

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	Update and 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 Kīhei Drainage Master Plan for flood prevention and to address coastal water quality protection and sensitive ecosystems management in South Maui. In consultation with Native Hawaiian Organizations, 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 developments have downstream. Prioritize natural infrastructure, nature-based solutions, green infrastructure and low impact development, where feasible.	Project	Medium High	Mid	DPW	500	County
4.03	Develop a Stormwater Quality Management Program Plan in South Maui, similar to Kahului-Pā‘ia’s, with programs and practices with programs and practices that protect water quality from stormwater runoff for stormwater runoff management from County and private actions.	Project	High	Long	DPW	TBD	County

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 High	On-going	DPW	N/A	N/A
4.04a*	Develop programs to regularly monitor and enforce the clearing of gulches, sediment basins and culverts on public and private properties in South Maui.	Program	High	Ongoing	DPW	300	County
4.05	Design and implement green infrastructure modifications, natural infrastructure and nature-based solutions along South Kihei Road to mitigate stormwater runoff and minimize damage from flooding.	CIP	Medium High	Mid	DPW	200	County
4.06	Provide resources for upland forest conservation, including the dryland forest , invasive species control, and restoration projects to improve forest cover and functions, and reduce downstream flooding. Support the protection of soils and mitigate erosion through feral ungulate fencing and invasive species control and management.	Project	Medium High	Short	OM	2,000	Federal

Action No.	Description	Type	Priority	Timing	County Lead Agency	Cost (\$1,000)	Funding Source(s)
	Runoff and Drainage						
<u>Added by CPAC 4.06a*</u>	<u>Identify and prioritize returning streams that have been diverted, like the Kanaio stream in Mā‘alaea, to their original natural path to remedy the runoff and drainage problems that such diversions have caused.</u>	<u>Project</u>	<u>High</u>	<u>Long</u>	<u>DPW/PD</u>	<u>TBD</u>	<u>County</u>
<u>Added by CPAC 4.06b*</u>	<u>Develop a concept for and implement a regional stormwater park mauka of Pi‘ilani highway in collaboration with County Parks, Department of Public Works, large landowners and the community.</u>	<u>Project</u>	<u>High</u>	<u>Mid</u>	<u>DPW</u>	<u>350</u>	<u>County</u>
<u>Added by CPAC 4.06c*</u>	<u>Implement the Southwest Maui Watershed Plan.</u>	<u>Program</u>	<u>High</u>	<u>Mid</u>	<u>OM</u>	<u>30,000</u>	<u>County, State</u>
<u>Added by CPAC 4.06d*</u>	<u>Establish a watershed advisory group that includes participation from stakeholders mauka to makai, including agencies that manage or regulate lands, residents, and landowners, interested community groups and NGOs.</u>	<u>Program</u>	<u>High</u>	<u>Mid</u>	<u>OM</u>	<u>150</u>	<u>County</u>
<u>Added by CPAC 4.06e*</u>	<u>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, and waterways.</u>	<u>Program</u>	<u>High</u>	<u>Short</u>	<u>OM</u>	<u>100</u>	<u>County</u>
<u>Added by CPAC 4.06f*</u>	<u>Create and implement a Watershed Management Program, which requires the Department of Planning and Department of Public Works to comply with the watershed plans and practices when issuing permits.</u>	<u>Program</u>	<u>High</u>	<u>Short</u>	<u>PD</u>	<u>250</u>	<u>County</u>

Action No.	Description	Type	Priority	Timing	County Lead Agency	Cost (\$1,000)	Funding Source(s)
	Restoration						
4.07	Create <u>and implement</u> 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 <u>High</u>	Mid	PD	TBD	County, State
4.08	Continue to support, <u>fund and expand the Lā'ie Wetland Restoration Projects</u> . Develop and <u>implement</u> low-impact pedestrian <u>managed access, where appropriate, near wetland restoration projects.</u> and bike path near the Lā'ie wetland to allow access the beach and greenway.	Project	Medium <u>High</u>	Short	DPW	300	County
4.09	Develop and implement a comprehensive dune restoration <u>program</u> plan, identifying methods, funding, and stewardship, <u>restrictions and monitoring</u> for <u>South Maui with a focus on</u> the North Kihei area. between the NOAA Whale Sanctuary and the Kihei Canoe Club.	Project	<u>High</u>	Mid <u>On-going</u>	PD	TBD	County, State
<u>4.09a*</u>	<u>Develop and implement a program plan for sand dune preservation at Haycraft Park and Mā'alaea Bay Beach.</u>	<u>Program</u>	<u>High</u>	<u>Short</u>	<u>PD</u>	<u>250</u>	<u>County</u>
4.10	Continue to fund a <u>Expand funding for additional Dune Management Coordinator positions for the island of Maui</u> and fund the implementation of strategies for sand dune protection.	Program	<u>High</u>	On-going	PD	400	County, State

Action No.	Description	Type	Priority	Timing	County Lead Agency	Cost (\$1,000)	Funding Source(s)
	Restoration						
4.11	Create a South Maui Ridge to Reef Initiative (R2R) or other non-profit entities to leverage resources across several agencies and community groups to implement actions to reduce land-based pollution that impacts coral reefs.	Program	Medium High	Mid	OM	TBD	Private
4.12	Obtain funding and implement a program in compliance with the Department of Health Quality Assurance Program Plan to monitor water quality and care for all South Maui nearshore waters. to monitor and care for all South Maui nearshore waters.	Program	Medium High	Mid	OM	TBD	State
Added by CPAC 4.12a*	Provide resources for the protection and rehabilitation of riparian zones, including feral ungulate fencing and planting native plants.	Program	High	Mid	DWS	475	County
Added by CPAC 4.12b*	Accelerate funding for R-1 reuse on the landscape to mitigate axis deer damage, recharge depleted aquifers and provide forage for livestock (local food security).	Project	High	Short	DEM	2,000	County
Added by CPAC 4.12c*	Acquire wetland parcels, under the threat of condemnation if necessary, including TMK 3-9-001-162, 3-9-062-019, 3-9-001-164, 3-9001-007, 3-9-059-001, 3-9-058-061, and 3-9046-011 and designate as Open Space protected lands in perpetuity.	Project	High	Long	OM	45,000	County

Action No.	Description	Type	Priority	Timing	County Lead Agency	Cost (\$1,000)	Funding Source(s)
	Restoration						
<u>Added by CPAC 4.12d*</u>	<u>Explore the feasibility of obtaining the areas identified as wetlands with the wetlands mapping study through conservation easements, acquiring through negotiation or under the threat of condemnation, including but not limited to gulches, continuous, intermittent and ephemeral streams, streams beds, flood plains and other flood prone parcels and designate as Open Space protected lands in perpetuity.</u>	<u>Program</u>	<u>Medium</u>	<u>Long</u>	<u>PD</u>	<u>TBD</u>	<u>County</u>

	Hazards						
4.13	Develop <u>and implement</u> 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 <u>Identify and adopt</u> 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

Action No.	Description	Type	Priority	Timing	County Lead Agency	Cost (\$1,000)	Funding Source(s)
	Hazards						
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, <u>and natural infrastructure</u> to enhance ecosystems and reduce flood risks.	Project	<u>High</u>	On-going	DPW	TBD	Federal
<u>Added by CPAC 4.15a*</u>	<u>Identify and implement a pilot flood mitigation project that includes nature-based solutions and natural infrastructure to enhance ecosystems and reduce flood risks mauka to makai. Evaluate the results for other projects.</u>	<u>Project</u>	<u>High</u>	<u>Short</u>	<u>DPW</u>	<u>5,000</u>	<u>County</u>
4.16	Leverage existing erosion and sea level rise studies, <u>including kilo ‘āina</u> , to develop and implement localized beach management and coastal adaptation plans, <u>including managed retreat</u> .	Project	High	Mid	PD	TBD	County

Action No.	Description	Type	Priority	Timing	County Lead Agency	Cost (\$1,000)	Funding Source(s)
	Miscellaneous						
<u>Added by CPAC 4.16a*</u>	<u>Create a database of impacts from coastal hazards, such as flooding, wave run-up, erosion and other relevant data to inform mitigation and avoid future impacts.</u>	<u>Project</u>	<u>Medium</u>	<u>Short</u>	<u>OM</u>	<u>300</u>	<u>County</u>
<u>Added by CPAC 4.16b*</u>	<u>Create, implement, and fund plans to allow native seed banks the time needed to grow and spread, adding to improving long-term coastal resilience and preventing runoff.</u>	<u>Program</u>	<u>High</u>	<u>Long</u>	<u>OM</u>	<u>TBD</u>	<u>County</u>
<u>4.17 *moved</u>	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. <u>*moved to parks*</u>	<u>Project</u>		<u>Mid</u>	<u>DPR</u>	<u>TBD</u>	<u>County</u>