

Finished with 4.12 on 2/22/2023

Name: Rob Weltman

Agenda Item: B.2. Mauka to makai watershed management

Date: February 28, 2023 via e-mail

Goal 2.4 | Mauka to makai watershed management

Action No.	Description	Type	Priority	Timing	County Lead Agency	Cost (\$1,000)	Funding Source(s)
	Runoff and Drainage						
4.01	Implement the Maui Meadows Subdivision Drainage Master Plan utilizing natural infrastructure and nature-based systems to the fullest extent possible.	CIP	Medium	On-going	DPW	TBD	County
4.02	Update and implement the Kihei Drainage Master Plan for flood prevention and to address coastal water quality protection and sensitive ecosystems management in South Maui. Update the plan with the findings presented in the Ecological Alternatives Analysis prepared by EcoSolutions LLC (2020) and the recommendations of the southwest Maui Watershed Plan. Take into account the impacts that upland development have downstream. Prioritize green infrastructure, low impact development and natural infrastructure, nature-based solutions. Consult with Native Hawaiian Organizations.	Project	Medium	Mid	DPW	500	County

4.03	Develop a Stormwater Quality Management Program Plan in South Maui with practices that protect water quality from stormwater runoff.	Project	High	Long	DPW	TBD	County
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Action No.	Description	Type	Priority	Timing	County Lead Agency	Cost (\$1,000)	Funding Source(s)
	Runoff and Drainage						
4.04	Develop and monitor programs to regularly maintain and clear sediment basins and culverts in the mauka/upland areas within both direct and indirect alignment of South Maui to minimize the potential damage from downstream flooding.	Program	Medium	On-going	DPW	N/A	N/A
4.04a	Develop programs to regularly monitor, maintain and enforce the clearing of gulches, sediment basins and culverts on public and private property in South Maui.						
4.05	Design and implement green infrastructure and natural infrastructure and nature based solutions modifications along South Kīhei Road to mitigate stormwater runoff and minimize damage from flooding.	CIP	Medium	Mid	DPW	200	County

4.06	Provide resources for upland including dryland forest conservation, invasive species control, and restoration projects to improve forest cover and functions, and reduce downstream flooding. Protect soils and mitigate erosion through feral ungulate fencing and invasive species control and management.	Project	Medium	Short	OM	2,000	Federal
4.06a	Identify and prioritize returning streams that have been diverted like Kanaio stream in Maalaea to the original path in order to remedy runoff and drainage problems that such diversions have caused.						
4.06b	Develop concept for regional stormwater park in collaboration with County Parks, DPW, large landowners and the community.						
4.06c	Implement the Southwest Maui watershed plan.						

4.06d	Establish a watershed advisory group which includes participation from stakeholders mauka to makai including agencies that manage or regulate lands, residents, landowners and interested community groups.						
4.06e	Establish and implement a watershed wide water quality monitoring program to measure the quality of runoff and the mass loading of pollutants from the major gulches/streams.						
4.06f	Create and implement a watershed management program which requires the dept of planning and DPW to comply with the watershed plans and practices when issuing permits.						
Restoration							
4.07	Create and implement a wetland preservation and restoration program for South Maui to reduce flood impacts from stormwater runoff, improve coastal water quality to protect sensitive ecosystems and expand open space areas.	Program	Medium	Mid	PD	TBD	County, State

Action No.	Description	Type	Priority	Timing	County Lead Agency	Cost (\$1,000)	Funding Source(s)
	Restoration						
4.08	Continue to support and fund wetland restoration projects and other similar projects in the South Maui district. Develop and implement low impact pedestrian managed access where appropriate near wetland restoration projects.	Project	Medium	Short	DPW	300	County
4.09	Develop and implement a comprehensive dune restoration program identifying methods, funding stewardship, restrictions and monitoring for the north Kihei area.	Project	Ongoing	Mid	PD	TBD	County, State
4.09a	Develop and implement a plan and program for sand dune preservation at Haycraft Park and Maalaea Bay Beach.						
4.10	Continue to fund and expand the Dune Management Coordinator positions and fund the implementation of strategies for sand dune protection.	Program		On-going	PD	400	County, State

4.11	Create a South Maui Ridge to Reef Initiative (R2R) or other non-profit to leverage resources across several agencies and community groups to implement actions to reduce land-based pollution that impacts coral reefs.	Program	Medium	Mid	OM	TBD	Private
4.12	Obtain funding and implement a program to monitor all South Maui nearshore waters in accordance with the DOH WQPP.	Program	Medium	Mid	OM	TBD	State

Left off here 2/22/2023

Planning: Provide resources for the protection and rehabilitation of riparian zones with feral ungulate fencing and native plants.

Planning: Develop and implement a plan for R-1 reuse

Michael: Support R-1 reuse on the landscape to mitigate for axis deer damage, recharge depleted aquifers, and provide forage for livestock (local food security)

MVA: MVA is also currently pursuing sand dune preservation at Haycraft Park and Ma'alaea Bay Beach. Please include that under 4.09-4.12.

Charlene: purchase wetlands TMKs 3-9-001-162, 3-9-062-019, 3-9-001-164, 3-9-001-007, 3-9-059-001, 3-9-058-061 and 3-9-046-011 and designate as open space-protected lands in perpetuity

Action No.	Description	Type	Priority	Timing	County Lead Agency	Cost (\$1,000)	Funding Source(s)
	Hazards						
4.13	Develop a mitigation plan for Repetitive Loss (RL) and Severe Repetitive Loss (SRL) properties within South Maui that includes raising building elevation, relocation, flood proofing, transfer of development rights, or buyout.	Project	Medium	Mid	DPW	TBD	County, State, Federal
4.14	Propose amendments to the Maui County Code flood hazard ordinance to implement more strict NFIP Substantial Improvement regulations for properties in SFHA, including modifying the timeframe to 20 years to make it more difficult for older improvements to “expire” and no longer count towards the substantial improvement timeline.	Program	Medium	Mid	DPW	50	County
4.15	Coordinate with Maui County Floodplain Manager to pursue funding opportunities from organizations like FEMA’s Building Resilient Infrastructure and Communities program for community-wide flood mitigation projects and support implementation of nature-based solutions to enhance ecosystems and reduce flood risks.	Project		On-going	DPW	TBD	Federal

Planning: Provide resources for the protection and rehabilitation of riparian zones with feral ungulate fencing and native plants.

Action No.	Description	Type	Priority	Timing	County Lead Agency	Cost (\$1,000)	Funding Source(s)
	Hazards						
4.16	Leverage existing erosion and sea level rise studies to develop and implement localized beach management and coastal adaptation plans. <i>Mark: managed retreat needs to be called out explicitly and prioritized or South Maui could end up like West Maui in 10 - 20 years</i>	Project	High	Mid	PD	TBD	County
	Miscellaneous						
4.17	Prepare an overall improvement plan for county parks that includes a description of proposed facility improvements and approaches to reducing the environmental impact of park facilities. <i>Rob comment: why is this here instead of in the Parks section?</i>	Project		Mid	DPR	TBD	County

Robin: proposed facility improvements and restoration approaches