
TRPA Regional Plan Update

Monitoring and Evaluation Goals, Policies, and Implementation Strategies

January 27, 2010

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| Alternative 1 | ME-1 |
| Alternative 2 | ME-2 |
| Alternative 3 | ME-29 |
| Alternative 4 | ME-30 |

Alternative 1 – Monitoring and Evaluation Goals, Policies, and Implementation Strategies

| Alternative 1 -- Monitoring and Evaluation (no changes proposed) | | | | | | | | | | |
|--|---------------------------|---------------|---------------|---|----------------|-----------------|-----------------|---|------------------|-------------------------|
| | Pathway Desired Condition | Existing Goal | Proposed Goal | Goal Status: (N)ew, (A)mended, (D)eleted, (U)nchanged | Goal Rationale | Existing Policy | Proposed Policy | Policy Status: (N)ew, (A)mended, (D)eleted, (U)nchanged | Policy Rationale | Implementation Measures |
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Alternative 2 – Monitoring and Evaluation Goals, Policies, and Implementation Strategies

| Alternative 2 -- Monitoring and Evaluation | | | | | | | | | | |
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| Element or Subelement/ Author | Pathway Desired Condition | Existing Goal | Proposed Goal | Goal Status: (N)ew, (A)mended, (D)eleted, (U)nchanged | Goal Rationale | Existing Policy | Proposed Policy | Policy Status: (N)ew, (A)mended, (D)eleted, (U)nchanged | Policy Rationale | Implementation Measures |
| 1.13.5 Monitoring & Evaluation/S. Romsos | NONE | ME1 EVALUATE PROGRESS TOWARD ATTAINING AND MAINTAINING THE ENVIRONMENTAL THRESHOLDS THROUGH THE USE OF A DETAILED MONITORING PROGRAM AND PERFORMANCE STANDARDS | 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. | A | Status and Trend (change) Monitoring is monitoring that provides a condition description of resources, landscapes, and ecosystems and how these conditions change over time. Status and Trend monitoring provides information on whether desired conditions, goals and numerical standards are achieved and can provide an early warning of unanticipated impacts from management or other activities. The proposed new goal language change reduces redundancy in the current G & P language and adopts monitoring terminology | ME3.1 THE AGENCY SHALL MAINTAIN AN OPERATIONAL MONITORING PROGRAM, CONSISTING OF PLANNING AND ADMINISTRATION, DATA COLLECTION, DATA STORAGE AND RETRIEVAL, AND DATA ANALYSIS. THE AGENCY SHALL USE THE PRODUCTS OF THIS PROGRAM TO IDENTIFY PROBLEMS AND EVALUATE PROGRESS UNDER THE REGIONAL PLAN. | 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. | A | Time has shown that TRPA alone does not have the budget and personnel to to fully implement a comprehensive status and trend monitoring program. This policy recognizes the need to coordinate monitoring efforts with other agencies such that funding and personnel are leveraged to meet multiple agency monitoring mandates and needs. Policy is intended to improve coordination across agencies and science community. Also intended to improve continuity and consistency of regional status and trend monitoring and reporting efforts. | 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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| | | | | | consistent with USFS, EIP science program, and TSC science plan and others throughout the nation. New language clarifies that we are monitoring indicators to understand if we are in compliance with adopted threshold standards (not "performance standards" which are currently not defined in the exiting Regional Plan) | | | | | |
| 1.13.5 Monitoring & Evaluation/S. Romsos | NONE | ME1 | ME - 1 | A | Status and Trend (change) Monitoring is monitoring that provides a condition description of resources, landscapes, and ecosystems and how these conditions change over time. Status and Trend monitoring | NONE | 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 | N | No existing policy directs TRPA on what approach/process it should use to guide its monitoring program. The addition of this policy would encourage TRPA to standardize and document the program management system for the Regional Status | 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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| | | | | | <p>provides information on whether desired conditions, goals and numerical standards are achieved and can provide an early warning of unanticipated impacts from management or other activities. The proposed new goal language change reduces redundancy in the current G & P language and adopts monitoring terminology consistent with USFS, EIP science program, and TSC science plan and others throughout the nation. New language clarifies that we are monitoring indicators to understand if we are in compliance with adopted threshold standards (not "performance</p> | | <p>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>and Trend Monitoring and Evaluation program (threshold monitoring program). Integrates results of AMF phase III (Lake Tahoe Management System report) and Phase IV Tahoe Status and Trend Monitoring and Evaluation Management System into TRPA Regional Plan. Would improve compliance with Compact V.c - to "continuously review" and "maintain" the regional plan.</p> | |

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| | | | | | standards" which are currently not defined in the exiting Regional Plan) | | | | | |
| 1.13.5 Monitoring & Evaluation/S. Romsos | NONE | ME1 | ME - 1 | A | Status and Trend (change) Monitoring is monitoring that provides a condition description of resources, landscapes, and ecosystems and how these conditions change over time. Status and Trend monitoring provides information on whether desired conditions, goals and numerical standards are achieved and can provide an early warning of unanticipated impacts from management or other activities. The proposed new goal language change reduces redundancy in | N/A | 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. | N | Time has shown that TRPA alone does not have the budget and personnel to to fully implement a comprehensive status and trend (i.e., threshold indicator) monitoring program. This policy recognizes the need to coordinate monitoring efforts with other agencies such that funding and personnel are leveraged to meet multiple agency monitoring mandates and needs. | 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 I the Status and Trend Monitoring and Evaluation Management System Manual. |

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| | | | | | the current G & P language and adopts monitoring terminology consistent with USFS, EIP science program, and TSC science plan and others throughout the nation. New language clarifies that we are monitoring indicators to understand if we are in compliance with adopted threshold standards (not "performance standards" which are currently not defined in the exiting Regional Plan) | | | | | |
| 1.13.5 Monitoring & Evaluation/S. Romsos | NONE | ME1 | ME - 1 | A | Status and Trend (change) Monitoring is monitoring that provides a condition description of resources, landscapes, and ecosystems and how these | Existing policy ME3.2 | 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. | A | Carries forward existing TRPA policy with amendments to wording to characterize nature of interaction that currently occurs between TRPA other agencies and the Tahoe | 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 Program |

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| | | | | | <p>conditions change over time. Status and Trend monitoring provides information on whether desired conditions, goals and numerical standards are achieved and can provide an early warning of unanticipated impacts from management or other activities. The proposed new goal language change reduces redundancy in the current G & P language and adopts monitoring terminology consistent with USFS, EIP science program, and TSC science plan and others throughout the nation. New language clarifies that we are monitoring indicators to understand if we are in</p> | | | | Science Consortium. | Management System). Revisions will include details on when peer review or science consistency reviews are needed. |

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| | | | | | compliance with adopted threshold standards (not "performance standards" which are currently not defined in the exiting Regional Plan) | | | | | |
| 1.13.5 Monitoring & Evaluation/S. Romsos | NONE | ME1 | ME - 1 | A | Status and Trend (change) Monitoring is monitoring that provides a condition description of resources, landscapes, and ecosystems and how these conditions change over time. Status and Trend monitoring provides information on whether desired conditions, goals and numerical standards are achieved and can provide an early warning of unanticipated impacts from management or other activities. | Existing policy ME3.3 | 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 | A | Policy would promote the transparency and availability of monitoring information Amended policy recognizes new forms of media for releasing information to the public that was not available at time of existing Regional Plan | 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. |

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| | | | | | The proposed new goal language change reduces redundancy in the current G & P language and adopts monitoring terminology consistent with USFS, EIP science program, and TSC science plan and others throughout the nation. New language clarifies that we are monitoring indicators to understand if we are in compliance with adopted threshold standards (not "performance standards" which are currently not defined in the exiting Regional Plan) | | | | | |
| 1.13.5 Monitoring & Evaluation/S. Romsos | NONE | ME1 | ME - 1 | A | Status and Trend (change) Monitoring is monitoring that provides a condition description of | NONE | ME-1.6 ADOPT NUMERIC THRESHOLD STANDARDS & INDICATORS - WHERE APPROPRIATE AND SCIENCE-BASED EVIDENCE EXISTS, TRPA WILL IDENTIFY NEW OR REPLACE QUALITATIVE | N | TRPA currently has a number of qualitatively expressed and/or vaguely articulated threshold | ME IMP#3 - Revise Chapter 32 to detail procedures and requirements for updating Regional Plan and threshold standards and |

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| | | | | | resources, landscapes, and ecosystems and how these conditions change over time. Status and Trend monitoring provides information on whether desired conditions, goals and numerical standards are achieved and can provide an early warning of unanticipated impacts from management or other activities. The proposed new goal language change reduces redundancy in the current G & P language and adopts monitoring terminology consistent with USFS, EIP science program, and TSC science plan and others throughout the nation. New language | | 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 . | | standards. This situation results in a variable interpretation of threshold standard achievement. This policy moves TRPA toward adopting numeric, objective and clearly articulated threshold standards that will improve the repeatability of threshold standard achievement interpretation and clarity of understanding of what the threshold standard target is. | indicators consistent with TRPA Resolution 82-11 |

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| | | | | | clarifies that we are monitoring indicators to understand if we are in compliance with adopted threshold standards (not "performance standards" which are currently not defined in the exiting Regional Plan) | | | | | |
| 1.13.5 Monitoring & Evaluation/S. Romsos | NONE | ME1 | ME - 1 | A | Status and Trend (change) Monitoring is monitoring that provides a condition description of resources, landscapes, and ecosystems and how these conditions change over time. Status and Trend monitoring provides information on whether desired conditions, goals and numerical standards are achieved and can provide an | Refines existing Policies ME1.2, ME3.2 | 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 MONITORING AND RESEARCH EFFORTS SHOULD BE USED AS THE BASIS FOR THRESHOLD STANDARD MODIFICATIONS, AS | A | Carries forward and combines two existing policies with adjustments to wording to more specifically characterize threshold reporting schedule and the role of research and monitoring results and recommendation in regional plan maintenance and threshold standard amendments. | 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 |

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| | | | | | early warning of unanticipated impacts from management or other activities. The proposed new goal language change reduces redundancy in the current G & P language and adopts monitoring terminology consistent with USFS, EIP science program, and TSC science plan and others throughout the nation. New language clarifies that we are monitoring indicators to understand if we are in compliance with adopted threshold standards (not "performance standards" which are currently not defined in the exiting Regional Plan) | | APPROPRIATE. | | | <i>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.</i> |
| 1.13.5 Monitorng & | NONE | ME1 | ME - 1 | A | Status and Trend (change) | ME2.9, ME3.1.c, ME3.4 | ME-1.8 SOCIOECONOMIC CONDITION | A | There has not been support | ME IMP #5 - TRPA staff will work with |

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| Evaluation/S. Romsos | | | | | Monitoring is monitoring that provides a condition description of resources, landscapes, and ecosystems and how these conditions change over time. Status and Trend monitoring provides information on whether desired conditions, goals and numerical standards are achieved and can provide an early warning of unanticipated impacts from management or other activities. The proposed new goal language change reduces redundancy in the current G & P language and adopts monitoring terminology consistent with USFS, EIP science program, and | | 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 . | | from stakeholders for TRPA to carry out socioeconomic condition monitoring with the exception of monitoring associated with recreation, noise, scenic resources, and transportation indicators. However, TRPA is still interested in forwarding a policy that supports the collection and analysis of other demographic, economic and social condition indicators. The amended policy combines three existing and related policy to improve the efficiency of the G and P document. | local jurisdictions and other entities to include economic information into reporting products. |

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| | | | | | TSC science plan and others throughout the nation. New language clarifies that we are monitoring indicators to understand if we are in compliance with adopted threshold standards (not "performance standards" which are currently not defined in the exiting Regional Plan) | | | | | |
| 1.13.5 Monitoring & Evaluation/S. Romsos | N/A | ME2 IMPROVE UNDERSTANDING OF CAUSE AND EFFECT RELATIONSHIPS FOR LAKE TAHOE AND THE LAKE TAHOE REGION | 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 | A | Applied research involves the collection of data that does not already exist or is a summary and/or synthesis of existing relevant research results or studies. The results of applied research should be used to improve our understanding of how | Refines existing Policies ME2.2, ME3.2 | 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 LANDUSE POLICIES. | A | Refines existing Policies 2.2, 3.2. Reaffirms TRPA commitment to use science as a basis for regulations, policy and conservation actions | ME IMP#6 - Revise Chapter 32 to detail schedule and process for incorporating applied research finding into the Regional Plan. |

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| | | | FROM THESE EFFORTS TO IMPROVE THE EFFICACY OF LAND USE POLICIES AND CONSERVATION STRATEGIES. . | | ecosystem components interrelate or to better understand cause and effect relationships as applied to landuse, management strategies, policy, and conservation of natural and human systems in the Lake Tahoe Region. Effectiveness monitoring plays a key role in reducing uncertainty and risk of unintended negative impacts from conservation or development activities. Effectiveness monitoring is also used to validate or disprove assumptions about project design, conservation strategies, or policies. Typically, effectiveness | | | | | |

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| | | | | | monitoring, like applied research, entails testing hypotheses and thus is guided by experimental design and analysis. This goal language clarifies that TRPA need to conduct applied research and effectiveness monitoring to adaptively manage conservation activities, regulations and policies. This "goal" language is consistent with the intent of existing Goals and Policies language with the exception that the terminology is now consistent with other agencies and the TSC science plan with respect to "applied research and effectiveness monitoring". | | | | | |

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| 1.13.5 Monitoring & Evaluation/S. Romsos | NONE | ME2 | ME-2 | A | Applied research involves the collection of data that does not already exist or is a summary and/or synthesis of existing relevant research results or studies. The results of applied research should be used to improve our understanding of how ecosystem components interrelate or to better understand cause and effect relationships as applied to landuse, management strategies, policy, and conservation of natural and human systems in the Lake Tahoe Region. Effectiveness monitoring plays a key role | None in M and E subelement, some policy language related to funding is included in existing "Financing" subelement for capital projects | 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. | N | No policy currently exist in the context of monitoring and research funding. Policy encourages TRPA to actively seek alternative funding sources to fill monitoring and research funding gaps. | ME IMP #7 - TRPA staff will be encouraged to actively explore alternative funding opportunities to fulfill research and monitoring needs. |

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| | | | | | <p>in reducing uncertainty and risk of unintended negative impacts from conservation or development activities. Effectiveness monitoring is also used to validate or disprove assumptions about project design, conservation strategies, or policies. Typically, effectiveness monitoring, like applied research, entails testing hypotheses and thus is guided by experimental design and analysis. This goal language clarifies that TRPA need to conduct applied research and effectiveness monitoring to adaptively manage conservation activities, regulations and</p> | | | | | |

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| | | | | | policies. This "goal" language is consistent with the intent of existing Goals and Policies language with the exception that the terminology is now consistent with other agencies and the TSC science plan with respect to "applied research and effectiveness monitoring". | | | | | |
| 1.13.5 Monitoring & Evaluation/S. Romsos | NONE | ME2 | ME-2 | A | Applied research involves the collection of data that does not already exist or is a summary and/or synthesis of existing relevant research results or studies. The results of applied research should be used to improve our understanding of how | NONE | 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. | N | No current policy exist that characterizes the level of scientific rigor required by TRPA. Policy directs science funded and used by the TRPA to use the scientific method as a standard to improve the credibility of information used in decision making. | ME IMP #8 - TRPA will include a definition of the scientific method in Code of Ordinances |

Alternative 2 – Monitoring and Evaluation Goals, Policies, and Implementation Strategies

| Alternative 2 -- Monitoring and Evaluation | | | | | | | | | | |
|--|---------------------------|---------------|---------------|---|---|-----------------|-----------------|---|------------------|-------------------------|
| Element or Subelement/ Author | Pathway Desired Condition | Existing Goal | Proposed Goal | Goal Status: (N)ew, (A)mended, (D)eleted, (U)nchanged | Goal Rationale | Existing Policy | Proposed Policy | Policy Status: (N)ew, (A)mended, (D)eleted, (U)nchanged | Policy Rationale | Implementation Measures |
| | | | | | ecosystem components interrelate or to better understand cause and effect relationships as applied to landuse, management strategies, policy, and conservation of natural and human systems in the Lake Tahoe Region. Effectiveness monitoring plays a key role in reducing uncertainty and risk of unintended negative impacts from conservation or development activities. Effectiveness monitoring is also used to validate or disprove assumptions about project design, conservation strategies, or policies. Typically, effectiveness | | | | | |

Alternative 2 – Monitoring and Evaluation Goals, Policies, and Implementation Strategies

| Alternative 2 -- Monitoring and Evaluation | | | | | | | | | | |
|--|---------------------------|---------------|---------------|---|---|-----------------|-----------------|---|------------------|-------------------------|
| Element or Subelement/ Author | Pathway Desired Condition | Existing Goal | Proposed Goal | Goal Status: (N)ew, (A)mended, (D)eleted, (U)nchanged | Goal Rationale | Existing Policy | Proposed Policy | Policy Status: (N)ew, (A)mended, (D)eleted, (U)nchanged | Policy Rationale | Implementation Measures |
| | | | | | monitoring, like applied research, entails testing hypotheses and thus is guided by experimental design and analysis. This goal language clarifies that TRPA need to conduct applied research and effectiveness monitoring to adaptively manage conservation activities, regulations and policies. This "goal" language is consistent with the intent of existing Goals and Policies language with the exception that the terminology is now consistent with other agencies and the TSC science plan with respect to "applied research and effectiveness monitoring". | | | | | |

Alternative 2 – Monitoring and Evaluation Goals, Policies, and Implementation Strategies

| Alternative 2 -- Monitoring and Evaluation | | | | | | | | | | |
|---|---------------------------|---------------|---------------|---|--|----------------------------|---|---|---|--|
| Element or Subelement/ Author | Pathway Desired Condition | Existing Goal | Proposed Goal | Goal Status: (N)ew, (A)mended, (D)eleted, (U)nchanged | Goal Rationale | Existing Policy | Proposed Policy | Policy Status: (N)ew, (A)mended, (D)eleted, (U)nchanged | Policy Rationale | Implementation Measures |
| 1.13.5 Monitoring & Evaluation/S. Romsos | NONE | ME2 | ME-2 | A | Applied research involves the collection of data that does not already exist or is a summary and/or synthesis of existing relevant research results or studies. The results of applied research should be used to improve our understanding of how ecosystem components interrelate or to better understand cause and effect relationships as applied to landuse, management strategies, policy, and conservation of natural and human systems in the Lake Tahoe Region. Effectiveness monitoring plays a key role | ME2.1 through ME2.9, ME3.2 | 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 REPORTING CYCLES. | A | This policy replaces a fixed list of research needs found in the in the G & P document (2.1 to 2.9) with a dynamic list that will be regularly reviewed and revised to reflect current research needs. The amended policy continues to encourage communication (as reflected in existing policy 3.2) between the science community and TRPA as appropriate to ensure clear understanding of issues that TRPA is faced with and to ensure that TRPA understands impending scientific discoveries that TRPA needs to be aware of. | ME IMP #9 - TRPA in coordination with other agencies and the science community will maintain a list of research and monitoring needs and priorities. |

Alternative 2 – Monitoring and Evaluation Goals, Policies, and Implementation Strategies

| Alternative 2 -- Monitoring and Evaluation | | | | | | | | | | |
|--|---------------------------|---------------|---------------|---|---|-----------------|-----------------|---|------------------|-------------------------|
| Element or Subelement/ Author | Pathway Desired Condition | Existing Goal | Proposed Goal | Goal Status: (N)ew, (A)mended, (D)eleted, (U)nchanged | Goal Rationale | Existing Policy | Proposed Policy | Policy Status: (N)ew, (A)mended, (D)eleted, (U)nchanged | Policy Rationale | Implementation Measures |
| | | | | | <p>in reducing uncertainty and risk of unintended negative impacts from conservation or development activities. Effectiveness monitoring is also used to validate or disprove assumptions about project design, conservation strategies, or policies. Typically, effectiveness monitoring, like applied research, entails testing hypotheses and thus is guided by experimental design and analysis. This goal language clarifies that TRPA need to conduct applied research and effectiveness monitoring to adaptively manage conservation activities, regulations and</p> | | | | | |

Alternative 2 – Monitoring and Evaluation Goals, Policies, and Implementation Strategies

| Alternative 2 -- Monitoring and Evaluation | | | | | | | | | | |
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| | | | | | policies. This "goal" language is consistent with the intent of existing Goals and Policies language with the exception that the terminology is now consistent with other agencies and the TSC science plan with respect to "applied research and effectiveness monitoring". | | | | | |
| 1.13.5 Monitoring & Evaluation/S. Romsos | NONE | ME3 IMPLEMENT A MONITORING PROGRAM TO EVALUATE THE ENVIRONMENTAL THRESHOLDS, THE EFFECTIVENESS OF THE REGIONAL PLAN, AND THE IMPLEMENTING ORDINANCES AND PROGRAMS. | ME-3 TRPA, IN COORDINATION WITH IMPLEMENTATION AGENCIES AND THE PRIVATE SECTOR, CONDUCTS MONITORING TO DISCLOSE REGIONAL PLAN AMENDMENT ACTIONS, THE EXTENT AND DISTRIBUTION OF PROJECT AND ACTIVITY PERMITTING, AND THE EXTENT AND DISTRIBUTION OF | A | Implementation monitoring is monitoring that records what, when, where, and how development and conservation actions, policy, and programs have been carried out. Tracking and reporting on the implementation of conservation activities and development provides a record on the | Existing policy ME3.1 | 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. | A | Carries forward existing policy with minor adjustments to language | 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. |

Alternative 2 – Monitoring and Evaluation Goals, Policies, and Implementation Strategies

| Alternative 2 -- Monitoring and Evaluation | | | | | | | | | | |
|--|---------------------------|---------------|--|---|---|-----------------|-----------------|---|------------------|-------------------------|
| Element or Subelement/ Author | Pathway Desired Condition | Existing Goal | Proposed Goal | Goal Status: (N)ew, (A)mended, (D)eleted, (U)nchanged | Goal Rationale | Existing Policy | Proposed Policy | Policy Status: (N)ew, (A)mended, (D)eleted, (U)nchanged | Policy Rationale | Implementation Measures |
| | | | CONSERVATION ACTIVITIES DESIGNED TO ACHIEVE ENVIRONMENTAL THRESHOLD CARRYING CAPACITIES AND REGIONAL PLAN GOALS. | | extent and distribution of activities undertaken by TRPA, other regional agencies, and private entities. For example, the Environmental Improvement Program should have the capability through implementation monitoring to inform interested public and stakeholder on which projects have been completed, how much they cost, when and where projects occurred, and whether projects were implemented as designed and permitted. This "goal" language is consistent with the intent of existing Goals and Policies language with the exception that the | | | | | |

Alternative 2 – Monitoring and Evaluation Goals, Policies, and Implementation Strategies

| Alternative 2 -- Monitoring and Evaluation | | | | | | | | | | |
|--|---------------------------|---------------|---------------|---|--|---|---|---|---|--|
| Element or Subelement/ Author | Pathway Desired Condition | Existing Goal | Proposed Goal | Goal Status: (N)ew, (A)mended, (D)eleted, (U)nchanged | Goal Rationale | Existing Policy | Proposed Policy | Policy Status: (N)ew, (A)mended, (D)eleted, (U)nchanged | Policy Rationale | Implementation Measures |
| | | | | | terminology is now consistent with other agencies and the TSC science plan with respect to "implementation monitoring". | | | | | |
| 1.13.5 Monitoring & Evaluation/S. Romsos | NONE | ME3 | ME-3 | A | Implementation monitoring is monitoring that records what, when, where, and how development and conservation actions, policy, and programs have been carried out. Tracking and reporting on the implementation of conservation activities and development provides a record on the extent and distribution of activities undertaken by TRPA, other regional agencies, and private entities. For example, the Environmental Improvement | Existing policy ME3.3 somewhat touches on the proposed policy | 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 | A | Carries forward existing policy with minor adjustments to language to provide details on how implementation monitoring data is treated. | 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) |

Alternative 2 – Monitoring and Evaluation Goals, Policies, and Implementation Strategies

| Alternative 2 -- Monitoring and Evaluation | | | | | | | | | | |
|--|---------------------------|---------------|---------------|---|---|-----------------|-----------------|---|------------------|-------------------------|
| Element or Subelement/ Author | Pathway Desired Condition | Existing Goal | Proposed Goal | Goal Status: (N)ew, (A)mended, (D)eleted, (U)nchanged | Goal Rationale | Existing Policy | Proposed Policy | Policy Status: (N)ew, (A)mended, (D)eleted, (U)nchanged | Policy Rationale | Implementation Measures |
| | | | | | Program should have the capability through implementation monitoring to inform interested public and stakeholder on which projects have been completed, how much they cost, when and where projects occurred, and whether projects were implemented as designed and permitted. This "goal" language is consistent with the intent of existing Goals and Policies language with the exception that the terminology is now consistent with other agencies and the TSC science plan with respect to "implementation monitoring". | | | | | |

Alternative 2 – Monitoring and Evaluation Goals, Policies, and Implementation Strategies

Alternative 3 – Monitoring and Evaluation Goals, Policies, and Implementation Strategies

| Alternative 3 -- Monitoring and Evaluation (same as Alternative 2) | | | | | | | | | | |
|---|---------------------------------|---------------|---------------|---|-------------------|--------------------|--------------------|---|---------------------|----------------------------|
| | Pathway Desired Condition | Existing Goal | Proposed Goal | Goal Status: (N)ew, (A)mended, (D)eleted, (U)nchanged | Goal Rationale | Existing Policy | Proposed Policy | Policy Status: (N)ew, (A)mended, (D)eleted, (U)nchanged | Policy Rationale | Implementation Measures |
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Alternative 4 – Monitoring and Evaluation Goals, Policies, and Implementation Strategies

| Alternative 4 -- Monitoring and Evaluation (same as Alternative 2) | | | | | | | | | | |
|---|---------------------------------|---------------|---------------|---|-------------------|--------------------|--------------------|---|---------------------|----------------------------|
| | Pathway Desired Condition | Existing Goal | Proposed Goal | Goal Status: (N)ew, (A)mended, (D)eleted, (U)nchanged | Goal Rationale | Existing Policy | Proposed Policy | Policy Status: (N)ew, (A)mended, (D)eleted, (U)nchanged | Policy Rationale | Implementation Measures |
| | | | | | | | | | | |