

## Monitoring and Evaluation

**C**hapter 10 outlines a comprehensive strategy to monitor the attainment of the Maui Island Plan goals and objectives and the implementation of the Plan policies and actions. The implementation strategy provides the link between where we want to be in the future and how we will get there. How will we know if quality of life is improving on Maui? Some actions proposed will have perceivable impacts in the short-term, while others will take much longer to develop, fund, and implement. The Monitoring and



*Evaluation Program described in this chapter establishes a strategy to track plan implementation, evaluate the effectiveness of policies and programs, monitor the quality of life on Maui, and allow for periodic program adjustments. This strategy includes performance indicators to help implementing agencies attain planned outcomes.*

## **MONITORING AND EVALUATION**

The Plan's indicators provide the foundation for the Monitoring and Evaluation Program. Specific benchmarks will be used to measure progress in the implementation of Maui Island Plan policies and actions. Physical, environmental, cultural, and socio-economic indicators will be used to assess the overall quality of life on Maui.

The General Plan Implementation Committee (GPIC) will assist the Department of Planning with monitoring and evaluation of plan implementation and attainment of desired outcomes. The GPIC will fulfill this purpose by serving as a sounding board during the development of the Monitoring Report.

The Department of Planning will oversee the Monitoring and Evaluation Program, which will include the preparation of the Monitoring Report. The Department may modify or add indicators as needed to track the impacts of plan implementation. The Department will prepare a monitoring report annually to report on the progress of plan implementation and provide a portrait of the quality of life on Maui.



## **BENCHMARKS TO MEASURE PROGRESS**

Benchmarks will gauge implementation progress of individual Maui Island Plan programs and initiatives. Benchmarks will be developed for major proposed programs and actions such as the Transfer of Development Rights (TDR)/Purchase of Development Rights (PDR) program, updating the 1984 Cultural Resources Management Plan for Maui, and amending the County Zoning Code. Benchmarks are established targets that track the phases of implementation. Benchmarks should be clear, realistic, include a time element, and be measurable if possible. For example, benchmarks for the TDR/PDR program might include: 1) Fully implement TDR/PDR program by 2010; 2) 1,000 acres of prime agricultural resource land

## MONITORING AND EVALUATION

preserved in perpetuity by 2015; 3) 5,000 acres of prime agricultural resource land preserved in perpetuity by 2030.

The Department of Planning will coordinate with necessary County agencies and program specialists to establish appropriate benchmarks for major programs and initiatives. The Department will set the benchmarks following adoption of the Maui Island Plan; analysis of the benchmarks will be provided in the Monitoring Report. This analysis will reveal whether benchmarks are being attained, exceeded, or not being met within established timeframes. Periodic monitoring and use of benchmarks provides the opportunity to consider the need for new or revised strategies or implementation measures. Benchmarks may also be revised as necessary in response to periodic program evaluations.

### QUALITY OF LIFE INDICATORS

The Department of Planning will monitor a core set of indicators on an annual basis. Table X in Appendix X includes a core set of 36 indicators that will monitor progress toward achieving the goals and objectives of the Maui Island Plan. The criteria for choosing this core set of indicators include:

- Direct relationship to General Plan goals
- Data readily available
- Represent a range of indicators across various sectors
- Easily understood
- Indicators in common with other jurisdictions to facilitate comparison

The majority of indicators identified in this plan have been borrowed from existing plans, programs and indicator reports and are based on available and reliable data to ensure their usefulness throughout the planning horizon. The indicators are regional in nature to focus on the Island as a whole rather than individual communities. Table X in Appendix X articulates how the indicators relate to the Plan goals, and appropriate sources of data. The Department will analyze the indicators in the annual *Monitoring Report*, and they will be modified and updated them as new technologies and data sources become available. The indicators are grouped by the following three thematic areas and nine categories:

#### ***Built Environment***

- **Land Use**
- **Infrastructure and Public Facilities**
- **Transportation**

#### ***Social Environment***

- **Cultural Heritage Resources**
- **Economic Development**
- **Population**

#### ***Natural Environment***

- **Watershed Systems**
- **Marine Environment**
- **Wildlife and Natural Areas**

## MONITORING AND EVALUATION

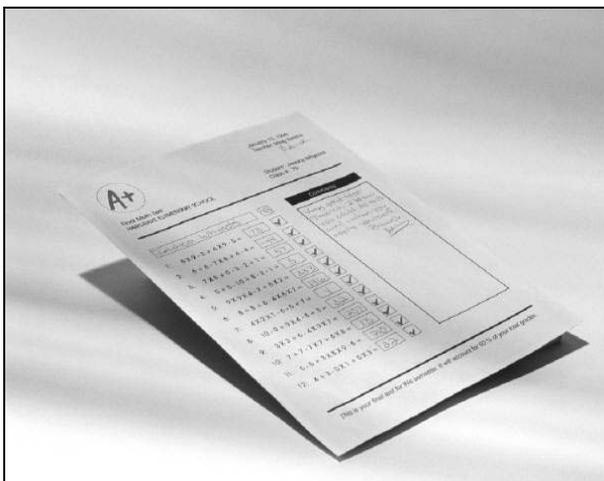
These core indicators can not only provide a snapshot of the quality of life on Maui but also track the transformation over time of key issues that the Maui Island Plan seeks to address. Tracking these key indicators will provide information about the direction and kind of changes taking place through observable phenomenon and provide a means of measuring progress towards the Maui Island Plan's goals. Core indicators can be augmented by additional data and indicators – for example: Indicator 15: Dollars Spent per day per Visitor, which attempts to track the economic value of tourism to the island can be supplemented by data on Hotel Occupancy Rates, the number of Hotel Rooms, Time Share, Vacation Rental Condos and the number of Bed and Breakfast accommodations.

### MONITORING AND EVALUATION PROGRAM MANAGEMENT

The Monitoring and Evaluation Program is a comprehensive and dynamic tool designed to track plan implementation throughout the 2030 planning horizon. Active and ongoing management of the program is essential for ensuring its usefulness and success. The GPIC will assist the Department of Planning in managing and updating the Monitoring and Evaluation Program and initiating adjustments to the program as needed. The Department of Planning will coordinate with County agencies to develop appropriate implementation benchmarks for major proposed programs and initiatives.

### MONITORING REPORT

The Department of Planning will complete an annual *Monitoring Report* which will report on the established quality of life indicators and the status of implementing Maui Island Plan programs against established benchmarks. The report will discuss the significance and findings of each indicator and will address emerging indicator trends to provide a snapshot of the quality of life on Maui. Appendix X, Table XX provides a potential example of a report page for one indicator. The *Monitoring Report* will be submitted to the Mayor and County Council prior to annual budget submission to allow for necessary budgetary adjustments to the Maui Island Plan programs and initiatives.



Every five years, the Department of Planning will complete a more elaborate, *General Plan Evaluation Report* in collaboration with other departments and agencies. The report will document the yearly changes in the core indicators, and provide analysis as to the observable trends and an assessment of the progress towards the plan's goals. In addition, the report will examine the progress made on the various benchmarks. The benchmarks will be broken out in five year intervals; benchmarks represent the desired intermediate states towards achieving the end state intended by the goals/objectives. Comparing actual achievements with established milestones will help in determining whether community desires are being attained exceeded, or not being met within the established timeframe. It is intended that the report serve as a "report card" for plan implementation and identify successes, weaknesses, and strategies for improvement.

<b>BUILT ENVIRONMENT INDICATORS</b>	
<i>LAND USE</i>	
1	Building Permits issued inside UGB vs outside UGB
2	Average Density of new developments
3	% of Infill vs greenfield development
4	Housing affordability index
<i>TRANSPORTATION</i>	
5	Vehicle Miles Travelled (VMT)
6	Commute mode shares
7	Annual Transit Ridership
8	Total Mileage of dedicated bike lanes
<i>INFRASTRUCTURE</i>	
9	Percentage of waste that is recycled
10	Parks and Open Space per 1000/population
11	% of energy consumption by source of production
12	Energy consumption per capita
<b>SOCIAL ENVIRONMENT INDICATORS</b>	
<i>ECONOMIC DEVELOPMENT</i>	
13	Cost of Living Index
14	Value of Agricultural Production
15	\$ spent per day per visitor
16	% of Fruit and Vegetables consumed that are grown on Maui
<i>POPULATION / COMMUNITY</i>	
17	Unemployment rate
18	Poverty rate
19	College bound rate
20	Prevalence of overweight and obese adults
<i>CULTURAL HERITAGE</i>	
21	Course enrollment in Hawaiian Language programs
22	Tons of Taro grown and sold
23	# of new designated heritage and cultural sites
24	Scenic Roadways – total miles
<b>NATURAL ENVIRONMENT INDICATORS</b>	
<i>WATERSHED SYSTEMS</i>	
25	% of streams on monitoring list
26	Reclaimed water use
27	Watershed health
28	Drinking water quality
<i>OCEAN / MARINE ENVIRONMENT</i>	
29	Coastal water quality
30	% of healthy coral reefs
31	# of Shoreline postings (beach closures due to pollution)
32	Amount of reef fish biomass
<i>WILDLIFE AND NATURAL AREAS</i>	
33	# of Threatened and endangered species
34	Acres of Protected and Conservation lands
35	Air Quality Index
36	Habitat Fragmentation

## Maui Island Plan Performance and Quality of Life Indicators : Goals Association and Potential Data Sources

	<b><i>Built Environment indicators</i></b>	<b><i>goal association</i></b>	<b><i>data sources</i></b>
	<b><i>LAND USE</i></b>		
1	Bldg Permits issued inside UGB vs outside UGB	Protect Agricultural Land, Make Livable Communities	County of Maui Planning Dept
2	Avg Density of new developments	Make walkable communities, increase housing affordability	County of Maui Planning Dept
3	% of Infill vs greenfield development	Create compact, efficient, human scale communities	County of Maui Planning Dept
4	Housing affordability index	Increase housing affordability	NAR methodology, UHERO, County Data Book
	<b><i>TRANSPORTATION</i></b>		
5	Vehicle Miles Travelled	reduce fossil fuel consumption	County Data Book / HI DOT (Highways Div, Planning Branch)
6	Commute mode shares	provide transportation options, reduce fossil fuel consumption	State DOT
7	Annual Transit Ridership	Provide integrated transit systems	Maui County DOT
8	Total Mileage of dedicated bike lanes	Provide a multi-modal transportation system	HI DOT bike master plan
	<b><i>INFRASTRUCTURE</i></b>		
9	Percentage of waste that is recycled	Minimize solid waste, divert solid waste to recycling	County of Maui Environmental Management
10	Parks and Open Space per 1000/population	Expand opportunities for recreation, provide public amenities at LOS standards	County of Maui Dept. of Parks
11	% of energy consumption by source	Reduce fossil fuel consumption, increase use of renewable energy	DBEDT
12	Energy consumption per capita	Sustainable development indicator, reduce fossil fuel consumption	DBEDT

## Maui Island Plan Performance and Quality of Life Indicators : Goals Association and Potential Data Sources

	<i><b>Social Environment indicators</b></i>	<i><b>goal association</b></i>	<i><b>data sources</b></i>
	<i><b>ECONOMIC DEVELOPMENT</b></i>		
13	Cost of Living Index	Quality of life indicator	County of Maui data book
14	Value of Agricultural Production	Maintain AG's share of island economy	UHERO
15	\$ spent per day per visitor	Increase financial contribution of tourism	DBEDT
16	% of Fruit and Vegetables consumed that are grown on Maui	Increase locally grown food, decrease imported food	Dept. of Agriculture - State of Hawaii / UH College of Tropical Agriculture
	<i><b>POPULATION / COMMUNITY</b></i>		
17	Unemployment rate	Quality of life indicator	of Labor Statistics
18	Poverty rate	Quality of life indicator	DBEDT
19	College bound rate	Increase post-secondary education	Kids Count Data Centre, Annie E Casey Foundation
20	Prevalence of overweight and obese adults	Quality of life indicator	CDC / NIH
	<i><b>CULTURAL HERITAGE</b></i>		
21	Enrollment in Hawaiian Language courses	Healthy + vibrant Island culture	Dept. of Education, State of Hawaii
22	Tons of Taro grown and sold	Healthy + vibrant Island culture, local traditions	County of Maui data book
23	# of new designated heritage / cultural sites	Protection of cultural resources	HI State DLNR, Preservation Div
24	Miles of Scenic Roadways + # of Scenic Vistas	Protect + enhance scenic vistas	County of Maui

## Maui Island Plan Performance and Quality of Life Indicators : Goals Association and Potential Data Sources

	<i>Natural Environment indicators</i>	<i>goal association</i>	<i>data sources</i>
	<i>WATERSHED SYSTEMS</i>		
25	% of streams on monitoring list	Enhance the functioning + vitality of streams	HI, DOH, Environmental Planning Office
26	Reclaimed water use	Decrease pollution , sustainability indicator	County of Maui Department of Water Supply
27	Watershed health	Protect + enhance native eco-systems	DLNR, Univeristy of Hawaii, Pacific Neon
28	Drinking water quality	Increase water quality, basic quality of life	County of Maui Department of Water Supply
	<i>OCEAN / MARINE ENVIRONMENT</i>		
29	Coastal water quality	Decrease pollution	HI, DOH, Clean Water Branch
30	% of healthy coral reefs	Improve reef health	Division of Aquatic Resources, Dept. of land and Natural Resources, HI
31	# of Shoreline postings (i.e. beach closures due to pollution)	Decrease pollution	HI, DOH, Clean Water Branch
32	Amount of reef fish biomass	Increase reef health, preserve biodiversity	Division of Aquatic Resources, Dept. of land and Natural Resources, HI
	<i>WILDLIFE AND NATURAL AREAS</i>		
33	# of Threatened and endangered species	Preserve biodiversity	US Fish + Wildlife Service
34	Acres of Protected and conservation lands	Protect sensitive lands	County of Maui
35	Air Quality Index	Quality of life indicator	US EPA, Air Quality Index Report
36	Habitat Fragmentation	Protect natural ecosystems	