

2.4 Goal | Mauka to makai watershed management

Why is it important?

Traditionally, Native Hawaiians divided land using the ahupua'a system that ran mauka to makai, like a watershed system. An ahupua'a is like a slice of pie, usually with a narrow beginning at the top of a mountain becoming broader toward the ocean. 'Ōiwi who lived inland and those who lived near the ocean shared resources while caring for the land. There was recognition that what happened mauka impacted areas makai. This holistic system allowed Native Hawaiians to thrive, creating a sustainable environment with healthy forests and farmland, functional wetlands and dunes, and vibrant fishponds and reefs.

Watersheds throughout South Maui have become degraded due to a decline in native forest cover in favor of intensive farming and ranching, the introduction of invasive plants and grazing animal species, and filling-in of wetlands and grading over sand dunes for development. These changes have altered watershed hydrology and increased stormwater runoff. Excess stormwater in South Maui causes flood damage and pollution that are difficult and costly to clean up. Compounding the issue, global climate change has increased extreme weather patterns and events such as heavy rain, drought, and rising sea levels. This Plan recognizes the need to manage watershed resources in a more holistic way by engaging in sustainable stewardship practices and more culturally and ecologically friendly development.

How will setting this goal affect our future?

With this goal, South Maui is committed to supporting holistic land use and watershed management from mauka to makai that reduce risks from flooding and improves South Maui's long-term resiliency.

Definitions

The following terms are used throughout the Plan, and it is important to understand their definitions and use for planning.

Green infrastructure are drainage systems that slow down or control stormwater runoff to be utilized for non-potable use (e.g. irrigation) or provide additional environmental benefits (e.g. groundwater recharge, evaporation, reduced pollution, etc.). Examples of green infrastructure include permeable pavements, bioswales, rain gardens, or other rainwater catchment systems.

Low-impact development is a subset of green infrastructure improvements that manages stormwater runoff as close to the source as possible by incorporating natural features into the urban landscape (e.g. rain gardens, porous pavement, bioswales and increased tree cover). The main difference between green infrastructure and low-impact development is the size and scale of the improvement.

Cross-cutting topics:

- Climate change and Resilience
- Cultural Resources
- Hazards
- Historic Preservation
- Infrastructure
- Land Use
- Environment
- Emergency Services
- Other Services and Facilities