

## C-3-e. Leeward, Grazing, Pasture Options Worksheet

1	STATE	Hawaii
2	FIELD OFFICE	Lihue, Aiea, Hoolehua, Kealakekua, Waimea, and Hilo
3	MLRA	164, 166, and 157
4	COMMON RESOURCE AREA (CRA)	<b>Leeward</b>
5	RESOURCE INTERPRETATIONS	<i>see Section II FOTG for interpretations</i>
5.1	SOIL	
5.2	WATER	
5.3	AIR	
5.4	PLANT	
5.5	ANIMAL	
5.6	HUMAN	
6	HYDROLOGIC UNIT	20010000 / 20040000 / 20050000 / 20060000 / 20070000
7	SYSTEM TEMPLATE LABEL	<b>LWA21</b>
8	SYSTEM NAME	<b>Leeward, Grazing, Pasture</b>
9	PLANNING PHASE	Non-Benchmark
10	PLANNING LEVEL	RMS
11	NRCS LANDUSE	PAST
12	PLANNED CONS. PRACTICES	<i>enter code / name of practice</i>
	1. 314	Brush Management
	2. 322	Channel Vegetation
	3. 338	Prescribed Burning
	4. 342	Critical Area Planting
	5. 350	Sediment Basin
	6. 378	Pond
	7. 380	Windbreak / Shelterbelt Establishment
	8. 382	Fence
	9. 393	Filter Strip
	10. 410	Grade Stabilization Structure
	11. 412	Grassed Waterway
	12. 430 DD	Irrigation Water Conveyance, Pipeline, High-Pressure, Underground, Plastic
	13. 442	Irrigation System, Sprinkler
	14. 449	Irrigation Water Management
	15. 512	Pasture and Hay Planting
	16. 516	Pipeline
	17. 521 A	Pond Sealing or Lining, Flexible Membrane
	18. 528 A	Prescribed Grazing
	19. 560	Access Road
	20. 575	Animal Trails and Walkways
	21. 590	Nutrient Management
	22. 595	Pest Management
	23. 614	Watering Facility
	24. 645	Wildlife Upland Habitat Management
13	SYSTEM NARRATIVE	<i>describe how the practices work together as a system</i>
	Hayland and intensive grazing on fertilized and irrigated pasture. Annual rainfall ranges from 25-40 inches. Elevation is from 500 to 1000 feet. Soils are mostly gently sloping that are underlain by soft weathered rock, volcanic ash or colluvium. Pasture and hayland replanted every 5 years; lime and phosphorus incorporated in the top 5 inches. Paddocks average 5 acres, hayland usually 20 acres. The high quality hay is baled and exported, the lower quality 3rd and 5th year hay is fed to animals as green chop. The conservation practices are designed to reduce erosion and protect the coastal waters.	

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14	RESOURCE CONCERNS	MAGNITUDE/EFFECTS	IMPACTS
	1. Soil / Erosion / Sheet & Rill Erosion	1. Sheet & rill erosion will be reduced to an acceptable soil loss tolerance level of 5 tons/acre/year or less.	1. Productive topsoil will not erode at an accelerated rate. Soil loss is reduced by ___ tons/acre/year.
	2. Soil / Erosion / Wind Erosion	2. Amount and velocity of wind will be reduced in treated area.	2. Soil loss from wind is minimized. Also, a reduction in wind will conserve moisture.
	3. Soil / Erosion / Ephemeral Gully	3. Gullies and washouts will occur less frequently with installation of proposed treatment.	3. Forage production increases when washouts are minimized.
	4. Soil / Erosion / Classic Gully	4. Formation of new gullies will be minimized.	4. Runoff water will flow at a safe and non-erosive rate. Forage production increases with reduction in gully erosion.
	5. Soil / Erosion / Streambank Erosion	5. Streams will carry runoff water without eroding.	5. Grazing area is not reduced by sloughing of streambanks.
	6. Soil / Condition / Soil Compaction	6. Traffic areas will be avoided or rested.	6. Forage production will increase.
	7. Water / Quality / Suspended Sediment & Turbidity in Surface Water	7. Amount of sediment in runoff water is minimized.	7. Effects from suspended sediment and turbidity to aquatic habitat, recreation waters, and other downstream waterbodies are minimized.
	8. Plant / Condition / Plant Productivity	8. Implementation of a grazing management plan and installation of other appurtenant structure increase forage production.	8. Forage growth and production will increase. Animal weight gain and health will improve.
	9. Animal / Habitat / Domestic Animal Water Requirements	9. Installation of pipeline and troughs will improve supply and distribution of water to meet livestock needs.	9. Improved water system will increase animal distribution and carrying capacity of grazing lands.
	10. Animal / Habitat / Threatened & Endangered Species	10. Food, water, and shelter of threatened or endangered species will not be affected by agricultural activities.	10. Threatened or endangered animals will have a suitable habitat for growth and reproduction.

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CRA	SYSTEM TEMPLATE LABEL		
15	* QUALITY CRITERIA DOCUMENTATION <i>list resource concerns then indicate yes/no (X)</i>		
	1. Sheet & Rill Erosion	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO
	2. Wind Erosion	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO
	3. Ephemeral Gully	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO
	4. Classic Gully	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO
	5. Streambank Erosion	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO
	6. Soil Compaction	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO
	7. Suspended Sediment & Turbidity in Surface Water	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO
	8. Plant Productivity	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO
	9. Domestic Animal Water Requirements	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO
	10. Threatened & Endangered Species (Animal)	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO

\* Provides an indication that the resource quality criteria will be met.