor vehicles.
- **Congestion Pricing / Tolls:** Congestion pricing and tolls can be an efficient and fair tool to raise revenues for roadway construction and maintenance since there is a high correlation between those who pay for the use of a road and those who pay for road improvements.

2. Facility Expansion

The primary funding mechanisms for funding infrastructure expansion will be subdivision exactions, impact fees, and/or special taxing districts. Tables 9-1 (Description of Alternative Revenue Sources) and 9-2 (Sources of Existing or Potential Revenues for Infrastructure) identify additional funding opportunities to support roadway expansion.

TRANSIT – MAJOR CAPITAL IMPROVEMENTS

Three major projects have been identified by the County Department of Transportation (CDOT) as necessary to accommodate projected population growth to 2030. Capital improvement projects are discussed from an island-wide standpoint rather than by region due to the interregional applicability of the projects.

Table 9 - 5: Major Capital Improvement Projects – Transit

Project	Timing	Estimated Cost
Maui Public Bus System		
Acquire land and construct transit center/baseyard in Central Maui	2010-2015	\$12 million
Acquire land and construct transit hub and park-n-ride in Maalaea	2016-2021	\$4 million
Acquire land and construct transit hub and park-n-ride in Central Maui	2016-2021	\$4 million
Identify and acquire transit corridors	2016-2021	TBD

Current Revenues versus Projected Expenditures

To accommodate projected expenditures for transit operations, current revenues will need to significantly increase. The transit system is currently operating at one hour headways. As headways decrease across the system to every half hour, operational expenses will double; this necessitates a considerable increase in funding. Additionally, as service routes are added and expanded, operating costs will again increase.

Due to the infancy of Maui’s transit service, repair and maintenance expenses have been minimal. However, these expenses are likely to increase as buses age and require more repair and maintenance. Transit-supportive infrastructure will also require ongoing upkeep and repairs after their installation throughout the island.

Growth-serving capital improvements will place a large burden on the Department's budget as the transit system expands and improves. Three major transit facilities are needed in the near future to address current and anticipated demand. Costs associated with these facilities will be significant due to the need to acquire land and plan, design, and construct the facilities. Current revenue levels will not be able to cover projected capital expenditures.

Funding Strategy

The County will need additional funding to operate and expand the County's public transit system to 2030. The Department's funding strategy includes increasing current funding sources and pursuing new sources to cover system repairs, upgrades, and expansion.

1. Repair and Upgrades of Existing Facilities

To fund operations, repair, and maintenance of the transit system the County will continue to rely on the General Fund, Highway Fund, and FTA grants.

- **Bus Fares:** One-way bus fares are one dollar for most routes. Transit fare revenues are deposited into the General Fund. By charging for all Maui Bus routes and increasing transit rates across the system, transit fare contributions to the General Fund could be significantly increased.

2. Facility Expansion

The primary funding mechanisms for funding infrastructure expansion will be subdivision exactions, impact fees, and/or special taxing districts. Tables 9-1 (Description of Alternative Revenue Sources) and 9-2 (Sources of Existing or Potential Revenues for Infrastructure) identify additional funding opportunities to support transit expansion. Other potential funding sources include:

- **Federal Funding:** The County Department of Transportation should continue to rely on FTA grants for both operating and capital expenses. To fund the three major capital improvement projects previously discussed, the Department should apply for FTA Section 5311 grants. Under this program, grant recipients are required to supply 20% matching funds for capital projects. The purchase of the land for the facilities could qualify as the 20% local match, with planning, design, and construction expenses covered by the Federal grant.
- **Hotel Contributions:** The major hotels within West and South Maui benefit significantly from the County transit service by providing an alternative mode of transportation for hotel guests and reducing demand for employee parking. Since these resorts receive significant benefits from transit, they should be considered a potential source of funding. The County should continue to encourage coordination among hotels, the Maui Hotel and Lodging Association, and the Maui Visitors Bureau to establish a program to donate funds to the County for transit operational expenses.

WASTEWATER – MAJOR CAPITAL IMPROVEMENTS

Major projected capital costs to 2030 will be in the following areas: 1) Repair and upgrades to the existing aging plant and collection systems; 2) Compliance with Environmental Protection Agency (EPA) Consent Degree requirements for continuing investigations and replacement of aging/leaking transmission lines; 3) Expansion of wastewater reuse and distribution in Central, South, and West Maui; 4) Tsunami and shoreline erosion protection; and 5) Major repair, upgrades, and plant expansion to the Lahaina Wastewater Reclamation Facility.

Although the County’s existing wastewater infrastructure was largely constructed during the 1970’s and 1980’s, the Department of Environmental Management, Wastewater Reclamation Division, upholds that with ongoing maintenance and upgrades the existing physical plant, collection, and transmission systems can be maintained in fair to good condition.

The following is a summary of the major capital improvement requirements for each system.

Table 9 - 6: Major Capital Improvement Projects – Wastewater

Project	Timing	Estimated Cost
<i>Wailuku-Kahului Wastewater System</i>		
Implement and maintain shoreline erosion and tsunami proofing of Wailuku-Kahului Wastewater Reclamation Facility	On-going	TBD
<i>Lahaina Wastewater System</i>		
Expansion of reclaimed wastewater system based on needs and cost effectiveness	2010-2015	TBD

Current Revenues versus Projected Expenditures

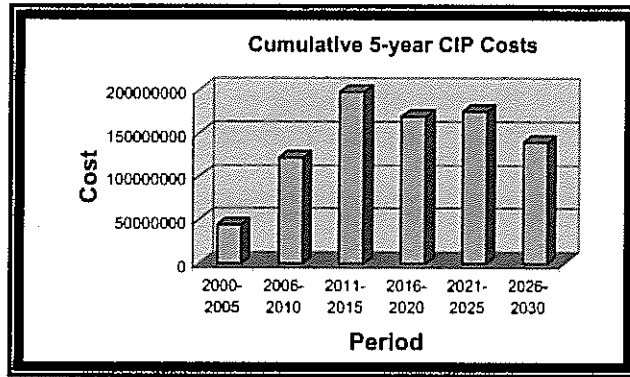
The Division’s CIP expenses can be broken down into the following two categories: rehabilitation and replacement; and growth-serving capital improvements. Due to the age of the island’s wastewater infrastructure, extensive repairs and replacements to sewer lines, force mains, pump stations, laterals, and treatment facilities will be necessary to ensure the on-going reliability of County wastewater systems. These CIP expenses will be considerable due to the extensive network of facilities.

Growth-serving capital improvements will also be a large component of the Division’s future budgets. As the island’s population grows to 2030, system capacity will need to be expanded to treat additional flows. Conservation of portable water resources will also create a greater demand for higher levels of treatment and expanded reuse distribution systems to make treated water available. Both installing new infrastructure and expanding wastewater reuse will increase the Division’s budgetary needs considerably.

Figure 9-2 identifies cumulative CIP costs over 5-year intervals from 2000 to 2030. Between 2005 and 2010 cumulative 5-year CIP costs are anticipated to increase from \$44.9 million to \$121.8 million, an average annual increase of 22%.

From 2010, these costs will increase at an average annual rate of 10% to \$197.2 million. To finance the increase in CIP, sewer rates will need to increase considerably to pay additional debt service. In addition to increasing sewer rates, greater use of alternative funding sources should be considered.

Figure 9 - 2: Cumulative 5-year CIP Costs



Funding Strategy

To cover the Wastewater Reclamation Division’s growing operational and capital expenses, revenues will need to increase. The funding strategy should address costs associated with both repair and maintenance of existing facilities, as well as plant and collection system expansion.

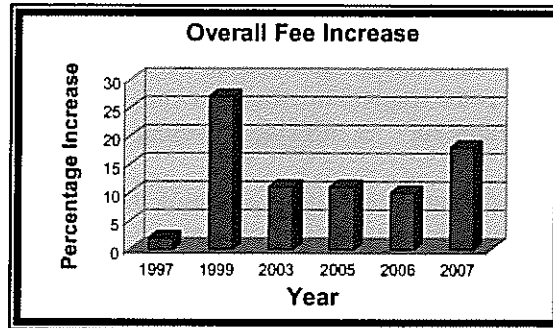
1. Repair and Upgrades to Existing Facilities

Incremental repair, maintenance, and upgrades of existing facilities should be borne by all service users. These costs are currently paid for through sewer and reclaimed water rates. These revenue sources are further described below.

- **Sewer Rates:** Monthly sewer and cesspool fees are the primary revenue source for wastewater operations as well as repair, maintenance, and upgrades of existing systems. Cash from sewer rates is used to pay for capital projects or to pay down debt service associated with these improvements. It is important to note that these funds are not used to finance facility expansion, but only repair and maintenance of existing systems.

Due to rising costs associated with operating and maintaining the County’s aging wastewater infrastructure, wastewater fee increases have occurred over seven of the last ten years. Since 2003, wastewater rates have increased by 50%, and are projected to increase by approximately 8% per year for the next five years.

Figure 9 - 3: Overall Sewer Fee Increases



- **Reclaimed Water Rates:** Like sewer rates, reclaimed water rates need to reflect more of the actual cost of delivering this resource to users. Significant expansion of reclaimed water distribution would require a considerable increase in rates due to debt service and pumping costs. This cost may actually be more than what it would cost to deliver potable water for non-potable uses. However, the external benefits associated with water conservation and reducing the island’s reliance on injection wells also needs to be considered.

2. Facility Expansion

The primary funding mechanisms for funding infrastructure expansion will be subdivision exactions, impact fees, and/or special taxing districts. Tables 9-1 (Description of Alternative Funding Sources) and 9-2 (Sources of Existing or Potential Revenues for Infrastructure) identify additional funding opportunities to support wastewater facility expansion.

SOLID WASTE – MAJOR CAPITAL IMPROVEMENTS

Major projected capital costs to 2030 are expected to be in the following areas: 1) Landfill design, permitting, and construction; 2) Landfill closure; and 3) Recycling facilities and improvements.

The following is a summary of the major capital improvements requirements for the Department of Environmental Management, Solid Waste Division to 2030.

Table 9 - 7: Major Capital Improvement Projects – Solid Waste

Project	Timing	Estimated Cost
Central Maui Landfill		
Acquire land and construct Phase V	2010-2015	\$10.3 million
Materials recovery facility	2010-2015	\$4 million
Central Maui Landfill maintenance facility	2010-2015	\$5.2 million
Close Phase IV	2010-2015	\$8 million
Acquire land and construct Phase VI	2016-2021	\$10 million
Acquire land and construct Phase VII	2022-2030	\$17 million
Development of a Waste to Energy Facility	2022-2030	TBD

Current Revenues versus Projected Expenditures

The Division’s budget is largely allocated for growth-serving capital improvements rather than repair and maintenance projects. Unlike water supply and wastewater that have a large amount of infrastructure in need of repair or replacement, the Solid Waste Division has a considerably smaller infrastructure system with minimal needed maintenance. One potential project that could significantly increase the Division’s expenses is the implementation of a curbside recycling program. As waste generation grows on the island and programs such as curbside recycling are initiated, the Division’s operating expenses will increase.

Growth-serving capital improvements account for the majority of the Division’s CIP expenses. Major growth-serving capital improvement projects include land acquisition, landfill construction, and materials recovery facility construction. As the island’s population grows and solid waste capital improvements become necessary, additional funding will be needed.

Funding Strategy

The solid waste system is different from other County infrastructure and facilities in that expansion of facilities will be needed regardless of population growth. Due to this fact, costs associated with solid waste system operation, repair, maintenance, and expansion should be borne by all users to ensure that costs are distributed equitably. The County would need to increase revenues to cover the Division’s growing operational and capital expenses. Addressing escalating expenses will require a combination of increasing current revenue sources and pursuing additional sources. Currently, General Obligation bonds

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are used to fund the majority of the Division's capital improvement projects. These bonds will likely remain an important CIP funding source. The following solid waste funding strategy will ensure an efficient and equitable means of programming and paying for Department's expenses.

1. Repair, Upgrades, and Expansion of Existing Facilities

- **Landfill Disposal Fees:** Landfill disposal fees are charged to commercial dumpers for disposal of waste at the County's landfills. Disposal fees include the tipping fee, green-waste disposal fee, bio-solids disposal fee, and the recycling surcharge. Rate increases will be needed to cover rising operating costs and more closely cover the actual expenses of the landfill.
- **Refuse Collection Fees:** Refuse collection fees are charged to residents and business for curbside waste collection services. The County will need to increase both landfill disposal fees and refuse collection fees as operation and maintenance expenses rise due to increasing waste generation from the growing population.

Tables 9-1 (Description of Alternative Funding Sources) and 9-2 (Sources of Existing or Potential Revenues for Infrastructure) identify additional funding opportunities to support the expansion of solid-waste disposal services.

PARKS – MAJOR CAPITAL IMPROVEMENTS

Major projected capital costs to 2030 will be in the following areas: 1) Acquisition of undeveloped park lands to address existing deficiencies and accommodate the projected population growth; 2) Development of new park facilities and supporting infrastructure; and 3) On-going repair and maintenance of the existing facilities.

The following is a summary of some of the major long-range capital improvement projects being considered by the Parks Department.

Table 9 - 8: Major Capital Improvement Projects – Parks

Project	Timing	Estimated Cost
<i>Central Maui</i>		
Waihee Beach Park Expansion	2010-2015	\$4 million
Maui Lani Park	2010-2015	\$4.5 million
Central Maui Regional Park and County Fairgrounds	2016-2021	\$50 million
Kanaha Beach Park Expansion	2022-2030	\$4 million
<i>Kihei-Makena</i>		
South Maui Community Park Phase IA & B	2010-2015	\$23.5 million
South Maui Community Park Phase II	2016-2021	\$20 million
Kamaole III Expansion	2016-2021	\$3 million
Kihei Beach Reserve	2022-2030	\$3 million
<i>West Maui</i>		
Wainee Park Expansion	2016-2021	\$7 million
<i>Pala-Haiku</i>		
Baldwin Park Purchase and Expansion	2022-2030	TBD

Other major park projects, or related projects, include the realignment of North Kihei Road (Kealia), the Hookipa Expansion and Highway Realignment, the Pali to Puamana Park, and the Kaanapali District Park.

Current Revenues versus Projected Expenditures

With the island's growing population greater demand is being placed on the Department's facilities. The Department's budget is becoming increasingly inadequate to sufficiently address the island's recreation needs as a result of steadily increasing operating expenses.

Unlike water and wastewater where fees are collected and deposited into a special fund to finance operations and capital expenditures, the Parks Department is funded predominantly through General Fund revenues. Because the General Fund is the primary source of funding for numerous other public programs and projects (such as the Police, Fire, Highways, Transit, and Housing); it is especially difficult for parks projects to compete for limited General Fund dollars. The Department also receives funding from developers through the payment of park assessment fees. However, these monies are only sufficient to mitigate the impact to park facilities caused by new development, and are not intended to address existing deficiencies.

With a growing population, and an economy and lifestyle that are highly dependent upon active and passive recreation, it is important that the Department develop additional revenue sources.

Funding Strategy

The County will need to increase revenues to cover the Department's growing operational and capital expenses. The County can achieve this through a combination of increasing current revenue sources and pursuing additional sources. New funding sources should be targeted to acquiring land and facilities for active and passive recreation, including shoreline lands.

1. Acquisition of Land and Facilities

All Maui Island residents should help fund the acquisition of park land and facilities to address existing deficits. However, new development should bear the cost associated with the acquisition of land and facilities to serve new growth. The following funding strategy is designed to increase park resources, and ensure an efficient and equitable means of programming and paying for the acquisition of park land and facilities.

- ***Park Assessment (Impact) Fees:*** Based on a level-of-service standard of 10-acres of sub-regional park land per 1,000 resident population, as described in the *Public Facility Assessment Update*, and an average of 2.7 persons per dwelling unit, each new residential unit should contribute approximately 1,176 square feet of land area for parks and playgrounds. This is more than double the 500 square feet per unit that is currently required of new subdivisions. To address this inconsistency, the County should conduct a detailed level-of-service analysis, and thereafter, adopt level-of-service standards for each region of the island. The County's Park Assessment requirements should be adjusted to reflect the adopted standards.
- ***Open Space, Natural Resources, Cultural Resources and Scenic Views Preservation Fund:*** In 2002, seventy-three percent of voters in Maui County approved a Charter Amendment mandating that a *minimum of one percent* of annual property tax revenues be placed into a special fund for the preservation of open space, natural and cultural resources, and the preservation of public

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access to coastal lands. In 2006, approximately \$1.56 million was placed into the Maui Open Space Preservation Fund, which was established to collect these monies.

- **Real Estate Excise Tax (REET):** REET consists of money derived from a dedicated percentage of the selling price of real property. Set-asides typically range from one-quarter percent to one percent. Assuming Maui County had such a program, in 2003 approximately \$9.2 million (1/4%) to \$36.8 million (1%) could have been generated to fund park projects based on the value of land transactions that year. If given authority by the State, REET could be considered as a potential funding source to support park land and open space acquisition programs.
- **Benefit Assessment Districts:** Benefit Assessment Districts have become an increasingly popular financing tool used by local governments to help fund park projects. Many agencies throughout California have established annual park maintenance and future capital replacement benefit assessments in the range of \$100 to \$300 or more per year. These funds are used to fund capital improvements, land acquisition and related long-term debt service, as well as the costs of on-going maintenance.

The County should consider establishing such districts at a regional scale to help fund sub-regional park facilities and at an island-wide scale to fund regional or island-wide park facilities.

- **State and Federal Funding Sources:** Certain park land acquisitions may qualify for State and Federal funds. Potential Federal funding sources include the National Oceanic and Atmospheric Administration (NOAA), the United States Department of the Interior, Fish and Wildlife Service (USFWS) Coastal Wetlands Acquisition Program and the USFWS Endangered Species Act. The Legacy Land Conservation Program and the Hawaii Coastal and Estuarine Land Conservation Plan are also important potential funding sources.

2. Streetscape Beautification and Landscape Maintenance

- **Business Improvement Districts:** Business Improvement Districts operate like Benefit Assessment Districts but are directed towards improving the business climate within a defined area. Maui's various commercial districts, including downtown Wailuku and the surrounding Redevelopment Area, downtown Kahului, Paia, and Kihei could benefit from the establishment of Business Improvement Districts. Business Improvement Districts commonly fund activities such as streetscape beautification, park maintenance, and public safety.

PUBLIC FACILITIES – MAJOR CAPITOL IMPROVEMENTS

This section discusses CIP projects and funding for fire control, police, and government offices and parking.

The following is a summary of the major capital improvement requirements for public facilities to 2030. The primary sources relied upon for this section were personal interviews with the Fire and Police Departments and general cost estimates for expanded government offices and parking facilities.

Table 9 - 9: Major Capital Improvement Projects - Public Facilities

Project	Timing	Estimated Cost
Regional Fire Facilities		
A new centrally located fire station which will include a fire training facility, Mechanic Shop, Storage Building, and Administration Building	2016-2021	\$31.2 million
Regional Police Facilities		
Kihei Police Station (to alleviate hardship to the Wailuku Police Station)	2010-2015	\$40 million
Government Offices and Parking: (Source: <i>Wailuku Municipal Service Center Master Plan Report</i> (February, 2004))		
Kalana O Maui, Old Courthouse, and Kalana Pakui improvements	2010-2021	\$50 million
New parking structure at the Municipal Parking Lot site		
Redevelop Old Wailuku Post Office		
Kaohu Street Parking Structure		
Kaohu Street Office Building		
Additional parking structure in the Civic Center District		
Additional office building in the Civic Center District		

Funding Strategy

The County will need to increase revenues to cover growing expenditures for public facilities to 2030. The primary funding sources for fire and police facilities together with government offices and parking capital costs are the County General Fund and G.O. bonds. As public facility expenditures increase to address existing facility deficits and projected needs, revenues from these two primary funding sources will need to increase. However, since these two funding sources are also heavily relied upon by numerous other County agencies, it would be prudent for the County to pursue alternative sources of funding to augment the General Fund and G.O. bonds.

Facility Expansion

Tables 9-1 (Description of Alternative Funding Sources) and 9-2 (Sources of Existing or Potential Revenues for Infrastructure) identify additional funding opportunities to support public facility expansion.

PROJECT AND OPERATIONS MANAGEMENT

Implementation of the Maui Island Plan will require a coordinated effort from County and State agencies, the private sector and nonprofits, and the community. Implementation mechanisms include planning and regulatory approaches, capital improvement programming, special implementation programs and monitoring and evaluation. Managing and facilitating the plan’s implementation will require the establishment of an efficient and comprehensive project and operations management approach.

General Plan Implementation Committee (GPIC)

The Department of Planning will form a General Plan Implementation Committee (GPIC) comprising the Directors of applicable State and County Agencies and necessary technical staff. The purpose of the GPIC will be four-fold:

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1. Facilitate agency compliance with MCC Chapter 2.80B.030.1 “Status Reports”, which states “*Each agency shall prepare a status report on its implementation and enforcement of the General Plan, which shall be transmitted to the planning director at the same time the agency submits the third-quarter budget implementation report pursuant to section 3.04.050 of this code. The planning director shall also contact persons outside County government for status reports on appropriately assigned implementation actions. The planning director shall issue a report annually providing a detailed explanation of the implementation and enforcement of the General Plan and the community plans to the mayor and the council.*”
2. Provide the necessary venue to support greater intergovernmental and intragovernmental coordination, information sharing, dialogue, and collaboration on General Plan implementation.
3. Assist the Department of Planning with monitoring and evaluation of plan implementation and attainment of desired outcomes.
4. Disseminate information to the public through the County web-site, and other appropriate means, regarding the on-going status of General Plan projects.

Coordinated Infrastructure Planning Strategy (CIPS)

The Mayor’s Office should have primary responsibility to initiate and oversee the CIPS process. The CIPS will be developed within the framework of the Countywide Policy Plan, Maui Island Plan, and the Community Plans. The CIP plans will include maps delineating the location of major CIP projects and an assigned priority based on established criteria and the ability to double-up or “piggy-back” projects where possible. In addition, the Finance Department will need to coordinate with the Mayor’s office and various departments to develop long-range funding plans for the CIP projects.

Monitoring and Evaluation

The Department of Planning will conduct monitoring and evaluation of plan implementation through its annual progress report to the Mayor and County Council. At least every five years the Department of Planning will attach an addendum to this report measuring the plan’s progress against a series of implementation benchmarks and environmental, cultural, and socio-economic indicators designed to measure the attainment of Maui Island Plan goals and objectives. This effort will require close coordination with stakeholder agencies, community groups, and the private sector. The Monitoring and Evaluation Program will be further discussed in the following section.

Implementation Program Schedule

As part of the Implementation Strategy, MCC Chapter 2.80B030.G.4 mandates the development of an implementation schedule to facilitate the implementation of Maui Island Plan polices and actions. The Implementation Program Schedule includes all proposals for action from all Maui Island Plan elements as well as major CIP projects. CIP projects identified in the schedule are derived from agency 6-year CIPs and long-range plans. The schedule does not represent a comprehensive list of all CIP projects; rather, major region serving projects with an estimated cost over \$2 million are included to facilitate capital improvement programming and serve as a heads-up for forthcoming large infrastructure budget items.

Components of the Implementation Program Schedule include a brief description of the project or initiative, timing, priority, lead implementation agency, order of magnitude cost estimate, and potential funding source(s). Priority is identified as either Tier 1, 2, or 3. Projects that are identified as Tier 1 are

required for public health and safety (PS); required by legal mandate (LM-Federal, State, or County); or required to prevent the loss of an irretrievable resource (IR). Any project identified as Tier 2 is one that “pays for itself”-little or no long-term budgetary impact to the County. Projects that are assigned Tier 3 priority are those expected to result in major increases to quality of life (QL), efficiency upgrades (EF), or other public benefits. The Implementation Program Schedule is attached as Appendix C.

OTHER IMPLEMENTATION MECHANISMS

The action plan is intended to identify specific programs, projects and regulations that will need to be developed over the twenty-year planning period to implement the island’s directed growth strategy. Action plans are listed throughout the preceding chapters below the Action Plan sub-heading.

However there may be programs, projects and regulations that have not been considered as part of this Plan. Most of the actions that will serve to implement the plan come in the form of the implementing mechanisms listed in this section.

Land Use

The primary means of implementing the directed growth strategy will be through the land use regulatory controls and programs. Existing and proposed planning and regulatory controls necessary to realize the recommendations of the directed growth strategy include:

- **State Land Use Law (HRS, Chapter 205)** State land use districting has helped to contain urban development to urban designated areas. The County will need to work with the State to ensure consistency with the directed growth strategy.
- **County Zoning (MCC, Title 19)** Zoning is the primary land planning tool used on Maui to implement the desired pattern of future development. In particular, the lot size and density permitted in the agricultural district ordinance and expanding some districts to allow for mixed uses will be necessary to implement this directed growth strategy.
- **Urban Growth Boundaries (MCC, CH 2.80B)** Delineation of future urban and rural development is a key component of the County’s managed and directed growth plan. The UGB provides a consistent approach for deciding where urban growth can occur, indicating the long term limits of urban development, and where non-urban values and land uses should prevail.
- **Urban Service Areas** Urban Service Areas closely follow UGBs and identify areas that will and will not be supplied with County infrastructure and services. Both the UGBs and the Urban Service Areas are major tools for achieving the goals of the Maui Island Plan and will play a key role in guiding future growth on the island.
- **Transfer of Development Rights** A TDR program allows for the transfer of development rights from an area with important natural, agricultural, or scenic resources to a designated area which is suitable for development. The TDR program is designed to support the land use guidance system, particularly agricultural zoning and the establishment of urban growth boundaries. The TDR program will need to be utilized to preserve a combination of working farm lands and prime urban fringe agricultural lands that function as greenways and open space buffers.

Development Character & Density

The County's Community and Specific Area Plans, as well as various components of the development review and regulatory process, affect the character and density of new development. Each implementation mechanism provides the opportunity to carry out the development and land use goals and policies of the Maui Island Plan by creating both a framework and rules by which future development must conform. Each implementation mechanism is further described below:

- **Community Plans;**
- **Specific Area Plans;**
- **Zoning;**
- **Subdivision Approval; and**
- **Building Permits.**

The County will update all six Community Plans on Maui to reflect Countywide Policy Plan and Maui Island Plan goals and policies as they pertain to each specific region. Community Plans are more detailed than the Maui Island Plan and contain more region specific policies and actions. Community involvement and input is an integral part of the Community Plan process which ensures that each plan addresses its community's distinctive needs and concerns. Future updates to the Community Plans will place more emphasis on developing policies and programs to promote the formation of more livable communities at the town and neighborhood scale.

Specific Area Plans are even more detailed and are tailored to a specific geographic area. The specific plan process ensures that development of the area will proceed according to specific use, design, phasing, and financing provisions customized to the character and circumstances of that area.

Existing specific area plans, such as the Wailuku Redevelopment Plan, will be updated to reflect the goals of the Maui Island Plan and new specific area plans will be developed for other areas as needed. Additionally, developing specific area plans, with accompanying model ordinances (form-based codes), for Project Districts and Planned Growth Areas is an important mechanism to ensure that these large-scale developments are planned and built pursuant to the land use policies of the Countywide Policy Plan and Maui Island Plan.

Zoning, subdivision, and building permit requirements are also important elements of the land use regulatory process and have a considerable influence on the character and density of new development. Zoning regulations control the use, intensity, and character of development on the land. The Maui Island Plan makes recommendations for urbanization of certain non-urban lands. These recommendations will require that the zoning on these lands be changed from a non-urban use, predominantly agriculture, to an urban use. Moreover, there are numerous recommendations for revisions to the zoning code to allow for more mixed-use and higher density development within our existing and planned urban areas as well as changes to our rural and agricultural zoning policies and standards.

The subdivision approval process requires project improvements, which may encompass on-site grading, roadways, curbs, gutters, sidewalks, sewer, water, and electric, to conform to zoning and infrastructure standards. Subdivision requirements can have a significant impact on the character and form of development as well as the probable environmental and socio-economic impacts associated with a project.

The requirement for issuance of building permits prior to construction helps to ensure that the approved site and architectural design for the project is implemented and that the project complies with the Uniform Building Code (UBC). The Maui Island Plan makes recommendations for revisions to the subdivision standards and building permit process.

HERITAGE RESOURCES, HOUSING, AND ECONOMIC DEVELOPMENT

Heritage resources, housing, and economic development goals, objectives, and policies will be implemented through the Directed Growth Plan, revisions to existing planning and regulatory approaches, establishing various incentives, implementing special programs, and developing the CIP in accordance with the Maui Island Plan's goals, objectives, and policies.

Planning and Regulatory Approaches

Numerous Federal, State, and County planning and regulatory approaches exist to protect heritage resources, provide affordable housing, and stimulate economic development. Such planning and regulatory approaches at the State level include a combination of plans, programs, and regulations such as the State's Land Use and Coastal Zone Management Laws, Polluted Runoff Control Program, Hawaii Ocean Resources Management Plan, and various agricultural and economic development programs. Such planning and regulatory approaches at the County level include the community plans, zoning, subdivision requirements, and various plans and programs to support public transit, agriculture, economic development, the environment, and the socially disadvantaged. Existing planning and regulatory approaches will be updated and revised and new requirements will be enacted to implement the goals and policies of the Maui Island Plan.

Incentives

Incentives are also an important method of implementing Maui Island Plan goals and policies. Various incentive programs will be implemented related to heritage resources, housing, and economic development. Incentive programs include permit streamlining, density bonuses, tax incentives, and various forms of government subsidies. Ensuring greater predictability in the development process and providing increased timeliness in all planning and regulatory processes is a key incentive program recommended in the Maui Island Plan.

Special Implementation Programs

Numerous special programs and initiatives are proposed in the Heritage Resources, Housing, and Economic Development Elements which are key components of implementing Maui Island Plan goals, objectives, and policies. Many of the proposed special programs are inventories, studies, or plans. New inventories and studies, such as the Urban View Inventory and the East Maui Cultural Landscape Study, will serve as information gathering and analysis tools and will provide a foundation for planning and decision making. Existing plans will be updated and new plans will be drafted as needed to manage heritage resources, housing, and economic development in accordance with the Maui Island Plan. Existing programs will be expanded and new programs developed and implemented such as the establishment of a Transfer of Development Right (TDR) program, expansion of the County's agricultural parks program, and establishment of a Beach Management District program.

Element	#	Action	Priority	Upon Plan Adoption	2010-2015	2016-2021	2022-2030	Agency	Cost	Source
Population	1	Use an existing agency that will facilitate youth/young adult-related employment, housing, social services, and other programs that retain young adults on Maui.	3 - QL		X	X	X			
Population	2	Identify existing and develop new funding sources for youth and family services (i.e. recreation, health care, education, housing, child care, etc.); and integrate such resources to achieve an effective outcome.	3 - QL		X	X	X			
Population	3	Improve collaboration among governmental agencies to strengthen and integrate service delivery systems that support youth/young adult needs.	3 - QL		X					
Population	4	Provide additional support and funding for transportation, housing, healthcare, recreation, and social service programs that help those with special-needs (including the elderly and disabled).	2 - QL		X	X	X			
Population	5	Develop and regularly conduct an impartial <i>Community Satisfaction Survey</i> to measure residents' quality-of-life, facilitate the development of informed policies/programs, and improve service delivery.	3 - QL		X					
Population	6	Adopt a Directed Growth Plan that clearly delineates <i>Resort Destination Areas</i> .	1 - QL	X						
Population	7	Use the required General Plan Annual Status Report to monitor trends related to residents and visitors.	2 - QL		X	X	X			
Population	8	Work with the non-profit sector to expand cultural education for new residents, visitors, and the general public.	3 - QL		X	X	X			
Population	9	Coordinate with the Visitor Bureau, mass media, and other tourist-related entities to educate visitors and new residents about the Aloha spirit; how to maximize the benefit of their visit by learning about the island's cultures; and how to minimize any potential impacts.	3 - QL		X	X	X			

Element	#	Action	Priority	Upon Plan Adoption	2010-2015	2016-2021	2022-2030	Agency	Cost	Source
Heritage	1	Utilize the generational knowledge of Act 212 Aha Maku Council (language to be changed to make sense as an action) a. Serve as a liaison between the County's cultural groups; b. Assist staff in project review; c. Provide support for cultural programs and educational activities; d. Coordinate with schools to promote county cooperation and participation in programs to ensure broader incorporation of native Hawaiian and other local cultural studies.	3 - QL		X	X	X			
Heritage	2	Provide additional staffing and funding to support and enforce cultural resource planning and management.	1 - IR		X					
Heritage	3	Coordinate with schools to promote county cooperation and participation in programs to ensure broader incorporation of Hawaiian and other local cultural studies.	3 - QL		X					
Heritage	4	Establish a program to support the reconstruction, restoration, repair, or rebuilding of historical sites.	1 - IR		X	X	X			
Heritage	5	Incorporate the following areas of expertise into the CRC: a. Generational knowledge; b. Kupuna with traditional knowledge; c. Traditional knowledge of land practices; and c. Traditional knowledge of ocean practices.	3 - QL		X	X	X			
Heritage	6	Commission Cultural Landscape Studies, implementing Act 212, of the entire island of Maui to assess additional areas as Potential Heritage Areas.	1 - IR		X					
Heritage	7	Inventory potential Thematic Cultural Resource Areas and submit nominations for State and/ or National Register of Historic Places.	1 - IR		X					
Heritage	8	Prepare and continually update a Historic and Cultural Resources Plan and Inventory/Mapping Project that documents existing Cultural and Historic Sites.	1 - IR		X					

Element	#	Action	Priority	Upon Plan Adoption	2010-2015	2016-2021	2022-2030	Agency	Cost	Source
Heritage	9	Develop and adopt a Heritage Area Management Program with the intent to protect the natural, cultural, scenic, and historic resources of designated areas through ahupua`a/ moku management practices. The program shall include the following elements: a. the development of a Heritage Area Plan and protection standards for Heritage Areas as identified on the Cultural/ Scenic Resources policy map; b. a revised zoning ordinance to incorporate Heritage Area Special Overlay Protection Districts; c. a process to require a Cultural Landscape Report for developments within Heritage Areas; and d. consultation with the aha moku council, or similar advisory council.	1 - IR		X					
Heritage	10	Regularly update and expand the scope of the 1984 Cultural Resources Management Plan for the island of Maui with an emphasis on implementation.	1 - IR		X					
Heritage	11	Develop a comprehensive program for protection of cultural, historical and archaeological sites through the acquisition of easements, use of Transfer of Development Rights/Purchase of Development Rights and other applicable protective mechanisms.	1 - IR		X					
Heritage	12	Conduct, maintain and continuously update a historic and archaeological Resources Inventory into the County's GIS system.	1 - IR		X	X	X			
Heritage	13	Adopt regulations that will restrict development of lands that are important for traditional native Hawaiian uses including subsistence food gathering, traditional access, agriculture, and religious uses following Article 12 section 7, HRS 7-1, HRS 1-1.	1 - IR		X					
Heritage	14	Establish and adopt additional Historic Districts where appropriate and ensure that land use regulations are implemented to ensure their protection.	1 - IR		X					

Element	#	Action	Priority	Upon Plan Adoption	2010-2015	2016-2021	2022-2030	Agency	Cost	Source
Heritage	15	Establish and adopt Archaeological Districts and implement an ordinance that would ensure the protection of important sites.	1 - IR		X					
Heritage	16	Develop and establish incentive programs to encourage landowners to restore archaeological, cultural, and historic structures.	1 - IR		X					
Heritage	18	Develop a program to identify and list Historic Places to the State and National Historic Register.	1 - IR		X					
Heritage	20	Work with appropriate agencies and community organizations to manage, protect, and set aside those reef ecosystems identified on the Cultural/Scenic Resource Policy Map.	1 - IR	X						
Heritage	21	Implement and require compliance and/or consistency with the following plans (and their updates): (1) Beach Management Plan for Maui; (2) Coastal Non-Point Pollution Control Program Management Plan (June 1996); (3) Implementation Plan for Polluted Runoff Control (July 2000); (4) The Ocean Resource Management Plan; and (5) Aha Moku Council- or similar advisory council.	1 - IR	X						
Heritage	22	Seek funding and work with other agencies and organizations to establish and prioritize MMA's around Maui's coastline.	1 - IR	X						
Heritage	23	Develop and implement an integrated near shore water quality management program to include the development of Special Area Management Plans (SAMPs) for sensitive marine/ watershed resources.	1 - IR		X					
Heritage	24	Establish an advisory committee to advocate the conservation and management of coastal resources. Qualifications of the position shall consist of: a. Generational knowledge; b. Kupuna with traditional knowledge; and c. Land or ocean traditional knowledge practices.	1 - IR		X	X	X			

Element	#	Action	Priority	Upon Plan Adoption	2010-2015	2016-2021	2022-2030	Agency	Cost	Source
Heritage	25	Adopt a coastal landscaping ordinance that establishes standards, setbacks, and buffers that promote the use of native plants, xeriscaping, and drought tolerant species to minimize non-point source pollutants including pesticides, herbicides and fertilizers.	1 - IR		X					
Heritage	26	Develop a master plan and feasibility study for the preservation and enhancement of the Ma'alea Beach Recreation area and Kealia Pond Bird Sanctuary to include the possible mauka realignment of North Kihei Road.	1 - IR		X					
Heritage	27	Work with appropriate agencies, landowners, and community groups to identify Maui's ancient fish ponds and develop a management plan for their protection, repair, restoration, and use.	1 - IR			X				
Heritage	28	Amend DLNR's administrative rules to prohibit the collection and exportation of fish, coral, algae, and other marine species for the ornamental and aquarium trade.	1 - IR		X					
Heritage	29	Implement a Reef Protection and Restoration Plan.	1 - IR		X					
Heritage	31	3. Revise the Zoning, Subdivision, and Soil Erosion and Sedimentation Control Ordinance to accomplish the following: A. Require the approval of an Erosion and Sedimentation Control Plan (ESCP) for the following: 1. subdivisions of four or more lots; OR 2. development that requires grading of more than 0.25 acre. B. Require an on-site monitoring program for subdivisions of four or more lots, grading in excess of 43,560 ft ² , or when recommended in the ESCP; C. Minimize impervious surface areas, thereby reducing storm run-off and non-point source pollution; and D. Control the pollutant load by imposing standards that are more restrictive than the State water quality control standards.	1 - IR		X					

Element	#	Action	Priority	Upon Plan Adoption	2010-2015	2016-2021	2022-2030	Agency	Cost	Source
Heritage	32	Mandate in stream assessment to assure the reproductive system/ cycle for Native species.	1 - IR		X	X				
Heritage	33	Preserve traditional accesses, such as Ala Nui and Ala Hele trails for rights of native Hawaiians under Article 12 section 7 (HRS 7-1 - 7-11).	1 - IR		X					
Heritage	34	Revise subdivision and development regulations to: a. Increase linear frequency for public access to and along the shoreline; b. Require access to and along the shoreline as a condition of subdivision, land use entitlement, and/or development approval.	3 - QL		X					
Heritage	35	Prioritize the acquisition of shoreline parcels in accordance with the recommendation of Shoreline Access Inventory Update - Final Report (March 2005), and other plans funded by the Coastal Zone Management Program.	3 - QL		X					
Heritage	36	Implement the Pali to Puamana Plan to facilitate the restoration of shoreline and coastal resources along the eight-mile stretch of seashore from Ukumehame to Puamana.			X	X				
Heritage	37	Acquire development rights for the lands adjoining Ho`okipa Park, to enhance coastal zone management.	1 - IR			X				
Heritage	38	Acquire coastal lands between the Central Maui Wastewater Reclamation Facility and Paia Town in accordance with the recommendations of the Northshore Greenway Master Plan.	3 - QL		X					
Heritage	39	Develop and adopt funding mechanisms to finance the acquisition of additional shoreline lands in South and West Maui, and other areas as they urbanize.	3 - QL		X					
Heritage	40	Ensure all watershed management plans balance uses of watershed resources incorporating principles of the ahupua`a model.	1 - QL		X					
Heritage	41	Develop and regularly update watershed management plans for regions of the island not covered by existing plans.	1 - QL		X					

Element	#	Action	Priority	Upon Plan Adoption	2010-2015	2016-2021	2022-2030	Agency	Cost	Source
Heritage	42	Develop and adopt a special area management program (SAMP) with the intent to protect watersheds and coastal resources through ahupua`a/ moku management practices. The program shall include the following elements: a. the development of special area management plans (SAMPs) and protection standards for watersheds identified on the Marine Resource SAMP Zone Map; b. a revised zoning ordinance to incorporate special area overlay protection districts to implement the SAMPs; c. consultation with the aha moku council, or similar advisory counsel	1 - IR		X					
Heritage	43	Work with the State and Federal government to ensure stream assessment to assure the reproductive system/cycle for Native species and for other purposes.	1 - IR	X						
Heritage	44	Adopt standards to reduce the amount of nutrients that enter watersheds, and encourage the reduction of landscape fertilizers and pesticides.	1 - IR		X					
Heritage	46	Develop guidelines for BMPs that are appropriate for Maui.	1 - IR		X					
Heritage	47	Implement the Pollution Prevention Plan (PPP) program, which provides incentives for agricultural operations to prevent runoff and NPS pollution	1 - IR		X					
Heritage	48	Adopt watershed management plans that protect and restore underground aquifers, wetlands, marine, reef ecosystems, and other natural resources.	1 - IR		X					
Heritage	49	Adopt code language that ensures no net loss of wetlands	1 - IR		X					
Heritage	50	Provide additional staff to enforce wetland regulations and improve restoration plans.	1 - IR	X						
Heritage	51	Assist in the preservation and enhancement of Kealia and Kanaha-Maunani Ponds; Lale, Kalepolepo, Nuu, Ukumehame, Olowalu, Launiopkok, Makena wetlands; and other wetland areas.	1 - IR	X						

Element	#	Action	Priority	Upon Plan Adoption	2010-2015	2016-2021	2022-2030	Agency	Cost	Source
Heritage	52	Develop a tree protection ordinance that includes, but is not limited to, restricting the removal of vegetation and identification of building envelopes/ protected areas.	1 - IR	X						
Heritage	53	Work with the state to develop and implement a strategic management plan for ungulates.	1 - IR	X						
Heritage	54	Discourage development and subdivision of land in areas susceptible to high erosion and sediment loss.	1- PS							
Heritage	55	Establish an overlay district to require conservation subdivision design plans for subdivision of four or more lots located within sensitive habitats and critical watersheds.	1-IR		X					
Heritage	56	Develop site plan and site design standards to protect watershed resources	1 - IR		X					
Heritage	57	Identify areas susceptible to high erosion and sediment loss.	1- PS		X					
Heritage	58	Work with appropriate agencies and stakeholders to establish minimum stream flow levels and promote actions to support riparian habitat and the use of available lo 'i and maintain adequate flows for the production of healthy kalo crops.	1- IR		X					
Heritage	59	Work with the State to determine in-stream flow standards that support future water allocation plans.	1- IR		X					
Heritage	60	Compile and update data on the needs of the multiple users of water.	1- IR		X					
Heritage	61	Develop, and regularly update, an island-wide Environmental Resources Sites' database to serve as a basis for decision-making; this should incorporate, but not be limited to, the following: natural preserves; watersheds; wetlands; streams; critical habitat areas; natural area resources; other sensitive landforms and features, including those that are valued by the community, on Environmental Resources Map.	1-IR		X	X	X			
Heritage	62	From the Environmental Resources Sites database, regularly update and publish the "Environmental Policy Map."	1-IR		X	X	X			

Element	#	Action	Priority	Upon Plan Adoption	2010-2015	2016-2021	2022-2030	Agency	Cost	Source
Heritage	63	Prepare the following, in coordination with the State and resource partnerships: a. An inventory of key habitats that lack regulatory protections; and b. An inventory of Natural Area Partnership Program (NAPP) eligible lands.	1 - IR		X					
Heritage	64	Adopt and implement a coordinated interagency strategy for environmental resource protection and enforcement activities.	1 - LM		X	X	X			
Heritage	65	Delete								
Heritage	66	Work with schools and community groups to develop programs that allow students to participate in invasive species eradication projects.	2		X	X	X			
Heritage	67	Work with Federal and State agencies to develop, implement, and implement procedures for the inspection of incoming cargo, passenger baggage, and vehicles for invasive species and prohibited plants and animals.	1 - LM		X	X	X			
Heritage	68	Increase dedicated Federal funding for the invasive species intervention at harbors and airports.	1 - LM		X	X	X			
Heritage	69	Increase dedicated funding for public/private partnerships to develop and implement environmental protection programs.	3 - QL		X	X	X			
Heritage	70	Develop an inventory of lands, and prioritize urban and rural wilderness areas that are threatened by human impacts and are strong candidates for preservation.	1 - IR		X					
Heritage	71	Amend the zoning ordinance to: a. Require site plan review and Planning Director approval of any development proposed on land that is identified on the Heritage Policy Map as "Sensitive Land"; b. Adopt development standards, including design criteria, to achieve the following: protect areas identified on the Environmental Resource Maps; protect habitat in the identified wildlife areas; ensure connectivity of green spaces/habitat corridors/other open space	1 - IR		X					

Element	#	Action	Priority	Upon Plan Adoption	2010-2015	2016-2021	2022-2030	Agency	Cost	Source
Heritage	72	Develop regulations to require the reforestation of native species' habitats and institute rest periods for designated natural areas impacted by human use.	1 - IR		X					
Heritage	73	Develop and adopt overlay district standards for "Heritage Areas" identified through a community planning process.	1 - IR		X					
Heritage	74	Increase dedicated funding for the acquisition, protection, restoration, or preservation of important natural areas or open space through the following: a. grants from the Land and Water Conservation Fund; b. dedicated funding from real property taxes or other appropriate revenues; c. bond issues; d. real estate transfer tax; e. revenues from the Transient Accommodation Tax (TAT); f. development mitigation fees; and g. other appropriate funding sources	1 - IR		X					
Heritage	75	Establish regional environmental research and resource centers that include environmental monitoring programs. The Resource Center will provide published recommendations for improved environmental protection actions and enforcement which the County will implement.	1 - IR			X				
Heritage	76	Create a range of environmental education and outreach programs.	1 - IR		X					
Heritage	77	Support the development of environmental monitor certification programs.	1 - IR		X					
Heritage	78	Integrate Federal and State agency environmental protection efforts into school curriculum.	1 - IR		X					
Heritage	79	Increase funding for public/private sector environmental protection and educational programs.	1 - IR		X					

Element	#	Action	Priority	Upon Plan Adoption	2010-2015	2016-2021	2022-2030	Agency	Cost	Source
Heritage	80	Develop, adopt, and regularly update Scenic Overlay District standards and map: a. Scenic Corridors that implement the recommendations of the Scenic Roadway Corridors Management Plan and Design Guidelines. b. An inventory of important viewplanes	1 - IR		X					
Heritage	81	Develop and adopt standards to: a. Protect ridgelines and slopes from development, with the intent to achieve the least disturbance to the existing land surface, slopes, and visual resources. b. Protect viewplanes from development.	1 - IR/PS		X					
Heritage	82	Develop and adopt standards and regulations that protect night sky resources from encroachment by the built environment, and limit night light emissions and light intensity levels.	1 - IR		X					
Heritage	83	Develop, adopt, and implement a Scenic Resources Management Plan (SRMP) and design guidelines.	1 - IR		X					
Heritage	84	Develop and adopt an ordinance that requires Scenic Resource Impact Assessments for projects that may have potential impact on scenic resources, including those identified on the Cultural/ Scenic Resource Policy Map.	1 - IR		X					
Heritage	85	Develop and adopt standards and processes to: a. Ensure that the location and design of utility poles, facilities, and infrastructure do not degrade scenic resources; b. Require utilities to be placed underground, whenever feasible; and c. Require UDRB to review and approve the installation of utilities along scenic corridors	1 - IR		X					
Heritage	86	Revise land use regulations to: a. Require access to scenic vistas and resources at appropriate locations; b. Limit the height of walls; and c. Require appropriate set-backs along scenic corridors as identified on Cultural/ Scenic Resource Policy Map.	3 - QL		X					

Element	#	Action	Priority	Upon Plan Adoption	2010-2015	2016-2021	2022-2030	Agency	Cost	Source
Heritage	87	Develop additional Scenic Lookout points.	3-QL		X	X	X			
Land Use	1	Produce a map of the difference between State and County agricultural districts.	2 - IR		X					
Land Use	2	Create a Prime, Productive and Important Agricultural Lands Overlay District.	1- IR		X					
Land Use	3	Develop, adopt, and implement TDR and PDR Programs for Prime, Productive and Important Agricultural Lands identified on Maui Island Plan Map #___ with a preference given to lands with a current or recent history of productive agricultural uses.	1 - IR		X					
Land Use	4	Reduce subdividing agricultural lands by strengthening applicable zoning and subdivision ordinances.	1 - IR		X					
Land Use	5	Revise existing zoning and General Plan land use policies and regulations to clearly describe rural and agricultural uses.	1 - IR		X					
Land Use	6	Identify and acquire Prime, Productive and Important Agricultural Resource Lands appropriate for the development of Agricultural Parks and community gardens in each community plan district.	2 - IR		X					
Land Use	7	Prepare and complete the Agricultural Water Use and Development Plan.	1 - IR		X					
Land Use	8	Revise the subdivision ordinance to eliminate standard subdivision requirements for agricultural parks and promote research and development activities to increase production.	3 - IR		X					
Land Use	9	Coordinate with industry stakeholders to develop alternative sources of non-potable irrigation water including wastewater reuse, recycled storm-water runoff, and brackish well water.	1 - EF		X	X	X			
Land Use	10	Give priority in delivery and use of agricultural water to cultivation of food crops for local consumption	2 - IR		X	X	X			
Land Use	11	Coordinate with the State of Hawaii to develop and revise policies and standards for rural development within the State Rural District to encourage creative design and sustainable communities.	1 - QL		X					
Land Use	12	Revise the Business Country Town District Ordinance to allow mix use with small scale residential uses.	3 - QL		X					

Element	#	Action	Priority	Upon Plan Adoption	2010-2015	2016-2021	2022-2030	Agency	Cost	Source
Land Use	13	Create new Business Country Town zoning sub-districts and design guidelines that reflect the unique character and land use patterns of Maui's Country Towns and to recognize rural service centers.	3 - QL		X					
Land Use	14	Revise subdivision regulations to require CSD within the rural and agricultural districts for subdivisions of four or more lots.	3 - QL		X					
Land Use	15	Amend regulations to establish rural infrastructure and public facility, Level of Service (LOS) standards for site planning/design, and review processes.	3 - QL		X					
Land Use	16	Revise storm water management regulations to allow for Low Impact Development (LID) techniques.	1 - IR		X					
Land Use	17	Develop and adopt appropriate procedures and standards for the public, at the respective community level, to review development in County rural zones.	3 - QL		X					
Land Use	18	Develop and adopt an ordinance that mandates early consultation with communities affected by large-scale planning and land use activities.	3 - QL		X					
Land Use	19	Establish density requirements and lot sizes within urban areas to support higher densities, in-fill development, and efficient land use patterns.	3 - QL		X					
Land Use	20	Update zoning and development regulations to achieve the following: a. Facilitate environmentally friendly projects (LEED - ND); b. Require the preparation and approval of Development Impact Assessment (DIA) Reports and design guidelines for new urban expansion, new towns, and major projects within UGBs; and c. Discourage future pyramid zoning within the new industrial districts, while allowing ancillary commercial uses.	3 - QL		X					
Land Use	21	Develop and approve a green infrastructure map to assist in developing urban growth boundaries that protect separation between existing communities.	1 - QL		X					

Element	#	Action	Priority	Upon Plan Adoption	2010-2015	2016-2021	2022-2030	Agency	Cost	Source
Land Use	22	Develop and adopt a Transfer of Development Rights (TDR) Ordinance, a formal TDR program and identify receiving areas within urban growth boundaries.	1 - IR		X					
Land Use	23	Amend the zoning ordinance to : a. Reduce minimum lot sizes in urban areas; b. Encourage a mix of single family and multi-family lots within the same development; c. Facilitate the establishment of mixed-use towns/ village centers.	3 - QL		X					
Land Use	24	Develop standards to strictly regulate and limit the location, design, and massing of big box retail stores.	3 - QL		X					
Land Use	25	Amend the County Code to reduce parking requirements, where appropriate, in mixed-use projects, encourage joint-use parking, and allow for the use of innovative methods to meet peak parking needs.	3 - EF		X					
Land Use	26	Revise the zoning ordinance to allow for mixed use development that is appropriate and in character with surrounding communities.	3 - QL		X					
Land Use	27	Develop communities that provide sufficient parks, schools, libraries and other essential public facilities and services	3 - QL		X	X	X			
Land Use	28	Implement the Waituku Redevelopment Plan, and subsequent updates, and formulate plans for other appropriate areas.	3 - QL		X					
Land Use	29	Develop and adopt an ordinance to require Urban Design Review Board (UDRB) review of all major urban expansion, new town, urban in-fill and redevelopment projects.	3 - QL		X					
Land Use	30	Develop community planning processes to establish standards and priorities for streetscape beautification, public amenities, pedestrian and bicycle circulation, parking, redevelopment target areas, transit amenities, sense of place and building form/design guidelines.	3 - QL		X					
Land Use	31	Prepare general Urban Design Guidelines for Central, South and West Maui.	2 - QL		X					

Element	#	Action	Priority	Upon Plan Adoption	2010-2015	2016-2021	2022-2030	Agency	Cost	Source
Land Use	32	As part of the Community Plan Updates, prepare pedestrian circulation, bikeway, and greenway elements.	3 - QL		X	X				
Land Use	33	Define and map the Resort Destination Areas of Wailea, Makena, Kapalua and Kaanapali.	2 - IR	X						
Land Use	34	Develop and adopt an ordinance that: (a) mandates early consultation with communities affected by planning and land use activities; (b) establishes review timelines; and (c) requires multi-agency and intra-departmental county consultation in project review.	3 - QL		X					
Housing	1	Develop appropriate incentives to encourage the production of required affordable housing during different stages of an economic cycle.	1-LM		X					
Housing	2	Develop a housing reporting system to identify the stages in economic and housing cycles and track indicators for housing supply, affordability, and quality.	2		X					
Housing	3	Develop and maintain a database and related maps for the following: a. Existing/newly constructed housing units that are affordable to very low-, low-, and moderate-income households; b. The location and quantity of housing that is used by visitors/second home; and c. Improve Property tax information including property land use designations, tax rates, acquisition price, and market value assessments to enable the county administration, legislators, and citizens to accurately predict taxation impacts upon housing.	2		X	X	X			
Housing	4	Revise the County's property tax rates to make them more progressive (increased tax rates as house values increase).	2		X					
Housing	6	Develop incentives for locating new workforce housing in proximity to jobs and services.	2		X					

Element	#	Action	Priority	Upon Plan Adoption	2010-2015	2016-2021	2022-2030	Agency	Cost	Source
Housing	8	Create an interagency team to help develop and implement a comprehensive affordable housing strategy, and to monitor and regularly evaluate impediments to the development of affordable housing.	2		X					
Housing	9	Establish a system to keep government subsidized affordable rental housing at affordable rents, and regularly monitor tenants' income qualifications to determine eligibility.	3-EF			X				
Housing	10	Work with a range of land owners, developers, community land trusts and non-profit housing agencies to prepare both County ordinances and County agreements that will keep affordable for-sale and rental housing stock in perpetuity or for long term.	1-PS		X					
Housing	11	Amend the following actions in any housing-related codes and administrative rules to: a. Give highest priority to the construction of actual units and a lower priority to the provision of land over the current alternative of in-lieu fee payment. b. Require recordation of a covenant to ensure that the required affordable units in a project remain affordable for perpetuity. c. Require that affordable houses be developed and available concurrently with market units. d. Encourage the development of affordable "for-sale" and rental housing through incentives. e. Include a rent stabilization program to ensure that subsidized rental housing remains affordable. f. delete g. Ensure housing units are affordable to the next qualified buyer and each owner receives a shared appreciation.	2		X					
Housing	12	Support/help in the creation of Community Development Corporations to facilitate the development of affordable housing.	3-QL			X	X			

Element	#	Action	Priority	Upon Plan Adoption	2010-2015	2016-2021	2022-2030	Agency	Cost	Source
Housing	13	<p>Create an affordable housing financing program to include the following elements:</p> <ul style="list-style-type: none"> a. Oversight board. b. Sources of funding to include, but not be limited to: <ul style="list-style-type: none"> 1. Real estate transfer tax imposed on visitor units, Transient Vacation Rentals, and residential housing that is not affordable for residents with income of up to 200% of the island median household income. 2. A real estate assessment on all commercial and residential development related to 4B.b.1. c. Subsidies and incentives to encourage solar water heaters, energy-/water efficient appliances and fixtures, etc. d. Ongoing pursuit of appropriate federal, state, county, and private grants/subsidies to facilitate affordable housing projects. 	2		X	X				
Housing	14	<p>Develop and maintain a database and related maps for public lands (Federal/State/County) within the Urban Growth Boundaries that are suitable for affordable housing units.</p> <p>Establish of a housing resource center to advance the goals/objectives/policies/actions of the MIP through education and technical assistance. Among the objectives of this center are to:</p> <ul style="list-style-type: none"> a. Disseminate information on different housing/ financial assistance programs b. Provide housing-related counseling including budget, credit, and financial planning assistance; and c. Create and maintain a comprehensive/master list of available affordable housing to help residents secure a unit that satisfies their need. 	2		X					
Housing	15	<p>3-QL/EF</p>	3-QL/EF			X				

Element	#	Action	Priority	Upon Plan Adoption	2010-2015	2016-2021	2022-2030	Agency	Cost	Source
Housing	16	Seek to acquire lands suitable for development into community land trusts.	3-QL		X					
Housing	17	Use community planning and other processes to implement higher housing densities, site planning standards, and necessary public facilities to strengthen communities.	2		X	X	X			
Housing	18	Immediately amend the Zoning/Subdivision Codes to implement the Directed Growth Strategy including the provision of mixed-use and mixed housing types; incentives for clustering and multifamily housing; and provisions for a validity period for development approvals.	1-LM		X					
Housing	19	Develop standards for what constitutes a mixed income neighborhood.	2		X	X				
Housing	20	Move to land use section								
Housing	21	Amend zoning and historic preservation ordinances/rules to support adaptive reuse opportunities.	2		X					
Housing	22	Assign the interagency team (under Objective 2, Action 1B) to coordinate with concerned infrastructure/other agencies to support the development of affordable housing.	2		X					
Housing	23	Incorporate priority standards within the Capital Improvement Projects process to give priority to affordable housing-related projects.	1-LM		X					
Housing	24	Create or assist in creating public/private partnerships to provide affordable housing to senior/disabled residents and housing support to persons returning from mental/physical health institutions, correctional institutions, and drug rehabilitation.	3-QL			X				
Housing	25	Help in securing/leveraging federal grants, Low Income Housing Tax Credits, and other resources that support affordable housing for special needs populations.	2		X	X	X			
Housing	26	Develop year-round volunteer home improvement initiatives for low-income elderly and disabled homeowners.	3-QL			X				
Housing	27	Develop and maintain a program to assess and monitor the status of homelessness on the island.	3-QL			X				

Element	#	Action	Priority	Upon Plan Adoption	2010-2015	2016-2021	2022-2030	Agency	Cost	Source
Housing	28	Partner with the private sector/nonprofit organizations to develop and maintain an adequate supply of emergency shelters and transitional housing.	1-PS		X	X	X			
Housing	29	Provide outreach services at places frequented by homeless persons.	3-QL			X	X			
Housing	30	Amend the Zoning/Subdivision Codes to streamline and facilitate the development of eldercare/assisted living facilities, as well as housing/facilities that are American with Disabilities Act-compliant. b. Encourage services providers to allow the elderly to remain in their own home.	1-LM		X					
Housing	31	Waive all review fees to modify dwelling units to accommodate the need of people with disabilities (reasonable accommodation).	3-QL			X				
Housing	32	Regularly prepare an accurate Master Application Processing List of Housing Entitlements that enables the County to effectuate its policies through the prioritization of Policy 1, as well as the use of permit expeditors (County staff).	2		X					
Housing	33	Amend County regulations to implement Policy 2 (only).	2		X					
Housing	34	Develop incentives (i.e. density bonus when feasible, etc.) to promote projects that achieve the LEED Silver or Gold certification [U.S. Green Building Council's Leadership in Energy and Environmental Design].	3-EF		X					
Housing	35	Streamline the permitting process as follows: a. Adopt new administrative rules that streamline and clarify the permitting process; b. Use outside consultants; c. Implement one-stop permitting processes; and d. Hold the departments accountable for processing timelines.	3-QL		X					

Element	#	Action	Priority	Upon Plan Adoption	2010-2015	2016-2021	2022-2030	Agency	Cost	Source
Housing	36	Revise the County Building/Construction Code (Title 16, Chapter 16.26), as well as Zoning/ Subdivision/Fire Codes to incorporate residential/ other structures standards that allow for indigenous Hawaiian architectural practices, styles, customs, techniques, and materials, in accordance with HRS 46 consistent with Community Plans.	3-QL		X					
Housing	37	Encourage the use of alternative building materials (EG. bamboo)	3-QL		X					
Econ.	1	Develop linkages and partnerships between international research and development activities and Maui businesses.	2			X				
Econ.	2	Develop regulatory, taxation, and other incentives to encourage research and development activities.	3-EF			X		DOF		
Econ.	3	Amend County regulations to streamline permits and approvals related to targeted businesses.	2		X					
Econ.	4	Develop and implement energy-saving programs/practices at the work place.	2			X	X			
Econ.	5	Regularly study market trends with the intent to attract new industries that are environmentally/culturally appropriate for Maui.	2		X	X	X	OED, MEDB		
Econ.	6	Work with organizations and individuals to develop programs that brand all locally produced services and products or devise other measures to achieve import substitution.	2			X				
Econ.	7	Create a database of imports suitable for substitution by locally produced services and products and annually report on progress made towards import substitution.	2		X					
Econ.	8	Assist community development organizations to revitalize communities and develop neighborhoods and communities that are attractive to the workforce of a diversified economy.	3-QL			X				
Econ.	9	Develop and implement innovative land use tools, public/private transportation incentives, and flexible business practices to reduce travel costs and job trips.	3			X				

Element	#	Action	Priority	Upon Plan Adoption	2010-2015	2016-2021	2022-2030	Agency	Cost	Source
Econ.	11	Conduct and regularly update an impact assessment (social, economic, and environmental) of the costs and benefits of all types of visitor accommodation units such as mega-resort, alternative visitor accommodations, locally-owned accommodations, and time shares.	3-QL			X				
Econ.	12	Develop and monitor programs to increase the involvement of visitors participating in local cultural, artistic, sports, recreation, health/wellness activities, or local businesses.	2		X	X	X			
Econ.	13	Develop a yearly performance report to the Council Budget committee which describes the returns resulting from expenditures of public funds for the visitor industry.	2		X	X	X			
Econ.	15	Map the boundaries of the island's resort destination areas.	2	X						
Econ.	16	Develop a comprehensive set of resource management standards and certification programs for ecotourism.	2			X				
Econ.	17	Develop programs and/or regulations to: <ul style="list-style-type: none"> a. Require cumulative impact assessments for development projects involving visitor or resort housing; b. Allow for the development of small, locally-owned inns, and B&Bs in the commercial cores of Maui's country towns and business districts if and as defined in the community plans; c. Cap the number and type of visitor accommodations which can be permitted; d. Develop a comprehensive tracking system for all visitor accommodations on the island to improve decision-making; and e. Institute an affordable housing requirement for hotel/visitor accommodations through the submittal of development plans and in accordance with the Workforce Housing ordinance. f. Allow Bed and Breakfast establishments that do not interfere with surrounding neighborhoods and managed through the permitting process with appropriate standards and criteria consistent with community input and desires through community plans 	2		X					

Element	#	Action	Priority	Upon Plan Adoption	2010-2015	2016-2021	2022-2030	Agency	Cost	Source
Econ.	18	Develop design guidelines for small, locally-owned inns, retreat centers, and like-kind accommodations.	2			X				
Econ.	19	Establish benchmarks to monitor progress towards achieving island-wide food self-sufficiency.	2		X					
Econ.	20	Revise the zoning ordinance to allow the direct marketing of the island's agricultural products through farmers markets, "pick-your-own" farms, farm stands, and other similar forms of retail in the agricultural and rural districts.	1-IR		X					
Econ.	21	Collaborate with businesses and organizations to develop programs for the marketing and sale of locally grown products to island residents and visitors.	1-IR		X					
Econ.	22	Utilize farm land trust mechanisms to preserve agricultural lands and family farms.	1-1R		X					
Econ.	23	Amend development regulations to encourage and allow dedicated community gardens in residential areas.	2		X					
Econ.	24	Work with the State to regulate and monitor GMO crops to ensure the safety of all crops and label all GMO products.	1-PS		X					
Econ.	25	Review Chapter 19.30A Agricultural District, Maui County Code, to determine impacts upon agricultural lands and economic developments.	2		X					
Econ.	26	Work with the State to reduce excise taxes for commercial agricultural products produced within the State of Hawaii.	2			X				
Econ.	27	Coordinate with appropriate State and Federal Departments and agencies, private shipping companies, and farmers associations to ensure rapid and cost-effective export of Maui's agricultural products to off-island markets.	2		X	X	X			
Econ.	28	Conduct a study to determine the direct and indirect benefits of agriculture on the Maui community to facilitate informed decision-making.	3-EF			X				
Econ.	30	Collaborate with the agricultural industry, higher education, and the public/ private/ non-profit sectors to implement the Maui Agricultural Development Plan (August 2008), when consistent with the Maui Island Plan.	2		X	X	X			

Element	#	Action	Priority	Upon Plan Adoption	2010-2015	2016-2021	2022-2030	Agency	Cost	Source
Econ.	31	Acquire and develop land and water for public agricultural parks to provide farmers with affordable land and water to grow crops.	2		X	X				
Econ.	32	Conduct a study to evaluate the impacts of agricultural tourism to determine whether Maui should support this activity.	3-EF			X				
Econ.	33	Develop a program to expand the seed crop industry.	2			X				
Econ.	34	Work with educational institutions and appropriate agencies to provide education and training for farm owners and entrepreneurs.	3-EF		X	X	X			
Econ.	35	Coordinate with State agencies, non-profits, and private businesses to develop plans, programs, and incentives to support the development of high technology clusters around renewable energy, diversified agriculture, ocean sciences, health sciences, and other knowledge-based industries.	2			X				
Econ.	36	Develop programs to promote Maui's high technology and renewable energy expertise to local and global customers.	2			X				
Econ.	37	Develop incentive packages for the film, media, and creative industries that would allow a greater number of productions and local equipment providers to be more competitive.	2			X				
Econ.	38	Develop streamlined permitting procedures for emerging industries.								
Econ.	39	Prepare a list of potentially beneficial industries that Maui should recruit.	2			X				
Econ.	40	Prepare renewable energy opportunities/constraints analysis.	1-IR		X					
Econ.	41	Develop and implement a renewable energy and energy efficiency program for government facilities.	1-IR		X					
Econ.	42	Publicize renewable energy production opportunities to potential investors and educate consumers on conservation savings and avoided costs.	2		X					
Econ.	43	Identify appropriate locations for the development of renewable energy facilities.	2		X					
Econ.	44	Support the implementation of a wheeling tariff for governmental agencies.	2			X				

Element	#	Action	Priority	Upon Plan Adoption	2010-2015	2016-2021	2022-2030	Agency	Cost	Source
Econ.	45	Coordinate with State agencies, non-profits, and private businesses to develop plans, programs, and incentives to: a. Attract/strengthen/retain high technology and renewable energy businesses; and b. Assist businesses and homeowners to obtain/install/use solar, wind, and other forms of renewable energy facilities.	2			X				
Econ.	46	Work with the PUC and the utilities to allow net energy metering that would allow negative electric bills.	2		X					
Econ.	48	Develop and market an online directory of local small businesses and their products/services.	2		X	X				
Econ.	49	Expand small business grants and microlending opportunities.	3-EF			X				
Econ.	50	Provide business assistance programs, loans, and grants to "mom and pop" establishments to enhance their viability.	3-EF			X				
Econ.	51	Review and revise regulations and procedures to improve Maui's small business climate.	1-IR		X					
Econ.	52	Develop a program and revise procedures to facilitate government procurement of goods and services from local businesses.	1-IR		X					
Econ.	53	Develop and enhance programs that help locally-operated small businesses to market and provide goods and services to the visitor industry.	3-EF			X	X			
Econ.	54	Develop incentives for small businesses that incorporate sustainable technologies and practices into their operations.	3-EF			X	X			
Econ.	55	Educate government regulators about the challenges of operating a small business.	2		X					
Econ.	56	Work with Maui Memorial Medical Center to expand cardiac care services to include open heart surgery and service provision networking with Lanai, Molokai, and the Big Island.	1-PS		X					
Econ.	57	Develop low income tax credits for low income elders and other high risk/disadvantaged patients who need residential and institutional health care.	3-QL		X	X				
Econ.	58	Develop emergency back up systems for medical facilities.	1-PS		X					

Element	#	Action	Priority	Upon Plan Adoption	2010-2015	2016-2021	2022-2030	Agency	Cost	Source
Econ.	60	Develop the alternative health practices industry and support local entrepreneurs that offer related services.	3-QL			X				
Econ.	61	Expand the range of existing home-based health care providers and develop programs to improve access to quality home care.	3-QL		X					
Econ.	62	Adopt "Aging in Place" and "Home Health-Care" Building Code revisions for alternative care settings.	2		X					
Econ.	64	Obtain a list of native Hawaiian groups/ associations from OHA, and others, and regularly update the list.	2		X					
Econ.	65	Develop and implement curriculum on native Hawaiian history, culture and practices in consultation with native Hawaiian groups and associations.	2		X					
Econ.	66	Work with educational institutions to improve and expand access to education and training through multiple modes including distance learning.	2		X					
Econ.	67	Prepare a labor force capacity study to project the future supply and demand for knowledge-based workers to serve Maui's technology-related needs.	3-EF			X				
Econ.	68	Develop a Maui County database of health care workers; map shortages; project future needs; and develop a plan to address present and future needs.	2		X	X				
Econ.	69	Work with Maui Community College, trade unions, and other entities to develop curriculum and certification programs relating to design, installation, and operation/maintenance of renewable energy systems and energy efficient programs.	1-IR		X					
Econ.	70	Work with appropriate institution and trade unions to develop and implement a certification program on current or emerging building code and land use regulations.	2	X						
Econ.	71	Establish a comprehensive program to provide in-service training for the existing Maui labor force.	2			X				
Econ.	72	Encourage MCC to develop a four-year program.	2		X					

Element	#	Action	Priority	Upon Plan Adoption	2010-2015	2016-2021	2022-2030	Agency	Cost	Source
Econ.	73	Work with Maui Economic Development Board (MEDB), Maui Community College, and other similar organizations to expand internship/education programs to support S.T.E.M. (Science, Technology, Engineering, and Math) careers.	2		X					
Econ.	74	Continue to partner with the Maui Economic Development Board (MEDB) and other similar organizations, to recruit, assist, and retain emerging industries, research and development activities, and educational opportunities.	2		X	X	X			
Econ.	75	Implement the "Ag in the classroom" recommendations in the Agricultural Development Plan.	2			X				
Econ.	76	Develop Radiology technologist and Dental Technician programs at Maui Community College.	1-PS		X					
Econ.	77	Develop collaboration with University of Hawaii at Hilo Pharmacy Service program.	2			X				
Hazards	1	Consolidate and update the GIS hazards data bank in the Maui County Emergency Operations Center	1-PS		X					
Hazards	2	Apply appropriate/latest GIS applications in hazard, risk, and vulnerability assessments to determine adequate mitigation measures.	1-PS		X					
Hazards	3	Establish a standing County Hazard Mitigation Committee, comprised of representatives from all levels of government and the private sector.	1-PS		X					
Hazards	4	Develop an Emergency Management Center in Central Maui to serve the island.	3-EF			X				
Hazards	5	Implement the policies and actions from the current, and future updated Maui County Hazard Mitigation Plan, so far as they are consistent with Maui Island Plan goals, objectives, policies, and actions.	1-PS		X					
Hazards	6	Develop a Post-Disaster Recovery and Reconstruction plan that will improve Maui's resilience to coastal hazards.	1-PS		X					

Element	#	Action	Priority	Upon Plan Adoption	2010-2015	2016-2021	2022-2030	Agency	Cost	Source
Hazards	7	Develop plans and/or incentives to do the following: a. Encourage rebuilding inland as an alternative to shoreline hardening; b. Streamline the reconstruction of structures that are moved substantially inland; c. Encourage the relocation of existing structures so they are away from shoreline areas; and d. Relocate vulnerable coastal roads that are susceptible to destruction from natural hazards, such as a portion of North Kihei Road and the Pali to Puamana realignment	1-PS		X					
Hazards	8	Prepare and periodically update the shoreline rules for the Maui Planning Commission to provide safe setbacks from the shorelines and incorporate shoreline management techniques.	1-PS		X	X	X			
Hazards	9	Continue to use and update the Federal Emergency Management Agency-Digital Flood Insurance Rate Maps in the permitting process to minimize development in flood-prone areas.	1-PS		X	X	X			
Hazards	10	Following each coastal erosion disaster, identify and document the new shoreline position to be considered in future reconstruction.	1-PS		X	X	X			
Hazards	11	Update coastal planning requirements to factor in incremental effects of rising sea levels.	1-PS		X	X	X			
Hazards	12	Develop an island-wide evacuation routes plan.	1-PS		X					
Hazards	13	Identify and develop required shelter capacity through new development and retrofit of existing structures.	1-PS			X				
Hazards	14	Coordinate a multi-agency effort to establish and promote a comprehensive public education program that will focus on practical approaches to preparedness, damage prevention, and hazard mitigation.	1-PS		X	X	X			
Hazards	15	Develop regularly-scheduled mitigation training for public and private emergency responders and establish volunteer groups to elevate public awareness of emergency procedures.	1-PS		X	X	X			

Element	#	Action	Priority	Upon Plan Adoption	2010-2015	2016-2021	2022-2030	Agency	Cost	Source
Infra.	1	Implement the ISWMP through programs/ improvements/upgrades of solid waste management system and the Capital Improvement Project (CIP) budget in a timely manner.	1-LM		X					
Infra.	2	Regularly update waste generation, reuse, recycling, and disposal data for monitoring and implementation purposes.	1-LM			X	X			
Infra.	3	Implement a "zero waste" policy for the County government.	3-QL			X				
Infra.	4	Educate the public about the importance and cost savings of solid waste reduction.	2	X						
Infra.	5	Require residents and commercial enterprises that generate waste to pay a fair proportion of disposal costs.	2		X					
Infra.	6	Implement operation and capital improvements (beyond the ISWMP scope) as identified in current and future plans and the County CIP.	1-LM / 3-EF			X	X			
Infra.	7	Implement a comprehensive, color-coded curbside recycling program.	1-IR		X					
Infra.	8	Develop regulations, programs, and/or incentives to: <ul style="list-style-type: none"> a. Increase recycling of used appliances/ furniture/electrical/components/clothing other household items and recyclable materials; b. Increase the number of composting centers; c. Reduce solid wastes generated by packaging, food service products, home construction waste, etc; d. Create/support partnerships to construct materials recovery facilities (MRFs) including a facility in Central Maui, in accordance with the ISWP, and investigate a cost-recovery fee to meet funding needs; and e. Discourage the use of non-degradable materials, e.g. Styrofoam. 	1-IR / 1-LM		X					
Infra.	9	Develop public outreach/education/incentive programs to increase awareness to reduce, reuse, and recycle.	2		X					
Infra.	10	Develop a waste-to-energy program	3-EF			X				

Element	#	Action	Priority	Upon Plan Adoption	2010-2015	2016-2021	2022-2030	Agency	Cost	Source
Infra.	11	Implement the functional plan through programs/improvements/upgrades of system components and the Capital Improvement Program (CIP) budget.	1-LM		X	X				
Infra.	12	Prepare a site selection study, financing program, and operational/ phasing plan for the development of a new Central Maui wastewater treatment facility.	1-PS			X				
Infra.	13	Delete - Covered in Action #2								
Infra.	14	Continue to implement operational improvements as identified in current and future plans and the County CIP.	1-LM		X	X	X			
Infra.	15	Implement the following to ensure effective/safe multi-user wastewater treatment systems: a. Amend County regulations/plans to ensure adequate operating procedures, treatment standards, and monitoring programs; b. Establish treatment and capacity requirements suitable for the required level of service/use; and c. Require financial assurance including bonds, if private, to provide for the following: 1. Repair, removal, or replacement of any system components reaching the end of intended service life. 2. Enforcement of other needed corrective action(s) or guaranteeing uninterrupted operation in case of bankruptcy, abandonment, or any other default on financial obligation.	1 - PS/LM		X	X				
Infra.	16	Expand sewer system inspection program(s) to achieve timely preventive maintenance, identify/replace defective/deteriorated pipes, and determine funding needs for system upkeep.	1-PS			X				
Infra.	17	Conduct and implement technical studies to identify appropriate level of service and potential funding mechanisms to augment the funding available for ongoing upgrade/maintenance of the wastewater system.	2			X				

Element	#	Action	Priority	Upon Plan Adoption	2010-2015	2016-2021	2022-2030	Agency	Cost	Source
Infra.	18	Identify potential new users of treated effluent and implement the necessary improvements to supply this water through the County CIP.	1			X	X			
Infra.	19	Amend County regulations to allow for the use of grey water for approved purposes.	1			X				
Infra.	20	Develop public/private partnerships to create education, marketing, and incentive programs that promote the reuse/recycling of wastewater.	2			X				
Infra.	21	General Infrastructure Policy: Require a regular reporting mechanism for the status of private infrastructure and financial assurance to ensure enforcement of needed corrective action(s) or uninterrupted operation in case of bankruptcy, abandonment, or any other default on financial obligation.	2		X					
Infra.	22	Expand the reuse of wastewater from the Central Maui, Kihei, Lahaina, and other wastewater systems in accordance with the County's wastewater reuse plans/ policies and the Water Use & Development Plan.	1-IR			X	X			
Infra.	23	Implement the Water Use and Development Plan.	1-LM		X	X				
Infra.	24	Develop site selection studies for water storage/supply facilities for each community plan area.	1-IR		X					
Infra.	25	Prepare and implement a plan to identify and prioritize infrastructure requirements needed to accommodate non-potable water for irrigation.	1-IR		X	X				
Infra.	26	Work with the State to set standards for the amount of water withdrawn from aquifers and other groundwater sources to ensure the long-term health and sustainability of the resource.	2		X	X				
Infra.	27	Produce an annual evaluation of the state of available water resources on the island.	2		X	X	X			
Infra.	28	The County shall develop new water sources for the benefit of all of the people of Maui County.	3-QL			X	X			
Infra.	29	Develop and adopt water system design standards to determine adequacy of water supply.	2			X				

Element	#	Action	Priority	Upon Plan Adoption	2010-2015	2016-2021	2022-2030	Agency	Cost	Source
Infra.	30	Develop programs to increase the efficiency of all water system elements.	3			X	X			
Infra.	31	Prepare a study comparing the sustainable yields of the East Maui streams and aquifers to the potential needs for these waters.	1-IR		X					
Infra.	32	Develop required infrastructure to utilize reclaimed wastewater.	1-IR			X	X			
Infra.	33	Develop, adopt, and implement a water source development siting standards that implements the MIP Directed Growth Strategies and WUDP.	1-IR/PS		X					
Infra.	34	Revise the County regulations to require high efficiency/ low flow plumbing fixtures in new construction.	1-IR		X					
Infra.	35	Identify and develop viable, renewable, energy generation options to serve DWS needs.	1-IR		X					
Infra.	36	Develop a water rate structure that encourages conservation and discourages the excessive use of water.	1-IR		X					
Infra.	37	Amend the landscaping regulations to promote water conservation.	1-IR		X					
Infra.	38	Expand educational programs to promote water conservation, watershed stewardship, and groundwater protection.	2		X					
Infra.	39	Implement DWS well head protection program to protect the water quality of public and private wells.	1-LM/PS		X	X	X			
Infra.	40	Improve the monitoring of public and private water quality/quantity and report results to consumers; report water that falls below standards immediately.	1-PS		X	X	X			
Infra.	41	Work with the State to develop, adopt, and regularly update a comprehensive island-wide multi-modal transportation plan.	1-LM		X					
Infra.	42	Develop and implement in a timely manner appropriate transportation system management (e.g. synchronization of traffic signals) and transportation demand management programs (e.g. park & ride facilities/ carpooling/vanpooling) in accordance with the Comprehensive Long Range Multi-modal Plan.	3-EF		X					

Element	#	Action	Priority	Upon Plan Adoption	2010-2015	2016-2021	2022-2030	Agency	Cost	Source
Infra.	43	Amend zoning and other regulations and provide incentives to implement TOD.	2		X					
Infra.	44	Revise the Subdivision Ordinance to require developers, where appropriate, to integrate sidewalks, pathways, bikeways, and transit infrastructure into new commercial and residential projects, while enhancing community character.	2		X					
Infra.	45	Develop and adopt level-of-service/design standards for roadway, bicycles, and pedestrian systems.	1-PS		X					
Infra.	46	Develop a capital improvement plan and implement applicable transportation improvements (Policy 2) in accordance with the MIP and the comprehensive island-wide multi-modal transportation plan.	2		X	X	X			
Infra.	47	Implement the Upcountry Greenway Master Plan (2004), and other approved greenway plans, consistent with the MIP and the County/State transportation plans.	3-QL		X	X				
Infra.	48	Require new developments to provide the following: a. Dedication of rights-of way in accordance with the Maui Long Range Land Transportation Plan or its subsequent updates (comprehensive island-wide multi-modal transportation plan); and b. Transportation improvements needed for each phase of development at the time prior to or when the development is operational.	2		X					
Infra.	49	Study the feasibility of HOV-lanes approach within major arterials and implement it as feasible.	3-EF				X			
Infra.	50	Regularly optimize traffic signal timing and coordination to reduce travel time and delay.	2		X	X	X			
Infra.	51	Establish additional park-n-ride facilities in key locations.	2		X	X				
Infra.	52	Implement the pedestrian and bikeway plans (current and future) including a network of bikeways that is safe, accessible, continuous, and serve bicyclists' needs.	3-QL			X	X			
Infra.	53	Rapidly proceed to repair / rebuild bridges that are in danger of failing consistent with community desires.	1-PS		X	X	X			

Element	#	Action	Priority	Upon Plan Adoption	2010-2015	2016-2021	2022-2030	Agency	Cost	Source
Infra.	54	Adopt and amend County regulations to incorporate design standards for roadways (including scenic designation), transit, and pedestrian facilities that ensure protection/enhancement of the natural/man-made environment (sense of place) consistent with community plans.	1 - PS/IR		X					
Infra.	55	Develop, adopt, and regularly update the mapping of Scenic Corridor Protection standards that implement the recommendations of the Scenic Roadway Corridors Management Plan and Design Guidelines (Refer to Cultural and Scenic Resources Map).	1-IR	X						
Infra.	56	Develop, adopt, and regularly update a system-wide Transit Functional Plan as a component of the Comprehensive island-wide multi-modal transportation plan.	2		X	X	X			
Infra.	57	Develop and adopt transit level-of-service and design standards.	1-LM		X					
Infra.	58	Amend the County Subdivision and development regulations to require, where appropriate, transit-supportive roadway infrastructure.	2		X					
Infra.	59	Delete - Large developments that warrant transit demand would likely be served by transit.								
Infra.	60	Work with the public and private sector to provide shuttle services connecting to public transit.	3-QL			X				
Infra.	61	Provide for bus-stop amenities system-wide.	1-PS		X	X	X			
Infra.	62	Conduct a study to achieve the following: a. Prioritization of transit corridors and stations; b. An implementation program to secure sites and ROWs for necessary facilities; and c. Alternative funding approaches including public/ private partnerships.	1-IR		X					
Infra.	63	Regularly conduct transit system needs- assessment surveys to ensure community satisfaction.	3-QL		X	X	X			
Infra.	64	Work with private and public entities to relocate some of the rental car facilities from the airport to multi-story parking structures in West and South Maui.	3-QL		X					

Element	#	Action	Priority	Upon Plan Adoption	2010-2015	2016-2021	2022-2030	Agency	Cost	Source
Infra.	65	Designate, map, and develop corridors to support mass transit solutions.	3-QL		X	X	X			
Infra.	66	Conduct and implement technical studies to identify potential funding for ongoing maintenance/upgrade of transportation systems (transportation impact fees, community facilities districts, etc.).	2		X					
Infra.	67	Delete - pertinent sections moved to Action #1	2		X					
Infra.	68	Coordinate with Maui's resorts (hotels, vacation rentals, timeshares, condos, etc.) to establish a program that augments funding for public transit operational expenses.	3-QL				X			
Infra.	69	Implement the functional plan and master plans (Policies 1, 2 and 3) in a timely manner through programs/improvements/ upgrades of system components and the Capital Improvement Program (CIP)-Implementation Schedule.	1-LM			X	X			
Infra.	70	Support Haleakala National Park efforts to add lands, where appropriate, in consultation with the community and locally managed (such as the Ka Pahu Farms).	1-IR		X	X				
Infra.	71	Identify government right-of-ways to determine if they can be incorporated into the island-wide parks and recreation functional plan.	3-QL		X					
Infra.	72	Institute regularly-held, inter-agency coordination meetings to facilitate the implementation of the functional plan.	2	X						
Infra.	73	Develop and adopt level-of-service and design standards for parks/recreation facilities.	2		X					
Infra.	74	Identify and acquire appropriate park sites in a timely manner and in accordance with the parks and recreation functional plan.	3-QL		X	X	X			

Element	#	Action	Priority	Upon Plan Adoption	2010-2015	2016-2021	2022-2030	Agency	Cost	Source
Infra.	75	Work with stakeholders to implement parks/recreation plans, consistent with the MIP, including but not limited to: North Shore Bikeway Master Plan; Upcountry Greenway Master Plan; South Maui Community Park and Open Space Master Plan; Pali-to-Puamana Master Plan; Shoreline Access and Inventory Update-Final Report; South Maui Heritage Corridor; and North Shore Corridor Report (Parks Director).	1-IR \ 3-QL		X					
Infra.	76	Develop regional park complexes.	3-QL				X			
Infra.	77	Incorporate the proposed regional parks, greenways/ beltways, and other open space areas included in the MIP into the parks/recreation functional plan. [To contain sprawl and provide separation between distinct communities]	1-LM	X						
Infra.	78	Amend the County Zoning and Subdivision Regulations to require development to achieve the following: a. incorporate a mixture of park facilities into large master planned communities pursuant to parks/recreation standards and functional plan; and b. incorporate functional mini-parks and accessory facilities into the project layout, and/or make improvements to neighboring public parks in addition to impact fees and in conformance with the parks and recreation functional plan.	2		X					
Infra.	79	Conduct and implement technical studies to identify potential funding approaches/mechanisms to increase the funding for ongoing maintenance/upgrade of parks/ recreation system.	2		X					
Infra.	80	Establish and manage historical/cultural parks.	1-IR		X	X	X			
Infra.	81	Establish community-based advisory boards to prioritize and recommend the acquisition of parks and recreation lands and facilities.	2		X					
Infra.	82	Work with the State to fund necessary improvements for and coordinate joint- use of facilities and grounds.	2		X	X	X			

Element	#	Action	Priority	Upon Plan Adoption	2010-2015	2016-2021	2022-2030	Agency	Cost	Source
Infra.	83	Implement Policy 1 through the coordinated development of parks/recreation functional plan and the Comprehensive Island-wide Multi-modal Transportation Plan.	3-QL		X	X	X			
Infra.	84	Implement the Shoreline Access Inventory Update - Final Report as consistent with the MIP.	1-IR		X					
Infra.	85	Implement necessary transit improvements/facilities to provide convenient access to parks/recreation facilities.	3-QL				X			
Infra.	86	Develop an educational program for private land owners and the general public to ensure proper stewardship of the islands' trail and access systems.	2		X					
Infra.	87	Establish public/nonprofits/private partnership for the development and maintenance of non-commercial campgrounds throughout the Island.	2				X			
Infra.	88	Require commercial bike rental businesses to pay a per-rider fee for a County mauka/makai Haleakala bikeway improvement program to include turnoffs, separate lanes, and comfort stations.	3-QL			X				
Infra.	89	Develop, adopt, regularly update, and implement the public facilities functional plan including the adoption of level-of-service standards, a prioritization of improvements, and facilities upgrade schedule (Policies 1, 2, and 3) in a timely manner.	1-LM		X	X	X			
Infra.	90	Implement key recommendations from the Wailuku Municipal Service Center Master Plan Report (February 2004) and the Wailuku Municipal Parking Lot Master Plan (January 2004), as consistent with the MIP.	2 / 3-EF			X	X			
Infra.	91	Work with the Board of Education Hawaii State Library System to provide centralized library services (including telecommunications) to all areas of Maui.	3-QL				X			
Infra.	92	Amend the Zoning and Subdivision Regulations to require development within the vicinity of schools, libraries, community centers, and other public facilities to provide bike/ pedestrian-friendly infrastructure and traffic calming features.	2		X					

Element	#	Action	Priority	Upon Plan Adoption	2010-2015	2016-2021	2022-2030	Agency	Cost	Source
Infra.	93	Conduct and implement technical studies to identify potential funding approaches/mechanisms to implement the public facilities functional plan.	3-EF		X					
Infra.	94	Develop, adopt, and implement a schedule of impact fees, or other similar financing mechanisms to be assessed on developments for the construction of public facilities.	2		X					
Infra.	95	Create private-public partnerships to implement necessary public facilities.	2		X					
Infra.	96	Institute regularly-held, inter-agency coordination meetings to facilitate the implementation of the functional plan.	2	X						
Infra.	97	Work with organizations (such as the Maui Historical Society, Hawaii Business Research Library, etc.) to establish an archive center to preserve both digital and hardcopy documents important to Maui's planning process.	1-IR							
Infra.	98	Work with the State to develop, fund, and implement an island-wide school facility functional plan with short, medium, and long-term planning horizons.	2	X		X	X			
Infra.	99	Work with the State to expedite planning and construction of recently selected Kihei High School site.	2		X					
Infra.	100	Work with the state to connect and integrate the Kihei High School and other Maui schools with the Maui R&T park and the surrounding community.	3-EF		X					
Infra.	101	Work with the State to identify an Intermediate School sites in Central Maui and other areas where needed.	2		X	X				
Infra.	102	Identify additional lands for the expansion of Maui Community College.	2		X					
Infra.	103	Work with the State to develop a master plan for the expansion of Maui Community College in accordance with the Maui Island Plan.	2			X				
Infra.	104	Implement and expand distance learning, and interactive teleconference learning system, especially at remote communities.	2		X					

Element	#	Action	Priority	Upon Plan Adoption	2010-2015	2016-2021	2022-2030	Agency	Cost	Source
Infra.	105	Conduct an inventory to determine safety obstacles along school access routes.	1-PS		X	X	X			
Infra.	106	Implement with the State the Safe Routes to School (SR2S) initiative.	1-PS		X	X	X			
Infra.	107	Work with the State to reevaluate the policy which requires students who live within one mile of a school to not be able to utilize the school bus because this may require them to cross highways.	3-QL		X					
Infra.	108	Work with the State to effectively plan the relationship between the location of school facilities and future bikeways, pedestrian paths, and greenways.	3-EF/QL		X					
Infra.	109	Work with Federal and State legislators to secure legislation and funding to meet Maui's health care needs.	2		X	X	X			
Infra.	110	Partner with the State in the establishment of an emergency helicopter transport network	1-PS		X					
Infra.	111	Partner in the efforts to develop a comprehensive plan to meet projected bed needs.	2		X	X	X			
Infra.	112	Support digitalization of all diagnostic equipment at all facilities to enable sharing of data and more efficient use of limited provider workforce.	1-PS		X					
Infra.	113	Partner in the efforts to establish a tele-medicine/digital network within Maui County, Hawaii County, and Honolulu County to enable tertiary and sub-specialist interactive consultation services.	2			X				
Infra.	114	Provide housing, especially in underserved areas, that will make it easier to recruit and retain needed medical personnel.	3-EF		X	X	X			
Infra.	115	Work with the State to secure the construction of long-term care facilities.	2			X				
Infra.	116	Monitor current and future long-term care bed needs and ensure that such needs are met consistent with the Maui Bed Needs Study.	3-QL		X	X	X			
Infra.	117	Work with the State to expand and modernize Kula Hospital.	3-EF			X				

Element	#	Action	Priority	Upon Plan Adoption	2010-2015	2016-2021	2022-2030	Agency	Cost	Source
Infra.	118	Work with the Community College to establish geriatric training programs.	1-PS		X					
Infra.	119	Fund community-based services that support the home-care efforts.	3-QL		X	X	X			
Infra.	120	Develop and conduct "Aging-in-Place" education program for both home builders and homeowners.	2		X					
Infra.	121	Work with the State to replicate the Hana Aging-in-Place Retrofit Project.	2		X					
Infra.	122	Provide incentives to support efforts to construct "home-like" facilities for the long-term care of Medicaid insureds.	3-EF			X	X			
Infra.	123	Expand the responsibilities of the County's Office of Aging to include providing support for the following community-based services: a. Expand island-wide and fund the Hana "Aging-in-Place Retrofit Project" as a "fall-prevention" model. b. Continue to fund the vital assisted transportation service provided by MEO. This transportation is a vital link for home-bound seniors/disabled who need to get to day-care, day health, doctor appointments, etc. c. For Home-Delivered Meals, expand this program to Hana and other underserved communities under the direct control of the communities. Allow needed community-based support facilities to be co-located in residential areas to provide accessible community care for frail seniors/disabled.	1-PS 3-QL		X	X	X			
Infra.	124	Expand programs which utilize able seniors to voluntarily assist seniors and disabled who are home-bound.	3-QL		X	X				
Infra.	125	Support the establishment of an appropriate senior center, adult day care center, and senior housing facilities.	3-QL			X	X			
Infra.	126	Expand immunization programs that target young children and seniors.	1-PS		X					
Infra.	127	Develop pro-active county-wide substance abuse education and management/support protocols.	1-PS		X					

Element	#	Action	Priority	Upon Plan Adoption	2010-2015	2016-2021	2022-2030	Agency	Cost	Source
Infra.	128	Work with the State to develop inpatient substance abuse beds/facilities and programs.	3-QL			X				
Infra.	129	Offer culturally-sensitive education programs county-wide to address obesity; nutrition; lifestyle (exercise, stress management, recreation, family centered responsibilities); smoking cessation; mental health; dental health; substance abuse; teen pregnancy; diabetes; heart disease; and chronic kidney disease.	1-PS		X					
Infra.	130	Support programs that provide family planning assistance and limit unwanted pregnancies.	2		X					
Infra.	131	To help control cost, encourage all residents to assume personnel responsibility for their own health while assisting those who cannot help themselves.	2		X					
Infra.	132	Help Maui's children, adolescents, and young adults to develop healthy lifestyle and habits.	3-QL		X	X	X			
Infra.	133	1. Require the Maui County energy office to achieve the following: a. Audit all County facilities, operations, and equipment to establish energy baseline use; b. Develop programs and projects to achieve greater energy efficiency and reduction in fossil fuel use; c. Develop/maintain data and reports on County, government, business, and resident energy uses; d. Issue annual report on the phasing-out of inefficient fossil-fueled vehicles; and 2. Assist homeowners and businesses in reducing fossil fuel consumption.	1-IR		X					
Infra.	134	Encourage the Maui County energy office to reduce the County government's fuel consumption consistent with the Objective.	3-EF			X				
Infra.	135	Phase out inefficient fossil-fueled County vehicles; provide annual status report.	2		X	X				
Infra.	136	Utilize audit reports to help set energy reduction targets.	2							

Element	#	Action	Priority	Upon Plan Adoption	2010-2015	2016-2021	2022-2030	Agency	Cost	Source
Infra.	137	Establish County Energy Task Force to: a. Develop, recommend, and oversee a renewable Maui energy policy; b. Prioritize renewable initiatives and projects to County Council, Mayor, and the public for funding and implementation; c. Work with utility and public to develop Maui energy program; d. Evaluate programs status and report results periodically to Council, Mayor, and the public; and e. recommend the best available, renewable energy resources.	1-IR		X					
Infra.	138	Install/maintain back-up power systems for critical public health and safety purposes.	1-PS			X				
Infra.	139	The County Energy Office will monitor and report amounts of electricity generated from renewable energy sources for Maui and achieved savings in County government operations.	2		X					
Infra.	140	Install renewable energy production systems for County facilities.	3-EF			X				
Infra.	141	Evaluate and implement the transformation of Maui's power grid by integrating renewable energy from multiple sources.	1-IR			X				
Infra.	142	Evaluate the effectiveness of County review and permitting processes related to renewable energy facilities.	3-EF			X				
Infra.	143	Develop multiple modes to inform the public about renewable energy benefits and implementation.	2		X					
Infra.	144	Provide tools to help the general public to achieve greater energy efficiency and promote the use of renewable energy.	2		X					
Infra.	145	Establish property tax incentives and/or exemptions for renewable energy production facilities.	1-IR		X					
Infra.	146	Initiate Request for Proposal (RFPs) to develop energy production facilities or technologies.	2		X					

Element	#	Action	Priority	Upon Plan Adoption	2010-2015	2016-2021	2022-2030	Agency	Cost	Source
Infra.	147	Develop partnerships and assessment studies to investigate and implement the following energy converting systems into electric power: a. Geothermal System converting earth's natural heat energy into electricity; b. Ocean current turbines converting underwater ocean kinetic energy; c. Wave generator converting wave movement kinetic energy; and d. Ocean Thermal Energy Conversion (OTEC) uses deep ocean water temperature difference to generate electricity. e. Waste-to-Energy Technologies creating energy in the form of electricity or heat from the incineration of waste source.	1-IR			X	X			
Infra.	148	Support solar water heating, photovoltaic systems and windmills and improved building design.	1-IR		X					
Infra.	149	Partner, where appropriate, in providing funding for developing and installing renewable energy systems.	1-IR		X					
Infra.	150	Develop outreach and marketing tools which include information about Maui's interest in energy production.	2		X					
Infra.	151	Amend County codes/procedures to facilitate the construction of energy-related facilities.	2		X					
Infra.	152	Present Investor and Enterprise Forums focused on energy technologies.	2		X					
Infra.	153	Develop plans to establish renewable energy zones at sites of resources; encourage the development of firm power, renewable systems, and economic and food producing systems.	3-EF			X				
Infra.	154	Work with the State to immediately fund/develop Kahului Harbor expansion and upgrade facilities, as well as hardening piers to efficiently handle increased volumes of cargo/bulk products transported by modern vessels.	3-EF		X	X	X			

Element	#	Action	Priority	Upon Plan Adoption	2010-2015	2016-2021	2022-2030	Agency	Cost	Source
Infra.	155	Work with the State to immediately fund/develop bulk delivery pier for increasing volumes of fuel/hazardous chemical transfers and enlarge storage capacities to reduce vulnerabilities and take maximum advantage of lower delivery costs available from modern, larger, and deeper drafting vessels/barges.	1-PS		X	X				
Infra.	156	Work with the State to acquire properties surrounding Kahului Harbor to expand and develop safe/efficient delivery and movement of increased volume of heavy-cargo, container traffic, and less-than-container load shipments.	3-EF		X	X				
Infra.	157	Actively pursue the State to immediately fund and develop Kahului West Breakwater land with facilities for passenger-vehicle (cruise and ferry) operations, while not impacting recreational uses.	3-QL			X	X			
Infra.	158	Work with the State to immediately transfer DLNR breakwater land to DOT-Harbor Division to design, fund, and develop cargo/passenger-vehicle processing, as well as recreational support facilities at Kahului Harbor's West Breakwater.	3-QL		X	X				
Infra.	159	Work with the State to construct a needed alien species inspection facility at the harbor.	1-IR		X					
Infra.	160	Conduct jointly with the State a harbors study to develop recommendations and if feasible, a funding mechanism and design plans for a second commercial harbor.	3-QL			X				
Infra.	161	Provide boat-owners with adequate pier slips, utilities, repair facilities, waste-disposal capabilities, and yacht berthing/ launch/recovery services.	3-QL				X			
Infra.	162	Develop plans and funding mechanisms to stimulate shore-side improvements to small boat harbors.	2		X					
Infra.	163	Work jointly with State, County, and private entities to regularly report progress on projects and implementing initiatives.	2		X					
Infra.	164	Work with the State to expand Kahului Airport's capabilities to safely accommodate more efficient airplanes.	3-EF			X				

Element	#	Action	Priority	Upon Plan Adoption	2010-2015	2016-2021	2022-2030	Agency	Cost	Source
Infra.	165	Work with the State and air carriers to achieve the following: i. Increase infrastructure investments and improve operating procedures that reduce Kahului Airport's operating costs and increase passenger comfort/ safety; and ii. Implement more efficient and reliable screening/inspecting of passengers, luggage, and cargo.	3-EF			X				
Infra.	166	Work with the State to study, identify, and construct airport sites and hanger for small and rotary wing aircraft.	2		X	X				
Infra.	167	Work with the State to develop plans that modernize and construct Kahului Airport facilities to accommodate mass transit, busses, shuttles, and taxis.	3-EF			X				
Infra.	168	Work with the State to install at Kahului and other Maui airports renewable power generation to exploit available (solar and wind) energy resources.	2		X					
Infra.	169	Work with the State to beautify the airport grounds and the airport's access roads.	3-QL		X	X				
Infra.	170	Encourage the State to maintain airport capacity and to encourage more responsive air services to Hana and Kapalua.	2		X	X				