

CENTRAL COAST RANGELAND COALITION

Indicators of Sustainable Rangeland Stewardship-- Test Monitoring Results

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Presentation to the CCRC General Meeting: August 29, 2007



CCRC Indicators of Sustainable Rangeland Stewardship--Test Monitoring Results

1. Introduction and Previous Work

- Meetings with ranchers and agency managers
- Synthesis of stewardship concerns and indicator concepts
- General meetings
- Analytical process
- Summary
- Scientific review and advice
- Indicator testing plan
- Testing at 15 properties--representing 62,500 acres (more if including all properties of each manager)

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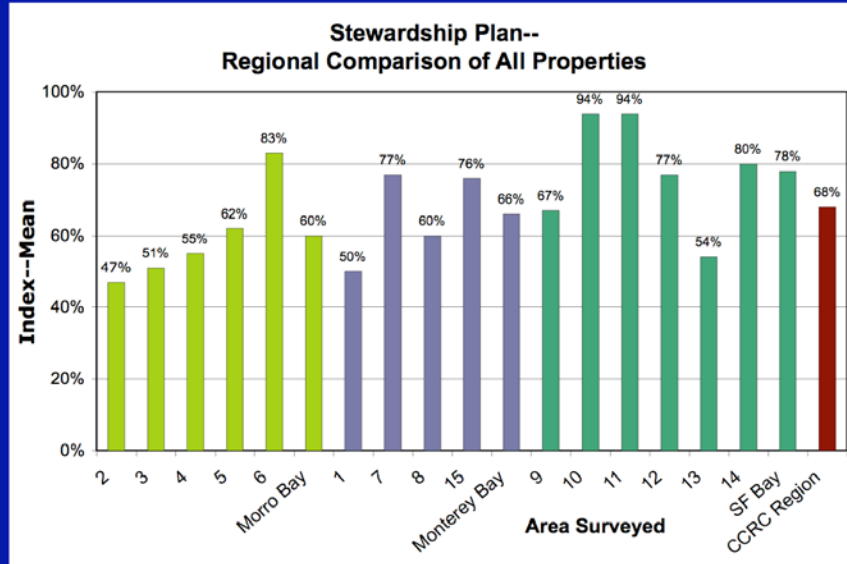


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2. Indicator Monitoring Results

- Stewardship Planning (questionnaire)
- Bare Ground
- Soil Structure
- Aquatic Macro-Invertebrates Occurrence
- Residual Dry Matter (no testing Spring 07)
- Thatch Persistence
- Desirable and Undesirable Plants Occurrence
- Infrastructure Function (questionnaire)
- Rangeland Operation Stability and Profitability (questionnaire)

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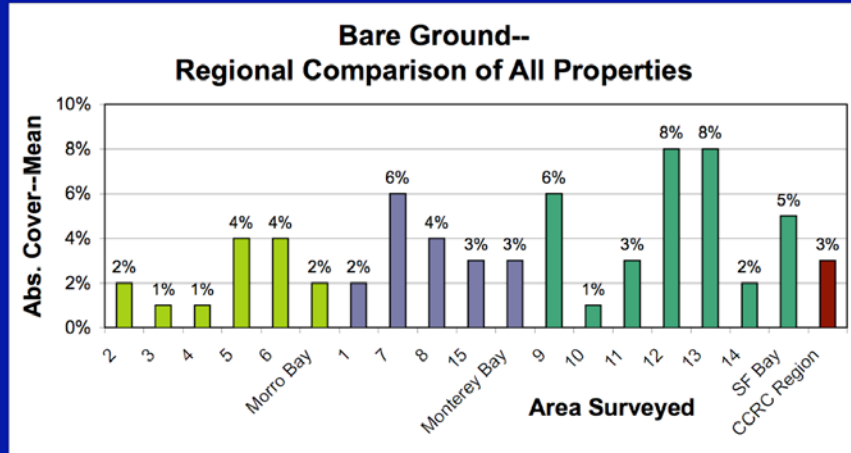


Note: This index represents the range from 0% (worst) - 100% (best).

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Stewardship Plan Contents (yes/no and description)						
Element:	Written	Knowledge	Current	Utilized	Support Info	Other Description
1. Site Description and Environmental Setting						
2. Current Conditions and Resource Inventories, including resource baselines (flora, fauna, pests, erosion, hydrology), maps, grazing capacity, infrastructure						
3. Land Use History						
4. Site-Specific Goals and Management Objectives—economic, ecological, social (including legal and non-grazing); distinguishes strategic goals, tactical objectives, and operational practices						
5. Predicted Effects and Desired Conditions						
6. Grazing Recommendations and Prescriptions						
7. Contingencies						
8. Monitoring, including evaluation standards, adaptation, analysis, and reporting						
9. Implementation Schedule and Responsibilities						
10. Analysis and Reporting						

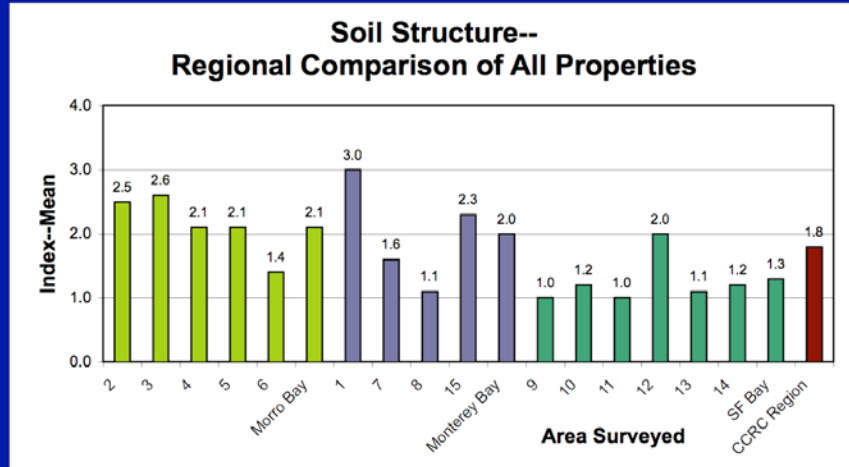
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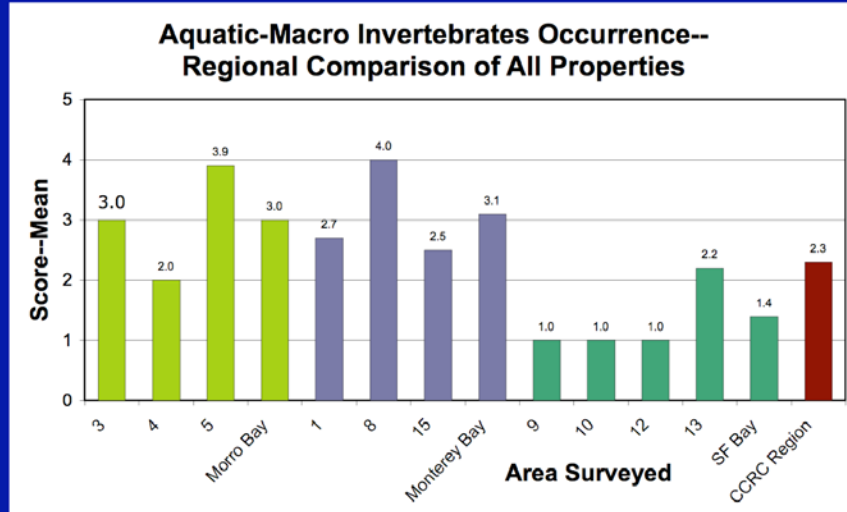


Note: This index represents the range from 0 (worst) - 3 (best).

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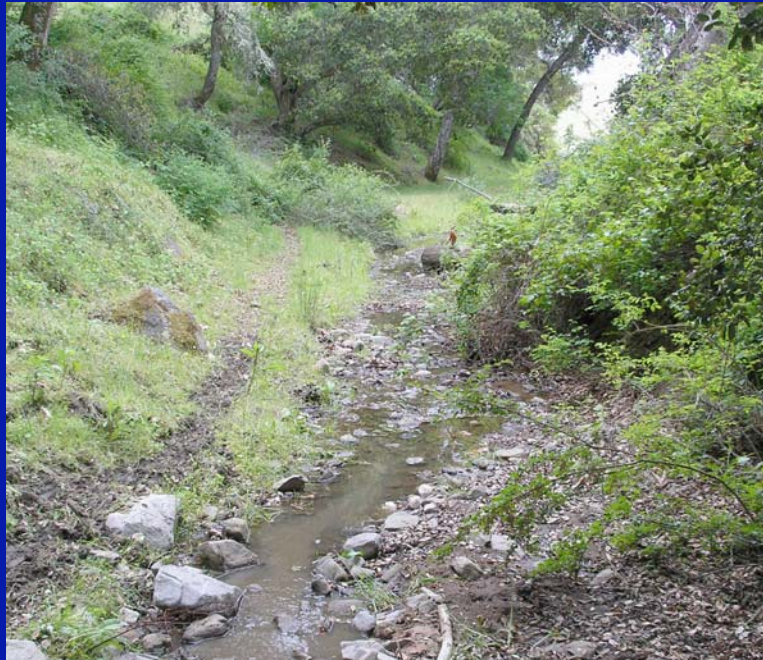


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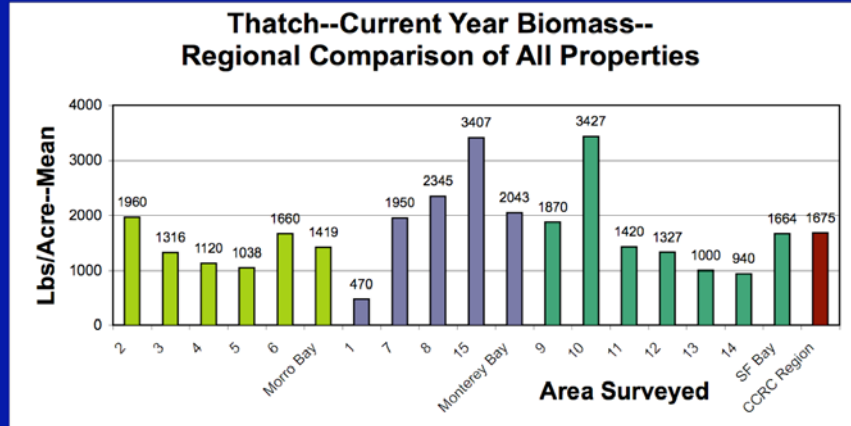


Note: This index represents the range from 1 (best) - 3 (worst), and 4 (no invertebrates found).

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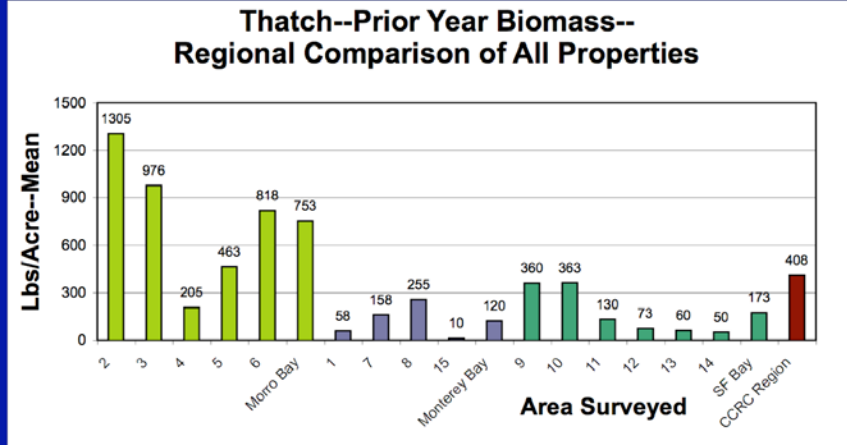
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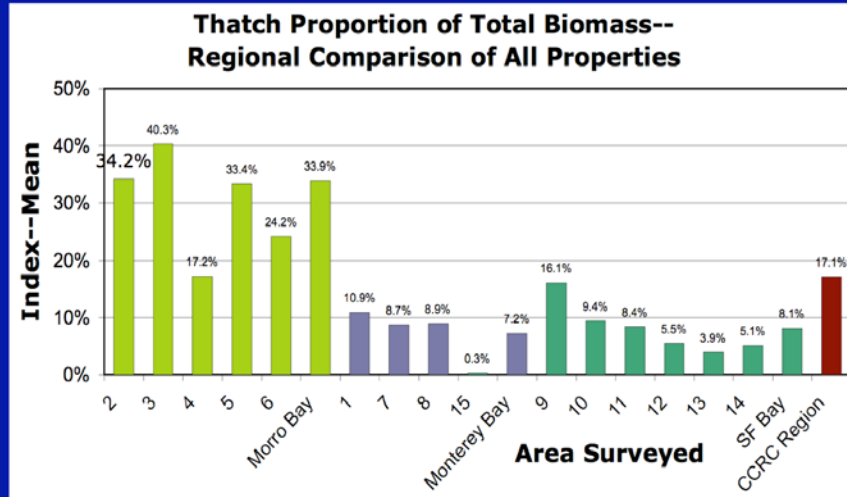
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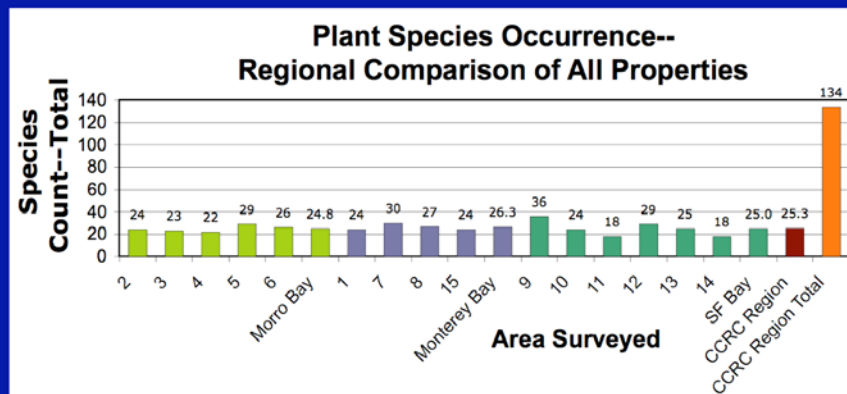
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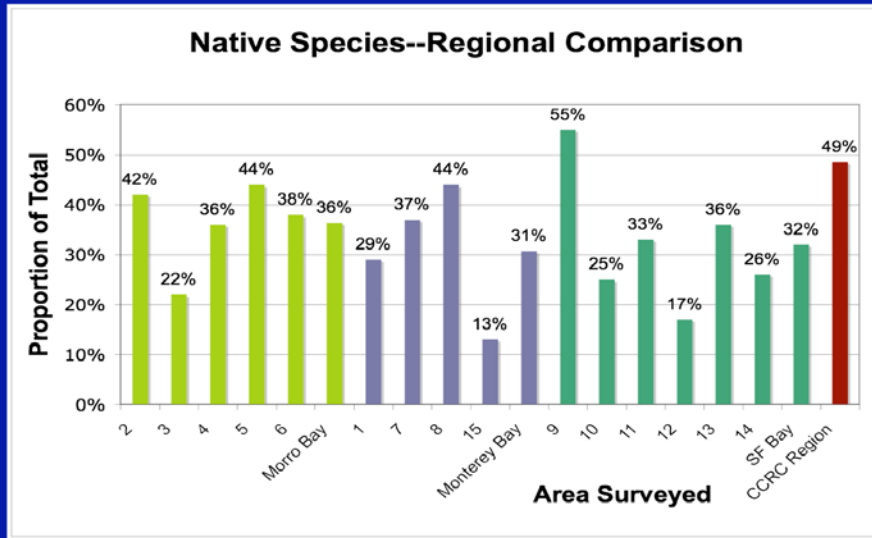
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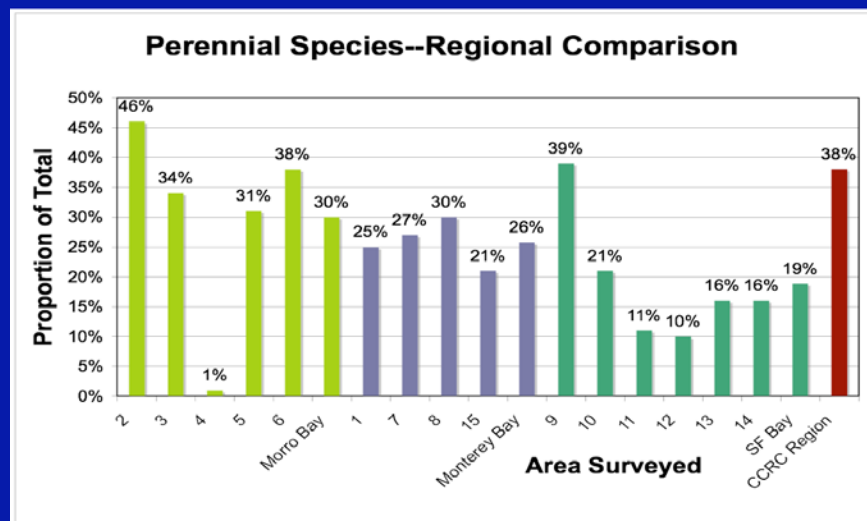
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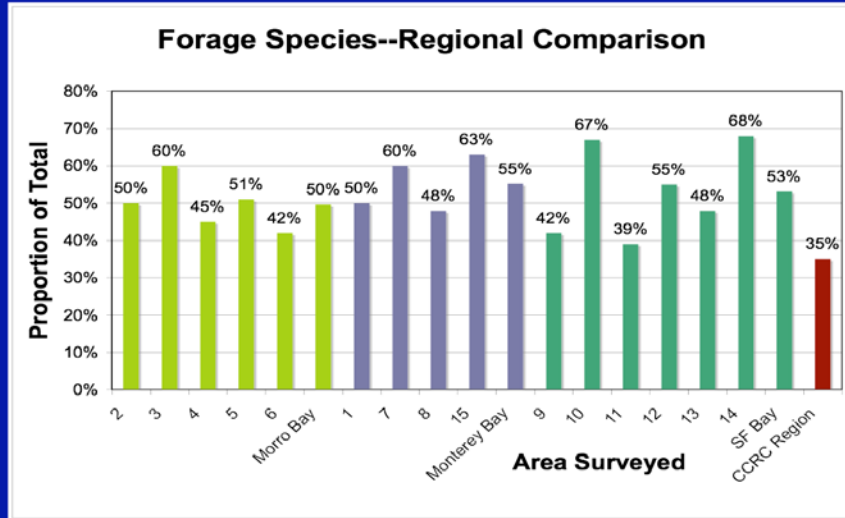
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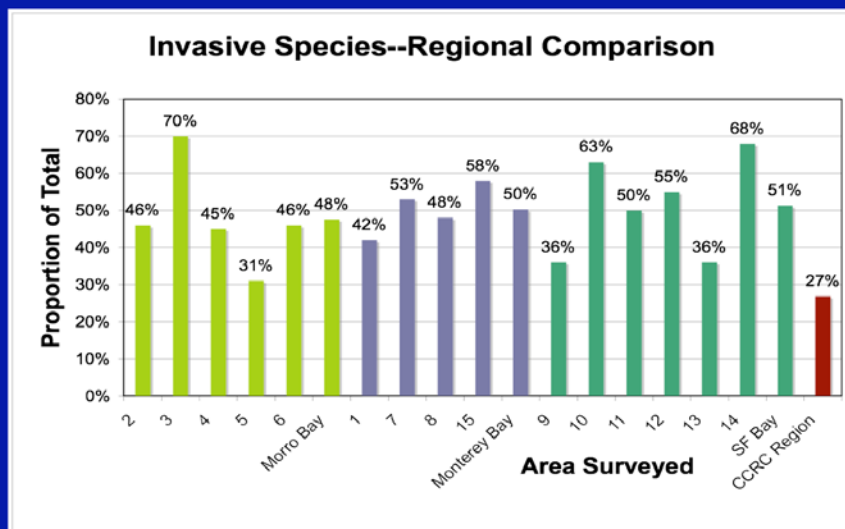
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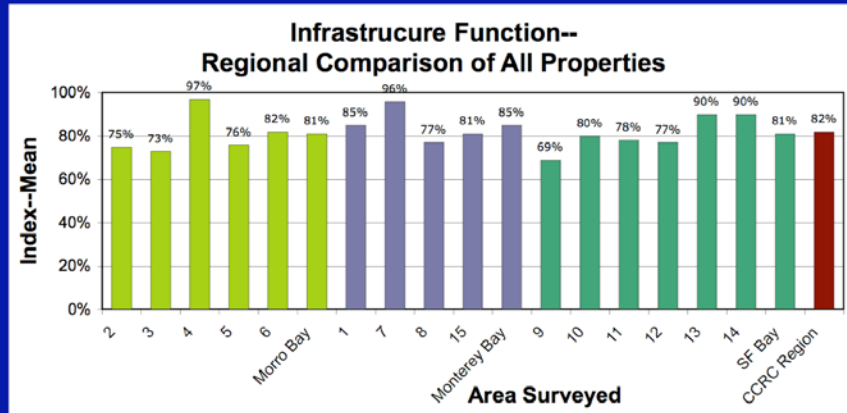
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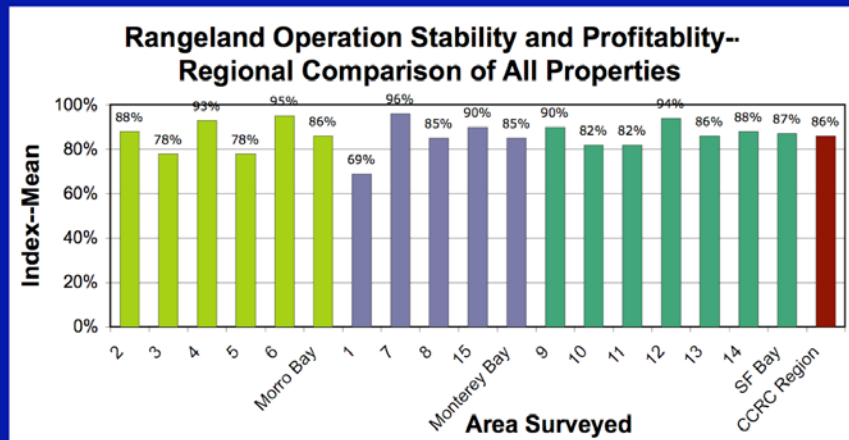
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Infrastructure Function Index						
<i>What is the overall condition and readiness for use of the following type of facility at the ranch/rangeland property? Please circle one number (plus applicability and absence) for each type of facility.</i>						
	Not Serviceable, Needs Rebuilding	Needs Major Repairs	Good, Needs Minor Repairs	Excellent	Not Approp. For Goals	Absent
1. Fencing at property perimeter.	1	2	3	4	*	x
2. Fencing of internal pastures.	1	2	3	4	*	x
3. Gates and cattle-guards.	1	2	3	4	*	x
4. Corrals, chutes, shade shelters, and feeders.	1	2	3	4	*	x
5. Watering sources and supplies—developed springs, streams, other natural drainage (reliable and sustainable)	1	2	3	4	*	x
6. Watering mechanisms—wells, pumps, tanks, plumbing, and troughs.	1	2	3	4	*	x
7. Stock ponds (soundness of berms and drains, effectiveness of water collection, siltation).	1	2	3	4	*	x
8. Internal roads for vehicles.	1	2	3	4	*	x
9. Public access trails, staging areas.	1	2	3	4	*	x
10. Property access—for equipment, livestock, and supplemental feed delivery	1	2	3	4	*	x
11. Vehicle parking areas.	1	2	3	4	*	x
12. Drainage and erosion control associated with roads and parking.	1	2	3	4	*	x
13. Maintenance, storage, and supplementary enterprise barns and buildings.	1	2	3	4	*	x
14. Vehicles, ATVs, machinery, etc.	1	2	3	4	*	x
15. Working horses and related facilities.	1	2	3	4	*	x
16. Public educational structures and signage.	1	2	3	4	*	x

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Rangeland Operation Stability and Profitability Index						
<i>How much do you agree with the following statement? Please circle one number for each statement.</i>	Strongly Disagree	Disagree	Agree	Strongly Agree	Does Not Apply	Notes
1. Ranching/rangeland management is something I enjoy and that adds to my quality of life.	1	2	3	4	*	
2. My family supports my efforts in ranching/rangeland management.	1	2	3	4	*	
3. The local community in the vicinity of the ranch/rangeland property generally supports ranching/rangeland management.	1	2	3	4	*	
4. Local government planners work with the ranching/rangeland management community in a positive way.	1	2	3	4	*	
5. I have the ability to work with the regulatory agencies that influence this ranch/rangeland property (including leased rangeland) to resolve problems.	1	2	3	4	*	
6. If these rangelands are leased, can the lessor and lessee work together constructively to resolve problems and set goals.	1	2	3	4	*	
7. It is important to me that this rangeland is managed well even after I stop managing or using it.	1	2	3	4	*	
8. It is feasible for this ranch/rangeland property to remain an ecologically or economically viable ranch/rangeland property for the next 100 years.	1	2	3	4	*	
9. If there are no significant economic or family changes, I would be agreeable to continuing to ranch/manage rangeland here at my current anticipated income for at least 10 years.	1	2	3	4	*	
10. The gross profits from rangeland enterprises at this property are meeting my expectations (gross profits are income minus direct costs).	1	2	3	4	*	
11. The net ecological, social, and economic benefits from stewardship at this property are meeting my expectations.	1	2	3	4	*	

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Rangeland Operation Stability and Profitability Index						
<i>How much do you agree with the following statement? Please circle one number for each statement.</i>	Strongly Disagree	Disagree	Agree	Strongly Agree	Does Not Apply	Notes
12. I feel good about what is being accomplished on this rangeland.	1	2	3	4	*	
13. If we continue with our present management practices at this property, we will be contributing to achieving our goals for the future landscape, economy, and community.	1	2	3	4	*	
14. The financial resources available for rangeland management at this property are adequate to maintain the resource base.	1	2	3	4	*	
15. The energy sources (fuels, utilities, chemicals) used for rangeland management at this property comes from sustainable sources as much as possible.	1	2	3	4	*	
16. Approximately how many gallons of fossil fuel per acre are used in the management of these rangelands? _____.	The potential categories of future answers will be based on the number (gals/acre) given during testing.					
17. The water supply available is adequate for sustainable rangeland management.	1	2	3	4	*	
18. The tools being used by management are generally the most cost and energy effective means to achieve management objectives.	1	2	3	4	*	
19. Present management practices are producing ecological goods and services for the biological communities sharing the rangeland as well as human communities surrounding the rangelands we manage.	1	2	3	4	*	

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Summary Indicator Evaluation:

Indicator Variable:	Differences Between Properties?	Easy Measurement?	Useful Results?	Accurate Results?	Would Managers Monitor It?	Feasible to Improve Results?	Appropriate Timing of Measurement?	Needs Improvement?
1. Stewardship Plan	Y	N	Y	Y	N	?	Y	N
2. Bare Ground	Y	Y	?	Y	Y	?	N	Y
3. Soil Structure	Y	N	Y	?	?	N	Y	Y
4. Aquatic Macro-Invertebrates Occurrence	Y	Y	Y	Y	Y	?	?	Y
5. Residual Dry Matter (NO TEST)								
6. Thatch Persistence	Y	Y	N	Y	?	N	Y	Y
7. Desirable and Undesirable Plant Occurrence	Y	N	?	Y	?	?	Y	Y
8. Infrastructure Function	Y	Y	Y	Y	Y	Y	Y	N
9. Rangeland Operation Stability and Profitability	Y	Y	Y	Y	Y	Y	Y	?

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Recommendations:

1. Continue development of the Indicator Monitoring System:
 - a) Develop scoring, weighting, and standards for each indicator.
 - b) Develop Tier 2 investigation procedures and remedial actions for results below standard.
 - c) Expand to include the "Special Management" indicators.
 - d) Develop improved sampling methods for increased rigor of results and interpretations.

Recommendations:

2. Develop a monitoring handbook (including #1-4 above) for testing in Year 2.
3. Where property managers want it, provide technical assistance to complete planning, including assessments and baselines.
4. If a “certification” program is desired, develop methods and means for periodic verification by trained personnel.

