

	A	B	C	D	E	F
1	MEASURES	NOTES/CONSTRAINTS	COST (20-Yr. Capital, O&M dollars/1000 gal)	CURRENT PATH	RESOURCE ORIENTED	YOUR STRATEGY - Do you agree with the various measures; are there others you would propose?
2	WEST MAUI - GENERALIZED STRATEGIES, MAY 2016			Key Points: Bring water to needs Use existing infrastructure Increase efficiency Protect water resources	Key Points: Protect water resources Reduce water transport Adapt to local constraints Diversified system Aggressive conservation	
3	The following generalized strategies are based on public input, studies and document review.					
4	They are intended to gauge public acceptance of and feedback on generalized policies or measures.					
5	For your information, the columns labeled Current Path and Resource Oriented provide a sense of					
6	how the measures in the 1st column relate to existing practice as well as a more resource focused path.					
7	At this stage we focus on the range of options and their acceptability. In the next stage of the					
8	process options will be bundled and more costs provided.					
9	The information in the West Maui Region Description online or available from the Water Supply Dept					
10	provides useful background information.					
11	Watershed and Aquifer Protection					
12	Invasive alien plant control, ungulate (pigs, deer, etc.) control, reforestation via watershed partnership programs	DWS supports and funds programs. Leveraging state and private funding		X	Increase	
13	Expand watershed protection to lower elevations	Programs now focus on higher elevations (3000+-)				
14	Ahupua'a watershed based planning and management approach	Ridge to ocean approach focused on stream systems				
15	Quantify the impact of watershed management on groundwater recharge and distribute funding proportionally	Prioritize efforts by impact, expand funding from private purveyors, state and other beneficiaries				
16	Consultation with Native Hawaiian community and local experts on resource management	Water representative of each moku, advisory role and partnership			Increase	
17	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	
18	Protect and recharge ground water during non drought periods to stabilize supply	Reduce pumping- increased surface water use, aggressive conservation and alternative sources				
19	Scientific studies to support decision making	Study hydrogeologic and ecological conditions; increased monitoring		X	Increase	
20	Use drought conditions as baseline to evaluate water supply and effects of water use	Determine projections to use; may vary geographically			Potentially	
21	No new stream diversions on West Maui streams for non-instream uses until interim flow standards are adopted	Could extend to no new diversion or increased diversion			X	
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23						
24	Conventional Water Source Development					

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25	Increase use of surface water for municipal needs during wet season when kuleana and public trust uses are satisfied.	Expand treatment facilities and obtain reservoirs. Permitting and dam liability issues	\$1.55		?	
26	Honokowai aquifer well development (within sustainable yield)	Avoid transport between aquifer units	\$3.50	x		
27	Honolua aquifer well development (within sustainable yield)	Transmission to growth area	\$3.55	x		
28	Increase Water System Reliability/ Flexibility					
29	Develop and maintain back-up wells even if more expensive	Drought, equipment failure, chlorides or other source or supply problems. Avoid use restrictions		X	Increase	
30	Diversify to the most cost-effective combination of groundwater, surface water, and aggressive conservation	Policy statement. Some temporary cutbacks acceptable in situations of drought/equipment failure			?	
31	Require private public systems to develop in a manner facilitating potential interconnection with DWS systems or integrated management	Amend County Code; increase costs of private systems				
32						
33						
34	Increase Alternative Resources					
35	Maximize R-1 reclaimed wastewater system capacity and use	Limited supply, relatively high cost, less reliable. Minimize underground injection		X	Increase	
36	Expand requirement for commercial properties within 100 feet of reclaimed water system to connect and use R-1 water for landscape irrigation	Amend Maui County Code, Chapter 20.30- requires connection within 100 feet			X	
37	Program to use small greywater systems for small residential/commercial	Amend State and possibly County regulations			X	
38	Incentives for residential/small commercial catchment systems	Roof, tank, underground storage systems can be used for landscape water use. Water quality issues			X	
39	Low impact project design for onsite water retention	Permeable surfaces, etc. Amend County code. Cost effective			X	
40	Desalination of brackish or sea water for irrigation	Energy costs. Disposal of brine	\$5.2 - brackish, \$12.7- seawater			
41	Maintain/manage plantation ditch systems for continued potable and non potable water conveyance	Invest in existing systems, resolve ownership, management issues		X	?	
42	Surface water efficiency programs	Improvements to diversions, conveyances, storage, meters to reduce loss		X	Increase	
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45	Increase Conservation					
46	WaterSense (water efficiency) standard for new development and existing retrofits	Amend County code. 20%-30% more water efficient than standard			X	

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47	Retrofit programs for existing development	Rebate, retrofit, give-away programs for residential and small commercial uses			X	
48	Outdoor water wasting and use controls	Amend County code, disallow overspray, washing without hose nozzle, etc.			X	
49	Water conserving landscape requirements for resorts, golf courses, public facilities	Amend County code to set standard			X	
50	Incentive programs to convert existing landscape to water conserving	Turf removal programs for example			X	
51	Require aggressive conservation in new development in all areas	Craft program to carry out policy			X	
52	More aggressive landscape water conservation measures in dry areas (West Maui) than wet areas	Some standards or programs vary geographically			X	
53	Pursue a policy of aggressive water conservation at all times (not just during drought)	Craft program to carry out policy			X	
54	Use water rates as means to encourage conservation	Tiered pricing can have this effect; equity is an issue		X	X	
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59	<i>This is a generalized and simplified exercise to demonstrate choices. Assume that all legal needs will be met.</i>					