

Monitoring & Evaluation

TRPA Staff Proposed Goal	Suggested Goal Language	TRPA Staff Proposed Policy *	Suggested Policy Language **	TRPA Staff Proposed Implementation Measure	Suggested Implementation Measure
<p>ME - 1 TRPA monitors, evaluates and reports progress toward attaining and maintaining adopted environmental threshold carrying capacities (threshold standards) through the implementation of a detailed regional scale status and trend monitoring and evaluation program.</p>	<p>Evaluate progress towards attaining and maintaining the environmental threshold carrying capacities through the use of a detailed monitoring program and performance standards.</p>	<p>ME-1.1 Monitoring Program: Implementation/interagency cooperation - in cooperation with other regional agencies and institutions, TRPA will develop, implement, and maintain a regional scale status and trend monitoring and evaluation program in order to assess environmental conditions relative to established numerical threshold standards and/or desired conditions for the Lake Tahoe region.</p>	<p>ME-1.1 Monitoring Program: Implementation/interagency cooperation - in cooperation with other regional agencies and institutions, TRPA will develop, implement, and maintain a regional scale status and trend monitoring and evaluation program on a scale commensurate with the standards and indicators being monitored in order to assess environmental conditions relative to established numerical threshold standards and/or desired conditions for the Lake Tahoe region. Where indicators are not monitored by partner entities, TRPA will ensure all required threshold indicator monitoring occurs.</p>	<p>ME IMP#1 - Revise Chapter 32 to detail status and trend monitoring program elements and requirements consistent with AMF Phase IV (Status and Trend Monitoring and Evaluation Program Management System)</p>	<p>Develop basin wide protocols for researchers and managers that are standardized methods for ecological measurement and monitoring consistent across the Basin.</p>
<p>ME - 1 TRPA monitors, evaluates and reports progress toward attaining and maintaining adopted environmental threshold carrying capacities (threshold standards) through the implementation of a detailed regional scale status and trend monitoring and evaluation program.</p>		<p>ME-1.2 Use the Lake Tahoe management system to guide the implementation of the regional status and trend monitoring and evaluation program - TRPA will implement and maintain program management systems for the status and trend monitoring and evaluation program in order to improve its effectiveness and ensure that new scientific information is brought forward for consideration by decision-makers. The documentation for the management system will detail the process for incorporating research and monitoring results and recommendation into regulatory and management decision making.</p>	<p>ME-1.2 Use the Lake Tahoe management system to guide the implementation of the regional status and trend monitoring and evaluation program - TRPA will implement and maintain program management systems for the status and trend monitoring and evaluation program in order to improve its effectiveness and ensure that new scientific information is brought forward for consideration by decision-makers. The documentation for the management system will detail the process for incorporating research and monitoring results and recommendations into regulatory and management decision making.</p>	<p>ME IMP#1 - Revise Chapter 32 to detail status and trend monitoring program elements and requirements consistent with AMF Phase IV (Status and Trend Monitoring and Evaluation Program Management System)</p>	

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ME - 1 TRPA monitors, evaluates and reports progress toward attaining and maintaining adopted environmental threshold carrying capacities (threshold standards) through the implementation of a detailed regional scale status and trend monitoring and evaluation program.		M/E-1.3 Funding - TRPA will actively coordinate and seek cooperation from other land management and regulatory agencies to fund and implement regional status and trend monitoring and evaluation program activities.	M/E-1.3 Funding - TRPA will actively coordinate and seek cooperation from other land management and regulatory agencies, and research institutions, to fund and implement regional status and trend monitoring and evaluation program activities.	ME IMP#2 - TRPA will regularly coordinate status and trend program activities, including funding, as part of the implementation of the program through regular coordination meetings detailed In the Status and Trend Monitoring and Evaluation Management System Manual.	
ME - 1 TRPA monitors, evaluates and reports progress toward attaining and maintaining adopted environmental threshold carrying capacities (threshold standards) through the implementation of a detailed regional scale status and trend monitoring and evaluation program.		ME-1.4 Science community interaction - TRPA will regularly interact with the science community to periodically review technical assumptions, techniques, and procedures associated with status and trend monitoring and evaluation efforts.	ME-1.4 Science community interaction - TRPA will regularly interact with the science community to periodically review technical assumptions, techniques, and procedures associated with status and trend monitoring and evaluation efforts to ensure that monitoring of TRPA's threshold indicators remains commensurate with the best available science.	ME IMP#1 - Revise Chapter 32 to detail status and trend monitoring program elements and requirements consistent with AMF Phase IV (Status and Trend Monitoring and Evaluation Program Management System). Revisions will include details on when peer review or science consistency reviews are needed.	
ME - 1 TRPA monitors, evaluates and reports progress toward attaining and maintaining adopted environmental threshold carrying capacities (threshold standards) through the implementation of a detailed regional scale status and trend monitoring		ME-1.5 Reporting - Information generated through status and trend monitoring efforts will be readily available and reported through various forms of media to agency representatives, researchers, stakeholders, and other interested public on a regular basis	ME-1.5 Reporting - Information generated through status and trend monitoring efforts will be readily available and reported through various forms of media to agency representatives, researchers, stakeholders, and other interested public on a regular basis. Where possible, real-time information will be made available to the public online.	ME IMP#1 - Revise Chapter 32 to detail status and trend monitoring program elements and requirements consistent with AMF Phase IV (Status and Trend Monitoring and Evaluation Program Management System). For this policy, code language will be included that details reporting schedule and report content requirements.	IMP – Each year TRPA will request an Accomplishment Report from the science community that is a synthesis of the results of research and monitoring projects that occurred in the last year. This report will summarize findings related to management needs. The report will also identify additional research needs in order to address management questions. NEW IMP: Develop and maintain an internet website that provides real-time monitoring data for appropriate indicators. Where direct data is not readily available to TRPA, a link from this website will be provided for the public to access the information that is located on another website.

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and evaluation program.					NEW IMP: Promote the collection and reporting of real-time monitoring data for appropriate indicators.
ME - 1 TRPA monitors, evaluates and reports progress toward attaining and maintaining adopted environmental threshold carrying capacities (threshold standards) through the implementation of a detailed regional scale status and trend monitoring and evaluation program.		ME-1.6 Adopt numeric threshold standards & indicators - where appropriate and science-based evidence exists, TRPA will identify new or replace qualitative or vaguely articulated threshold standards with numeric threshold standards that best represent desired environmental values and adopt associated indicators that quantitatively measure environmental conditions and characterize divergence from threshold standard attainment. The aim is to improve the agency's ability to objectively, consistently and comprehensively assess environmental conditions and trends.	ME-1.6 Adopt numeric threshold standards & indicators - where appropriate and science-based evidence exists, TRPA will identify new or replace qualitative or vaguely articulated threshold standards and standards and/or indicators that are deemed outdated or inadequate by best available science with numeric threshold standards that best represent desired environmental values and adopt associated indicators that quantitatively measure environmental conditions and characterize divergence from threshold standard attainment. The aim is to improve the agency's ability to objectively, consistently and comprehensively assess environmental conditions and trends.	ME IMP#3 - Revise Chapter 32 to detail procedures and requirements for updating Regional Plan and threshold standards and indicators consistent with TRPA Resolution 82-11	
ME - 1 TRPA monitors, evaluates and reports progress toward attaining and maintaining adopted environmental threshold carrying capacities (threshold standards) through the implementation of a detailed regional scale status and trend monitoring and evaluation program.		ME 1.7 Science-based regional plan and threshold standard amendments – TRPA will use the results of implementation, effectiveness, and status and trend monitoring and evaluation efforts and best available science to adjust regional plan and program-specific strategies to more effectively conserve and protect natural resources, improve public safety and enhance recreation experience whenever appropriate and comprehensively every 5 years. Results and recommendations from	ME 1.7 Science-based regional plan and threshold standard amendments – TRPA will use the results of implementation, effectiveness, and status and trend monitoring and evaluation efforts and best available science to adjust regional plan and program-specific strategies to more effectively attain and maintain the thresholds, conserve and protect natural resources, improve public safety and enhance recreation experience whenever appropriate and comprehensively every 5 years. Results and recommendations from monitoring and research efforts should be used as the basis for threshold	ME IMP #4 - Update chapter 32 to promote a broad range of actions TRPA and others can take to resolve issues or mitigate impacts identified through monitoring or research results and recommendations. TRPA proposes to minimally carry forward policy Sub-language: "TRPA will make adjustments to the Regional Plan in one or more of the following areas: (1) annual residential and commercial project allocations; (2) development priorities; (3) capital improvement program; (4) enforcement program; or (5) financial program". ME IMP#6 - Revise Chapter 32 to detail schedule and process for incorporating applied research finding into the Regional Plan.	ME IMP #4 - Update chapter 32 to promote a broad range of actions TRPA and others can take to resolve issues or mitigate impacts identified through monitoring or research results and recommendations. TRPA proposes to minimally carry forward policy Sub-language: "TRPA will make adjustments to the Regional Plan in one or more of the following areas: (1) annual residential, tourist and commercial project allocations; (2) development and redevelopment priorities; (3) environmental improvement program; (4) capital improvement program; (5) enforcement program; or (6) financial program".

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		monitoring and research efforts should be used as the basis for threshold standard modifications, as appropriate.	standard modifications, as appropriate.		
ME - 1 TRPA monitors, evaluates and reports progress toward attaining and maintaining adopted environmental threshold carrying capacities (threshold standards) through the implementation of a detailed regional scale status and trend monitoring and evaluation program.		ME-1.8 Socioeconomic condition monitoring - TRPA will support other agency or entities' efforts to assess the region's socioeconomic conditions as a component of the status and trend monitoring and evaluation program to promote a better understanding of the possible social and economic impacts of implementing the regional plan .	ME-1.8: Socioeconomic condition information monitoring - TRPA will provide an internet reporting platform and/or web links to provide access to support other agency or entities' efforts information and data associated with to assessing the region's socioeconomic conditions as a component of the status and trend monitoring and evaluation program to promote a better understanding of the possible social and economic conditions in the Region impacts of implementing the regional plan .	ME IMP #5 - TRPA staff will work with local jurisdictions and other entities to include economic information into reporting products.	ME IMP #5 - TRPA staff will work with local jurisdictions and other entities to include make available to the public economic information into reporting products .
		ME-2.1 Use of best available science - TRPA will regularly review and incorporate best available scientific information into the regional plan and associated planning documents to provide the technical basis for effective conservation strategies and land use policies.		ME IMP#6 - Revise Chapter 32 to detail schedule and process for incorporating applied research findings into the Regional Plan.	ADD IMP: The process for incorporating applied research findings into the Regional Plan will ensure that scientific integrity is given priority over policy or political concerns when proposing changes to the Regional Plan and/or threshold standards and indicators.
ME-2 TRPA supports applied research and effectiveness monitoring efforts to improve understanding of ecosystem processes and to reduce risk of environmental harm and uncertainty related to development and		ME-2.2 Funding applied research - TRPA staff will actively seek grants and other available sources of funding to support applied research and monitoring needs.		ME IMP #7 - TRPA staff will be encouraged to actively explore alternative funding opportunities to fulfill research and monitoring needs.	ME IMP #7 – TRPA's Governing Board and Management staff will support all staff in to actively exploring alternative funding opportunities to fulfill research and monitoring needs.

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<p>conservation activities. TRPA uses results and recommendations efforts to improve the efficacy of land use policies and conservation strategies.</p>					
<p>ME-2 TRPA supports applied research and effectiveness monitoring efforts to improve understanding of ecosystem processes and to reduce risk of environmental harm and uncertainty related to development and conservation activities. TRPA uses results and recommendations efforts to improve the efficacy of land use policies and conservation strategies.</p>		<p>ME-2.3 Use scientific method – experimental design of research conducted in the region should be guided by the scientific method and research data should be generated by a variety of disciplines and research interests, and validated by peer review and/or scientific replication.</p>		<p>ME IMP #8 - TRPA will include a definition of the scientific method in Code of Ordinances</p>	<p>ME IMP #8 - TRPA will work with members of the scientific community in the Basin, including the Tahoe Science Consortium, to develop a definition for the scientific method. TRPA will include this definition in the Code of Ordinances.</p>
<p>ME-2 TRPA supports applied research and effectiveness monitoring efforts to improve understanding of ecosystem processes and to reduce risk of environmental harm and uncertainty related to development and conservation activities. TRPA uses results and recommendations efforts to improve the efficacy of land</p>		<p>M-2.4 Coordination of scientific activities and communication of science needs - TRPA and other appropriate agencies will regularly coordinate and communicate with the science community to improve mutual understanding of policy and management uncertainties and research needs. TRPA will support efforts to publish and make available to the public periodic reports that highlight the results and recommendations of applied research and effectiveness monitoring efforts as part of status and trend monitoring</p>		<p>ME IMP #9 - TRPA in coordination with other agencies and the science community will maintain a list of research and monitoring needs and priorities.</p>	<p>ME IMP #9 - TRPA in coordination with other agencies and the science community will continually update and maintain a list of research and monitoring needs and priorities.</p> <p>IMP – Each year TRPA will request an Accomplishment Report from the science community that is a synthesis of the results of research and monitoring projects that occurred in the last year. This report will summarize findings related to management needs. The report will also identify additional research needs in order to address management questions.</p>

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use policies and conservation strategies.		reporting cycles.			
ME-3 TRPA, in coordination with implementation agencies and the private sector, conducts implementation monitoring to disclose regional plan amendment actions, the extent and distribution of project and activity permitting, and the extent and distribution of conservation activities designed to achieve environmental threshold carrying capacities and regional plan goals.	Implement a monitoring program to evaluate the environmental thresholds, the effectiveness of the Regional Plan, along with the implementing ordinances and programs, to achieve those thresholds.	ME-3.1 Data management - TRPA will maintain operational databases and data retrieval systems to facilitate efficient tracking of the implementation of regional plan amendment actions, conservation activities, and permitted development.	ME-3.1 Data management - TRPA will maintain operational databases and data retrieval systems to facilitate efficient tracking of the implementation of regional plan amendment actions, conservation activities, and permitted development.	ME IMP #10 - Revise Code Chapter 38 to update details on the types of data and standard operating procedures for managing and summarizing implementation (basic) monitoring data.	IMP - TRPA will ensure that monitoring and research data is housed in one central location and available to the public.
ME-3 TRPA, in coordination with implementation agencies and the private sector, conducts implementation monitoring to disclose regional plan amendment actions, the extent and distribution of project and activity permitting, and the extent and distribution of conservation activities designed to achieve environmental		ME-3.2 Information accessibility - information generated through implementation monitoring will be summarized and made available to decision makers and interested public as part of status and trend monitoring reporting cycles		ME IMP#1 - Revise Chapter 32 to detail status and trend monitoring program elements and requirements consistent with AMF Phase IV (Status and Trend Monitoring and Evaluation Program Management System)	

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threshold carrying capacities and regional plan goals.					
		Added in Factsheet, Appendix, page 27: <i>Support the coordination and/or pooling of funding for Regional monitoring efforts.</i>		Added in Factsheet, Appendix, page 27: <i>To facilitate the pooling of funding, create a pass-through funding service.</i>	
			Policy: Ensure that monitoring projects that involve hydrologic parameters take into account potential changes of these parameters by climate change.		
			Policy: Special emphasis on effectiveness and performance evaluation of restoration techniques and Best Management practices to determine which types are most effective and determine the influence of factors such as location, proximity to fuels reduction etc.		

*Alternative 4 policy statements were prepared with the best publically available information from the TRPA and some of the information may be out-of-date. Additionally, according to TRPA staff, some details are lacking in Alternative 4 that may have been fully developed in Alternative 2.

**Similar to any RPU alternative, the Conservation Alternative needs to be subjected to the same rigorous environmental analysis to determine if its policies and implementation measures are sufficient for ETCC achievement and maintenance.

Italics identify policy or implementation that were revised as part of the Milestone process – it is unclear from the documents provided if the changes are in reference to Alt 2 or both Alt 2 and Alt 4.