

	A	B	C	D	E	F
1	MEASURES	NOTES/CONSTRAINTS	COST (20-Yr. Capital, O&M dollars/1000 gal)	CURRENT PATH	RESOURCE FOCUS	YOUR STRATEGY - Do you agree with the various measures; are there others you would propose?
2	EAST MAUI - MAY 21			Key Points:	Key Points:	Key Points:
3	The following generalized strategies are based on public input, studies and document review.			Bring water to needs	Protect water resources	
4	They are intended to gauge public acceptance of and feedback on generalized policies or measures.			Use existing infrastructure	Reduce water transport	
5	For your information, the columns labeled Current Path and Resource Oriented provide a sense of			Increase efficiency	Adapt to local constraints	
6	how the measures in the 1st column relate to existing practice as well as a more resource focused path.			Protect water resources	Diversified system	
7	At this stage we focus on the range of options and their acceptability. In the next stage of the				Aggressive conservation	
8	process options will be bundled and more costs provided. The information in the East Maui					
9	Region Description provides useful background information.					
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11						
12	Watershed and Aquifer Protection					
13	Invasive alien plant control, ungulate control, reforestation via watershed partnership	DWS supports and funds programs. Leveraging state and private funding		X	Increase	
14	Expand watershed protection to lower elevations	Programs now focus on higher elevations (3000+-)			X	
15	Ahupua'a watershed based planning and management approach	Ridge to ocean approach focused on stream system			X	
16	Quantify the impact of watershed management and distribute funding proportionally	Prioritize efforts by impact, increase funding from private purveyors, state and others who benefit			X	
17	Consultation with Native Hawaiian moku / community and local experts on resource management	Water representative of each moku, advisory role and partnership			Increase	
18	Restrict land uses with high risk of well contamination near drinking water wells	Proposed Wellhead Protection ordinance based on the capture zone of well		X	X	
19	Protect and recharge ground water during non drought periods to stabilize supply	Seasonal pumping- increased surface water use in wet season, aggressive conservation and alternative sources			?	
20	Scientific studies to support decision making	Study hydrogeological and ecological conditions; increased monitoring		X	Increase	

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21	Use drought conditions as baseline to evaluate water supply and effects of water use	Determine projections to use; may vary geographically			Potentially	
22	No new stream diversions on East Maui streams for non-instream uses until interim flow standards are adopted	Apply to currently diverted and undiverted streams			X	
23	Support improved groundwater, surface water and stream diversion monitoring programs of CWRM	Improve accountability			X	
24	Increase county oversight of well drilling in non designated groundwater management areas	Holistic review including water quality, quantity and land use impact addressed before well construction permit issued			X	
25						
26						
27						
28						
29						
30	Conventional Source Development		20-Year Projected Cost (Capital, O&M dollars/1000 gal)			
31	When IFS adopted, protecting kuleana and instream uses: support water transport for diversified ("sustainable") agriculture	Support diversified ag economy with low cost untreated source			?	
32	Ha'iku aquifer well development (within sustainable yield) for regional use and transport to growth areas	Subject to hydrologic studies defining impact on regional stream flow	\$3.55	X		
33						
34						
35	Increase Water System Reliability/Flexibility					
36	Develop wells for increased reliable source Upcountry (reduce transport)	Drought, equipment failure, chlorides or other source or supply problems. Avoid use restrictions and mitigate stream use in dry season		X	Increase	

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37	Diversify to the most cost-effective combination of groundwater, surface water, and aggressive conservation	Policy statement. Some temporary cutbacks in water availability acceptable in situations of drought/equipment failure			?	
38	Require private public systems to develop in a manner facilitating potential interconnection with DWS systems or integrated management	DOH rule amendment; increased costs of private systems				
39						
40						
41						
42	Increase Alternative Resources					
43	Maximize R-1 reclaimed wastewater system capacity and use (in areas where reclaimed water is available)	Limited supply, relatively high cost, less reliable. Minimize underground injection		X	Increase	
44	In areas where reclaimed water is available, increase the 100 foot distance in which commercial properties connect and use R-1 water for landscape irrigation	Amend Maui County Code, Chapter 20.30 which currently requires connection within 100 feet of a reclaimed waetr line			X	
45	Program to use small greywater systems for small residential/commercial	Allow reuse of wash water for outside irrigation. Amend State and possibly County regulations			X	
46	Incentives for residential/small commercial catchment systems	Roof, tank, underground storage systems can be used for landscape water use. Water quality issues			X	
47	Low impact project design for onsite water retention	Permeable surfaces, swales, water retention. Amend County code. Apply to new projects, cost effective			X	
48	Desalination of brackish or sea water for irrigation in leeward regions	Energy costs. Disposal of brine	\$5.2 - brackish, \$12.7- seawater			

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49	Surface water efficiency programs	Reduce water loss thru improvements to diversions, conveyances, storage, metering		X	Increase	
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53	Increase Conservation					
54	WaterSense (water efficiency) standard for new development and existing retrofits	Amend County code. 20%-30% more water efficient than standard			X	
55	Convert to smart water meters	Provide consumers the means to monitor water use in real time		Evaluating	X	
56	Increase water fixture retrofit programs for existing development	Rebate, retrofit, give-away programs for residential and small commercial uses			X	
57	Outdoor water wasting and use controls	Amend County code, disallow overspray, washing without hose nozzle, etc.			X	
58	Water conserving landscape requirements for resorts, golf courses, public facilities	Amend County code to set standard. Golf courses currently must use nonpotable water			X	
59	Incentive programs to convert existing landscape to water conserving	Turf removal programs for example			X	
60	Require aggressive conservation in new development in all areas	Craft program to carry out policy			X	
61	Require more aggressive landscape water conservation measures in dry areas than in wet areas	Vary some standards or programs geographically			X	
62	Pursue a policy of aggressive water conservation at all times in all areas (not just during drought)	Craft program to carry out policy			X	
63	Use water rates as means to encourage conservation	Increase tiered pricing to incentivize conservation; equity is an issue		X	X	

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64	Increase leak detection and water audits	Identify discrepancies between water produced and water consumed (billed). Increase system efficiency; may delay need to develop new sources		X	X	
65	Public education and outreach about the value of water resources and how to use them wisely	Various methods to instill water conserving culture; community events, media, schools, awards, etc.		X	Increase	
66	Targeted public education and conservation programs to large water users	Large users, schools, restaurants, etc.		X	Increase	
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70	<i>This is a generalized and simplified exercise to demonstrate choices. Assume that all legal needs will be met.</i>					