



## Regional Plan for the Lake Tahoe Basin

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# **GOALS AND POLICIES**



# **REGIONAL PLAN FOR THE LAKE TAHOE BASIN**



## **GOALS AND POLICIES**

**Adopted by the Governing Board September 17, 1986**

**Tahoe Regional Planning Agency**  
Printed December 2004



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# TABLE OF AMENDMENTS

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<b>April 27, 1988, Ordinance 88-6;</b>	Amendment to repeal Chapter III, Transportation Element and substitute with Chapter VI, Goals & Policies, as set forth in the Regional Transportation Plan, February 1988.
<b>December 1, 1988, Ordinance 88-24;</b>	Amendment of the Recreation Element to add amended language
<b>March 22, 1989, Ordinance 89-3;</b>	Amendment of Subparagraph C, Policy 3, Goal #1, Water Quality Subelement, Land Use Element
<b>August 23, 1989, Ordinance 89-15;</b>	Amendment of Subparagraph E, Policy 2, Goal #3, Land Use Subelement, Land Use Element.
<b>April 25, 1990, Ordinance 90-8;</b>	Amendment to repeal Policy 6, Goal #1, Chapter III, Transportation Element and substitute with Policy 6, Goal #1, Chapter Policy 6, Goal #1, Chapter VI as set forth in the Regional Transportation Plan, April 1988.
<b>May 22, 1991, Ordinance 91-9;</b>	Amendment of Subparagraph E, Policy 7, Goal #2, Land Use Subelement, Land Use Element.
<b>December 18, 1991, Ordinance 91-21;</b>	Amendment of Goal #2, Development and Implementation Priorities Subelement, Implementation Element
<b>April 23, 1992, Ordinance 92-6;</b>	Amendment of Goal #2, Policy 6, Development and Implementation Priorities Subelement, Implementation Element
<b>April 23, 1992, Ordinance 92-7;</b>	Amendment of Goal #4, Policy 1, Development and Implementation Priorities Subelement, Implementation Element
<b>May 27, 1992, Ordinance 92-12;</b>	Amendment to repeal Chapter III, Transportation Element and the Air Quality Subelement, Land Use Element, and substitute with Volume III of the Regional Transportation Plan/Air Quality Plan for the Lake Tahoe Region, April 1992.
<b>August 26, 1992, Ordinance 92-17;</b>	Amendment of Goal #1, Policy 1, Noise Subelement, Land Use Element
<b>January 24, 1996, Ordinance 96-1;</b>	Amendment of the Goals and Policies to add a statement of mission and a statement of principles
<b>February 28, 1996, Ordinance 96-2;</b>	Amendment of Goal #2, Policy 4.B, Development & Implementation Priorities Subelement, Implementation Element

<b>September 25, 1996, Ordinance 96-15;</b>	Amendment of Goal #1, Policy 1, Housing Subelement, Land Use Element
<b>November 20, 1996, Ordinance 96-20;</b>	Amendment of Goal #2, Policy 7, Development & Implementation Priorities Subelement, Implementation Element
<b>May 28, 1997, Ordinance 97-9;</b>	Amendment of Goal #2, Policy 5, Land Use Subelement, Land Use Element
<b>May 28, 1997, Ordinance 97-9;</b>	Amendment to repeal Goal #5, Public Service Element
<b>May 28, 1997, Ordinance 97-9;</b>	Amendment of Goal #2 and #3, Development & Implementation Priorities Subelement, Implementation Element
<b>May 28, 1997, Ordinance 97-9;</b>	Amendment of Cumulative Noise Events Numerical Standard, Noise Subelement, Land Use Element and Attachment C
<b>May 28, 1997, Ordinance 97-9;</b>	Amendment of Stream Habitat Numerical Standard and Lake Habitat Management Standard, Fisheries Subelement, Conservation Element
<b>September 23, 1998, Ordinance 98-23;</b>	Amendment of Goal #2 Policy #6, of the Land Use Subelement, Land Use Element
<b>January 27, 1999, Ordinance 99-3;</b>	Amendment of Goal #2 Policy #10, of the Water Quality Subelement, Land Use Element
<b>December 20, 2000, Ordinance 00-14;</b>	Amendment of Chapter III, Transportation Element
<b>May 23, 2001, Ordinance 01-10;</b>	Amendment of Goals #4 and #5, Vegetation Subelement, Conservation Element
<b>June 27, 2001, Ordinance 01-14;</b>	Amendment of Goal #1 Policy #1, of the Water Quality Subelement, Land Use Element
<b>December 19, 2001, Ordinance 01-21;</b>	Amendment of Goal #2, Development & Implementation Priorities Subelement, Implementation Element
<b>April 24, 2002, Ordinance 02-07</b>	Amendment of Goal #2, Policy #5, of the Land Use Subelement, Land Use Element  Amendment of Goal #2, Policy #2 F, of the Development and Implementation Priorities, Implementation Element
<b>September 25, 2002, Ordinance 02-20;</b>	Amendment of Goal #3, Policy #3 of the Vegetation Subelement, Conservation Element
<b>November 20, 2002, Ordinance 02-21;</b>	Amendment of Goal #1, Policy #1 of the Scenic Subelement, Conservation Element
<b>December 18, 2002, Ordinance 02-22;</b>	Amendment of Goal #1, Policy #6 of the Water Quality Subelement, Land Use Element
<b>December 18, 2002, Ordinance 02-23;</b>	Amendment of Goal #1, Policy #3 of the Water Quality Subelement, Land Use Element

<b>December 18, 2002, Ordinance 02-24;</b>	Amendment of Goal #2, Policies #8, 9, and 10 of the Development and Implementation Priorities, Implementation Element
<b>July 23, 2003, Resolution 03-16;</b>	Single Noise Event Threshold Standard for Motorized Watercraft, Noise Subelement, Land Use Element and Attachment C
<b>April 28, 2004, Ordinance 04-09;</b>	Amendment of Goal #2, Policies #1, 2, and 3 of the Housing Subelement, Land Use Element
<b>June 23, 2004, Ordinance 04-13;</b>	Amendment of Attachment B, Regional Plan Glossary
<b>October 27, 2004, Ordinance 04-17;</b>	Amendment of Chapter III, Transportation Element
<b>October 25, 2006, Ordinance-06-05</b>	Amendment of Chapter II, Land Use Element and Chapter VII, Implementation Element – To extend the Allocation programs until the adoption of the Pathway 2007 Regional Plan



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# *PREFACE*

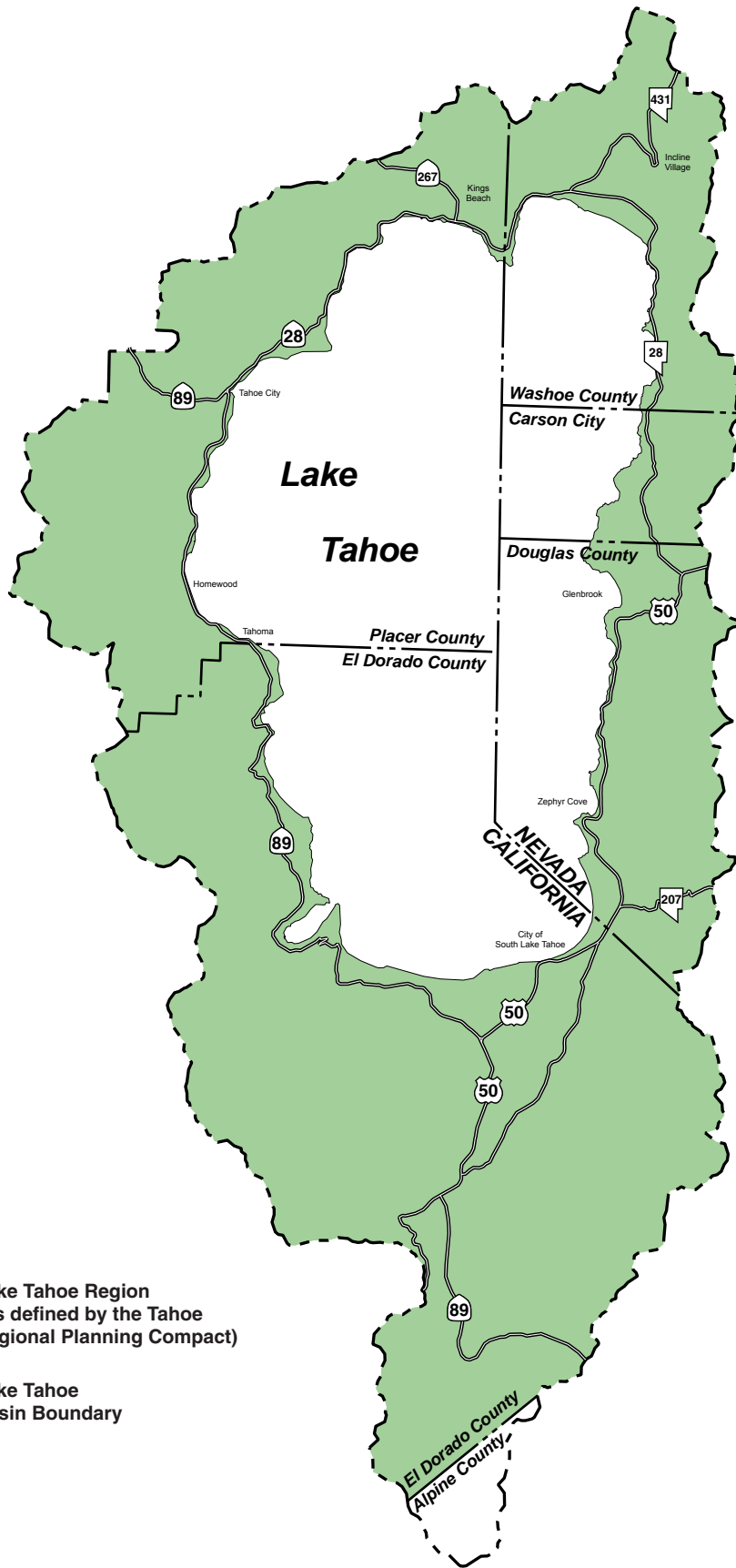
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The Lake Tahoe Region is located on the California-Nevada border between the Sierra Nevada Crest and the Carson Range (Refer to Figure 1). Approximately two-thirds of the Lake Tahoe Basin is in California and one-third in Nevada. In total, the Basin comprises about 501 square miles including the waters of Lake Tahoe which measures 191 square miles. Lake Tahoe is the dominant natural feature of the Basin and is the primary focus of local environmental regulation to protect its exceptional water clarity.

The Lake Tahoe Region contains the incorporated area of the City of South Lake Tahoe and portions of El Dorado County and Placer Counties, California and Washoe and Douglas Counties and the rural area of Carson City, Nevada. The Basin is within the First and Fourteenth Congressional Districts of California and the Northern Congressional District of Nevada. The Tahoe Regional Planning Agency is a separate legal entity governed by a body of seven delegates from California and seven from Nevada. There is also a nonvoting federal representative to the Governing Board.

The Tahoe Regional Planning Compact (P.L. 96-551, 94 Stat. 3233) provides the framework for the development and implementation of this Regional Plan. At a minimum, the amendments to the Regional Plan must achieve and maintain adopted environmental threshold carrying capacities while providing for orderly growth and development consistent with such capacities.





-  Lake Tahoe Region  
(As defined by the Tahoe  
Regional Planning Compact)
-  Lake Tahoe  
Basin Boundary



# LAKE TAHOE REGION



# TAHOE REGIONAL PLANNING AGENCY

## GOALS AND POLICIES

### Statement of Mission

**THE TAHOE REGIONAL PLANNING AGENCY LEADS THE COOPERATIVE EFFORT TO PRESERVE, RESTORE, AND ENHANCE THE UNIQUE NATURAL AND HUMAN ENVIRONMENT OF THE LAKE TAHOE REGION.**

### Statement of Principles

#### Preamble

TRPA shall interpret and administer its plans, ordinances, rules, and regulations in accordance with the provisions of the Compact. This statement of principles is intended to confirm the policies set forth in the Tahoe Regional Planning Compact (P.L. 96-551, December 19, 1980), in its specific provisions and as a whole, so as to guide the Agency in resolving conflicts, in charting the future direction, and in enhancing public understandability. The following statement of general policy provides TRPA with direction and consistency for enactment and implementation of the Regional Plan and increases TRPA and public understanding of the TRPA Goals and Policies.

#### Principles

1. The Tahoe Region exhibits unique and irreplaceable environmental and ecological values of national significance which are threatened with deterioration or degeneration.
2. The purpose of TRPA is to:
  - a. Maintain the significant scenic, recreational, educational, scientific, natural, and public health values provided by the Region; and
  - b. Insure an equilibrium between the Region's natural endowment and its manmade environment.

Together these will encourage the wise use of the waters of Lake Tahoe and the resources of the area, preserve public and private investments in the Region, and preserve the social and economic health of the Region.

3. In accomplishing its purpose, TRPA is to:
  - a. Establish environmental threshold carrying capacities, defined as environmental standards necessary to maintain significant scenic, recreational, educational, scientific, or natural values of the Region or to maintain public health and safety within the Region, including but not limited to standards for air quality, water quality, soil conservation, vegetation preservation, and noise;

- b. Adopt and enforce a Regional plan and implementing ordinances which achieve and maintain such capacities while providing opportunities for orderly growth and development consistent with such capacities; and
- c. Pursue such activities and projects consistent with the Agency purposes.

# CHAPTER I

## INTRODUCTION

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The Regional Plan describes the needs and goals of the Region and provides statements of policy to guide decision making as it affects the Region's resources and remaining capacities. The Plan with all of its elements, as implemented through Agency ordinances and rules and regulations, provides for the achievement and maintenance of the adopted environmental threshold carrying capacities (thresholds) while providing opportunities for orderly growth and development.

### **AUTHORITY**

The Tahoe Regional Planning Agency (TRPA) was reorganized and given new duties under provisions of the December 19, 1980 amendments to the Tahoe Regional Planning Compact, (Public Law 96-551, 94 Statute 3233 (Compact)). In adopting the amended Compact, the following findings were made by the legislatures of the states of Nevada and California as well as the U. S. Congress:

#### Article I - Findings and Declarations of Policy

(a) It is found and declared that:

- (1) The waters of Lake Tahoe and other resources of the region are threatened with deterioration or degeneration, which endangers the natural beauty and economic productivity of the region.
- (2) The public and private interests and investments in the region are substantial.
- (3) The region exhibits unique environmental and ecological values which are irreplaceable.
- (4) By virtue of the special conditions and circumstances of the region's natural ecology, developmental pattern, population distribution and human needs, the region is experiencing problems of resource use and deficiencies of environmental control.
- (5) Increasing urbanization is threatening the ecological values of the region and threatening the public opportunities for use of the public lands.
- (6) Maintenance of the social and economic health of the region depends on maintaining the significant scenic, recreational, education, scientific, natural and public health values provided by the Lake Tahoe Basin.
- (7) There is a public interest in protecting, preserving and enhancing these values for the residents of the region and for visitors to the region.
- (8) Responsibilities for providing recreational and scientific opportunities, preserving scenic and natural areas, and safeguarding the public who live, work and plan in or visit the region are divided among local governments, regional agencies, the States of California and Nevada, and the Federal Government.

- (9) In recognition of the public investment and multistate and national significance of the recreational values, the Federal Government has an interest in the acquisition of recreational property and the management of resources in the region to preserve environmental and recreational values, and the Federal Government should assist the States in fulfilling their responsibilities.
- (10) In order to preserve the scenic beauty and outdoor recreational opportunities of the region, there is a need to insure an equilibrium between the region's natural endowment and its manmade environment.
- (b) In order to enhance the efficiency and governmental effectiveness of the region, it is imperative that there be established a Tahoe Regional Planning Agency with the powers conferred by this compact including the power to establish environmental threshold carrying capacities and to adopt and enforce a regional plan and implementing ordinances which will achieve and maintain such capacities while providing opportunities for orderly growth and development consistent with such capacities.
- (c) The Tahoe Regional Planning Agency shall interpret and administer its plans, ordinances, rules and regulations in accordance with the provisions of this compact.

These findings are intended to direct the actions of the Agency in implementing the amended Compact. The Compact requires that the Agency review any activities that may substantially affect the land, water, air, space or any other resources of the Region. The basis for such review is a set of standards known as environmental threshold carrying capacities (thresholds) as implemented through a regional plan. The thresholds were adopted by the Agency in August, 1982.

### **Planning Approach**

The development of the Regional Plan is the continuation of the process, envisioned by Article V of the Compact, which began with the development of the environmental threshold carrying capacities. Thresholds establish the environmental standards for the Region and, as such, indirectly define the capacity of the Region to accommodate additional development. The Environmental Thresholds Study Report provides the basis and rationale for the establishment of thresholds while the Regional Plan and implementing ordinances define the actual limits and potential for new development consistent with the constraints imposed by the thresholds.

### **Threshold Development**

The development of environmental threshold carrying capacities followed a four-step process. The first step incorporated participation by state, federal and local agencies, and the general public. Concurrently, a program was implemented to enhance public awareness and to track the progress of the study. This process helped to identify issues and components of the environment that are of local, regional, or national significance. Value or goal statements established the parameters of interest for each component and narrowed the focus for establishing thresholds. For example, air quality is an environmental component but the threshold development process focused specifically on such "sub-issues" as carbon monoxide and ozone.



The second step identified the variables that affect each environmental component. From this, cause and effect relationships between variables were established. In the third step, these relationships were evaluated according to their individual contributions to the resource. Thresholds were then established only for those causal factors that were most significant to the resource. (A threshold is established to identify a particular event, circumstance, or condition that will create an unacceptable change or degradation of a particular resource of interest.) The second and third steps were necessary to (1) initially identify the factors responsible for unacceptable changes in the resource and (2) identify the appropriate threshold necessary to protect the resource or to achieve a particular value. Not all environmental components lent themselves to simple quantification and linkage to particular numerical measurements. In such instances, a distinction was made between numerical, management, and policy thresholds.

The fourth step highlighted the mechanisms necessary to achieve or maintain the thresholds. This step was preliminary to the more detailed analysis accomplished through the development of policies and ordinances as part of the Regional Plan. This evaluation made it possible to assess the technical feasibility of attaining the thresholds and to review any thresholds that might seem impractical. See Attachment C for the adopted thresholds. When a threshold is stated in this Goals and Policies Plan it is printed in italics.

## **Plan Development**

The development of the Regional Plan was structured around the adopted thresholds and other issues of local and regional significance. Issues, other than those associated with thresholds, were initially identified through scoping meetings with local agencies and other interested parties. Agency staff then performed extensive analyses of available data, evaluated alternative techniques for achieving or maintaining environmental thresholds, and developed a recommended plan. A scoping report issued in September 1982 provided a summary of the proposed Plan development process, listed preliminary goal statements, and outlined a process to evaluate Plan alternatives. Additional issues were identified through an intensive public participation program conducted in October 1982. The results of that effort, as well as feedback from the Advisory Planning Commission (APC), Steering Committee, and the Governing Board, provided an ongoing process of issue identification and goal formulation.

An Environmental Impact Statement For Adoption Of A Regional Plan For The Lake Tahoe Basin was released in February 1983. The EIS presented a series of Plan alternatives that ranged in orientation from maximum regulation to redevelopment. The 60 day review period for the EIS was coupled with an intensive public hearing process to solicit comments from within the Tahoe Basin and from six regions outside the Tahoe Basin. The comments received, including those from the Advisory Planning Commission and Governing Board, were addressed in an addendum to the EIS. The resolution of troublesome issues was an ongoing process which lasted up to the time of Plan adoption.

The initial EIS examined a series of Plan alternatives including the various elements that were eventually adopted by the Governing Board in April, 1984. After completing an extensive review of the Plan during 1985 and 1986 and developing of a proposed amended Plan to supersede the 1984 Plan, it was determined that a supplemental EIS should be prepared. The supplemental EIS focused on proposed amendments which

resulted from the efforts to settle litigation and resolve conflicts surrounding the 1984 amended Plan. The supplement was prepared and circulated in accordance with Article VII of the Tahoe Regional Planning Compact.

Upon adoption of the April, 1984 amended Plan, the Agency was unable to implement most of the Plan's provisions due to a federal court injunction. As a result of litigation, the Agency undertook a variety of efforts designed to resolve the conflicts surrounding the Plan. One major effort involved the use of a conflict resolution method known as a consensus building workshop (CBW). The CBW was designed to use a consensus building process to bring together all of the key stakeholders, those with a major interest in the final adopted Plan, in an attempt to reach consensus agreements on a number of the most critical issues of conflict. As a result of this consensus building process, a number of areas of conflict were tentatively resolved by the participants. Significant amendments to the Plan were developed based on resolutions reached by the CBW. Additional efforts by staff, local planners, the APC and its committees, and numerous workshops around the Basin resulted in further specific recommendations. Subsequent to the presentation of these recommendations and other independent efforts to resolve remaining conflicts, the Governing Board, and Advisory Planning Commission held public hearings to receive and consider public testimony, and participated in lengthy debates on the final content of the amended Goals and Policies Plan.

If the features of this plan cannot be implemented due to legal challenges or lack of financial capability, the Agency will review the causes and, if appropriate, employ consensus building techniques to find solutions to the issues.

## **Organization**

The Tahoe Regional Planning Compact, the Environmental Threshold Carrying Capacities, the Regional Goals and Policies Plan, the Agency regulations, the Plan Area Statements, Community Plans, master plans, redevelopment plans, Agency programs, and Design Review Guidelines provide the basic framework for judging the merits of individual projects. The hierarchical relationship is depicted in Figure 2 and explained in the text below.

### Tahoe Regional Planning Compact

This bistate compact as amended on December 19, 1980, required the adoption of Environmental Threshold Carrying Capacities to set standards for the Region. Once that was done, the Compact required adoption and implementation of a Regional Plan to meet these thresholds and other specific requirements of the Compact. Included in Regional Plan requirements are a Land Use Element, Transportation Element, Conservation Element Recreation Element, and Public Services and Facilities Element. In order to meet the implementation and scheduling requirements the Agency has added an Implementation Element. Also required in the TRPA plan package are ordinances and programs.

### Environmental Threshold Carrying Capacities

As required by the Compact, the Agency adopted thresholds for the Region in Resolution 82-11. This document sets forth standards for water quality, air quality, soils, wildlife, fisheries, vegetation, scenic quality, and recreation. One of the major purposes of the regional plan package following this section is to establish regulations and programs to achieve and maintain these thresholds.

### Regional Goals and Policies Plan

The Plan identifies goals that depict the desired ends or values to be achieved and policies that establish the strategies necessary to achieve the goals. This document integrates the requirements of the Compact, the thresholds, other plans and legal requirements, and the public's input. As a result, the Regional Plan provides coordinated and integrated direction for the Agency's regulatory code and implementation programs.

### Other Plans and Reference Documents

This category includes (1) plans for which the Agency has adopted or assumed responsibility, such as the Federal 208 Water Quality Plan, the Federal Air Quality Plan, and the California Regional Transportation Plan and (2) reference documents that support the Regional Plan and are listed by ordinance.

### Regulatory Code

The TRPA regulations that are required to implement the policies set forth in the Goals and Policies Plan are found in the Code of Ordinances, the Rules and Regulations of Practice and Procedure, and the Administrative Regulations.

### Programs

The programs that are required to implement the policies set forth in the Goals and Policies Plan are the monitoring and evaluation program, the capital improvement programs, and the restoration programs. The Agency with the cooperation of other parties, is required to implement programs to achieve and maintain the thresholds.

### Plan Area Statements

The Plan Area Statements (PAS) provide a description of land use for each area, identify planning issues, and establish specific direction for planning to meet the policy direction of the Goals and Policies Plan. These statements include plan maps setting more specific policy for identified areas consistent with the documents above. Also, the Statements provide specific regulations for identified areas such as would be found in zoning maps. Master plans, redevelopment plans, and specific plans consistent with the PAS may be adopted to replace the PAS.

### Community Plans

Certain designated areas within the Region are eligible for community plans (CPs). Subject to the limitations set forth in the documents above, the community plans may be adopted to supersede the PAS.

### Design Review Guidelines and Best Management Practices (BMPs)

These are advisory documents that provide guidance and technical assistance in the development of projects and other activities within the Region.

## **Relationship to Other Plans**

The Regional Plan will help guide decision-making as it affects the growth and development of the Lake Tahoe Basin. Because of its inherent broad scope and purpose, the Plan will affect the planning activities of numerous governmental

jurisdictions and utility service districts. Each of the affected entities were encouraged to participate actively in developing the Regional Plan so that adequate consideration was given to local, individual, and community needs.

The Compact specifically requires the Plan to include elements on Land Use, Transportation, Conservation, Recreation, and Public Services and Facilities. The Plan must also provide for attaining and maintaining federal, state, or local air and water quality standards, whichever are strictest in the respective portions of the region for which the standards are applicable. At a minimum, the Agency's regulations must contain standards for: water purity and clarity; subdivision; zoning; tree removal; solid waste disposal; sewage disposal; land fills; excavations; cuts and grading; piers, harbors, break waters or channels and other shoreline developments; waste disposal in shore line areas; waste disposal from boats; mobilehome parks; house relocation; outdoor advertising; flood plain protection; soil and sedimentation control; air pollution; and watershed protection.

Other jurisdictions can enact local ordinances, rules, regulations and policies which conform to the Regional Plan. In fact, optimum implementation of this Plan depends on the cooperation of all jurisdictions in the Basin. In fact, as provided in the Compact, whenever possible without diminishing the effectiveness of the Regional Plan, the ordinances, rules, regulations and policies of the Agency shall be confined to matters which are general and regional in application, leaving to the jurisdiction of the respective states, counties, and cities the enactment of specific and local ordinances, rules, regulations, and policies which conform to the Regional Plan.

A mix of local, state, and federal plans now exists in the Basin. However, it appears that the development of the new TRPA Regional Plan will act as a catalyst for Basin agencies to amend, update, or develop new plans. Whenever possible, plans for the county portions of the Basin and the City of South Lake Tahoe should be developed either concurrently with the Regional Plan or subsequent to its adoption.

At the state level, various agencies coordinated with the TRPA to ensure that adequate consideration of their particular needs and requirements were incorporated into the Regional Plan. The California Department of Parks and Recreation and the Nevada Division of State Parks coordinated with the TRPA to assess the strategies for attaining projected facility demands and maintenance of reserve utility capacity for recreation. The California State Water Resources Control Board and the Nevada Division of Environmental Protection cooperated with TRPA on development of the 208 Water Quality Plan, adopted in 1981, and the Water Quality Subelement of the 1984 Regional Plan. Subsequent to the adoption of this 1986 amended Regional Plan, the California State Water Resources Control Board and the Nevada Division of Environmental Protection must approve any changes to the 208 Plan which are inconsistent with the current plan before such changes become effective. The 208 Plan shall consist of the Water Quality Subelement and other key provisions of the 1986 amended Plan. The Nevada Division of Environmental Protection in association with the California Air Resources Board assisted with the development of the Air Quality Subelement. CalTrans, the Nevada Department of Transportation (NDOT), and the Tahoe Transportation District (TTD) worked with TRPA on development and review of the Transportation Element.

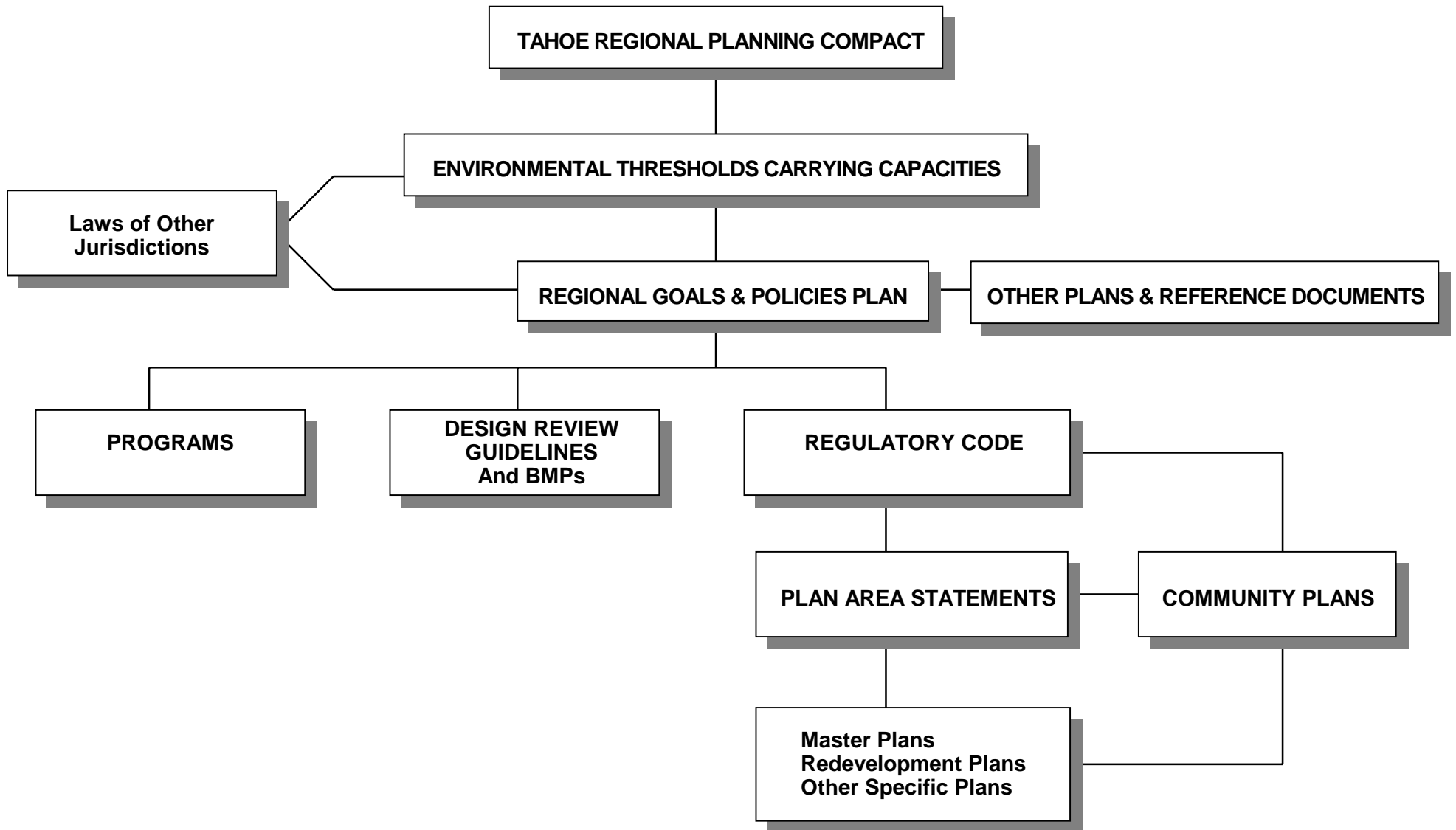
At the federal level, the U.S. Environmental Protection Agency was involved with both the Air and Water Quality subelements of the Plan and must approve any changes in the State water quality management plans. The Lake Tahoe Basin Management Unit of the U.S. Forest Service will adopt a new Forest Land and Resource Management Plan consistent with the goals and policies of the Regional Plan.

### **Plan Updates**

The Regional Plan is not a static document, but will be reviewed and amended as necessary to achieve environmental threshold carrying capacities and to reflect new data. At a minimum, the Plan will be evaluated at five year check points to ascertain the status of plan implementation and progress towards the attainment of environmental threshold carrying capacities. The initial five-year interval shall begin upon the date of adoption of the 1986 amendments to the Goals and Policies.

FIGURE 2

FRAMEWORK OF REGIONAL PLAN



# LAND USE ELEMENT



Land Use



Housing



Noise



Natural Hazards



Air Quality



Water Quality



Community Design





## CHAPTER II

# LAND USE ELEMENT

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Article V(c)(1) of the Tahoe Regional Planning Compact calls for a "land use plan for the integrated arrangement and general location and extent of, and the criteria and standards for, the uses of land, water, air, space and other natural resources within the Region, including but not limited to indication or allocation of maximum densities and permitted uses."

In general, the Land Use Element sets forth the fundamental land use philosophies of the Regional Plan, including: the direction of development to the most suitable locations within the Region; maintenance of the environmental, social, physical, and economic well-being of the Region; and coordination of the Regional Plan with local, state, and federal requirements.

The Land Use Element includes the following Subelements: land use, housing, noise, natural hazards, air quality, water quality, and community design.

### **LAND USE**



The Tahoe Regional Planning Compact calls for development of a Regional Plan that establishes a balance, or equilibrium, between the natural environment and the manmade environment. The TRPA has established environmental threshold carrying capacities that define the capacity of the natural environment and set specific environmental performance standards related to land use. The thresholds, however, do not define the maximum populations, densities, permitted uses, or other land use criteria for the manmade environment; this is the function of the Regional Plan.

It is the intent of this subelement to establish land use goals and policies that will ensure the desired equilibrium and attain and maintain the environmental thresholds within a specific time schedule.

### **GOAL #1**

#### **RESTORE, MAINTAIN, AND IMPROVE THE QUALITY OF THE LAKE TAHOE REGION FOR THE VISITORS AND RESIDENTS OF THE REGION.**

Lake Tahoe is a unique natural resource in a spectacular natural setting. It is truly one of the natural treasures of the United States. The long-term economic and natural health of the Region depends on the maintenance of this unusual quality. While previous land use planning efforts have concentrated on regulating the quantity of permitted development, this Plan emphasizes an improvement in the quality of development in the Region and in the quality of the natural environment.

## **POLICIES**

- 1. THE PRIMARY FUNCTION OF THE REGION SHALL BE AS A MOUNTAIN RECREATION AREA WITH OUTSTANDING SCENIC AND NATURAL VALUES.**

The economic health of the Region depends on a viable tourist and recreation-oriented environment. It is not the intent of this Regional Plan to encourage other economic development, such as industry or non-service commercial facilities, at the expense of outdoor recreation in the Tahoe Region.

- 2. THE REGIONAL PLAN GIVES A HIGH PRIORITY TO CORRECTING PAST DEFICIENCIES IN LAND USE. THE PLAN SHALL ENCOURAGE A REDIRECTION STRATEGY FOR SUBSTANTIALLY AND ADVERSELY ALTERED AREAS, WHEREVER FEASIBLE.**

Many of the Region's environmental problems can be traced to past and existing development which often occurred without recognition of the sensitivity of the area's natural resources.

A redirection strategy provides for redevelopment programs as well as for rehabilitation of developed areas in need of improvement.

- 3. THE PLAN SHALL SEEK TO MAINTAIN A BALANCE BETWEEN ECONOMIC HEALTH AND THE ENVIRONMENT.**

## **GOAL #2**

**DIRECT THE AMOUNT AND LOCATION OF NEW LAND USES IN CONFORMANCE WITH THE ENVIRONMENTAL THRESHOLD CARRYING CAPACITIES AND THE OTHER GOALS OF THE TAHOE REGIONAL PLANNING COMPACT.**

Based on the findings of the Compact, evidence included in the environmental impact statement prepared for this Plan, and public testimony, the Tahoe Region is experiencing resource use problems and deficient environmental controls.

## **POLICIES**

- 1. THE TOTAL POPULATION PERMITTED IN THE REGION AT ONE TIME SHALL BE A FUNCTION OF THE CONSTRAINTS OF THE REGIONAL PLAN AND THE ENVIRONMENTAL THRESHOLD CARRYING CAPACITIES.**

Population growth in the Region will be guided by the limitations on land use set forth in the Plan. This Plan identifies land use, densities, traffic volumes, urban boundaries, and other factors that indirectly determine the population at any given time. All of these factors have been set to ensure compliance with the environmental thresholds.

- 2. SPECIFIC LAND USE POLICIES SHALL BE IMPLEMENTED THROUGH THE USE OF PLANNING AREA STATEMENTS FOR EACH OF THE PLANNING AREAS IDENTIFIED IN THE MAP INCLUDED IN THIS PLAN (LOCATED INSIDE BACK COVER). AREAS OF SIMILAR USE AND CHARACTER HAVE BEEN MAPPED AND CATEGORIZED WITHIN ONE OR MORE OF THE FOLLOWING FIVE LAND USE CLASSIFICATIONS: CONSERVATION, RECREATION, RESIDENTIAL, COMMERCIAL AND PUBLIC SERVICE, AND TOURIST. THESE LAND USE**

**CLASSIFICATIONS SHALL DICTATE ALLOWABLE LAND USES. MORE DETAILED PLANS, CALLED COMMUNITY PLANS, MAY BE DEVELOPED FOR DESIGNATED COMMERCIAL AREAS. OTHER DETAILED PLANS, SUCH AS THE AIRPORT MASTER PLAN, SKI AREA MASTER PLANS, AND REDEVELOPMENT PLANS, MAY ALSO BE DEVELOPED. THESE DETAILED PLANS MAY COMBINE TWO OR MORE OF THE FIVE LAND USE CLASSIFICATIONS.**

Since the development permitted under this Plan is generally limited to the existing urban boundaries in which uses have already been established, the concept of this land use plan is directed toward regulating in fill and redirection. The intent of this system is to provide flexibility when dealing with existing uses, continuation of acceptable land use patterns, and redirection of unacceptable land use patterns. Implementation ordinances set forth the detailed management criteria and allowed uses for each land use classification.

Conservation areas are non-urban areas with value as primitive or natural areas, with strong environmental limitations on use, and with a potential for dispersed recreation or low intensity resource management. Conservation areas include (1) public lands already set aside for this purpose, (2) high-hazard lands, stream environment zones, and other fragile areas, without substantial existing improvements, (3) isolated areas which do not contain the necessary infrastructure for development, (4) areas capable of sustaining only passive recreation or non-intensive agriculture, and (5) areas suitable for low-to-moderate resource management.

Recreation areas are non-urban areas with good potential for developed outdoor recreation, park use, or concentrated recreation. Lands which this Plan identifies as recreation areas include (1) areas of existing private and public recreation use, (2) designated local, state, and federal recreation areas, (3) areas without overriding environmental constraints on resource management or recreational purposes, and (4) areas with unique recreational resources which may service public needs, such as beaches and ski areas.

Residential areas are urban areas having potential to provide housing for the residents of the Region. In addition, the purpose of this classification is to identify density patterns related to both the physical and manmade characteristics of the land and to allow accessory and non-residential uses that complement the residential neighborhood. These lands include: (1) Areas now developed for residential purposes; (2) areas of moderate-to-good land capability; (3) areas within urban boundaries and serviced by utilities; and (4) areas of centralized location in close proximity to commercial services and public facilities.

Commercial and Public Service areas are urban areas that have been designated to provide commercial and public services to the Region or have the potential to provide future commercial and public services. The purpose of this classification is to concentrate such services for public convenience, separate incompatible uses, and allow other noncommercial uses if they are compatible with the purpose of this classification and other goals of this Plan. These lands include: (1) areas now developed for commercial or public service uses; (2) in the case of public services, lands designated for, or in, public ownership; (3) areas suitable to encourage the concentration of compatible services; (4) areas of good-to-moderate land capability; and (5) areas with adequate public services and transportation linkages.

Tourist areas are urban areas that have the potential to provide intensive tourist accommodations and services or intensive recreation. This land use classification also includes areas recognized by the Compact as suitable for gaming. These lands include: (1) areas now developed with high concentrations of visitor accommodations and related uses; (2) lands on which gaming is a permitted and recognized use; (3) lands of good-to-moderate land capability; and (4) areas with adequate public services and transportation linkages.

**3. THE PLANNING AREA STATEMENTS SHALL ALSO IDENTIFY THE MANAGEMENT THEME FOR EACH PLANNING AREA BY DESIGNATING EACH AREA FOR (1) MAXIMUM REGULATION, (2) DEVELOPMENT WITH MITIGATION, OR (3) REDIRECTION OF DEVELOPMENT. THESE DESIGNATIONS SHALL PROVIDE ADDITIONAL POLICY DIRECTION FOR REGULATING LAND USE.**

The maximum regulation designation applies primarily to conservation areas. Areas with this designation shall be strictly regulated to ensure preservation and enhancement of the existing environment, with little or no additional development of residential, commercial, tourist, recreation, or public service uses.

The development with mitigation designation is the predominant management theme. Most areas of existing residential or recreational use carry this designation. Areas with this designation can accommodate additional development if the impacts are fully mitigated and the land is capable of withstanding the use. Both on-site and off-site mitigation of environmental impacts from development shall be required.

The redirection of development designation is designed primarily to improve environmental quality and community character by changing the direction of development or density through relocation of facilities, rehabilitation or restoration of existing structures and uses, and limited new development. The purpose of this designation is to reduce impervious coverage, restore natural environments, improve the efficiency of transportation systems, improve scenic quality, and provide high quality facilities for residents and visitors alike. Local government participation in redevelopment of appropriate areas shall be encouraged.

**4. THE PLANNING AREA STATEMENTS SET FORTH SPECIAL POLICY DIRECTION TO RESPOND TO THE PARTICULAR NEEDS, PROBLEMS, AND FUTURE DEVELOPMENT OF A SPECIFIC AREA. EACH PLANNING AREA STATEMENT MAY VARY IN DETAIL OR SPECIFICITY DEPENDING ON THE NATURE OF THE AREA AND THE DETAIL OR SPECIFICITY OF RELATED LOCAL JURISDICTION PLANS.**

This policy allows the Regional Plan to respond to the individual needs of a particular neighborhood, undeveloped area, or other area. Each planning area statement describes the area, its existing uses and environment, its special problems, its minimum and maximum intensity of uses, density of land use permitted, and policies for allowed, prohibited, non-conforming, and special uses.

The foregoing requirements shall be depicted on Plan Area Statement Maps, which shall designate areas available for development according to the various land use classifications. Areas depicted on these maps shall reflect a reasonable projection of the amount of land available for the specific uses allowed in that area for the life of the Plan. The Plan Area Statement Maps shall be coordinated with other TRPA maps to permit ready determination of the constraints on development and the location of other relevant information including:

Stream Environment Zones (SEZs)  
SEZ Restoration Programs  
Capital Improvement Programs  
Stream Habitat Quality  
Historical Sites  
Public Facilities Development Programs  
Wildlife Habitat  
Special, Sensitive, and Uncommon Plants  
Fish Habitat  
Transportation Corridors  
Special Interest Species Areas  
Land Capability  
Sending and Receiving Areas for Transfer of Development Rights

5. **ALL PLAN AREA STATEMENTS, COMMUNITY PLANS, OR OTHER SPECIFIC PLANS ADOPTED BY THE AGENCY SHALL SPECIFY THE TOTAL ADDITIONAL DEVELOPMENT WHICH MAY BE PERMITTED WITHIN THE REGION, NOT TO EXCEED THE LIMITATIONS SET FORTH IN A, B, C, D, AND E, BELOW. RECONSTRUCTION AND RELOCATION OF EXISTING DEVELOPMENT ARE NOT CONSIDERED ADDITIONAL DEVELOPMENT. (SEE DEVELOPMENT AND IMPLEMENTATION PRIORITIES SUBELEMENT FOR GROWTH MANAGEMENT AND TRANSFER OF DEVELOPMENT PROVISIONS.)**

The Environmental Impact Statement prepared for this Plan analyzed impacts based on defined development parameters which are integrated into this Plan. It is the intent of this Policy to insure that these parameters are incorporated, both individually and cumulatively, into the Land Use Element. These limitations shall be expressed in appropriate land use regulations, such as zoning, use limitations, floor area limitations, allocation limits and other such regulations. For the purposes of this Plan, the development regulated is categorized as residential, tourist accommodation, commercial, recreation, public service, and resource management.

Residential: Each undeveloped legal parcel existing at the time of the adoption of this plan (estimated at approximately 16,000), unless otherwise restricted, has a development right of one residential unit, except where additional development rights are acquired pursuant to Goal #2, of the development and implementation priorities, or acquired pursuant to Goal #3, of the development and implementation priorities subelement. The total number of multi-residential additional units permitted shall not exceed 1400 additional units.<sup>§§</sup> (See Goals #2 and #3 of the Development and Implementation Priorities Subelement for more detail.)<sup>§</sup>

Tourist Accommodation: There is a limited need for additional tourist accommodation units. Based on demonstrated need, projects may be permitted additional units as specified within a community plan and as provided for in Goal #3, of the Development and Implementation Priorities Subelement. The total number of additional tourist accommodation units shall not exceed 400 units.<sup>§§</sup>. (See Goals #2 and #3 of the Development and Implementation Priorities Subelement for more detail.)

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<sup>§§</sup> Amended 10/25/06

<sup>§</sup> Amended 4/24/02

Commercial: The amount of additional commercial development is based on the estimated needs of the region. Commercial development may be permitted as specified in plan area statements, community plans, or other specific plans. The total additional gross commercial floor area permitted shall not exceed 800,000 sq. ft., excluding minor expansion, for the first 20 years of this plan. (See Goal #2 of the Development and Implementation Priorities Subelement for more detail.)

Recreation: Additional recreation uses may be permitted only as specified within plan area statements, community plans or other specific plans. The total capacity of additional outdoor recreational facilities for the region shall not exceed 6,114 persons at one time (PAOTs) for overnight facilities, 6,761 PAOTs for summer day use facilities, and 12,400 PAOTs for winter day use facilities. (See Recreation Element for more detail.)

Public Service: Additional public service development shall be limited to those projects needed to serve the other development permitted by this plan. (See Public Service Element.)

6. **IN ORDER TO BE RESPONSIVE TO THE NEEDS AND OPPORTUNITIES OF VARIOUS AREAS WITHIN THE REGION, SPECIFIC COMMUNITY PLANS (CPs) MAY BE DEVELOPED FOR DESIGNATED COMMERCIAL AREAS. COMMUNITY PLANS SHALL GUIDE DEVELOPMENT IN SPECIFIED AREAS FOR AT LEAST THE FIRST TEN YEARS OF THE PLAN AND SHALL BE KEPT CURRENT BY PERIODIC REVIEW. THE TRPA SHALL ACTIVELY ENCOURAGE PROMPT DEVELOPMENT OF COMMUNITY PLANS FOR ALL DESIGNATED AREAS, WITH A GOAL OF COMPLETING THE COMMUNITY PLANS BY DECEMBER 1, 1989. THE AREAS DESIGNATED SHALL BE THOSE WHERE COMMERCIAL USE IS CONCENTRATED OR SHOULD BE CONCEN-TRATED. THEY SHALL BE AREAS SERVED, OR EASILY SERVED, BY TRANSIT SYSTEMS, WHICH HAVE ADEQUATE HIGHWAY ACCESS, WHICH HAVE, OR CAN HAVE, HOUSING IN THE VICINITY AVAILABLE FOR EMPLOYEES WORKING IN THE AREA, AND WHICH OTHERWISE QUALIFY AS AREAS SUITABLE FOR CONTINUED OR INCREASED LEVELS OF COMMERCIAL ACTIVITY. SOME AREAS, BECAUSE OF THEIR EXISTING AND PROPOSED DEVELOPMENT PATTERNS, MAY INCORPORATE MORE THAN COMMERCIAL USE CLASSIFICATIONS.**

- A. Areas eligible for community plans are shown on the map located inside the back cover:
- B. Plan Area Statement Maps shall show preliminary boundaries for the community plans, as well as the hydrologic boundaries within which certain land coverage transfer programs can occur.
- C. Ordinances shall establish standards that apply to community plans. Some standards may be replaced by specific provisions of adopted community plans if such specific provisions are more appropriate to the situation and provide equal or superior measures to satisfy the environmental thresholds. If none are set in community plans, the regional standards shall apply.

Standards which may be replaced include:

- 1. parking requirements;
- 2. sign rules;

3. snow storage provisions;
4. landscaping requirements, other than erosion control requirements;
5. scenic design standards; and
6. density rules.

Standards not subject to replacement by community plans include:

1. land coverage; and
  2. Best Management Practices.
- D. Ordinances shall establish other requirements to be met by community plans such as: <sup>§</sup>
1. fair share of public recreation facilities;
  2. provisions for reducing vehicle miles traveled;
  3. targets for reducing existing coverage.
  4. Provisions for the allocation of development; and
  5. Assurance for the implementation of CP environmental improvement projects.
- E. Components of a community plan shall include: <sup>§</sup>
1. assessment of needs, opportunities, limitations, and existing features;
  2. statement of goals and objectives for the area;
  3. maps, showing final boundaries, land uses permitted on specific parcels, and other relevant information; and
  4. an integrated plan addressing land use, transportation, traffic circulation, parking, public service, housing (including affordable), recreation, allocation procedures, commitments for environmental improvement projects, special features or standards, CP implementation, consistency with the applicable plan area statements, coordination with monitoring, and other requirements of the Regional Plan.
- F. Community plans shall set forth a schedule showing how development is to be coordinated with public projects, including water quality improvements, transportation improvements, and other remedial projects, so that attainment of the applicable goals and standards is achieved.
- G. The process for developing community plans shall follow the methods outlined below:
1. In consultation with local governments and the community, the Agency shall set the priorities for development of the community plans.
  2. The process for each CP shall begin as a result of a local government request, or by Agency initiative in recognition of local interest.
  3. In partnership with one another, TRPA, local government, and the community shall assess the feasibility of undertaking the CP process. If the process is found to be feasible, recommendations shall be made concerning plan boundaries, time schedules,

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<sup>§</sup> Amended 09/23/98

applicable standards required to be met, fair share of public recreation facilities, provisions for reducing vehicle miles traveled, targets for reducing existing coverage, preliminary estimates of commercial floor area needs, and environmental documentation requirements.

4. The Agency shall review and approve, at its discretion, the community planning process proposed pursuant to (3) above. Also, based on the above recommendations, a preliminary allocation for additional commercial floor area from the amount allocated by TRPA to that jurisdiction shall be made. (See Development and Implementation Priorities Subelement Goal #2, Policy 4.)
5. A planning team, representing TRPA, local government, and the community, shall develop each community plan according to the following process:
  - a) assessment of environmental opportunities and limitations;
  - b) inventory and needs assessment;
  - c) identification of applicable standards and constraints;
  - d) development of draft alternative plans;
  - e) environmental analysis and documentation (see (9) below); and
  - f) selection of recommended alternative.

To the extent possible, consistent with available resources and community initiative, TRPA shall take a primary, active role in assisting development of community plans. To help ensure that proposed CPs meet all applicable local, state, and TRPA requirements, TRPA shall seek review and comment from all responsible public agencies at appropriate points in the CP planning process. It is the Agency's goal that each proposed community plan, when presented to TRPA for approval, will have addressed the needs and concerns of the community and will be consistent with all applicable local, state, and regional requirements.

6. Following completion of the above steps, the TRPA Advisory Planning Commission shall review the recommendations from the planning team and make a recommendation to the Governing Board.
7. TRPA must approve a community plan before it can take effect. Prior to such approval, TRPA shall determine compliance with: required standards, allocations of development limitations, and phasing of development with associated programs, such as remedial programs.

As part of the approval, TRPA shall establish the allocation of additional commercial floor area for the period ending December 31, 1996. TRPA shall make the initial allocation of additional commercial floor area taking into consideration such factors as demonstrated need, the expected ability to achieve or maintain environmental thresholds, the reasonableness of projected time schedules, the degree of certainty for obtaining the needed funds



for implementation, compatibility with other CPs and plans, and other relevant factors. The amount initially allocated shall be from the 75 percent portion designated for local jurisdictions for planning purposes. (See Development and Implementation Priorities Subelement, Goal #2, Policy 4.)

8. As soon as TRPA has reviewed a sufficient number of proposed community plans, to adequately assess the cumulative impacts of development and proposed mitigation, TRPA shall distribute the remainder of the 25 percent of the additional commercial floor area. This distribution shall reward those CPs which best demonstrate the ability to achieve and maintain environmental thresholds, and have a clearly demonstrated need for the additional allocation. TRPA shall retain a sufficient reserve to adequately address the needs of CPs not yet presented for review. However, it is the Agency's goal, acting in partnership with local interests, to achieve completion of CPs by December 31, 1989 in all areas where sufficient local interest and initiative exists to do such planning. Accordingly, TRPA anticipates the allocation of the remaining unallocated floor area by that date, so long as the allocation is supported by local needs assessments.
9. Before a community plan may be approved, TRPA must certify an environmental impact statement (EIS) for the community plan, except as noted in (10) below. (In California, where the CP is to be adopted as a general plan amendment or a specific plan, a joint EIS/EIR may be utilized.) The EIS may be useful for meeting subsequent environmental documentation requirements for more specific projects consistent with the community plan.
10. Simpler and more streamlined procedures for CPs with insignificant impacts may be provided for in the implementing ordinances. These procedures may allow preparation of appropriate environmental analysis and documentation other than an EIS. §

**7. NO NEW DIVISIONS OF LAND SHALL BE PERMITTED WITHIN THE REGION WHICH WOULD CREATE NEW DEVELOPMENT POTENTIAL INCONSISTENT WITH THE GOALS AND POLICIES OF THIS PLAN.**

This policy does not consider the following divisions of land to be inconsistent when the result does not increase the development potential permitted by this Plan:

- A. Division of land for the purposes of conveying a portion thereof to a governmental agency, public entity, or public utility.
- B. Division of land for the purposes of creating cemetery lots.
- C. Division of land ordered by a federal or state court of competent jurisdiction as a result of bona fide, adversary legal proceedings to which the Agency is a party. Any such division of land or approval of any other project or action resulting from such legal proceedings, shall be pursuant to an evaluation of the effect of such division or approval upon the Regional Plan, the environmental thresholds, and other requirements of the Compact. Based on the above evaluation, appropriate adjustments to the Regional Plan shall be made.

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§ Amended 09/23/98

- D. A modification to an existing subdivision or a lot line adjustment or lot consolidation, which does not result in any increase in development potential, or in present or potential land coverage or density, and shall not have an adverse impact upon the health, safety, general welfare or environment of the Region.
  - E. Conversion of an existing structure, to a stock cooperative, community apartment, condominium, or any other form of divided interest; which conversion does not result in any increase in development potential, or in present or potential land coverage or density, and will not have an adverse impact upon the health, safety, general welfare or environment of the Region.
  - F. Redivision, adjustment, or consolidation, of parcels within an existing urban area, as part of a TRPA approved redevelopment plan that does not increase development potential basin-wide.
  - G. Division of land through condominiums, community apartments, or stock cooperatives within an existing urban area in conjunction with the approval of a project associated with an approved transfer of development, or otherwise in accordance with the provisions of this Plan. In order to subdivide a project under this provision, the project itself shall be approved prior to the approval of the division and in no case shall the division result in a greater amount, a different location, or a greater rate of development than otherwise permitted by this Plan.
8. **BUILDINGS, WHETHER CONFORMING OR NONCONFORMING, WHICH ARE DAMAGED OR DESTROYED BY FIRE OR OTHER SIMILAR CALAMITY, MAY BE REPAIRED OR REBUILT WITH NO REQUIREMENT FOR REDUCTION IN COVERAGE OR HEIGHT BY WAY OF FEE OR OTHERWISE. THIS POLICY APPLIES ONLY IF THE BUILDING IS RECONSTRUCTED IN SUBSTANTIAL CONFORMANCE WITH THE ORIGINAL STRUCTURE AND, WITH NO INCREASE IN FLOOR AREA, LAND COVERAGE, HEIGHT, OR VOLUME. OTHER PROVISIONS GENERALLY APPLICABLE TO REHABILITATION OR RECONSTRUCTION OF BUILDINGS SHALL APPLY. THIS POLICY IS SUBJECT TO THE NATURAL HAZARDS SUBELEMENT, GOAL #1, POLICY 1. SPECIAL PROVISIONS SHALL APPLY TO BUILDINGS IN THE SHOREZONE, LAKEWARD OF THE HIGHWATER LINE.**
9. **STRUCTURES, LEGALLY EXISTING AS OF THE EFFECTIVE DATE OF THIS PLAN, BUT WHICH, BY VIRTUE OF THEIR DESIGN OR LOCATION, ARE PROHIBITED, ARE CONSIDERED NONCONFORMING AND SUBJECT TO THE FOLLOWING POLICIES:**
- A. Nonconforming structures may be maintained or repaired. Maintenance and repair shall be defined in implementing ordinances.
  - B. Nonconforming structures may not be enlarged, replaced, or rebuilt without the approval of TRPA. Such approval shall be based on criteria set forth in implementing ordinances to ensure that:
    - i. the activity shall not increase the extent of nonconformity; and
    - ii. if the structure is subject to a specific program of removal or modification by TRPA, the activity shall not conflict with that program.

- 10. USES, LEGALLY EXISTING AS OF THE EFFECTIVE DATE THIS PLAN, BUT WHICH ARE NOW PROHIBITED, ARE CONSIDERED NONCONFORMING AND SUBJECT TO THE FOLLOWING POLICIES:**
- A. Nonconforming uses may continue as they exist except where specifically subject to a program of removal or modification.
  - B. Nonconforming uses may not be modified, expanded, or intensified, nor resumed following a significant interruption without the approval of TRPA. Such approval shall be based on criteria set forth in ordinances to ensure that:
    - i. the activity shall not increase the extent of nonconformity.
    - ii. the activity shall not make it more difficult to attain and maintain environmental threshold carrying capacities.
    - iii. the use is otherwise consistent with applicable Plan Area Statements and Community Plans.
  - C. Additional rules regarding excess land coverage are set forth in this land use subelement Goal #3, Policy 3.

**11. USES OF THE BODIES OF WATER WITHIN THE REGION SHALL BE LIMITED TO OUTDOOR WATER-DEPENDENT USES REQUIRED TO SATISFY THE GOALS AND POLICIES OF THIS PLAN.**

This policy is intended to promote the use of waters of the Region for water-dependent outdoor recreation and to protect the scenic and natural qualities of such waters. Plan area statements shall detail the specific policies.

**12. RESTORATION AND REHABILITATION SHALL BE A HIGH PRIORITY FOR IMPROVING ENVIRONMENTAL QUALITY AND COMMUNITY CHARACTER OF AREAS DESIGNATED FOR REDIRECTION BUT NOT INCLUDED IN A REDEVELOPMENT PLAN.**

The Regional Plan calls for improvement of environmental quality and community character in redirection areas by the private sector through restoration and rehabilitation. Implementation of rehabilitation and restoration strategies shall be by ordinance.

**13. REDEVELOPMENT SHALL BE ENCOURAGED IN AREAS DESIGNATED FOR REDIRECTION TO IMPROVE ENVIRONMENTAL QUALITY AND COMMUNITY CHARACTER.**

The Regional Plan calls for improvement of environmental quality and community character through relocation and redevelopment of existing structures and uses in blighted areas. Existing predominantly urbanized areas with high levels of impervious coverage and disturbance may be designated for redevelopment. The purpose of redevelopment is to make more efficient use of existing development, improve environmental quality, improve the efficiency of transportation systems, provide high quality facilities to residents and visitors, improve the economy, and improve the general safety, health and welfare of the people of the Region.

Local government and private sector participation in redevelopment pursuant to applicable state law shall be encouraged through incentives. While each redevelopment plan may be different, the incentives may include such things as additional height. Such incentives may be achieved by providing expanded scenic corridors, reductions of coverage greater than otherwise required, larger buffers, more open space or landscaped areas, larger reductions in traffic than otherwise required, and similar benefits. To obtain these incentives, a redevelopment plan must be submitted in both conceptual and final form to, and approved by, the TRPA Governing Board. Public agency redevelopment plans shall include all applicable contents required by state law. Redevelopment plans shall demonstrate why incentives are necessary to make the plan economically feasible. Redevelopment plans shall demonstrate progress towards meeting environmental thresholds and achieving the goals of the Regional Plan, and shall result in a net benefit to the social and economic well-being of the Region. Rules for redevelopment plans shall be consistent with the Regional Plan and relevant plan area statements and community plans. Specific criteria for redevelopment plans shall be included in implementing ordinances. This policy should be considered an interim policy subject to revisions based on the findings of the South Lake Tahoe Redevelopment Study Team.

**14. THE PROVISIONS SET FORTH IN ARTICLE VI (d) THROUGH VI (i) OF THE COMPACT APPLY TO TRPA REGULATION OF STRUCTURES HOUSING GAMING.**

**GOAL #3**

**ALL NEW DEVELOPMENT SHALL CONFORM TO THE COEFFICIENTS OF ALLOWABLE LAND COVERAGE AS SET FORTH IN "THE LAND CAPABILITY CLASSIFICATION OF THE LAKE TAHOE BASIN, CALIFORNIA-NEVADA, A GUIDE FOR PLANNING, BAILEY, 1974."**

This goal calls for policies which limit allowable impervious land coverage associated with new development. These policies set allowable land coverage by applying the recommended Bailey land coverage coefficients to specifically defined and related areas. In some instances, provisions are made to allow additional coverage by transfer. The transfer programs shall operate by a direct offset method. In addition, land capability is one of the basic factors in determining the suitability of lands for development and appropriateness of land uses.

**POLICIES**

- 1. ALLOWED BASE LAND COVERAGE FOR ALL NEW PROJECTS AND ACTIVITIES SHALL BE CALCULATED BY APPLYING THE BAILEY COEFFICIENTS, AS SHOWN BELOW, TO THE APPLICABLE AREA WITHIN THE PARCEL BOUNDARY, OR AS OTHERWISE SET FORTH IN A, B, AND C OF THIS POLICY.**

LAND CAPABILITY DISTRICT	MAXIMUM ALLOWED LAND COVERAGE
1a	1 percent
1b	1 percent
1c	1 percent
2	1 percent
3	5 percent
4	20 percent
5	25 percent
6	30 percent
7	30 percent

- A. In the case of subdivisions approved by TRPA in conformance with the coefficients coverages assigned to individual lots shall be the allowed base coverage for those lots. A list of such TRPA-approved subdivisions appears in Attachment D.
- B. In the case of existing planned unit developments (PUDs) not in conformance with the coefficients, the coefficients shall apply to the entire project area minus public rights-of-way, and the allowed base coverage shall be apportioned to the individual lots or building sites, and common area facilities. A list of such PUDs appears in Attachment E.
- C. After December 31, 1988, for vacant residential parcels evaluated under the Individual Parcel Evaluation System (IPES), the allowable base land coverage shall be a function of a parcel's combined score under the IPES criteria for relative erosion hazard and runoff potential as correlated with the above coefficients and applied to the designated evaluation area. (See Goal #1, Policy 1 of the Development and Implementation Priorities Subelement.)

The method of calculation of allowed land coverages shall be detailed in the implementing ordinances consistent with the above policy.

**2. THE ALLOWED COVERAGE IN POLICY 1 MAY BE INCREASED BY TRANSFER OF LAND COVERAGE WITHIN HYDROLOGICALLY RELATED AREAS UP TO THE LIMITS AS SET FORTH IN A, B, C, D, AND F OF THIS POLICY:**

**SPECIAL PROVISIONS FOR ADDITIONAL COVERAGE, SUCH AS EXCEPTIONALLY LONG DRIVEWAYS AND HANDICAPPED ACCESS, MAY ALSO BE ALLOWED. ORDINANCES SHALL SPECIFICALLY LIMIT AND DEFINE THESE PROGRAMS.**

**LAND COVERAGE MAY BE TRANSFERRED THROUGH PROGRAMS THAT ARE FURTHER DESCRIBED IN GOAL #3 OF THE DEVELOPMENT AND IMPLEMENTATION PRIORITIES SUBELEMENT.**

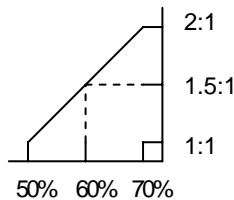
The intent of the land coverage transfer programs is to allow greater flexibility in the placement of land coverage within hydrologically related areas. Such programs include the use of land banks, lot consolidation, land coverage restoration programs, and transfer programs based on the calculation of land coverage on non-contiguous parcels located in hydrologically related areas. The coverage transfer programs allow for coverage over base coverage to be permitted and still be consistent with the soils threshold and Goal #3 of this Subelement.

- A. Single Family Residential: The maximum land coverage allowed (Base + Transfer) on a parcel through a transfer program shall be as set forth below:

<u>Parcel Size (Square Feet)</u>	<u>Land Coverage</u>
0 - 4,000	Base Land Coverage as Set Forth in Policy 1
4,001 - 9,000	1,800 sq. ft.
<u>Parcel Size (Square Feet)</u>	<u>Land Coverage</u>
9,001 - 14,000	20 percent
14,001 - 16,000	2,900 sq. ft.
16,001 - 20,000	3,000 sq. ft.
20,001 - 25,000	3,100 sq. ft.
25,001 - 30,000	3,200 sq. ft.
30,001 - 40,000	3,300 sq. ft.
40,001 - 50,000	3,400 sq. ft.
50,001 - 70,000	3,500 sq. ft.
70,001 - 90,000	3,600 sq. ft.
90,001 - 120,000	3,700 sq. ft.
120,001 - 150,000	3,800 sq. ft.
150,001 - 200,000	3,900 sq. ft.
200,001 - 400,000	4,000 sq. ft.

For lots in planned unit developments, the maximum coverage allowed (Base + Transfer) shall be up to 100 percent of the proposed building envelope but shall not exceed 2,500 square feet. Lots in subdivisions with TRPA-approved transfer programs may be permitted the coverage specified by that approval.

- B. Commercial Facilities in a Community Plan: The maximum coverage allowed (Base + Transfer) on an existing undeveloped parcel through a transfer program, shall be 70 percent of the land in capability districts 4 - 7, provided the parcel is within an approved community plan. For existing developed parcels, the maximum land coverage allowed is 50 percent coverage transfers to increase coverage from the base coverage up to 50 percent, shall be at a ratio of 1:1. Coverage transfers to increase coverage above 50 percent, shall be at gradually increasing ratios, with the transfer ratio for all the coverage over 50 percent determined as indicated on the following graph:



- C. Tourist Accommodation Facilities, Multi-Residential Facilities of 5 Units or More, Public Service Facilities, and Recreational Facilities in a Community Plan: The maximum coverage (Base + Transfer) allowed on a parcel through a transfer program shall be 50 percent of the land in capability districts 4 - 7, provided such parcel is within an approved community plan coverage transfer ration to increase coverage from the base coverage to 50 percent shall be at a ration of 1:1.
  - D. Other Multi-Residential Facilities: The maximum coverage (Base + Transfer) allowed on a parcel through a transfer of coverage programs shall be the amounts set forth in Policy A, above.
  - E. Linear Public Facilities and Public Health and Safety Facilities: Such public facilities defined by ordinance and whose nature requires special consideration, are limited to transferring the minimum coverage needed to achieve their public purpose.
  - F. Public Service Facilities Outside a Community Plan: The maximum coverage (Base + Transfer) allowed on a parcel through a transfer program shall be 50 percent land coverage provided TRPA determines there is a demonstrated need and requirement to locate such a facility outside a community plans, area and there is no feasible alternative which would reduce land coverage.
  - G. Other Facilities Outside of Community Plans and Facilities Within Community Plans Before the Community Plan is Approved: Other than the exceptions in A, D, E, and F, the maximum land coverage allowed shall be the base land coverage as set forth in Policy 1.
3. **REHABILITATION, RECONSTRUCTION, AND UPGRADING OF THE EXISTING INVENTORY OF STRUCTURES, OR OTHER FORMS OF COVERAGE IN THE TAHOE REGION, ARE HIGH PRIORITIES OF THE REGIONAL PLAN. TO ENCOURAGE REHABILITATION AND UPGRADING OF STRUCTURES, THE FOLLOWING POLICIES SHALL APPLY:**
- A. Repair or reconstruction of buildings damaged or destroyed by fire or other calamity subject to Goal #2, Policy 8 of this subelement is exempt from this policy.
  - B. Reconstruction, rehabilitation, modification, relocation, or major repair of structures or coverage other than as specified in A above may be allowed, provided such use is allowed under the land use subelement, Goal #2, Policies 8, 9 and 10. For parcels with existing coverage in excess of the Bailey Coefficients, a land coverage mitigation program shall be set by ordinance, which shall provide for the reduction of coverage in an amount proportional to the cost of the repair, reconstruction, relocation, rehabilitation, or modification, and to the extent of excess coverage. To accomplish these reductions, property owners shall have at least the following options:
    - i. reducing coverage on-site;
    - ii. reducing coverage off-site in a hydrologically-related area;
    - iii. paying a rehabilitation fee in lieu of off-site coverage reduction in an amount established by Agency ordinance to help fund a land bank program established to accomplish coverage reductions;

- iv. lot consolidation with a contiguous parcel or lot line adjustment to reduce the percentage of excess coverage on the resulting parcels; or
    - v. any combination of the foregoing options.
  - C. Existing coverage may be relocated within a parcel provided it is relocated to areas of equal or superior environmental capability consistent with B above.
  - D. In establishing the rehabilitation fee schedule(s) provided for in (3.B.iii), above, the following procedures shall be followed:
    - i. A special task force shall be convened to analyze and report on the actual costs and mechanisms involved in establishing and implementing an effective land coverage banking program. The report shall take into account the costs of obtaining and retiring coverage, and shall also consider alternative funding sources or programs to provide supplemental funding for such land coverage banking programs.
    - ii. After considering the report in (i), above, the special task force shall recommend, for adoption by TRPA, a rehabilitation fee schedule which will (1) provide a reasonable level of funding for the proposed land banking program taking into account identified alternative sources of funding, (2) not unduly restrict or deter property owners from undertaking projects involving the rehabilitation, reconstruction, major modification, or repair of existing structures, and (3) carries out an effective land coverage reduction program. The recommendation of the task force shall take into account the cost of BMP requirements and the other mitigation fees described in the Development and Implementation Priorities Subelement, Goal #4, Policies 1 and 2. The task force also shall recommend a schedule of activities comprising routine maintenance and repair which should be exempt from rehabilitation fees.
    - iii. After considering the recommendations of the special task force, TRPA shall adopt a rehabilitation fee schedule that is adequate to carry out an effective land coverage banking program, equitably divides the costs to the public and private sectors, and has the minimum possible deterrent effect on the Regional Plan goal of encouraging rehabilitation, reconstruction, and upgrading of the existing inventory of structures.
    - iv. TRPA may set an interim fee, if necessary, while the task force prepares its recommendations.
  - E. In approving repair, reconstruction, rehabilitation, modification, or relocation of structures or other coverage, the Agency shall also apply other relevant standards, including installation of Best Management practices or compliance with the design review guidelines.
- 4. **LAND COVERAGE ALLOWED PURSUANT TO REDEVELOPMENT PLANS SHALL BE ESTABLISHED BY TRPA-APPROVED REDEVELOPMENT PLANS. HOWEVER, IN NO CASE SHALL THERE BE A NET INCREASE IN LAND COVERAGE IN THE REDEVELOPMENT PROJECT AREA.**



#### **GOAL #4**

**PROVIDE TO THE GREATEST POSSIBLE EXTENT, WITHIN THE CONSTRAINTS OF THE ENVIRONMENTAL THRESHOLD CARRYING CAPACITIES, A DISTRIBUTION OF LAND USE THAT ENSURES THE SOCIAL, ENVIRONMENTAL, AND ECONOMIC WELL-BEING OF THE REGION.**

The Tahoe Regional Planning Compact and extensive public testimony call for TRPA, along with other governmental and private entities, to safeguard the well-being of those who live in, work in, or visit the Region.

#### **POLICIES**

- 1. ALL PERSONS SHALL HAVE THE OPPORTUNITY TO UTILIZE AND ENJOY THE REGION'S NATURAL RESOURCES AND AMENITIES.**
- 2. NO PERSON OR PERSONS SHALL DEVELOP PROPERTY SO AS TO ENDANGER THE PUBLIC HEALTH, SAFETY, AND WELFARE.**

Persons who develop property in the Region must ensure that their development conforms to the Goals and Policies Plan, all TRPA regulations and all applicable local, state, and federal laws pertaining to public health, safety and welfare.

#### **GOAL #5**

**COORDINATE THE REGULATION OF LAND USES WITHIN THE REGION WITH THE LAND USES SURROUNDING THE REGION.**

To minimize the impacts on one another, the Tahoe Region and its surrounding communities should attempt to coordinate land use planning decisions. This goal is especially pertinent with respect to major land use decisions immediately adjacent to the Region which may have significant impacts on the Region and affect the ability of TRPA to attain environmental thresholds.

#### **POLICIES**

- 1. THE REGIONAL PLAN SHALL ATTEMPT TO MITIGATE ADVERSE IMPACTS GENERATED BY THE PLAN WITHIN THE REGION, AND NOT EXPORT THE IMPACTS TO SURROUNDING AREAS.**

Where project approvals or other proposed actions by TRPA would adversely impact surrounding areas, TRPA shall consult with the affected jurisdictions. While the Agency will attempt to ensure that adverse impacts are mitigated within the Region, there may be situations where the adverse impacts on surrounding areas are outweighed by the environmental harm that would result from absorbing all impacts within the Region. In that regard, state laws in California and Nevada require the export of virtually all waste-waters and solid wastes from the Region.

- 2. THE AGENCY SHALL DEVELOP JOINT REVIEW AGREEMENTS WITH PUBLIC ENTITIES ADJOINING THE REGION TO CONSIDER ACTS OF DEVELOPMENT OR IMPACTS OF DEVELOPMENT THAT CROSS JURISDICTIONAL BOUNDARIES.**

As authorized in the Compact, TRPA will develop such joint agreements with Placer County, El Dorado County, Washoe County, City and County of Carson City, Douglas County, and appropriate state and federal agencies to ensure that land use decisions of those entities that have a significant impact on the Tahoe Region are reviewed by the Agency.

## **HOUSING**



The purpose of this Subelement is to assess the housing needs of the Region and to make provisions for adequate housing. The Compact does not specifically mandate this Subelement nor do the environmental thresholds address this topic. However, the states of Nevada and California both require housing to be addressed as part of a general plan. [It is the intent of this Subelement to address housing issues on a regional basis with local plans handling the specifics of implementation.

### **GOAL #1**

**TO THE EXTENT POSSIBLE, AFFORDABLE HOUSING WILL BE PROVIDED IN SUITABLE LOCATIONS FOR THE RESIDENTS OF THE REGION.**

#### **POLICIES**

- 1. SPECIAL INCENTIVES, SUCH AS BONUS DEVELOPMENT UNITS, WILL BE GIVEN TO PROMOTE AFFORDABLE OR GOVERNMENT-ASSISTED HOUSING FOR LOWER INCOME HOUSEHOLDS (80 PERCENT OF RESPECTIVE COUNTY'S MEDIAN INCOME) AND FOR VERY LOW INCOME HOUSEHOLDS (50 PERCENT OF RESPECTIVE COUNTY'S MEDIAN INCOME). EACH COUNTY'S MEDIAN INCOME WILL BE DETERMINED ACCORDING TO THE INCOME LIMITS PUBLISHED ANNUALLY BY THE DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT.**

The 1980 census data indicate that approximately 95 percent of the region's lower income households were paying more than the recommended costs for rental housing. There is a need to reverse the current trend of higher cost housing and to provide needed affordable housing.

- 2. LOCAL GOVERNMENTS WILL BE ENCOURAGED TO ASSUME THEIR "FAIR SHARE" OF THE RESPONSIBILITY TO PROVIDE LOWER AND VERY LOW INCOME HOUSING.**

Current data indicate the City of South Lake Tahoe and Placer County are assuming more than their share of the responsibility as detailed in the Regional Plan EIS.

- 3. FACILITIES SHALL BE DESIGNED AND OCCUPIED IN ACCORDANCE WITH LOCAL, REGIONAL, STATE, AND FEDERAL STANDARDS FOR THE ASSISTANCE OF HOUSEHOLDS WITH LOW AND VERY LOW INCOMES. SUCH HOUSING UNITS SHALL BE MADE AVAILABLE FOR RENTAL OR SALE AT A COST TO SUCH PERSONS THAT WOULD NOT EXCEED THE RECOMMENDED STATE AND FEDERAL STANDARDS.**
- 4. AFFORDABLE OR GOVERNMENT ASSISTED HOUSING FOR LOWER INCOME HOUSEHOLDS SHOULD BE LOCATED IN CLOSE PROXIMITY TO EMPLOYMENT CENTERS, GOVERNMENT SERVICES, AND TRANSIT FACILITIES. SUCH HOUSING MUST BE COMPATIBLE WITH THE SCALE AND DENSITY OF THE SURROUNDING NEIGHBORHOOD.**

## **GOAL #2<sup>§</sup>**

**TO THE EXTENT FEASIBLE, WITHOUT COMPROMISING THE GROWTH MANAGEMENT PROVISIONS OF THE REGIONAL PLAN, THE ATTAINMENT OF THRESHOLD GOALS, AND AFFORDABLE HOUSING INCENTIVE PROGRAMS, MODERATE INCOME HOUSING WILL BE ENCOURAGED IN SUITABLE LOCATIONS FOR THE RESIDENTS OF THE REGION.**

### **POLICIES**

- 1. SPECIAL INCENTIVES, SUCH AS BONUS DEVELOPMENT UNITS, WILL BE MADE AVAILABLE TO PROMOTE HOUSING FOR MODERATE INCOME HOUSEHOLDS (120 PERCENT OF RESPECTIVE COUNTY'S MEDIAN INCOME). SUCH INCENTIVES SHALL BE MADE AVAILABLE WITHIN JURISDICTIONS THAT DEVELOP HOUSING PROGRAMS THAT ARE SUBSTANTIALLY CONSISTENT WITH AND COMPLEMENTARY TO THE REGIONAL PLAN.**
- 2. RESIDENTIAL UNITS DEVELOPED USING MODERATE INCOME HOUSING INCENTIVES SHALL BE USED TO PROVIDE HOUSING FOR FULL-TIME RESIDENTS OF THE TAHOE BASIN. SUCH UNITS SHALL NOT BE USED FOR VACATION RENTAL PURPOSES.**
- 3. RESIDENTIAL UNITS DEVELOPED USING MODERATE INCOME HOUSING INCENTIVES SHALL REMAIN PERMANENTLY WITHIN THE PROGRAM.**

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<sup>§</sup> Amended 4/28/04

## NOISE



The Tahoe Regional Planning Compact requires that environmental threshold carrying capacities be established for noise and that the Plan and its elements achieve and maintain all such environmental threshold carrying capacities. The following standards have been adopted for noise:

Source	SINGLE NOISE EVENTS <sup>§</sup>				Monitoring Distances
	Threshold - dBA				
	Overall	Less Than 35 MPH	Greater Than 35 MPH		
Aircraft	80 <sup>1</sup>	--	--		6,500 m-start of takeoff roll 2,000 m-runway threshold approach
	77.1 <sup>2</sup>	--	--		6,500 m-start of takeoff roll 2,000 m-runway threshold approach
Watercraft <sup>3</sup>					
1. Pass-By Test	82 L <sub>max</sub>	--	--		50 ft.-engine at 3,000 rpm
2. Shoreline Test	75 L <sub>max</sub>	--	--		Microphone 5 ft. above water, 2 ft., above curve of shore, dock or platform. Watercraft in Lake, no minimum distance.
3. Stationary Test	88 dBA L <sub>max</sub> for boats manufactured before January 1, 1993;	--	--		Microphone 3.3 feet from exhaust outlet - 5 feet above water.
	90 dBA L <sub>max</sub> for boats manufactured after January 1, 1993	--	--		
Motor Vehicles Less Than 6,000 GVW	--	76	82		50 ft.
Motor Vehicles Greater Than 6,000	--	82	86		50 ft.
Motorcycles	--	77	86		50 ft.
Off-Road Vehicles	--	72	86		50 ft.
Snowmobiles	--	82	--		50 ft.
<p>1. The single event noise standard of 80 dBA L<sub>max</sub> for aircraft departures at Lake Tahoe Airport shall be effective immediately. The single event noise standard of 80 dBA L<sub>max</sub> for aircraft arrivals at Lake Tahoe Airport is not to be effective until ten years after the adoption of an airport master plan by TRPA. The schedule for phasing in the 80 dBA arrival standard shall be based on a review and consideration of the relevant factors, including best available technology and environmental concerns, and shall maximize the reduction in noise impacts caused by aircraft arrivals while allowing for the continuation of general aviation and commercial service. The beginning arrival standard shall not exceed 84 dBA for general aviation and commuter aircraft, and 86 dBA for transport category aircraft.</p> <p>2. Between the hours of 8 p.m. and 8 a.m.</p> <p>3. Failure to meet any one of these three test standards exceeds the single noise event threshold for watercraft.</p>					

<sup>§</sup> Amended 7/23/03

<b>CUMULATIVE NOISE EVENTS<sup>§</sup></b>	
<b>Land Use Category</b>	<b>Average Noise Level Or CNEL range (dBA)</b>
NUMERICAL STANDARDS: Background noise levels shall not exceed the following levels:	
High Density Residential Areas	55
Low Density Residential Areas	50
Hotel/Motel Areas	60
Commercial Areas	60
Industrial Areas	65
Urban Outdoor Recreation Areas	55
Rural Outdoor Recreation Areas	50
Wilderness and Roadless Areas	45
Critical Wildlife Habitat Areas	45
POLICY STATEMENT: It shall be a policy of the TRPA Governing Board in the development of the Regional Plan to define, locate, and establish CNEL levels for transportation corridors.	
TRANSPORTATION CORRIDORS <sup>1</sup>	
Highway 50	65 <sup>2</sup>
Highways 89, 207, 28, 267 and 431	55 <sup>2</sup>
South Lake Tahoe Airport	60 <sup>3</sup>
<ol style="list-style-type: none"> <li>1. Recommended CNEL levels for transportation corridors.</li> <li>2. This recommended threshold overrides the land use CNEL thresholds and is limited to an area within 300 feet from the edge of the road.</li> <li>3. This recommended threshold applies to those areas impacted by the approved flight paths</li> </ol>	

**GOAL #1**

**SINGLE EVENT NOISE STANDARDS SHALL BE ATTAINED AND MAINTAINED.**

People can be annoyed by a specific noise source. Thresholds were adopted that apply to aircraft, boats, motor vehicles, off-road vehicles, and snowmobiles to reduce impacts associated with single noise events.

**POLICIES**

1. **AN ORDINANCE AND ENFORCEMENT PROGRAM SHALL BE DEVELOPED TO PERMIT ONLY AIRCRAFT THAT MEET THE SINGLE EVENT NOISE THRESHOLDS TO USE THE AIRPORT.**

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<sup>§</sup> Amended 05/28/97

The 77.1 dBA single-event threshold applies between the hours of 8:00 p.m. and 8:00 a.m. The airport master plan shall provide for implementation and enforcement of the single event noise thresholds for aircraft. Review of the phasing schedule for the 80 dBA standard for aircraft arrivals shall be conducted at five year intervals, consistent with the airport master plan and the periodic threshold reviews.

**2. BOATS WILL ONLY BE ALLOWED TO USE LAKE TAHOE IF THEY COMPLY WITH THE SINGLE-EVENT THRESHOLD.**

Implementation of the single-event threshold for boats shall be shared by the public and private sectors. TRPA shall prepare a model ordinance, and encourage local government and the U. S. Coast Guard to adopt and enforce the model ordinance. TRPA shall also encourage marinas and other boat launching facilities to participate in implementation of the single-event threshold standard.

**3. MOTOR VEHICLES AND MOTORCYCLES SHALL COMPLY WITH THE APPROPRIATE NOISE THRESHOLDS.**

The local and state law enforcement agencies will not allow motor vehicles and motorcycles to use the streets and highways in the Basin if they exceed the single-event thresholds for noise.

**4. OFF-ROAD VEHICLE USE IS PROHIBITED IN THE LAKE TAHOE REGION EXCEPT ON SPECIFIED ROADS, TRAILS, OR DESIGNATED AREAS WHERE THE IMPACTS CAN BE MITIGATED.**

Off-road vehicles can be annoying if they produce excessive noise relative to the standards of the surrounding land uses. To reduce these impacts, as well as impacts on wild-life, vegetation and water quality, the Plan will allow them to be used only in designated areas.

**5. THE USE OF SNOWMOBILES WILL BE RESTRICTED TO DESIGNATED AREAS.**

Snowmobiles can also be annoying if they produce excessive noise or are incompatible with the surrounding land uses. Snowmobiles can interfere with other winter outdoor activities and affect wildlife. To resolve these problems, snowmobile use should be restricted to specified areas where potential conflicts with winter outdoor activities and wildlife can be minimized. Exceptions will be allowed pursuant to Policy 4, above. (See Dispersed Recreation Subelement, Goal #2, Policy 2.)

**6. THE PLAN WILL PERMIT USES ONLY IF THEY ARE CONSISTENT WITH THE NOISE STANDARDS. SOUND PROOFING PRACTICES MAY BE REQUIRED ON ALL STRUCTURES CONTAINING USES THAT WOULD OTHERWISE ADVERSELY IMPACT THE PRESCRIBED NOISE LEVELS.**

An ordinance shall be adopted that allows the Agency to review and resolve any existing and future problems of nuisances associated with a specific source of noise. This ordinance would allow the Agency to require that the impacts be mitigated either through voluntary compliance or through conditions of project approval.

## **GOAL #2**

### **COMMUNITY NOISE EQUIVALENT LEVELS SHALL BE ATTAINED AND MAINTAINED.**

CNEL thresholds were adopted to reduce the annoyance associated with cumulative noise events on people and wildlife. In the Basin, the main sources of noise are attributed to the major transportation corridors and the airport (refer to Figure 3). Therefore, the policies are directed towards reducing the transmission of noise from those sources. The CNEL thresholds will be attained upon implementation of the following policies.

#### **POLICIES**

**1. TRANSMISSION OF NOISE FROM THE TRANSPORTATION CORRIDORS SHALL BE REDUCED.**

The noise associated with the transportation corridors can be decreased by reducing the number of trips and by installing mitigation measures. Trip reduction will be accomplished by the transit improvements identified in the Transportation Element. Ordinances will establish specific site design criteria for projects to help reduce the transmission of noise from the transportation corridors. The design criteria will also be incorporated into the water quality and transportation improvement programs. The mitigation measures may include set backs, earth berms, and barriers.

**2. REDUCE NOISE-RELATED IMPACTS ASSOCIATED WITH THE AIRPORT TO ACCEPTABLE LEVELS.**

A master plan and accompanying EIS must be completed to evaluate the noise impacts from aircraft flights into and from the Lake Tahoe Airport. The Master Plan should include specific recommendations on aircraft type and the number of flights per day per aircraft type necessary to attain the environmental thresholds. The master plan should also include implementation provisions for attaining the noise thresholds.

**3. TRPA WILL FURTHER DEFINE CNELs FOR WILDERNESS AND ROADLESS AREAS AND FOR CRITICAL WILDLIFE HABITAT AREAS.**

The 25 CNEL standard for the above areas needs further evaluation as to location of monitoring and conditions of monitoring. The Agency will further evaluate the proper application of the standard.





## **NATURAL HAZARDS**



Natural hazards are those events of nature that can be hazardous to public health and safety. In the Lake Tahoe Basin, natural hazards are most frequently related to the dangers of avalanches, wildfires, and flooding.

### **GOAL #1**

#### **RISKS FROM NATURAL HAZARDS (E.G., FLOOD, FIRE, AVALANCHE, EARTHQUAKE) WILL BE MINIMIZED.**

Land uses within the Tahoe Basin should be cognizant of natural hazards so as to help prevent damage to property and to protect public health. Natural hazard areas or situations can be identified and precautionary measures taken to minimize impacts.

#### **POLICIES**

**1. DEVELOPMENT SHALL BE REGULATED IN IDENTIFIED AVALANCHE OR MASS INSTABILITY HAZARD AREAS.**

In the areas with identified avalanche or mass instability danger (Natural Hazards of the Lake Tahoe Basin, 1978 or by other studies accepted by TRPA), the type of uses or activities can be designed or regulated to protect the public during hazard periods. Construction, reconstruction or replacement of structures in identified avalanche or mass instability hazard areas shall be restricted unless precautionary measures can be implemented to insure protection of public health and safety.

**2. PROHIBIT CONSTRUCTION, GRADING, AND FILLING OF LANDS WITHIN THE 100-YEAR FLOOD PLAIN AND IN THE AREA OF WAVE RUN-UP EXCEPT AS NECESSARY TO IMPLEMENT THE GOALS AND POLICIES OF THE PLAN. REQUIRE ALL PUBLIC UTILITIES, TRANSPORTATION FACILITIES, AND OTHER NECESSARY PUBLIC USES LOCATED IN THE 100-YEAR FLOOD PLAIN AND AREA OF WAVE RUN-UP TO BE CONSTRUCTED OR MAINTAINED TO PREVENT DAMAGE FROM FLOODING AND TO NOT CAUSE FLOODING.**

The Tahoe Basin is often subject to rain or storm events which cause extreme fluctuations in stream flows or wave run-up which can result in flooding and damage to property. Grading, filling, and structural development within the flood plain causes alteration of the stream flow and may accentuate downstream flooding. Development within the flood plain is subject to damage and inundation as a result of flooding and is generally prohibited by federal regulation (Executive Order No. 11988, 1977 and No. 11296, 1966).

**3. INFORM RESIDENTS AND VISITORS OF THE WILDFIRE HAZARD ASSOCIATED WITH OCCUPANCY IN THE BASIN. ENCOURAGE USE OF FIRE RESISTANT MATERIALS AND FIRE PREVENTATIVE TECHNIQUES WHEN CONSTRUCTING STRUCTURES, ESPECIALLY IN THE HIGHEST FIRE HAZARD AREAS. MANAGE FOREST FUELS TO BE CONSISTENT WITH STATE LAWS AND OTHER GOALS AND POLICIES OF THIS PLAN.**

Most wildfires in the Lake Tahoe Basin are human-caused. The decadent and monoculture vegetation on steep slopes is highly susceptible to wild fires. Serious environmental damage, property damage and impacts to public health can result from wildfires. Public awareness and education can help to decrease the risk of human-caused wildfires. Programs involving the manipulation of vegetation can also reduce fire hazards. The potential for damage to structures can be minimized with various construction techniques and installation of fire resistant materials. The Agency, in cooperation with local fire departments, will set forth criteria describing areas of high hazard and will also propose fire prevention techniques and measures.

**4. TRPA WILL ENCOURAGE PUBLIC SAFETY AGENCIES TO PREPARE DISASTER PLANS.**

The Agency will encourage police and fire departments and other agencies to prepare contingency plans for major disasters such as described in this Subelement.

## **AIR QUALITY PLAN ELEMENT**

### **A. Introduction**



The Air Quality Plan Element of the integrated Regional Transportation Plan - Air Quality Plan focuses on the need for air quality control strategies required to meet the air quality related goals for the Tahoe Region. The Tahoe Regional Planning Compact (Compact) states that the goal of transportation planning shall be to reduce to the extent feasible air pollution which is caused by motor vehicles. The purpose of the integrated Regional Transportation Plan-Air Quality Plan is to attain and maintain the Environmental Threshold Carrying Capacities (thresholds) established by TRPA in 1982, and all applicable federal, state, and local standards established for transportation and air quality.

The Air Quality Plan portion of the integrated plan document contains all feasible control measures considered to be effective in the Tahoe Region. This is consistent with the California Clean Air Act requirements, and California Air Resources Board guidance developed pursuant to the California Clean Air Act.

TRPA thresholds, Federal National Ambient Air Quality Standards (NAAQS), and state standards establish 23 separate air quality standards for 14 air quality parameters, including carbon monoxide (CO), ozone, particulate matter less than 10 microns in size (PM10), nitrogen dioxide (NO<sub>2</sub>), sulfur dioxide (SO<sub>2</sub>), visibility, lead, hydrocarbons, sulfates, hydrogen sulfide, oxides of nitrogen (NO<sub>x</sub>), wood smoke, suspended soil particles and NO<sub>x</sub> transport. Volume II of the Regional Transportation Plan - Air Quality Plan discussed these standards.

## **Air Quality Standards - Status**

The status of the various threshold, federal and state standards is as follows:

### **Air Quality - Attainment**

- Carbon Monoxide 1 hour standard - all standards
- Ozone 1 hour standard - NAAQS
- Nitrogen Dioxide 24-hour and annual average - all standards
- Total Suspended Particulate (24-hour and Annual Geometric Mean) - all standards
- Particulate matter less than 10 microns (PM10) (24-hour) – NAAQS
- PM10 (Annual Geometric Mean) - all standards

### **Air Quality - Non-attainment**

- Carbon Monoxide 8-hour standard - NAAQS, CA, and TRPA standards
- Ozone 1-hour standard - TRPA standard
- PM10 24-hour standard - CA standard

### **Air Quality - Non-attainment Transitional**

- Ozone 1-hour standard - CA standard

### **Visibility - Attainment**

- Regional visibility - TRPA standard
- Subregional visibility - TRPA standard

### **Nitrate Deposition**

The interim target for NO<sub>x</sub> emissions is currently being met. Vehicle NO<sub>x</sub> emissions are estimated to have been reduced overall by up to 15.6 percent between 1982 and 1987. The impact of transport NO<sub>x</sub> to the Tahoe Air Basin has not been fully quantified at this time.

Management standard for a 10 percent VMT reduction has not been met.

## **Air Quality Standards - Forecasts**

Air quality forecasts are limited to the pollutants for which the Region is not in attainment. The forecasts all assume worst-case growth in traffic volumes.

### **Carbon Monoxide**

Carbon monoxide concentrations were modeled for the South Stateline area both with and without the completion of the redevelopment-related Loop Road project. Without the completion of the loop roads, attainment of the 8-hour National Ambient Air Quality Standards (NAAQS) for CO is modeled at the California South Stateline monitoring site by 1997. The NAAQS for CO at the Nevada South Stateline monitoring site is modeled as remaining in attainment. The NAAQS for CO is also modeled as being in attainment at all other locations in the Region.

With the completion of the Loop Road system in the South Stateline area, the California, Nevada, and TRPA threshold standards for CO (6 ppm, 8-hour average) are modeled as being in attainment at both South Stateline monitoring sites. Construction of the Loop Road system will commence in FY 1993-94, with completion of the project anticipated in FY 1996-97.

The TRPA CO threshold standard and the California and Nevada CO standards for the Tahoe Region are also shown as being in attainment at all but one location within the Region by 1997. Without the implementation of any transportation control measures, violations of the 6 ppm CO standard through 2007 are forecast at Kingsbury Grade (Nevada 207) and U.S. 50. Monitoring of this location will be necessary to determine the actual concentrations and to determine attainment of the 6 ppm standard.

Forecast concentrations do not take into account the impact of the transportation and air quality control measures contained in the Regional Transportation Plan - Air Quality Plan Control Program - Action Element.

### **Ozone**

The California standard for ozone (.09 ppm) was exceeded on two days during 1989, being measured at .10 ppm. Data for 1990 and 1991 indicates that the California ozone standard was met with a high reading of .09 ppm at the Lake Tahoe Boulevard monitoring site.

The trend in ozone concentrations as measured at the Lake Tahoe Boulevard site on the South Shore indicates that ozone concentrations are relatively stable. It is assumed that this trend will continue, and may decline as ozone precursor control measures are implemented upwind of the Region. Implementation of transportation and air quality control measures in the Tahoe Region should contribute to a decline in ozone concentrations, although the portion of the decline attributed to local sources would be minimal.

### **Particulate Matter Less Than 10 Microns - PM10 (24-Hour)**

The trend in PM10 24-hour measurements has fluctuated significantly since measurements were first taken in 1985. However, the overall trend has been downward, increasing from 116  $\mu\text{g}/\text{m}^3$  in 1985 to a high of 177  $\mu\text{g}/\text{m}^3$  in 1987, and then decreasing to 95  $\mu\text{g}/\text{m}^3$  in 1988, and 84  $\mu\text{g}/\text{m}^3$  in 1990. It is assumed this downward trend will continue as best management practices continue to be applied and stricter controls on combustion devices are implemented in the Tahoe Region.

## **B. Air Quality Control Measures**

TRPA has the authority under the Tahoe Regional Planning Compact (PL 95-551) to adopt and implement the ordinances necessary to attain and maintain air quality standards in the Tahoe Region. In 1987, TRPA adopted Chapter 91 (Air Quality Control) and Chapter 93 (Traffic and Air Quality Mitigation Program) of the TRPA Code of Ordinances.

The purpose of Chapter 91 is to implement the Air Quality Subelement, Land Use Element, of the Goals and Policies. Chapter 91 regulates and sets emission standards for combustion appliances including gas heaters and wood heaters. Chapter 91 also sets emission standards for new or modified stationary sources. TRPA's stationary

source review rule meets or exceeds the requirements of the California Clean Air Act. It requires an environmental assessment and provides for best available control technology and best available retrofit control technology for new or modified stationary sources. Chapter 91 also restricts extended vehicle idling and prohibits the construction of new drive-up windows.

The purpose of Chapter 93 is to implement TRPA's 1982 Air Quality Plan and the Development and Implementation Priorities Subelement, Implementation Element of the Goals and Policies. Chapter 93 establishes fees and other procedures to offset impacts from indirect sources of air pollution. Chapter 93 requires a traffic analysis to be completed for new, additional, or transferred development. Chapter 93 requires that potential traffic and air quality impacts be analyzed and requires that regional and cumulative impacts be offset or mitigated. The traffic and air quality mitigation fees collected under Chapter 93 must be expended on projects which will offset or reduce emissions.

Implementation of the control measures contained in the Air Quality Plan should lead to attainment of the TRPA threshold standards and should also lead to attainment and maintenance of federal and state air quality standards.

The Air Quality Plan contains the following elements:

- ◆ Vehicle Emission Control Technologies
- ◆ Alternative Fuels
- ◆ Transportation Control Measures (TCM)
- ◆ Indirect South Control Measures
- ◆ Best Management Practices
- ◆ Combustion Heaters
- ◆ Stationary Source Controls

### **Vehicle Emission Control Technologies**

On-board vehicle emission controls have had a significant effect on vehicle emissions. Improvements in regional air quality can be attributed primarily to the cleaner vehicle fleet that has resulted from the improved control technology. Since 1980, the composite emission factors developed for the Tahoe Region indicate an overall average decrease in vehicle carbon monoxide emissions of 51.6 percent, and in oxides of nitrogen emissions of 31.3 per cent.

Eight-hour CO concentrations monitored at the South Stateline, California site show an overall improvement of 46.8 percent from 1980 to 1990. Also, the number of days the NAAQS eight-hour CO standard was exceeded has decreased from 27 days in 1980 to 7 days in 1990 (74.1 percent reduction).

Vehicle NO<sub>x</sub> emissions (based on composite emission factors) decreased by 31.3 percent from 1980 to 1987. By applying the composite emission factors to vehicle miles of travel modeled for the Region, an estimated decrease in NO<sub>x</sub> emissions of up to 15.6 percent, from 1981 to 1987, can be calculated.

The forecast emission inventories prepared by the California Air Resources Board for the Tahoe Air Basin indicate that bulk emissions from motor vehicles are expected to continue to decrease from 1987 to 2010. Carbon monoxide emissions are expected to decrease by 21.1 percent, and NOx emissions are expected to decrease by 42.6 percent. Additional improvements in vehicle control technology are expected to result from the recently passed federal Clean Air Act of 1990. The federal Clean Air Act includes requirements to reduce vehicle emissions of NOx and CO even further than the requirements of the 1977 Clean Air Act Amendments.

### **Alternative Fuels**

Vehicles designed to use alternative fuels, including methanol, ethanol, compressed natural gas (CNG), liquefied petroleum gas (LPG) and electricity, and reformulated conventional fuels, can produce significant reductions in motor vehicle emissions. However, as reported in the study *Alternative Motor Vehicle Fuels to Improve Air Quality* (California Council for Environmental and Economic Balance, January 1990) each fuel requires appropriate engine design and emission control systems. The study report also states that vehicle emissions are the net result of fuel properties, engine design and emission control technology.

Use of methanol as a motor vehicle fuel can have emission reduction benefits. However, there are other impacts associated with the use of methanol that are not as positive. Low-level blends of methanol and gasoline can reduce carbon monoxide emissions in older cars, but it also can increase nitrogen oxide emissions. Higher concentrations of methanol can reduce NOx emissions, but does so at the expense of higher CO emissions. Introduction and widespread use of methanol may have health, safety, and other environmental impacts. Strategies to substitute methanol for gasoline are not relatively cost-effective. Methanol is highly corrosive to engine and fuel system components and would require a significant investment in converting these components to more compatible materials.

CNG has a number of advantages as a motor fuel, however, its compression and storage space requirements present obstacles to its widespread use to fuel passenger vehicles. CNG is well suited to powering diesel engines in trucks and buses. CNG fuel cost savings are offset by current costs of vehicle conversion, and the cost of fueling stations.

LPG is a mixture of petroleum and natural gases. LPG is widely used in residential, commercial, industrial, and other applications. LPG has been widely used as a motor vehicle fuel for many years, and the LPG fuel storage and distribution system is already established. LPG emissions testing indicates that it can provide air quality benefits similar to methanol. Vehicle emissions are comparable to gasoline with the exception of carbon monoxide, which is substantially reduced. On-board fuel storage requires a large tank, and the fuel system needs to be converted for LPG. LPG conversion costs are significant, and because of cost considerations, LPG may have better application in fleet vehicle use.

Emissions from electrically powered vehicles are generally non-existent. Use of electrical powered vehicles is limited by range and recharge time. The best application of electrical powered technology may be in urban delivery vehicles.

Oxygenated fuels are gasolines that are blended with additives that contain oxygen. The increased oxygen in the fuel enables the fuel to burn more completely, reducing the amount of carbon monoxide produced by the vehicle. Oxygenated fuels are generally available in two forms: gasoline blended with ethanol, or gasoline blended with methyl tertiary butyl ether (MTBE).

Ethanol is an ethyl alcohol produced from agricultural products. It increases the octane of fuel. Ethanol can reduce carbon monoxide emissions, primarily in older model cars. Nitrogen oxide (NOx) emissions are somewhat higher for ethanol than gasoline. Ethanol production for use as a fuel is highly dependent on tax subsidies.

MTBE is a petroleum-based oxygenate produced at refineries and petrochemical plants. It is commonly used to produce high octane or premium grade gasolines. Low levels of MTBE blends appear to have a varying effect on NOx emissions.

Washoe County, Nevada, implemented a 2.5 percent oxygenated fuel mixture program in 1989, resulting in an 11 percent reduction in carbon monoxide emissions. To comply with the Federal Clean Air Act Amendments, Washoe County will require a 2.7 percent oxygen content in gasoline during the winter months of 1991-92. This mixture should result in a 15 percent reduction in CO emissions.

The Federal Clean Air Act Amendments of 1991 require oxygenated fuels be sold in moderate CO non-attainment areas by 1992. In order to ensure that NOx emissions do not increase, the California Clean Air Act (CCAA) requires a lower oxygen content mixture (2.0 percent) than the federal standard. The California portion of the Region would, therefore, use a different oxygen content fuel than the Nevada portion which complies with the federal oxygen mixture regulation. Provided that fuel distribution is not problematic, two oxygenated mixtures can be implemented in the Tahoe Region. However, it is also recognized by TRPA that uniformity in oxygen content regulations would be desirable to fuel suppliers.

Extensive research is underway by both regulatory agencies and industry to evaluate the opportunities for, and costs of, alternative fuel properties so as to reduce emissions. Reformulated fuel technology is showing that emissions in older vehicles can be reduced by 20 to 30 percent. Emission reduction estimates from reformulated fuels in new vehicles range up to 15 percent.

### **Transportation Control Measures**

The California Clean Air Act defines transportation control measures as "any strategy to reduce vehicle trips, vehicle use, vehicle miles traveled, vehicle idling, or traffic congestion for the purpose of reducing vehicle emissions."

Transportation control measures can include both regulatory measures and transportation system measures. Regulatory measures are implemented through regulations or ordinances which are used to affect individual travel choices or traffic flow. Regulatory measures can include employer-based trip reduction program and parking management programs.

Transportation system measures are measures which are implemented by transportation providers to influence travel behavior to reduce vehicle use. Transportation system measures can include TSM improvements, transit system improvements, and land use changes that support trip reductions.

The Regional Transportation Plan includes transportation control measures which reduce vehicle emissions through vehicle trip reduction programs and air quality benefits due to congestion improvements. Chapter 91 of the TRPA Code of Ordinances limits the allowable amount of time of vehicle idling in the Region. TRPA also has an ongoing program to reduce unnecessary trips and to provide for shorter trips through land use planning measures. Community plans are to address vehicle trip reduction targets and threshold related air quality standards. Community plans shall contain programs to reduce the dependency on the automobile and trip reduction measures which will reduce congestion, lead to air quality and visibility improvements, and reduce VMT.

### **Indirect Source Control Measures**

An indirect source of pollutant emissions is defined as, "A facility, building, structure, installation, real property, road or highway which generates or may generate mobile sources of air pollution or serves as a trip end. Indirect sources include, but are not limited to parking facilities, airports, and retail facilities." An indirect source control measure is a rule or ordinance established to reduce mobile source emissions associated with specific activity centers. Indirect source control measures can be divided into two categories: measures to reduce emissions from existing sources and measures to reduce or mitigate emissions from new or modified sources.

The Regional Transportation Plan contains transportation demand management measures which will reduce vehicle trip demand and VMT. Chapter 93 of the TRPA Code of Ordinances requires new or modified indirect sources to mitigate air quality impacts to less than significant levels. Cumulative impacts of new development will be addressed in revisions to Chapter 93.

### **Best Management Practices**

The Tahoe Region is in compliance with the California PM10 standard as measured by the annual geometric mean. However, the Region does not achieve the California standard as measured over 24 hours. TRPA has a program to reduce sources of PM10 through the application of best management practices and controls on combustion appliances.

Chapter 25 of the TRPA Code of Ordinances (Best Management Practice Requirements) implements best management practice (BMP) requirements for the Region. Best management practices are alternative structural and nonstructural practices proven effective in erosion control and management of surface runoff in the Region. BMPs include both temporary and permanent activities. BMPs include: construction site activities, sediment barriers, soil stabilization (non-vegetative), slope runoff controls, grade stabilization, sediment retention, slope stabilization, infiltration systems, vegetative soil stabilization (including revegetation) and other practices such as street sweeping. These BMPs can significantly reduce erosion and stabilize slopes, and reduce the amount of wind-blown soils and re-entrained dust in the Region.



Chapters 61 through 64 of the Code of Ordinances also contain requirements for erosion control, slope stabilization, and site disturbances related to grading and construction activities. Chapter 64 of the Code requires dust control measures for any grading activity. Chapter 91 regulates the amount of PM10 emissions allowed from new or modified stationary sources.

### **Combustion Heaters**

TRPA regulates combustion heaters through Chapter 91 of the TRPA Code of Ordinances. The TRPA threshold management standards for regional and subregional visibility call for a 15 percent reduction in wood smoke emissions from 1981 base year. In order to achieve this threshold standard, it is necessary to amend the existing Code of Ordinances to ensure that wood burning stoves and fireplaces are replaced in a more timely fashion by newer technology wood burning appliances.

TRPA recommends Chapter 91 of the Code of Ordinances be amended as follows:

1. Upon sale of a residential dwelling unit or any other structure which is equipped with a wood burning appliance that does not meet current emission standards, the wood burning appliance is to be replaced with an appliance that meets TRPA emission standards as contained in the Code, or shall be rendered inoperable.
2. It shall be illegal to sell, or offer for sale, in the Tahoe Region, a wood burning appliance that does not meet the emission standards contained in the Code. It shall also be illegal to purchase, or acquire by other means, a wood burning appliance for use in the Tahoe Region which does not meet TRPA Code emission standards.
3. It shall be illegal for anyone to install a wood burning appliance in the Tahoe Region that does not meet TRPA Code emission standards.
4. It shall be illegal to sell, or offer for sale, in the Tahoe Region coal for residential heating. It shall also be illegal to burn coal as a home heating fuel in the Tahoe Region.
5. The stricter of TRPA, local, state, or federal standards regulating wood heating appliances or fuel for residential heating shall apply.

TRPA will enter into the necessary agreements with local or state jurisdictions to enforce wood burning appliance regulations. The City of South Lake Tahoe, Douglas County, El Dorado County, Placer County, and Washoe County should enter into a Joint Powers Agreement (JPA) to implement a program to regulate wood burning appliances and combustion heaters. This program shall include permit approvals for installation or retrofit of wood burning appliances, and an inspection program under the jurisdiction of the local counties and City.

### **Stationary Source Controls**

TRPA regulates new or modified stationary sources through Chapter 91 of the TRPA Code of Ordinances. Chapter 91 requires an environmental assessment be prepared for new or modified stationary sources that exceed minimum emission limits for NO<sub>x</sub>, PM10, VOC, SO<sub>2</sub>, and CO. Offsets are permitted, provided the existing stationary source is permanently retired. Chapter 91 requires best available control technology (BACT) for all new stationary sources. At a minimum, BACT measures shall meet or exceed applicable state or federal requirements.

### C. Implementation Schedule

Implementation of the transportation and air quality control measures needed to assure attainment or maintenance of the Region's air quality standards is scheduled over the next five years (1992-1997). Volume IV of the integrated Regional Transportation Plan - Air Quality Plan (Capital Improvement Program) contains a recommended schedule (Table 5) for implementation of these control measures in the Region.

The recommended implementation schedule for transportation and air quality control measures is summarized as follows:

Vehicle Emissions Control Technology (Federal)	1994
Oxygenated Fuels (Federal)	1992
Transportation Control Measures (States, Local)	1992-1997
Indirect Source Measures (TRPA)	Adopted (Chapter 91)
Combustion Heaters Control Program (TRPA, Local)	Adopted (Chapter 93)
Stationary Source Controls (TRPA)	Adopted (Chapter 91)
Air Quality Monitoring Program (TRPA, CARB, NDEP)	Ongoing

### D. Attainment Projections

TRPA used the CALINE4 air quality model to determine the effect of the implementation of the transportation and air quality control measures on reducing carbon monoxide concentrations in the South Tahoe non-attainment area. Inputs to the CALINE4 model were selected which allowed the model to be calibrated to existing conditions. A complete discussion of the air quality modeling process and the use of the CALINE4 model can be found in Volume VI (Technical Appendix B).

Following model calibration, CO concentrations were modeled for seven "hot spot" locations within the Tahoe Region, including Park Avenue at U.S. 50, Ski Run Boulevard at U.S. 50, Al Tahoe Boulevard at U.S. 50, the South Tahoe Wye, Kingsbury Grade at U.S. 50, Nevada 28 in Incline Village, and California/Nevada 28 at North Stateline. CO concentrations were modeled at these locations for four forecast years: 1992, 1997, 2002, and 2007.

Air quality forecasts were analyzed to determine the impact of implementing the transportation and air quality control measures, including the following:

- ◆ Vehicle Emission Control Technologies
- ◆ Oxygenated Fuels Program
- ◆ Transportation Control Measures
- ◆ Indirect Source Control Measures
- ◆ Combustion Heater Controls
- ◆ Stationary Source Controls

Vehicle emission control technologies are anticipated to improve vehicle emissions by up to 21.1 percent for CO and 42.6 percent for NOx. Additional benefits will be realized from improved vehicle control technologies mandated by the 1990 Federal Clean Air Act (FCAA).

A Region-wide oxygenated fuel program, which is mandated by the FCAA for implementation in 1992, is estimated to reduce CO emissions by 11.0 percent.

The transportation control measures to be implemented in the South Lake Tahoe area by 1997 will reduce traffic volumes by one percent by 1992, 7.2 percent by 1997, 9.2 percent by 2002, and 14.6 percent by 2007. Average daily vehicle miles of travel are modeled to be reduced by 78,500 VMT (4.3 percent) by 1997, by 113,000 VMT (5.0 percent) by 2002, and by 201,200 VMT (8.2 percent) by 2007.

These reductions in traffic volumes and VMTs are estimated to reduce CO bulk emissions by similar amounts. However, reductions in bulk CO emissions do not ensure that measured CO concentrations will be reduced correspondingly. CO concentrations are not directly related to reductions in bulk emissions. CO concentrations are subject to many other variables including meteorological conditions, vehicle speeds and traffic congestion, and the vehicle fleet mix.

With the completion of the construction of the South Stateline loop roads, attainment of the federal eight-hour CO standard (9 ppm) is projected at the Stateline, California monitoring site and at all other locations in the Region. The Stateline, Nevada monitor is projected to remain in attainment. The completion of the Loop Road project is anticipated by the end of the 1995-96 fiscal year.

With implementation of the transportation and air quality control measures contained in the Regional Transportation Plan - Air Quality Plan Control Program - Action Element, attainment of the California, Nevada and TRPA Eight-hour CO standard (6 ppm) is projected at the Stateline, California monitoring site by 1997. Attainment of the 6 ppm standard is also projected at all other locations in the Region by 1997.

These projections assume the timely completion of the Loop Road project in the Stateline, California area, the implementation of an oxygenated fuels program Region-wide by FY 1992, and the implementation of the first phase of the transportation and air quality control measures contained in the integrated Regional Transportation Plan - Air Quality Plan by 1997.

## **E. Emissions Accounting**

A baseline emissions inventory for carbon monoxide was prepared by CARB for the El Dorado County portion of the Tahoe Air Basin. The emissions inventory is to be used as a baseline to compare progress in attaining the CO standards for the Region. An emissions accounting is required to assure that a five percent per year (averaged over three years) reduction is achieved until the CO standard is attained as mandated by the California Clean Air Act. The five percent per year reduction in bulk CO emissions target requires that emissions be reduced by 35.0 percent between the years 1987 and 1994.

The CARB CO emissions inventory indicates that bulk CO emissions will be reduced by 8.9 percent from 1987 to 1994, by an additional 6.0 percent from 1994 to 1997, by 5.1 percent from 1997 to 2000, and by 3.0 percent from 2000 to 2010. The bulk emissions inventory assumes that vehicle emissions will be reduced through improved vehicle emissions control technology and new gasoline specifications including clean fuels.

TRPA has calculated a 23.5 percent reduction in CO bulk emissions between 1987 and 1994 based on modeled Regional VMT and CO emission factors developed for the Tahoe Region.

Modeling of the emission reductions due to the implementation of transportation control measures indicates additional reductions in bulk emissions resulting from reduced vehicle miles of travel in the Region and reduced congestion on the South Shore highway system. Transportation control measures to be implemented in South Lake Tahoe by 1997 will reduce vehicle trips by 7.2 per cent. Average daily vehicle miles of travel are modeled to be reduced by 4.3 percent by 1997.

Reductions in traffic volumes and VMTs are estimated to reduce CO bulk emissions by similar amounts. However, reductions in bulk CO emissions do not ensure that measured CO concentrations will be reduced correspondingly. CO concentrations are not directly related to reductions in bulk emissions. CO concentrations are subject to many other variables including meteorological conditions, vehicle speeds and traffic congestion, and the vehicle fleet mix.

Additional reductions in CO emissions will also result from the implementation of an oxygenated fuels program in the Tahoe Region in 1992. Assuming similar reductions as experienced by Washoe County, an 11.0 percent reduction in emissions may be realized. A 15.0 percent reduction in emissions may be realized if higher concentrations of oxygenates are utilized.

Implementation of the transportation and air quality control measures should result in bulk CO emission reductions by 1994 as follows:

CO Emission Reductions as Forecast by CARB	8.9 percent	--
CO Emission Reductions as Forecast by TRPA	--	23.5 percent
Transportation Control Measures	7.2 percent	7.2 percent
Oxygenated Fuels Program	<u>11.0 percent</u>	<u>11.0 percent</u>
Total Reductions	27.1 percent	41.7 percent
Target - 1987 to 1994	<u>35.0 percent</u>	<u>35.0 percent</u>
Deference	-7.9 percent	+6.7 percent

Peak carbon monoxide concentrations measured at the California South Stateline monitoring site have been reduced by approximately 22.3 percent between 1987 and 1990, an average of 5.6 percent reduction in concentrations per year. This is largely attributable to improved vehicle emission technology, but it also reflects the influence of the other parameters which affect CO concentrations.

Although the five percent per year average reduction in CO bulk emissions cannot be demonstrated utilizing the CARB emission reduction estimate, air quality modeling of CO concentrations in the Stateline, California area projects attainment of the federal and state CO standards upon construction of the Loop Road project which is anticipated to be completed by 1996, the implementation of the other transportation control measures, and the implementation of the oxygenated fuels program in 1992. The loop roads will divert approximately 53.0 percent of the traffic from the existing U.S. 50 to the new Loop Road system. Although traffic volumes will remain generally the same, CO concentrations and bulk emissions will be reduced significantly.

## F. Cost Effectiveness

An assessment of the cost effectiveness of the transportation and air quality control measures contained in the Regional Transportation Plan - Air Quality Plan Control Program - Action Element was developed by identifying control measures to be implemented, estimating project and program costs, calculating emission reductions for each control program, and determining the relative cost effectiveness of each strategy. Because cost estimates were not calculated for the federally mandated vehicle emissions control technology and oxygenated fuels programs, or existing TRPA programs for indirect source controls, stationary source controls, and combustion heater controls, the cost effectiveness of these measures could not be determined.

Although the relative cost effectiveness of these control measures may be low due to the high cost of some of the transportation control measures and the relatively low reductions in emissions, implementation of the transportation control measures is considered a high priority for TRPA in achieving its transportation goals for the Region.

Traffic modeling indicates that the estimated average daily VMT savings following the implementation of the control measures programmed for the first five-year phase ending in 1997 is 78,500 VMT, a 4.3 percent reduction. It is assumed that a like percentage reduction in bulk CO emissions will also result. The CARB emissions inventory indicates a total of 54.36 tons per day of carbon monoxide from on-road mobile sources. A reduction of 4.3 percent would result in a reduction of 2.34 tons per day of bulk CO emissions. The cost of implementing the transportation control measures which would have an impact on CO emissions in the South Lake Tahoe area during the first phase of the integrated Plan is estimated at \$78,490,000. This results in a cost of \$335,427 per ton reduction of bulk CO emissions.

The cost-effectiveness of the transportation and air quality control measures is summarized, in priority order, as follows:

<u>Control Measure</u>	<u>Cost Effectiveness</u>
Vehicle Emissions Control Technology (Federal)	Not Calculated
Oxygenated Fuels (Federal)	Not Calculated
Control Measure	Cost Effectiveness
Transportation Control Measures (States, Local)	\$335,400/ton/day
Mass Transportation	
Transportation Demand Management	
Transportation System Management	
Regional Pedestrian and Bicycle Facilities	
Aviation and Waterborne Services	
Streets and Highways	
Social Services Transportation	
Indirect Source Measures (TRPA)	Not Calculated
Combustion Heaters Control Program (TRPA, Local)	Not Calculated
Stationary Source Controls (TRPA)	Not Calculated

## **G. Air Quality Monitoring Program**

TRPA currently operates two air quality and visibility monitoring stations in the Tahoe Region. The California Air Resources Board monitors air quality at its monitoring site located adjacent to the TRPA's monitoring site on Lake Tahoe Boulevard. Visibility is also monitored in the Desolation Wilderness by the U.S. Forest Service. TRPA will continue to monitor air quality and visibility and, based on the monitoring data, will propose amendments to the Regional Transportation Plan - Air Quality Plan to assure compliance with TRPA threshold standards and federal, state, and local standards for air quality and visibility.

## **WATER QUALITY**



The purity of Lake Tahoe and its tributary streams helps make the Tahoe Basin unique. Lake Tahoe is one of the three clearest lakes of its size in the world. Its unusual water quality contributes to the scenic beauty of the Region, yet it depends today upon a fragile balance among soils, vegetation, and man. The focus of water quality enhancement and protection in the Basin is to minimize man-made disturbance to the watershed and to reduce or eliminate the addition of pollutants that result from development.

The Tahoe Regional Planning Compact established a number of policies related to water quality planning and implementation programs.

- ◆ The waters of Lake Tahoe are threatened with deterioration or degeneration, which endangers the natural beauty and economic productivity of the Region, Article (I)(a)(1);
- ◆ TRPA shall develop an enforceable land use plan for, among other purposes, the uses of water and other natural resources within the Region, Article (V)(c)(1);
- ◆ The Regional Plan shall provide for attaining and maintaining federal, state, or local water quality standards, whichever are the strictest, in the respective portions of the Region for which the standards are applicable, Article (V)(d); and
- ◆ The Regional Plan shall, by ordinance, identify the means and time schedule by which water quality standards will be attained, Article (V)(d).

Nevada, California and the federal government have passed legislation affecting water quality planning in the Tahoe Region. The Nevada Revised Statutes give the State Environmental Commission the authority to prescribe controls for diffuse sources of pollution. This authority is continued in the "Regulation for Control of Water Pollution from Diffuse Sources, September 1980." In California, the Porter-Cologne Act gives similar authority to the State Water Resources Control Board, which may issue waste discharge requirements for runoff from individual properties. Both California and Nevada prohibit the discharge of wastewater in Lake Tahoe and its tributaries, with specific exceptions.

Section 208 of the federal Clean Water Act requires preparation of regional water quality control plans. Such 208 plans must include identification of water quality problems, implementation of control measures, and a commitment to carrying out these programs.

States or their designated agencies are responsible for preparing 208 plans, which must be certified by the states before submitting them to the Environmental Protection Agency for approval. California and Nevada have jointly designated TRPA as the 208 agency for the Lake Tahoe Basin.

The strategy for protecting water quality is guided by the following environmental thresholds:

#### Pelagic Lake Tahoe

1. *NUMERICAL STANDARD: Reduce dissolved inorganic nitrogen (N) loading from all sources by 25 percent of the 1973-81 annual average. Achieve the following long term water quality standards:
  - Annual mean phytoplankton primary productivity: 52gmC/m<sup>2</sup>/yr.
  - Winter (December - March) mean Secchi disk transparency: 33.4m.*
2. *POLICY: This threshold is currently being exceeded and will likely continue to be exceeded until some time after full implementation of the loading reductions prescribed by the thresholds.*
3. *MANAGEMENT STANDARD: Reduce the loading of dissolved phosphorus, iron, and other algal nutrients from all sources as required to achieve ambient standards for primary productivity and transparency.*
4. *Reduce dissolved inorganic nitrogen loads from surface runoff by approximately 50 percent, from groundwater approximately 30 percent, and from atmospheric sources approximately 20 percent of the 1973-81 annual average. This threshold relies on predicted reductions in pollutant loadings from out-of-basin sources as part of the total pollutant loading reduction necessary to attain environmental standards, even though the Agency has no direct control over out-of-basin sources. The cooperation of the states of California and Nevada will be required to control sources of air pollution which contribute nitrogen loadings to the Lake Tahoe Region.*

#### Littoral Lake Tahoe

1. *NUMERICAL STANDARD: Reduce dissolved inorganic nitrogen loading to Lake Tahoe from all sources by 25 percent of the 1973-81 annual average.*
2. *MANAGEMENT STANDARD: Reduce dissolved inorganic nitrogen loads from surface runoff by approximately 50 percent, from groundwater approximately 30 percent, and from atmospheric sources approximately 20 percent of the 1973-81 annual average. This threshold relies on predicted reductions in pollutant loadings from out-of-basin sources as part of the total pollutant loading reduction necessary to attain environmental standards, even though the Agency has no direct control over out of Basin sources. The cooperation of the states of California and Nevada will be required to control sources of air pollution which contribute nitrogen loadings to the Lake Tahoe Region.*
3. *NUMERICAL STANDARD: Decrease sediment load as required to attain turbidity values not to exceed three NTU. In addition, turbidity shall not exceed one NTU in shallow waters of the Lake not directly influenced by stream discharges.*

4. *Reduce the loading of dissolved inorganic nitrogen, dissolved phosphorus, iron, and other algal nutrients from all sources to meet the 1967-71 mean values for phytoplankton primary productivity and periphyton biomass in the littoral zone.*

#### Tributaries

1. *NUMERICAL STANDARD: Attain applicable state standards for concentrations of dissolved inorganic nitrogen, dissolved phosphorus, and dissolved iron. Attain a 90 percentile value for suspended sediment concentration of 60 mg/1.*
2. *MANAGEMENT STANDARD: Reduce total annual nutrient and suspended sediment load to achieve loading thresholds for littoral and pelagic Lake Tahoe.*

#### Surface Runoff

1. *NUMERICAL STANDARD: Achieve a 90 percentile concentration value for dissolved inorganic nitrogen of 0.5 mg/1, for dissolved phosphorus of 0.1 mg/1, and for dissolved iron of 0.5 mg/1 in surface runoff directly discharged to a surface water body in the Basin.*
2. *Achieve a 90 percentile concentration value for suspended sediment of 250 mg/1.*
3. *MANAGEMENT STANDARD: Reduce total annual nutrient and suspended sediment loads as necessary to achieve loading thresholds for tributaries and littoral and pelagic Lake Tahoe.*

#### Groundwater

1. *MANAGEMENT STANDARD: Surface runoff infiltration into the groundwater shall comply with the uniform Regional Runoff Quality Guidelines as set forth in Table 4-12 of the Draft Environmental Threshold Carrying Capacity Study Report, May, 1982.*
2. *Where there is a direct and immediate hydraulic connection between ground and surface waters, discharges to groundwater shall meet the guidelines for surface discharges, and the Uniform Regional Runoff Quality Guidelines shall be amended accordingly.*

The water quality thresholds, along with other environmental values and standards, help identify the important issues relating to water quality in the Tahoe Basin. Water quality policies generally fall into two areas: reducing loads of sediments and algal nutrients to Lake Tahoe and controlling other water pollutants affecting, or potentially affecting, water quality. Implementation of the following goals and policies will reverse downward water quality trends (e.g., clarity of Lake Tahoe's deep waters) and result in attainment of the environmental thresholds. However, attainment of the ambient water quality thresholds for pelagic Lake Tahoe will require significant investments over many years.

### **GOAL #1**

**REDUCE LOADS OF SEDIMENT AND ALGAL NUTRIENTS TO LAKE TAHOE; MEET SEDIMENT AND NUTRIENT OBJECTIVES FOR TRIBUTARY STREAMS, SURFACE RUNOFF, AND SUB-SURFACE RUNOFF, AND RESTORE 80 PERCENT OF THE DISTURBED LANDS.**



The most important water quality trend in Lake Tahoe involves algal productivity and clarity of the pelagic (open water) zone. Over the fifteen-year period of record, algal productivity in this zone has increased 100 percent, and clarity has decreased 15 percent. Increased algal productivity, caused by an imbalance in Lake Tahoe's nutrient budget, is one of the primary reasons for the decrease in clarity.

Another important trend involves the quality of the Lake's littoral Goal #1, Policy 2 (nearshore) waters. The quality of the littoral zone is important because these waters are the most vulnerable to aesthetic degradation and most visible to those who enjoy the lake. Data show that water quality tends to be worse in areas adjacent to development and especially in relatively shallow bays and shelves. Tributary, surface runoff, and groundwater quality also display the negative impacts of development of the watershed.

## **POLICIES**

- 1. DISCHARGE OF MUNICIPAL OR INDUSTRIAL WASTEWATER TO LAKE TAHOE, ITS TRIBUTARIES, OR THE GROUNDWATERS OF THE TAHOE REGION IS PROHIBITED, EXCEPT FOR EXISTING DEVELOPMENT OPERATING UNDER APPROVED ALTERNATIVE PLANS FOR WASTEWATER DISPOSAL, AND CATASTROPHIC WILDFIRE PRETECTION TO PREVENT THE IMMINENT DESTRUCTION OF THE STPUD LUTHER PASS PUMP STATION.<sup>§</sup>**

This policy states a fundamental premise of water quality protection at Lake Tahoe, that the lake cannot accept municipal or industrial waste waters and meet adopted thresholds and State water quality standards.

- 2. ALL PERSONS WHO OWN LAND AND ALL PUBLIC AGENCIES WHICH MANAGE PUBLIC LANDS IN THE LAKE TAHOE REGION SHALL PUT BEST MANAGEMENT PRACTICES (BMPs) IN PLACE; MAINTAIN THEIR BMPs; PROTECT VEGETATION ON THEIR LAND FROM UNNECESSARY DAMAGE; AND RESTORE THE DISTURBED SOILS ON THEIR LAND.**

The Handbook of Best Management Practices (Water Quality Management Plan for the Lake Tahoe Region, Volume II, November 1988) identifies the recommended BMPs for various situations. Application of best management practices requires a flexible approach involving evaluation of site-specific considerations. The Handbook of Best Management Practices should be revised at least every five years, with attention to situations which are not presently addressed by the handbook. Since existing development in the Tahoe Region represents a large backlog of water quality problems, the application of BMPs and restoration of disturbed areas is expected to reduce dissolved inorganic nitrogen loads from surface runoff by 45 percent.

Virtually all BMPs require periodic maintenance to function properly. This policy guarantees continuing reductions in pollutant loads through the application of BMPs. Vegetation is also a key component of water quality protection at Lake Tahoe since it absorbs, uses, and stores nutrients and filters other pollutants from runoff. Protection and maintenance of vegetation, as provided for in the Vegetation Subelement, is a necessary part of the Water Quality Subelement.

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<sup>§</sup>Amended 06/27/01

Disturbed soils, including cut slopes, fill slopes, bare areas, and compacted areas, contribute large amounts of pollutants to Lake Tahoe and its tributaries. Prevention of excessive or unnecessary soil disturbance, as provided for in the Soils and Vegetation Subelements, is a necessary part of the Water Quality Subelement. Restoration of disturbed areas will have a large positive impact on water quality and serve many other purposes as well.

Beginning in 1992, TRPA shall implement a regulatory program to require retrofit of BMPs on existing land uses in the Region, in accordance with a priority system based on ratings of the condition of individual watersheds.

The Lahontan Regional Water Quality Control Board, Nevada Division of Environmental Protection, or TRPA will issue discharge permits to units of local government, Caltrans, and the Nevada Department of Transportation, requiring installation and maintenance of BMPs to control storm water runoff from public streets and highways, consistent with the Capital Improvements Program (CIP) for erosion and runoff control. The Lahontan Board, NDEP, or TRPA will also issue and enforce discharge permits requiring the installation and maintenance of BMPs for existing uses in the following categories:

Commercial: large retail, large entertainment, storage yards

Public Service: airport, corporation yards

Recreation: downhill ski areas, marinas, golf courses

Resource Management: livestock confinement

For all other existing residential, tourist accommodation, commercial, recreation, and public service uses, TRPA will require by ordinance installation and maintenance of BMPs in accordance with the priority system.

A key element of this policy involves cooperation among TRPA, the two Resource Conservation Districts, the Soil Conservation Service, and property owners. In general, TRPA will encourage property owners to work with the SCS and the RCDs to develop and implement BMP retrofit plans in an essentially non-regulatory framework. Property owners who install BMPs in accordance with plans prepared with technical assistance from the Resource Conservation Districts will be exempt from applicable TRPA permit requirements, provided that TRPA and the Resource Conservation Districts enter into a Memorandum of Understanding identifying BMPs which would be exempt from TRPA review and approval. In the vast majority of cases, BMP retrofit plans will not require permits. However, when BMP retrofit plans involve non-exempt activities, the RCDs will direct property owners into the appropriate permit processes at TRPA and local building departments.

For residential areas with special needs, due to either the difficulty of neighborhood-wide BMP installation or special circumstances such as historic designation, TRPA will allow by ordinance local government or a homeowners' association to take responsibility for BMP implementation according to a schedule submitted to, and approved by, TRPA.

In all aspects of this BMP retrofit program, TRPA shall emphasize voluntary compliance with the ordinance provisions, the provision of technical assistance through the RCDs, and an aggressive public information campaign to inform the public about basic BMP requirements and benefits.

**3. APPLICATION OF BMPS TO PROJECTS SHALL BE REQUIRED AS A CONDITION OF APPROVAL FOR ALL PROJECTS.**

All projects shall be required, as a condition of approval, to apply Best Management Practices to the project parcel during construction and as follows upon completion of construction:

- A. New projects on undeveloped parcels shall require application of BMPs as a condition of project approval.
- B. Projects which expand structures or land coverage shall require application of BMPs to the project area.<sup>§</sup>
- C. Rehabilitation projects, other than minor utility projects, shall require the preparation of a plan and schedule for application of BMPs to the entire parcel. The amount of work required pursuant to the project approval shall consider the cost and nature of the project.

**4. RESTORE AT LEAST 80 PERCENT OF THE DISTURBED LANDS WITHIN THE REGION.**

The EIS of the Regional Plan has identified an estimated 7,000 acres of disturbed lands within the Region. It is the Agency's intent to have at least 80 percent of these lands restored to a natural or near natural state by application of the Best Management Practices.

**5. UNITS OF LOCAL GOVERNMENT, STATE TRANSPORTATION DEPARTMENTS, AND OTHER IMPLEMENTING AGENCIES SHALL RESTORE 25 PERCENT OF THE SEZ LANDS THAT HAVE BEEN DISTURBED, DEVELOPED, OR SUBDIVIDED IN ACCORDANCE WITH THE CAPITAL IMPROVEMENTS PROGRAM (PART II).**

Stream environment zones have many beneficial effects on water quality. The development of stream zones in the Tahoe Basin has adversely affected water quality, in many cases permanently. Stream zone restoration is a cost-effective policy for improving water quality, and a high-priority for capital improvement programs using remedial erosion and runoff control funds. Programs which meet this stream zone policy will reduce dissolved inorganic nitrogen loads from surface runoff by about five percent. Preservation and restoration of naturally-functioning stream environment zones, as provided for in the Stream Environment Zone Subelement, is an essential part of the Water Quality Subelement.

**6. THE USE OF FERTILIZER WITHIN THE TAHOE REGION SHALL BE RESTRICTED TO USES, AREAS, AND PRACTICES IDENTIFIED IN THE HANDBOOK OF BEST MANAGEMENT PRACTICES. FERTILIZERS SHALL NOT BE USED IN OR NEAR STREAM AND DRAINAGE CHANNELS, OR IN STREAM ENVIRONMENT ZONES, INCLUDING SETBACKS, AND IN SHOREZONE AREAS. FERTILIZER USE FOR MAINTENANCE OF PREEXISTING LANDSCAPING SHALL BE MINIMIZED IN STREAM ENVIRONMENT ZONES AND ADJUSTED OR PROHIBITED IF FOUND, THROUGH EVALUATION OF CONTINUING MONITORING RESULTS, TO BE IN VIOLATION OF APPLICABLE WATER QUALITY DISCHARGE AND RECEIVING WATER STANDARDS.<sup>§</sup>**

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<sup>§</sup> Amended 12/18/02

Since Lake Tahoe's primary water quality problem is an imbalance in the lake's nutrient budget, control of artificial fertilizers (which add nutrients to the Basin) is an essential component of TRPA's water quality policy. Programs which carry out this policy will reduce dissolved inorganic nitrogen loads from surface runoff by about five percent, and will substantially reduce loads from groundwater.

**7. OFF ROAD VEHICLE USE IS PROHIBITED IN THE LAKE TAHOE REGION EXCEPT ON SPECIFIED ROADS, TRAILS, OR DESIGNATED AREAS WHERE THE IMPACTS CAN BE MITIGATED.**

Off-road motorized vehicles contribute to nutrient loading problems in Lake Tahoe by compacting and disturbing soils, contributing particulate and dissolved nutrients to runoff and reducing the ability of the watershed to store and filter pollutants. Such vehicles also make it more difficult to attain the wildlife, vegetation, fish, recreation, and scenic thresholds. TRPA, in cooperation with other land management agencies and private property owners, will amend existing ORV plans and regulations as required to meet the environmental thresholds. (See Dispersed Recreation Subelement, Goal #1, Policy 5 and Noise Subelement, Goal #1, Policy 4.)

**8. TRANSPORTATION AND AIR QUALITY MEASURES AIMED AT REDUCING AIRBORNE EMISSIONS OF OXIDES OF NITROGEN IN THE TAHOE BASIN SHALL BE CARRIED OUT.**

There is considerable scientific uncertainty as to the magnitude and sources of atmospheric inputs of nitrogen to Lake Tahoe. There is evidence that atmospheric sources of nitrogen may be a major contributor of nutrients to Lake Tahoe, and that local emissions of oxides of nitrogen, primarily from automobiles, account for most of these atmospheric inputs. The transportation and air quality measures aimed at reducing emissions of oxides of nitrogen should be carried out to ensure that atmospheric sources do not contribute to degradation of Lake Tahoe water quality.

**GOAL #2**

**REDUCE OR ELIMINATE THE ADDITION OF OTHER POLLUTANTS WHICH AFFECT, OR POTENTIALLY AFFECT, WATER QUALITY IN THE TAHOE BASIN.**

Although controlling nutrient and sediment loads to Lake Tahoe is crucial to meeting water quality standards and adopted thresholds, several other existing or potential problems also must be controlled to preserve the scenic, recreational, and other values of the Tahoe Region.

**POLICIES:**

- 1. ALL PERSONS ENGAGING IN PUBLIC SNOW DISPOSAL OPERATIONS IN THE TAHOE REGION SHALL DISPOSE OF SNOW IN ACCORDANCE WITH SITE CRITERIA AND MANAGEMENT STANDARDS IN THE HANDBOOK OF BEST MANAGEMENT PRACTICES.**

Melting snow in snow disposal areas can represent not only a significant source of nutrients, but also of harmful hydrocarbons, metals, and biological oxygen demand. Therefore, site criteria and management standards are required to protect Lake Tahoe's extraordinary water quality. The Handbook of Best Management Practices shall be revised to address snow disposal practices.

- 2. DISCHARGES OF SEWAGE TO LAKE TAHOE, ITS TRIBUTARIES, OR THE GROUNDWATERS OF THE LAKE TAHOE REGION ARE PROHIBITED. SEWAGE COLLECTION, CONVEYANCE AND TREATMENT DISTRICTS SHALL HAVE APPROVED SPILL CONTINGENCY, PREVENTION, AND DETECTION PLANS.**

Sewage discharges, regardless of their cause, not only contribute unnecessary nutrient loads to Lake Tahoe, but may also cause public health problems. Accidental discharges may be minimized through proper design and construction practices and comprehensive spill contingency, prevention, and detection plans. All agencies which collect or transport sewage should have plans for detecting and correcting exfiltration problems.

- 3. ALL INSTITUTIONAL USERS OF ROAD SALT IN THE LAKE TAHOE REGION SHALL KEEP RECORDS SHOWING THE TIME, RATE, AND LOCATION OF SALT APPLICATION. STORAGE OF ROAD SALT SHALL BE IN ACCORDANCE WITH THE HANDBOOK OF BEST MANAGEMENT PRACTICES.**

Road salt can be very harmful to vegetation near application and storage areas. This vegetation, in turn, is crucial to maintaining the Region's water quality. Better knowledge and control of salt application will have positive impacts on vegetation and water quality. The Handbook of Best Management Practices shall be revised to address application and storage of road salt.

- 4. UNDERGROUND STORAGE TANKS FOR SEWAGE, FUEL, OR OTHER POTENTIALLY HARMFUL SUBSTANCES SHALL MEET STANDARDS SET FORTH IN TRPA ORDINANCES, AND SHALL BE INSTALLED, MAINTAINED, AND MONITORED IN ACCORDANCE WITH THE HANDBOOK OF BEST MANAGEMENT PRACTICES.**

Leaking underground tanks are becoming a major nationwide water quality problem. In the Tahoe Basin, the environmental impacts of leaking tanks may be especially noticeable and harmful to the values of the Region. The Handbook of Best Management Practices shall be revised to address underground storage tanks.

- 5. NO PERSON SHALL DISCHARGE SOLID WASTES IN THE LAKE TAHOE REGION BY DEPOSITING THEM ON OR IN THE LAND, EXCEPT AS PROVIDED BY TRPA ORDINANCE.**

Landfilling or other practices for disposing of solid wastes can add harmful biological oxygen demand, nutrients, and toxic substances to the watershed of Lake Tahoe. Therefore, the control of solid waste disposal is necessary to protect and enhance water quality. Existing state policies and laws will continue to govern solid waste disposal in the Tahoe Region.

- 6. TRPA SHALL COOPERATE WITH OTHER AGENCIES WITH JURISDICTION IN THE LAKE TAHOE REGION IN THE PREPARATION, EVALUATION, AND IMPLEMENTATION OF TOXIC AND HAZARDOUS SPILL CONTROL PLANS.**

A single spill of a toxic or hazardous material in the Basin could reverse progress in attaining water quality goals gained at great local expense and effort. TRPA will cooperate with the Forest Service, the EPA, and state water quality and health agencies to prevent and control toxic and hazardous spills.

**7. THE BMPs WILL BE AMENDED TO INCLUDE SPECIAL CONSTRUCTION TECHNIQUES, DISCHARGE STANDARDS, AND DEVELOPMENT CRITERIA APPLICABLE TO PROJECTS IN THE SHOREZONE.**

Sediment and other discharges from shorezone construction or dredging have an immediate and obvious impact on water clarity in localized areas, and are harmful to fish. Proper construction techniques and other measures will be required as necessary to mitigate activities in the shore zone and to protect the natural values of the shorezone.

**8. LIQUID OR SOLID WASTES FROM RECREATIONAL VEHICLES AND BOATS SHALL BE DISCHARGED AT APPROVED PUMP-OUT FACILITIES. PUMP-OUT FACILITIES WILL BE PROVIDED BY PUBLIC UTILITY DISTRICTS, MARINAS, CAMPGROUNDS, AND OTHER RELEVANT FACILITIES IN ACCORDANCE WITH STANDARDS SET FORTH IN THE HANDBOOK OF BEST MANAGEMENT PRACTICES.**

Attempts to control the addition of pollutants to Lake Tahoe and its tributaries should not overlook vehicle and vessel wastes. The present shortage of pump-out facilities contributes to the size of this problem. The Handbook of Best Management Practices shall be revised to address pump-out facilities.

**9. EVALUATE THE FEASIBILITY AND EFFECTIVENESS OF PONDING FACILITIES ALONG STREAM CORRIDORS AS A STRATEGY FOR REMOVING INSTREAM LOADS OF SEDIMENT AND NUTRIENTS.**

Streams in the Lake Tahoe Basin act as receiving waters for overland runoff which may contain substantial quantities of sediments, nutrients, and other impurities. In the absence of an effective filtering mechanism along the stream such as a marsh, these contaminants eventually will be deposited into Lake Tahoe. Diversions of stream water into settling ponds or marshes might be an effective mechanism for cleansing the stream water prior to it emptying into the Lake. The feasibility of this concept should be further evaluated based on its technical and environmental merits and consistency with the other goals and policies of this Plan.

**10. REDUCE THE IMPACTS OF MOTORIZED WATERCRAFT ON WATER QUALITY.**

The use of motorized watercraft on lakes within the region can adversely affect water quality through the discharge of pollutants such as methyl-tertiary-butyl ether (MTBE), benzene, toluene, polycyclic aromatic hydrocarbons (PAHs), human waste, and hydrocarbons. TRPA shall implement measures to attain and maintain TRPA, state, and federal water quality standards because these pollutants can impact fish and wildlife, recreation and water supplies. <sup>§</sup>

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<sup>§</sup> Amended 02/27/1999.

## **COMMUNITY DESIGN**



The purpose of this Subelement is to implement the TRPA regional design criteria as they apply to the built environment. The Governing Board policy applicable to community design is derived from environmental threshold carrying capacities for scenic resources:

### **POLICY STATEMENT**

**It shall be the policy of the TRPA Governing Board in development of the Regional Plan, in cooperation with local jurisdictions, to insure the height, bulk, texture, form, materials, colors, lighting, signing and other design elements of new, remodeled and redeveloped buildings be compatible with the natural, scenic, and recreational values of the Region.**

This Subelement sets forth policies for new developments or existing developments in need of remodeling or redevelopment. Some aspects of development can be brought to total conformance within a certain period of time, such as a five year program to bring all signs into conformance with adopted standards. Others may require more time or extensive redevelopment or rehabilitation to correct past deficiencies.

### **GOAL #1**

**INSURE PRESERVATION AND ENHANCEMENT OF THE NATURAL FEATURES AND QUALITIES OF THE REGION, PROVIDE PUBLIC ACCESS TO SCENIC VIEWS, AND ENHANCE THE QUALITY OF THE BUILT ENVIRONMENT.**

Based on findings in the Compact and evidence presented in the environmental threshold carrying capacity study, both the natural scenic qualities of the Region and the man-made environment have suffered degradation in the past decades. It is important that both the natural environment and the built environment be brought into compliance with the established thresholds, including the thresholds and policies found in the Scenic Subelement.

### **POLICIES**

- 1. THE SCENIC QUALITY RATINGS ESTABLISHED BY THE ENVIRONMENTAL THRESHOLDS SHALL BE MAINTAINED OR IMPROVED.**  
Implementation of regional design review requirements will be required to ensure compliance with this policy.
- 2. RESTORATION PROGRAMS BASED ON INCENTIVES WILL BE IMPLEMENTED IN THOSE AREAS DESIGNATED IN NEED OF SCENIC RESTORATION TO ACHIEVE THE RECOMMENDED RATING.**

## **GOAL #2**

### **REGIONAL BUILDING AND COMMUNITY DESIGN CRITERIA SHALL BE ESTABLISHED TO ENSURE ATTAINMENT OF THE SCENIC THRESHOLDS, MAINTENANCE OF DESIRED COMMUNITY CHARACTER, COMPATIBILITY OF LAND USES, AND COORDINATED PROJECT REVIEW.**

The intent of the criteria is that they be regional in nature yet specific enough to ensure that the Agency meets the mandate of specific thresholds and other policy requirements of this Plan as they relate to site planning. The concept is that a design review document is the focal point for implementing many other Plan policies relating to transportation, noise, water quality, air quality, scenic and aesthetic considerations, etc.

#### **POLICIES**

**1. REGIONAL DESIGN REVIEW SHALL INCLUDE THE FOLLOWING TO BE USED IN EVALUATING PROJECTS THROUGHOUT THE REGION. THIS REVIEW MAY ENTAIL ADDITIONAL REQUIREMENTS OR SPECIAL REQUIREMENTS NOT LISTED BELOW.**

- A. Site Design: All new development shall consider site design which includes, at a minimum:
- 1) Existing natural features to be retained and incorporated into the site design.
  - 2) Building placement and design to be compatible with adjacent properties and consideration of solar exposure, climate, noise, safety, fire protection, and privacy.
  - 3) Site planning to include a drainage, infiltration, and grading plan meeting BMP standards.
  - 4) Access, parking, and circulation to be logical, safe, and meet the requirements of the transportation element.
- B. Building Height, Bulk and Scale: Standards shall be adopted to ensure attractive and compatible development. The following shall be considered:
- 1) Building height shall be limited to two stories except that provisions for additional height requirements shall be provided for unique situations such as lighting towers, ski towers, steep sites, redevelopment projects and tourist accommodation facilities.
  - 2) Building height limits shall be established to ensure that buildings do not project above the forest canopy, ridge lines, or otherwise detract from the viewshed.
  - 3) Buffer requirements shall be established for noise, snow removal, aesthetic, and environmental purposes.
  - 4) The scale of structures should be consistent with surrounding uses.
  - 5) Viewshed should be considered in all new construction. Emphasis should be placed on lake views from major transportation corridors.



- C. Landscaping: The following should be considered with respect to this design component of a project:
  - 1) Native vegetation should be utilized whenever possible.
  - 2) Vegetation should be used to screen parking and to alleviate long strips of parking space.
  - 3) Plants should be used to give privacy, reduce glare and heat, deflect wind, muffle noise, prevent erosion, and soften the line of architecture.
- D. Lighting: Lighting increases the operational efficiency of a site. In determining the lighting for a project, the following should be considered:
  - 1) Exterior lighting should be minimized with an emphasis on safety and should be consistent with the architectural design.
  - 2) Overall levels should be compatible with the neighborhood light level. Emphasis should be placed on a few, well placed, low intensity lights.
  - 3) Lights should not blink, flash, or change intensity.
- E. Signing: In determining sign design, the following should be considered:
  - 1) Off premise signs are prohibited.
  - 2) Signs should be incorporated into building design.
  - 3) When possible, signs should be consolidated into clusters to avoid clutter.
  - 4) Signage should be attached to buildings when possible.
  - 5) Standards for height, lighting, and square footage for on premise signs shall be formulated and shall be consistent with the land uses permitted in each district.

**2. LOCAL JURISDICTIONS ARE ENCOURAGED TO ADOPT DESIGN GUIDELINES CONSISTENT WITH THE REGIONAL PLAN.**

The Agency will consider local design review guidelines when preparing the regional design review guidelines. Also, the Agency will encourage local governments to adopt design guidelines consistent with the Agency guidelines.



# TRANSPORTATION ELEMENT



Nonmotorized



Aviation & Waterborne



Regional Highway System



Mass Transportation



Transportation System Management



Transportation Related



# CHAPTER III

## TRANSPORTATION ELEMENT §

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### A. INTRODUCTION

The Regional Transportation Plan (RTP) is an Element of the Regional Transportation Plan - Air Quality Plan, which focuses on transportation improvements needed to meet transportation related goals for the Tahoe Region. The Tahoe Regional Planning Compact says that the goal of transportation planning shall be to reduce dependency on the automobile, and to give preference to providing increases in capacity on the Region's transportation system through public transportation projects and programs. The Compact also requires a transportation plan for the Region which provides for the integrated development of a regional system of transportation. This system is to include parkways, highways, public transportation facilities, bicycle facilities, and appurtenant terminals and facilities for the movement of people and goods within the Region.

The RTP addresses the requirements of the Compact. The RTP also addresses the need to provide an integrated transportation system for the Region which will meet the basic transportation needs of residents and visitors by providing adequate local circulation and access to goods and services.

Congestion within the Region interferes with the ability to provide adequate circulation and access to basic goods and services. During periods of peak traffic demand, congestion on the Region's highway system creates lengthy delays and affects the accessibility of health care and emergency facilities, and other basic services for residents and visitors to the Region.

The Regional Transportation Plan discusses standards and the status of compliance with these standards. Level of service (LOS) standards are contained in the Transportation Element of the Regional Plan for the Lake Tahoe Basin. Goals and Policies (TRPA, 1986, as amended). The Goals and Policies establishes level of service criteria for various types of highways and an operational level of service for signalized intersections.

LOS criteria established by the Regional Plan Goals and Policies are not being met at some locations along U.S. 50, including the intersections at Park Avenue, Pioneer Trail, Ski Run Boulevard, and Tahoe Keys Boulevard. Although LOS criteria were not established for unsignalized intersections, the unsignalized intersections at California 28 and Grove Street and Jack Pine operate at a poor level of service during weekends and holiday periods.

Reduction in vehicle miles of travel (VMT) is a requirement of the threshold management standards for subregional visibility and nitrate deposition. These management standards require a ten percent reduction in VMT from the 1981 base year. Vehicle miles of travel in the Tahoe Region, from 1981 to 1987, increased by 10.0 percent.

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§ Amended 10/27/04

The Regional Transportation Plan contains the following sections:

- ◆ Lake Tahoe Basin Transportation Overview
- ◆ Lake Tahoe Basin Transportation Planning Framework
- ◆ Lake Tahoe Basin Transportation System
- ◆ Goals, Policies and Objectives
- ◆ Action Plan
- ◆ Financial Element
- ◆ Air Quality Conformity Determination

The Goals, Policies and Objectives state the ends toward which efforts are to be directed, provide policy guidance for courses of action, and identify objectives which can be obtained or measured. Section 3 - Action Plan and Appendix A – Project List of the RTP identifies programs and capital improvements and projects needed to implement the goals, policies and objectives of the RTP.

## **B. GOALS, POLICIES AND OBJECTIVES**

The formulation of regional transportation goals and policies is a fundamental step in the transportation planning process. The goals and policies reflect the consideration of environmental, social, and economic factors in making transportation related decisions.

### REGIONAL TRANSPORTATION GOALS

1. It is the goal of the Regional Transportation Plan to fulfill the requirements of the Tahoe Regional Planning Compact.
2. It is the goal of the Regional Transportation Plan to attain and maintain the Environmental Threshold Carrying Capacities and federal, state, and local transportation standards.
3. It is the goal of the Regional Transportation Plan to establish a safe, efficient, and integrated transportation system which reduces reliance on the private automobile, provides for alternative modes of transportation, and serves the basic transportation needs of the citizens of the Tahoe Region, supports the economic base of the Region in the movement of goods and people, and minimizes adverse impacts on man and the environment.
4. The organizational structures and process relevant to transportation and transit operations and governance shall be designed to facilitate the implementation of the Regional Transportation Plan and the goals of the Compact.
5. It is the goal of the Regional Transportation Plan to research potential funding sources as referenced in the RTP Financial Element.

## REGIONAL TRANSPORTATION POLICIES AND OBJECTIVES

1. Participate in state and local transportation planning efforts to ensure coordination and consistency in the transportation system.
  - A. TRPA shall work with appropriate public entities and private interest groups in the Region to ensure coordination and consistency in transportation planning efforts within multijurisdictional transportation corridors.
  - B. TRPA shall work with federal, state and local agencies to develop a rail system which will provide access from northern California and Nevada population centers.
  - C. TRPA shall participate in the Community Plan process to provide consistency between Community Plans and the RTP.
  - D. TRPA will work with organizations that facilitate public-private transportation partnerships and coordination for the benefit of improved transportation in the Lake Tahoe Region.
  
2. Plan for and promote land use changes and development patterns which will encourage the use of alternative transportation modes and minimize impacts on the existing transportation system.
  - A. Community Plans shall promote land use development patterns and designs which will increase the ability to use public transportation, waterborne, bicycle and pedestrian facilities.
  - B. Community Plans shall promote the development of neighborhood commercial areas which will reduce travel distances.
  - C. Development patterns shall provide for the in-fill of existing areas, making use of existing transportation facilities and promoting the use of alternative transportation modes.
  - D. New, expanded or revised developments and land uses shall fully mitigate their regional and cumulative traffic impacts.
  - E. Parking for residential usage shall meet TRPA standards and shall be provided on-site.
  - F. Parking for non-residential uses shall be the minimum/maximum required to meet the demand for parking generated by the use, except as may be offset by reducing parking demand through parking management and trip reduction programs.
  - G. Driveways shall be designed and sited to minimize impacts on public transportation, adjacent roadways and intersections, bicycle and pedestrian facilities.
  - H. Public land management agencies shall develop transit services that manage access.

3. Actively pursue programs that promote the use of mass transit as an alternative to the automobile.
  - A. Expansion of transit services shall be provided to residential areas of the Region with the system being appropriate for the area to be served, and shall be consistent with the Action element of the TRPA Regional Transportation Plan.
  - B. Public or private transit services shall be given preference in mitigating traffic and transportation related impacts due to new, expanded or revised development or land use activities.
  - C. Transit facilities shall be provided which encourage the use of public transit services, with new or revised developments incorporating transit facilities into their designs or plans.
  - D. Transit service shall be expanded to cities, towns, and recreational areas outside of the Tahoe Region, and be coordinated with other transportation modes.
  - E. Bus lanes with preferential signal controls should be implemented along U.S. 50, California 89 and California/Nevada 28.
  - F. Alternative transit modes including fixed guideway systems should be implemented.
  - G. Multi-modal transfer facilities shall be located in activity centers in both the North and South Shore areas.
  - H. Transit shelters shall be provided at major transit stops.
  - I. Transit services shall be provided to connect the North and South Shore areas of the Tahoe Region.
  - J. Transit services shall be provided to beaches, campgrounds and other summer-time recreational areas.
  - K. Transit excursion services should be provided in the Region.
4. Develop and encourage the use of pedestrian and bicycle facilities as a safe and viable alternative to automobile use.
  - A. There shall be a high priority on constructing pedestrian and bicycle facilities in urbanized areas of the Region and where reductions in congestion will result.
  - B. Pedestrian and bicycle facilities shall be constructed, or upgraded, and maintained along major travel routes.
  - C. Where it is not feasible to construct or maintain Class I bicycle paths along the Region's major travel routes, Class II bicycle lanes should be provided on roadway shoulders.
  - D. Bicycle racks or storage facilities shall be provided at non-residential developments, transit stops, and on transit vehicles.
  - E. Bicycle and pedestrian linkages shall be provided between residential and non-residential areas.



- F. Bicycle and pedestrian facilities in urbanized areas and along transportation routes used for commuting should be maintained to allow year-around use of the facilities.
  - G. The unconstructed Route 50 right-of-way remains an integral component of the overall transportation system in the South Shore by providing commuting and recreational bicycle options which will maximize the function of the highway network.
  - H. The RTP shall contain bicycle and pedestrian policies for the development of any new bicycle/pedestrian facilities in the Lake Tahoe Region.
5. Implement transportation demand management (TDM) measures to reduce the number of vehicle trips on the Region's highways.
- A. Transit fare reductions, including free fares, should be used to encourage transit use.
  - B. Employers shall implement vehicle trip reduction programs, including carpool and vanpool matching programs, employee shuttles, flexible work hours, and transit use incentives.
  - C. Public and private employers shall develop parking management programs including preferential parking and reduced parking rates for carpools and vanpools, parking charges for employee parking and paid patron parking.
  - D. Condominiums, timeshares, hotels and motels shall participate in public transit and private shuttle programs, and provide transit information and incentives to their guests and residents.
  - E. Commercial interests providing gaming, recreational activities, or excursion services shall provide or participate in joint shuttle services or provide transit use incentives to their guests or patrons.
  - F. Park-and-Ride facilities shall be provided by local jurisdictions to encourage ridesharing.<sup>§</sup>
  - G. Automobile rentals should be discouraged within the Tahoe Region, and alternative fuel vehicle technology should be used if feasible. Air quality and traffic mitigation fees shall be assessed on vehicles rented in the Region.<sup>§</sup>
  - H. Ski areas and other recreational activity areas shall control the rate of departure of patrons from parking areas to minimize the impact on congested transportation facilities.<sup>§</sup>
6. Transportation System Management (TSM) measures shall be used to improve the efficiency of the existing transportation system.
- A. High occupancy and reversible vehicle lanes should be considered in high traffic demand areas, provided existing roadway capacities can be maintained.

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<sup>§</sup> Amended 12/22/00

- B. Traffic conflicts should be reduced by limiting or controlling access to major regional travel routes and major local road ways.
  - C. Intersection improvements required to upgrade existing levels of service including lane restriping, turn lanes, channelization and traffic signals should be implemented when warranted.
  - D. Roadway designs shall accommodate bicycle lanes and transit stops and reduce conflicts between vehicles and bicycle and pedestrians.
  - E. New on-street parking shall be prohibited along major regional travel routes and existing parking should be discouraged along major regional travel routes and local roads.
  - F. View turn-outs should be provided along scenic highways.
  - G. Left-turn lanes and right-turn lanes shall be provided to reduce turning conflicts along major travel routes.
  - H. Utilization of Intelligent Transportation Systems (ITS) technology shall be implemented consistent with the Tahoe Metropolitan Planning Organization (TMPO) *Tahoe Basin ITS Strategic Plan*.
7. Limit improvements to the regional highway system to those necessary to meet the Goals and Policies of the Regional Plan.
- A. The construction of roadways to freeway design standards is inappropriate in the Tahoe Region. However, grade separations may be appropriate at locations where traffic volumes exceed the capability of intersection improvements and local trip reduction measures to meet LOS criteria.
  - B. Highway design criteria shall be developed for the Tahoe Region which minimizes the environmental impact of highway projects while providing for the needs of the traveling public.
  - C. New roadways or projects which expand the capacity of existing roadways shall be consistent with traffic and circulation elements of TRPA adopted redevelopment plans or community plans.
  - D. Local roadways connecting residential areas, and connecting residential areas with non-residential areas, may be constructed provided these roadways are designed to improve local circulation and will not induce through traffic.
  - E. Roadway projects designed to correct hazardous roadway conditions shall be encouraged provided these projects are limited to needed safety improvements.
  - F. Level of service (LOS) criteria for the Region's highway system and signalized intersections during peak periods shall be:
    - ◆ Level of service "C" on rural recreational/scenic roads.
    - ◆ Level of service "D" on rural developed area roads.
    - ◆ Level of service "D" on urban developed area roads.
    - ◆ Level of service "D" for signalized intersections.
    - ◆ Level of service "E" may be acceptable during peak periods in urban areas, not to exceed four hours per day.

- G. TRPA will work with roadway maintenance agencies that manage roadway runoff and erosion.
8. Encourage air service as a viable alternative for travel to the Tahoe Region, provided all impacts can be mitigated.
- A. The location of aviation facilities within the Tahoe Region shall be limited to existing facilities.
  - B. Expansion of aviation facilities shall be limited to service levels identified in a TRPA-approved Airport Master Plan.
  - C. Public and private mass transportation systems shall be given preference in serving air service passengers.
  - D. Multi-modal transit links are to be provided to the Lake Tahoe Basin from primary commercial air services in Reno and Sacramento.
  - E. All operations for the Lake Tahoe Airport are subject to the terms of the Lake Tahoe Airport Settlement Agreement/Master Plan.
  - F. The Airport Master Plan/Settlement Agreement shall be updated. This update shall be predicated on a study evaluating: (1) the potential for both aviation and non-aviation uses of the site; (2) the role of the proposed uses in Tahoe's transit system; and (3) the appropriate scale of facilities related thereto. Any update that includes regional commercial service shall additionally require a comprehensive feasibility study of the viability of regional commercial air service.
9. Encourage waterborne transportation systems as an alternative to automobile travel within the Region.
- A. Waterborne point-to-point services are encouraged.
  - B. Waterborne excursion services are encouraged.
  - C. Waterborne services shall coordinate with, and provide access to, other public and private transportation systems.
10. Improve the mobility of the elderly, handicapped and other transit-dependent groups.
- A. Provide specialized public transportation services with subsidized fare programs for transit, taxi, demand responsive, and accessible van services.
  - B. Ensure access to the public transportation system by providing and maintaining sidewalks with curb cuts and ramps.
  - C. Provide and maintain accessible transit stops and shelters with ramps and paved areas.
  - D. Provide and maintain accessible transportation vehicles with adequate lifts and ramps and wheelchair tiedowns.
11. Postal Carrier service shall be provided Region wide, with the U.S. Postal Service Tahoe Regional Master Plan identifying priority areas and a timeframe for implementation. The following Regional Goals establish the objectives of the U.S. Postal Service, and the TRPA concerning mail service.

- A. The U.S. Postal Service shall provide mail service for areas not currently served in the Tahoe Region that encourages residents to drive fewer miles for the service. U.S. Postal Service facilities and operations shall maximize reductions in vehicle miles traveled by postal customers to the extent practicable.
  - B. In fulfillment of its national environmental values, the U.S. Postal Service will develop future facilities and implement future operations in ways that meet its desire to protect and preserve the environment.
  - C. Locating new or expanded U.S. Postal Service facilities near population and commercial concentrations is a priority for both the U.S. Postal Service and the TRPA.
  - D. Many existing U.S. Postal Service facilities require replacement and/or renovation to meet minimum health, safety, operational, environmental, and business requirements. Many elements of the Tahoe Regional Master Plan, such as new services, cannot be realized without improvements in facilities.
  - E. U.S. Postal Service facilities and operations that can meet multiple goals require a partnership between the USPS, TRPA, local and regional agencies, and individual and community groups. These groups should work in partnership to conduct collaborative planning, to identify the appropriate organization to undertake the leadership role on specific issues, and to facilitate project approval.
  - F. To maximize benefit from available financial resources, new facilities and operations shall be prioritized in large measure based on their contribution to overall Master Plan goals.
  - G. U.S. Postal Service facilities and operations that implement TRPA RTP/AQP control strategies (including carrier service) shall receive credit for impact fees equal to the financial contribution. Future consideration may be given to provision of alternative fuel fleet vehicles.
  - H. The U.S. Postal Service and TRPA will diligently pursue Master Plan implementation within the constraints of future available resources.<sup>§</sup>
12. Increase the use of alternative fuel vehicles within the Lake Tahoe Basin.
- A. Future public transit vehicles purchased for operations in the Lake Tahoe Basin shall be alternative fuel powered.
  - B. When considering new or replacement vehicles for public and private fleets alternative fuel vehicles should be purchased.
  - C. TRPA shall phase in alternative fuel vehicle requirements for public and private fleet purchases above 15 vehicles in size.
13. The Regional Transportation Plan shall include an Action Plan and Project List containing transportation capital improvement projects, plans and programs needed to achieve transportation goals, carry out transportation policies, and implement transportation objectives.

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<sup>§</sup> Amended 12/22/00

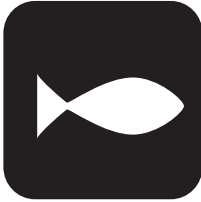
# CONSERVATION ELEMENT



Vegetation



Wildlife



Fisheries



Soils



Shorezone



Scenic



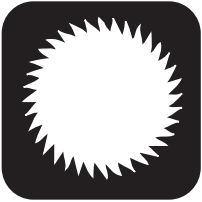
Open Space



Stream Environment Zone



Cultural



Energy



# CHAPTER IV

## CONSERVATION ELEMENT

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The purpose of this Element is to plan for the preservation, development, utilization, and management of the scenic and other natural resources within the Basin. To achieve this end and to minimize the threat that increasing urbanization has on the ecological values of the Region and the public opportunities for use of public lands, ten Subelements were selected to cover the full range of Lake Tahoe's natural and historical resources. For each Subelement, specific policies are outlined to help guide decision-making as it affects that particular resource.

### **VEGETATION**



Vegetation is integral to the many scenic, wildlife, and recreational amenities in the Lake Tahoe Basin. Vegetation also fulfills many functional roles related to water cleansing, soil stabilization, nutrient catchment and release, air purification, and noise control. The focus of vegetation preservation in the Basin is to protect and maintain these and other attributes.

Strategy direction for preservation of vegetation is guided by the following environmental thresholds:

#### **Common Vegetation**

##### **MANAGEMENT STANDARD**

*Increase plant and structural diversity of forest communities through appropriate management practices as measured by diversity indices of species richness, relative abundance, and pattern.*

- ◆ *Maintain the existing species richness of the Basin by providing for the perpetuation of the following plant associations:*

*Yellow Pine Forest: Jeffrey pine, White fir, Incense cedar, Sugar pine.*

*Red Fir Forest: Red fir, Jeffrey pine, Lodgepole pine, Western white pine, Mountain hemlock, Western juniper.*

*Subalpine Forest: Whitebark pine, Mountain hemlock, Mountain mahogany.*

*Shrub Association: Greenleaf and Pinemat manzanita, Tobacco brush, Sierra chinquapin, Huckleberry oak, Mountain whitethorn.*

*Sagebrush Scrub Vegetation: Basin sagebrush, Bitterbrush, Douglas chaenactis.*

*Deciduous Riparian: Quaking aspen, Mountain alder, Black cottonwood, Willow.*

*Meadow Associations (Wet and Dry Meadow): Mountain squirrel tail, Alpine gentian, Whorled penstemon, Asters, Fescues, Mountain brome, Corn lilies, Mountain bentgrass, Hairgrass, Marsh marigold, Elephant heads, Tinker's penney, Mountain Timothy, Sedges, Rushes, Buttercups.*

Wetland Associations (Marsh Vegetation): Pond lilies, Buckbean, Mare's tail, Pondweed, Common bladderwort, Bottle sedge, Common spikerush.

Cushion Plant Association (Alpine Scrub): Alpine phlox, Dwarf ragwort, Draba.

- ◆ *Relative Abundance -- of the total amount of undisturbed vegetation in the Tahoe Basin;*
  1. *Maintain at least four- percent meadow and wetland vegetation.*
  2. *Maintain at least four- percent deciduous riparian vegetation.*
  3. *Maintain no more than 25 percent dominant shrub association vegetation.*
  4. *Maintain 15-25 percent of the Yellow Pine Forest in seral stages other than mature.*
  5. *Maintain 15-25 percent of the Red Fir Forest in seral stages other than mature.*
- ◆ *Pattern -- Provide for the proper juxtaposition of vegetation communities and age classes by;*
  1. *Limiting acreage size of new forest openings to no more than eight acres.*
  2. *Adjacent openings shall not be of the same relative age class or successional stage to avoid uniformity in stand composition and age.*

*A nondegradation standard to preserve plant communities shall apply to native deciduous trees, wetlands, and meadows while providing for opportunities to increase the acreage of such riparian associations to be consistent with the SEZ threshold.*

*Native vegetation shall be maintained at a maximum level to be consistent with the limits defined in the Land Capability Classification of the Lake Tahoe Basin, California-Nevada, A Guide For Planning, Bailey, 1974, for allowable impervious cover and permanent site disturbance.*

#### **POLICY STATEMENT**

*It shall be a policy of the TRPA Governing Board that a nondegradation standard shall permit appropriate management practices.*

#### **Late Seral and Old Growth Forest Ecosystems**<sup>§</sup>

#### **NUMERICAL STANDARD**

*Attain and maintain a minimum percentage of 55% by area of forested lands within the Tahoe Region in a late seral or old growth condition, and distributed across elevation zones. To achieve the 55%, the elevation zones shall contribute as follows:*

- *The Subalpine zone (greater than 8,500 feet elevation) will contribute 5% (7,600 acres) of the forested lands;*
- *The Upper Montane zone (between 7,000 and 8,500 feet elevation) will contribute 30% (45,900 acres) of forested lands;*
- *The Montane zone (lower than 7,000 feet elevation) will contribute 20% (30,600 acres) of forested lands.*

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<sup>§</sup> Amended 5/23/01



Forested lands within TRPA designated urban areas are excluded in the calculation for threshold attainment. Areas of the montane zone within 1,250 feet of urban areas may be included in the calculation for threshold attainment if the area is actively being managed for late seral and old growth conditions and has been mapped by TRPA. A maximum value of 40% of the lands within 1,250 feet of urban areas may be included in the calculation.

Because of these restrictions the following percentage of each elevation zone must be attained to achieve this threshold:

- 61% of the Subalpine zone must be in a late seral or old growth condition;
- 60% of the Upper Montane zone must be in a late seral or old growth condition;
- 48% of the Montane zone must be in a late seral or old growth condition;

**Uncommon Plant Communities**

**NUMERICAL STANDARD**

*Provide for the nondegradation of the natural qualities of any plant community that is uncommon to the Basin or of exceptional scientific, ecological, or scenic value. This threshold shall apply but not be limited to (1) the deepwater plants of Lake Tahoe, (2) Grass Lake (sphagnum bog), (3) Osgood swamp, and (4) the Freel Peak Cushion Plant community.*

**Sensitive Plants**

**NUMERICAL STANDARD**

*Maintain a minimum number of population sites for each of five sensitive plant species.*

<u>Species</u>	<u>Number of Population sites</u>
<i>Carex paucifructus</i>	1
<i>Lewisia pygmaea longipetala</i>	2
<i>Draba asterophora v. macrocarpa</i>	2
<i>Draba asterophora v. asterophora</i>	5
<i>Rorippa subumbellata</i>	26

The environmental thresholds for vegetation, together with other environmental values and standards, were used to help distinguish the important issues pertaining to the preservation of vegetation in the Lake Tahoe Basin. As a consequence, three areas of general policy direction were developed to provide for the preservation, management, and protection of the Basin's plant resources. Implementation of the following goals and policies is expected to offer the immediate attainment of several thresholds. The attainment of thresholds for plant diversity is expected to be an ongoing program with no obvious improvement in plant diversity for at least ten years.

**GOAL #1:**

**PROVIDE FOR A WIDE MIX AND INCREASED DIVERSITY OF PLANT COMMUNITIES IN THE TAHOE BASIN.**

The natural succession of vegetation in the Basin has been stifled over the past 100 years. Following clear cut activities in the late 1800s, the forest vegetation has been managed under fire exclusion policies. Lack of fires and other natural perturbations has created an unfavorable situation with regard to forest health and diversity. Extensive and

often dense stands of mature aged conifers now dominate the forest vegetation. Other plant communities that require openings in the forest canopy are relatively scarce. The resulting situation is one of low plant diversity, poor age class structure, and vulnerability to disease and pest organisms. The preservation of the Region's vegetation and the achievement of environmental thresholds require programs that preserve or protect certain plant communities and species while permitting increased opportunities to manage the vegetation for diversity, fire prevention, and health. Attainment of this threshold requires an on-going program involving harvest, revegetation, and vegetation manipulation.

## **POLICIES**

- 1. FOREST MANAGEMENT PRACTICES SHALL BE ALLOWED WHEN CONSISTENT WITH ACCEPTABLE STRATEGIES FOR THE MAINTENANCE OF FOREST HEALTH AND DIVERSITY, PREVENTION OF FIRE, PROTECTION OF WATER QUALITY, AND ENHANCEMENT OF WILDLIFE HABITATS.**

Forest management practices that may include both timber harvest and prescribed burning are acceptable strategies for restoring and maintaining the biological health of the forest ecosystem. This policy would also permit practices necessary to reduce the risk of wildfires.

- 2. OPPORTUNITIES TO IMPROVE THE AGE STRUCTURE OF THE PINE AND FIR PLANT COMMUNITIES SHALL BE ENCOURAGED WHEN CONSISTENT WITH OTHER ENVIRONMENTAL CONSIDERATIONS.**

The conifer forests of the Tahoe Basin are mostly even-aged. This has serious implications related to plant diversity and forest health. Opportunities to increase the ratio of young trees to mature trees should be encouraged.

- 3. FOREST PATTERN SHALL BE MANIPULATED WHENEVER APPROPRIATE AS GUIDED BY THE SIZE AND DISTRIBUTION OF FOREST OPENINGS.**

Extensive stands of even-aged timber predominate in the Tahoe Basin. Openings in these stands are uncommon. The forest pattern and resultant plant diversity can be improved through forest management practices that open-up the forest canopy to increase the proportion of shrub and meadow communities.

- 4. EDGE ZONES BETWEEN ADJACENT PLANT COMMUNITIES WILL BE MAXIMIZED AND TREATED FOR THEIR SPECIAL VALUE RELATIVE TO PLANT DIVERSITY AND WILDLIFE HABITAT.**

The mixing of two plant communities creates a zone of high plant diversity and provides an effective screen between adjacent land uses. Besides the benefit of increased plant diversity, edge zones provide critical habitats to many species of wildlife.

- 5. PERMANENT DISTURBANCE OR UNNECESSARY ALTERATION OF NATURAL VEGETATION ASSOCIATED WITH DEVELOPMENT ACTIVITIES SHALL NOT EXCEED THE APPROVED BOUNDARIES [OR FOOTPRINTS] OF THE BUILDING, DRIVEWAY, OR PARKING STRUCTURES, OR THAT WHICH IS NECESSARY TO REDUCE THE RISK OF FIRE OR EROSION.**

Protecting the existing vegetation around a construction site will aid in preventing soil compaction or disturbance due to equipment and human trampling. It will also reduce the need for revegetation and landscaping.

6. **THE MANAGEMENT OF VEGETATION IN URBAN AREAS SHALL BE IN ACCORDANCE WITH THE POLICIES OF THIS PLAN AND SHALL INCLUDE PROVISIONS THAT ALLOW FOR THE PERPETUATION OF THE NATURAL-APPEARING LANDSCAPE.**

The beauty of the Tahoe Region depends, in part, on the successful "blending" of the natural environment with the built environment. Vegetation in urban areas will be preserved to the maximum extent feasible so as to avoid sharp contrasts between the urban and non-urban portions of the Basin. Conditions of project approval for all grading, harvesting, landscaping, and other project proposals will be required, as necessary, to implement the intent of this policy.

7. **DISTURBANCE OR REMOVAL OF FOREST LITTER SHOULD BE AVOIDED TO PROMOTE THE NATURAL CATCHMENT OF NUTRIENTS.**

The fungi associated with decaying plant material act as nutrient "sinks" by picking up plant nutrients that would otherwise be lost to adjacent water bodies during spring runoff. A public awareness program will be implemented to inform local landowners of the value of needle litter.

8. **REVEGETATION OF DISTURBED SITES SHALL REQUIRE THE USE OF SPECIES APPROVED BY THE AGENCY. TRPA SHALL PREPARE SPECIFIC POLICIES DESIGNED TO AVOID THE UNNECESSARY USE OF LANDSCAPING WHICH REQUIRES LONG-TERM IRRIGATION AND FERTILIZER USE.**

Native plants are adapted to the special altitude, climate, and soil characteristics of the Basin. Use of non-native species often requires constant care and artificial amounts of water and fertilizer. Revegetation of disturbed sites will require the use of native plants whenever practical, but other approved species also may be appropriate. A list of approved species will be prepared.

9. **ALL PROPOSED ACTIONS SHALL CONSIDER THE CUMULATIVE IMPACT OF VEGETATION REMOVAL WITH RESPECT TO PLANT DIVERSITY AND ABUNDANCE, WILDLIFE HABITAT AND MOVEMENT, SOIL PRODUCTIVITY AND STABILITY, AND WATER QUALITY AND QUANTITY.**

The piecemeal and incremental removal of vegetation may have significant cumulative impacts on the natural resource values of the Basin. Project review should consider both the direct and indirect impacts of all development.

## **GOAL #2**

### **PROVIDE FOR THE MAINTENANCE AND RESTORATION OF SUCH UNIQUE ECO-SYSTEMS AS WETLANDS, MEADOWS, AND OTHER RIPARIAN VEGETATION.**

Riparian vegetation is a critical component of the Tahoe Region's natural vegetation. These communities serve a variety of useful functions especially related to water quality and quantity. Riparian plant communities also significantly contribute to plant and animal diversity, recreation, and scenic quality. Strategies to protect these qualities are developed within the framework of adopted environmental thresholds for soils, vegetation, and wildlife.

## **POLICIES**

- 1. RIPARIAN PLANT COMMUNITIES SHALL BE MANAGED FOR THE BENEFICIAL USES OF PASSIVE RECREATION, GROUNDWATER RECHARGE, AND NUTRIENT CATCHMENT, AND AS WILDLIFE HABITATS.**

The preservation of riparian zones in their natural states should be emphasized over more intensive uses. These plant communities serve a variety of natural functions that benefit the scenic, wildlife, and water resources of the Tahoe Basin.

- 2. RIPARIAN PLANT COMMUNITIES SHALL BE RESTORED OR EXPANDED WHENEVER AND WHEREVER POSSIBLE.**

Riparian plant communities are the single most important habitat for wildlife in the Basin and provide the most cost-effective means of water cleansing. Existing riparian plant communities shall be maintained in undisturbed conditions to promote such beneficial functions. The schedule for restoration, as required by the thresholds, will correspond to the schedule for restoring stream environment zones outlined in the capital improvement program.

## **GOAL #3**

### **CONSERVE THREATENED, ENDANGERED, AND SENSITIVE PLANT SPECIES AND UNCOMMON PLANT COMMUNITIES OF THE LAKE TAHOE BASIN.**

A few examples of rare plants and uncommon plant communities can be found in the Lake Tahoe Basin. These resources are a real part of the Basin's natural endowment and need to be protected from indiscriminant loss or destruction. Otherwise, the danger of extinction can become a reality. Direction for preservation is provided by adopted environmental thresholds.

## **POLICIES**

- 1. UNCOMMON PLANT COMMUNITIES SHALL BE IDENTIFIED AND PROTECTED FOR THEIR NATURAL VALUES.**

Rare examples of Lake Tahoe's natural vegetation should be preserved for their ecological and local significance. Indiscriminate loss of uncommon plant communities shall be avoided. This policy applies specifically to those plant communities for which thresholds were adopted, but also may be extended to other communities later identified as significant by TRPA or local resource agencies. Attainment of the vegetation thresholds and implementation of this policy require close cooperation between this Agency and other agencies responsible for the protection and management of the Basin's natural resources.

- 2. THE POPULATION SITES AND CRITICAL HABITAT OF ALL SENSITIVE PLANT SPECIES IN THE LAKE TAHOE BASIN SHALL BE IDENTIFIED AND PRESERVED.**

The Tahoe Basin provides a favorable habitat for a few species of exceptionally scarce plants. Without proper protection, these sensitive plants may become extinct. Thresholds for vegetation specifically refer to five sensitive plant species. Monitoring and evaluation programs will be necessary, in cooperation with the USFS and other interested agencies and individuals, to implement this policy.

**3. THE CONSERVATION STRATEGY FOR TAHOE YELLOW CRESS IN THE LAKE TAHOE BASIN SHALL FOSTER STEWARDSHIP FOR THIS SPECIES.<sup>§</sup>**

- (1) Providing education to landowners;
- (2) Providing technical and planning assistance to landowners with Tahoe Yellow Cress to develop stewardship plans; and
- (3) Streamlining the Tahoe Yellow Cress project review process, while protecting the species and its habitat.

**GOAL #4<sup>§§</sup>**

**PROVIDE FOR AND INCREASE THE AMOUNT OF LATE SERAL/OLD GROWTH STANDS WITHIN THE LAKE TAHOE BASIN.**

Late seral/old growth forest stands are rare in the basin, but provide high quality habitat for many wildlife and plant species. In the year 2000, it was estimated that less than 5% of the forest stands could be conservatively classified as late seral/old growth. The desired future condition for forested lands within the basin is that the forests should reflect the pre-settlement conditions to the degree possible. The best available estimate of the amount of late seral/old growth forest in pre-settlement times is 55% of the total forest. With the existing state of the basin's forest dominated by mature, even aged stands, active management is necessary to increase the amount of late seral/old growth forest.

**POLICIES**

**1. STANDS EXHIBITING LATE SERAL/OLD GROWTH CHARACTERISTICS SHALL BE MANAGED TO ALLOW THESE STANDS TO SUSTAIN THESE CONDITIONS.**

The existing forest stands that exhibit late seral/old growth characteristics are rare in the basin and should be protected. These stands act as a refuge for late seral/old growth species and will be critical for future restoration of additional late seral/old growth stands.

**2. STANDS NOT EXHIBITING LATE SERAL/OLD GROWTH CHARACTERISTICS SHALL BE MANAGED TO PROGRESS TOWARDS LATE SERAL/OLD GROWTH.**

Forest stands that do not currently exhibit late seral/old growth characteristics, and that can reasonably be expected to produce late seral/old growth characteristics, should be managed to move the stand towards increasing late seral/old growth characteristics. Active management is the primary vehicle for producing the desired future conditions. Management may entail thinning of smaller trees, alteration of the species composition, and other ecosystem manipulations.

**3. PRESCRIPTIONS FOR TREATING THESE STANDS WILL BE PREPARED ON A STAND-BY-STAND BASIS. EACH PRESCRIPTION WILL DEMONSTRATE/EXPLAIN HOW IT WILL PROMOTE LATE SERAL OR OLD GROWTH CHARACTERISTICS PRIOR TO APPLYING ANY MECHANICAL TREATMENT OR PRESCRIBED FIRE. STAND-SPECIFIC PRESCRIPTIONS WILL BE DEVELOPED USING THE BEST AVAILABLE FOREST AND ECOSYSTEM MANAGEMENT SCIENCE, STRATEGIES, STANDARDS AND GUIDELINES.**

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<sup>§</sup> Amended 9/25/02

<sup>§§</sup> Amended 5/23/01

Late seral/old growth forest management applies best available scientific information to identify valued characteristics of late seral/old growth forests, and to manage for these characteristics. Site capabilities, habitat requirements of old growth-associated wildlife species, forest science including silviculture, and available information on general and site-specific pre-settlement forest structures and patterns provide guidance to site-specific management. The *Sierra Nevada Ecosystem Project Report* (2000), the *Lake Tahoe Watershed Assessment* (December 2000), and the Sierra Nevada Forest Plan Amendment (January 2001), apply scientific and forest management literature to identify important late seral/old growth forest characteristics. These documents also provide examples of management strategies, standards and guidelines for promoting these characteristics.

**4. RETAIN LARGE TREES AS A PRINCIPAL COMPONENT OF LATE SERAL/OLD GROWTH ECOSYSTEMS.**

Large trees are one of the defining components of late seral/old growth ecosystems. Without large trees present a forest stand cannot be classified as late seral/old growth. Many of the other components of late seral/old growth ecosystems are derived from large trees, including snags, down woody material, and soil conditions. The retention of large trees is a critical management strategy to achieve the late seral/old growth threshold.

**5. RETAIN TREES OF MEDIUM AND SMALL SIZE SUFFICIENT TO PROVIDE FOR LARGE TREE RECRUITMENT OVER TIME, AND TO PROVIDE STRUCTURAL DIVERSITY. PREFERABLY, THESE TREES WILL BE THE MOST VIGOROUS IN THE STAND USING ONE OF THE STANDARD TREE CLASSIFICATIONS. IN ADDITION, SPECIES COMPOSITION SHOULD BE KEY CONSIDERATION IN TREE RETENTION.**

The forests of the Lake Tahoe Region are largely even-aged as a result of forest regeneration after logging followed by discovery of the Comstock Lode. The large trees of today have finite life spans, and must eventually be replaced. Additionally, appropriate diversity of small, medium and large trees provides vertical structural diversity for wildlife.

Tree species composition is an important characteristic of forests, affecting wildlife uses and forest health. Promoting and perpetuating late seral/old growth forest conditions requires the future provision for a desired species composition, now and the future. Prior to settlement, natural events provided a well-adapted species mix. Today, forest planning for future conditions is needed because humans have changed the balance of forces operating in the forest that would produce the desired future condition for the forest.

**6. USE OF PRESCRIBED FIRE IS PREFERRED TO REDUCE FIRE HAZARD AND PERPETUATE DESIRED NATURAL ECOLOGICAL PROCESSES. MANUAL AND MECHANICAL TREATMENT MAY BE USED TO REDUCE FOREST FUEL LEVELS AND TO IMPROVE LATE SERAL FOREST CONDITIONS IN ADDITION TO, OR IN LIEU OF, PRESCRIBED FIRE.**

Fire is an effective and efficient tool to reduce forest fuels and thus fire risk. Additionally, fire is a natural ecological process that historically shaped the distribution and structure of vegetation and wildlife communities in the Sierra Nevada and Lake Tahoe basin. Use of prescribed fire or mechanical treatment to control and reduce forest fuel buildup will benefit forested communities by reducing the potential for catastrophic stand-replacing fire events.

## **GOAL #5**

### **THE APPROPRIATE STOCKING LEVEL AND DISTRIBUTION OF SNAGS AND COARSE WOODY DEBRIS SHALL BE RETAINED IN THE REGION'S FORESTS TO PROVIDE HABITAT FOR ORGANISMS THAT DEPEND ON SUCH FEATURES AND TO PERPETUATE NATURAL ECOLOGICAL PROCESSES.**

Relatively large snags (standing dead trees) and large downed woody debris (decaying logs on the forest floor) provide essential habitat features for a wide diversity of forest dwelling organisms. Decaying snags and coarse woody debris provide soil amendments and recycle nutrients necessary to perpetuate improved forest health. Upland sources of dead wood contribute to slope stability and soil surface stability, which prevent soil erosion and control storm surface runoff. In stream environment zones, dead wood plays a major role in the development of streambed morphology and thus the creation and maintenance of required aquatic and riparian habitat.

#### **POLICIES**

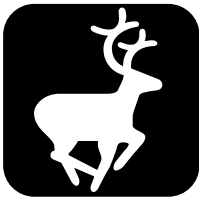
- 1. ALLOW FOR A SUFFICIENT NUMBER AND AN APPROPRIATE DISTRIBUTION OF SNAGS THROUGHOUT THE REGION'S FORESTS TO PROVIDE AND MAINTAIN HABITAT FOR SPECIES DEPENDENT ON SUCH FEATURES.**

Tree mortality is a natural process in properly functioning forest ecosystems. This process is stochastic, can take several decades to occur in nature, and is not easily mimicked by humans. Retaining necessary habitat features that benefit a wide diversity of species is economically appropriate because it will circumvent the need for costly and intrusive habitat management programs, and will aid in achieving wildlife threshold goals.

- 2. ALLOW FOR AN APPROPRIATE AMOUNT, LEVEL AND DISTRIBUTION OF COARSE WOODY DEBRIS (DOWNED WOODY MATERIAL) THROUGHOUT THE REGION'S FORESTS TO MAINTAIN BIOLOGICAL INTEGRITY, TO STABILIZE SOIL, AND TO AFFORD A REASONABLE LEVEL OF FIRE SAFETY.**

Large downed woody debris (fallen logs) in various stages of decay contribute to structural diversity of forest ecosystems, which is required by a wide variety of terrestrial, semi-terrestrial and aquatic species. Additionally, as logs decompose, organic matter is slowly incorporated into the soil, which replenishes the productive capability of the soil and perpetuates a functioning forest ecosystem.

#### **WILDLIFE**



The Tahoe Basin provides a habitat for many different species of wildlife. However, the existing habitat mix is not generally favorable for supporting large numbers of many different species. This situation has developed in recent years due to urban expansion and policies that prevent natural forest perturbations (e.g., fire). Considerable potential exists to improve, coincidentally, both wildlife habitat and forest health and diversity. Thresholds adopted by TRPA for wildlife are listed below:

## **Special Interest Species**

### NUMERICAL STANDARD

Provide a minimum number of population sites and disturbance zones for the following species:

<u>Species of interest</u>	<u>Population sites</u>	<u>Disturbance zone (mi.)</u>	<u>Influence zone (mi.)</u>
Goshawk	12	0.50	3.50
Osprey	4	0.25	0.60
Bald Eagle (Winter)	2	Mapped areas	Mapped areas
Bald Eagle (Nesting)	1	0.50	Variable
Golden Eagle	4	0.25	9.0
Peregrine	2	0.25	7.6
Waterfowl	18	Mapped areas	Mapped areas
Deer	-	Meadows	Mapped areas

## **Habitats of Special Significance**

### MANAGEMENT STANDARD

A nondegradation standard shall apply to significant wildlife habitat consisting of deciduous trees, wetlands, and meadows while providing for opportunities to increase the acreage of such riparian associations.

Goals and policies for the management of wildlife in the Basin were derived from the wildlife thresholds and from other issues of local concern. It is expected that the thresholds for special interest species will be attained immediately with implementation of the policies presented herein, but improvement and expansion of riparian plant associations is expected to be a long-term goal with achievement of the threshold not expected for up to 20 years.

## **GOAL #1**

### **MAINTAIN SUITABLE HABITATS FOR ALL INDIGENOUS SPECIES OF WILDLIFE WITHOUT PREFERENCE TO GAME OR NON-GAME SPECIES THROUGH MAINTENANCE OF HABITAT DIVERSITY.**

It is difficult to monitor wildlife abundance and diversity. With only a few exceptions, wildlife trend data are not available for the Basin. The best indication of wildlife trends can be implied from changes in the habitat (size, location, quantity, quality). Emphasis of wildlife management in the Basin will be on maintenance of a diverse habitat base which meets environmental thresholds.

### **POLICIES**

#### **1. ALL PROPOSED ACTIONS SHALL CONSIDER IMPACTS TO WILDLIFE.**

The impacts of development to wildlife can often be easily mitigated when wildlife are considered early in the project review process. Considerations should be given to the movement, water, food, and cover needs of wildlife.

#### **2. RIPARIAN VEGETATION SHALL BE PROTECTED AND MANAGED FOR WILDLIFE.**

Riparian vegetation is the single most important habitat for wildlife in the Basin. Riparian plant communities need to be preserved to help protect the wildlife resource and to attain environmental thresholds for vegetation, wildlife, and soils. This policy requires an on-going program of management and regulated use of riparian vegetation.



**3. NON-NATIVE WILDLIFE AND EXOTIC SPECIES SHALL BE CONTROLLED AND RELEASE OF SUCH ANIMALS INTO THE WILD IS FORBIDDEN.**

Indigenous wildlife species have adapted to the special habitat characteristics of the Basin. Non-native species can "invade" the niches of local wildlife and unfairly compete for scarce resources needed for survival. Introduction of disease and population control of exotic species are other issues of concern.

**4. DOMESTIC ANIMALS AND PETS SHALL BE CONTROLLED AND APPROPRIATELY CONTAINED.**

Domestic animals impact native wildlife species through harassment and physical harm. A combination of domestic animal control and a habitat maintenance program will provide for the long-term health of local wild life populations.

**GOAL #2**

**PRESERVE, ENHANCE, AND, WHERE FEASIBLE, EXPAND HABITATS ESSENTIAL FOR THREATENED, ENDANGERED, RARE, OR SENSITIVE SPECIES FOUND IN THE BASIN.**

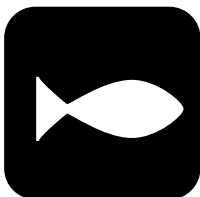
Animals that are particularly scarce or vulnerable to extirpation require special management emphasis. Management usually includes programs to protect or enhance critical habitats. Other strategies would include buffering critical habitats from conflicting land uses and activities. Strategies are developed within the framework of adopted environmental thresholds.

**POLICIES**

**1. ENDANGERED, THREATENED, RARE, AND SPECIAL INTEREST SPECIES SHALL BE PROTECTED AND BUFFERED AGAINST CONFLICTING LAND USES.**

Species in the above categories need extra protection to ensure their longevity in the Basin. Critical habitat sites of these animals need to be protected and buffered from disturbing land uses. This will be accomplished by regulating uses within the disturbance and influence zones of seven species for which thresholds have been adopted.

**FISHERIES**



A popular recreational activity in the Tahoe Basin is fishing. Some of the larger streams on the California side provide excellent opportunities to catch rainbow, brown, cutthroat, and brook trout. The lakes offer a wider choice of fishing opportunities. The entire fishery is highly sensitive to habitat disturbance. Maintenance of the fishery must focus on preserving prime fish habitats in the lakes and streams and ensuring access to spawning and feeding habitats. The strategies

for accomplishing these goals are built into the framework of environmental thresholds. The fishery thresholds are listed below:

### **Stream Habitat**

#### *NUMERICAL STANDARD*

*Maintain the 75 miles of excellent, 105 miles of good, and 38 miles of marginal stream habitat as indicated by the Stream Habitat Quality Overlay map, as amended May 1997, based upon the re-rated stream scores set forth in Appendix C-1 of the 1996 Evaluation Report.*

### **Instream Flows**

#### *MANAGEMENT STANDARD*

*Until instream flow standards are established in the Regional Plan to protect fishery values, a nondegradation standard shall apply to instream flows.*

#### **POLICY STATEMENT**

**It shall be a policy of the TRPA Governing Board to seek transfers of existing points of water diversion from streams to Lake Tahoe.**

### **Lahontan Cutthroat Trout**

#### *POLICY STATEMENT*

*It shall be the policy of the TRPA Governing Board to support, in response to justifiable evidence, state and federal efforts to reintroduce Lahontan cutthroat trout.*

### **Lake Habitat**

#### *MANAGEMENT STANDARD*

*A nondegradation standard shall apply to fish habitat in Lake Tahoe. Achieve the equivalent of 5,948 total acres of excellent habitat as indicated by the Prime Fish Habitat Overlay Map dated 5/19/97 as may be amended from time to time.*

Implementation of the goals and policies for the management of the Tahoe fishery will provide for the eventual achievement of the fishery thresholds. Thresholds for instream flows and Lahontan cutthroat trout are expected to be achieved within the first ten years of plan implementation. Attainment of the stream and Lake thresholds will be incrementally achieved over a 20-year period.

### **GOAL #1**

#### **IMPROVE AQUATIC HABITAT ESSENTIAL FOR THE GROWTH, REPRODUCTION, AND PERPETUATION OF EXISTING AND THREATENED FISH RESOURCES IN THE LAKE TAHOE BASIN.**

The fishery habitat in the Tahoe Basin has experienced significant alteration and degradation. Much like the wildlife resource, management emphasis will be on the maintenance of essential habitats. For lakes, management focus will be on nearshore substrate quality as it pertains to feeding, cover, and spawning habitats. Stream management will emphasize instream flow needs and maintenance of spawning habitat. Policies to achieve this goal are consistent with the adopted environmental thresholds.

## **POLICIES**

### **1. DEVELOPMENT PROPOSALS AFFECTING STREAMS, LAKES AND ADJACENT LANDS SHALL EVALUATE IMPACTS TO THE FISHERY.**

The population potential of the Tahoe fishery largely depends on the availability and quantity of suitable spawning and feeding habitats. Past practices have significantly damaged the fishery resource through habitat modification or destruction. Future detrimental impacts can be avoided and the fishery improved if the resource is given due consideration in water related developments. All proposals that potentially could impact the fishery will be assessed pursuant to consultation with fishery biologists of the Nevada Department of Wildlife, California Department of Fish and Game, and the U.S. Fish and Wildlife Service.

### **2. UNNATURAL BLOCKAGES AND OTHER IMPEDIMENTS TO FISH MOVEMENT WILL BE PROHIBITED AND REMOVED WHEREVER APPROPRIATE.**

Many different species of fish spawn in the Basin's tributaries. This often requires movement into the streams from the lakes. Unnatural blockages (e.g., bridge culverts, man-made dams, marinas) can prevent the upstream migration and thereby seriously impact the population potential of certain fishes. Remedial measures will be accomplished in tandem with conditions of project approval, voluntary cooperation, and capital programming as part of remedial water quality programs.

### **3. AN INSTREAM MAINTENANCE PROGRAM SHOULD BE DEVELOPED AND IMPLEMENTED.**

A variety of problems can build up over time in stream channels that need annual remedial attention before the situation becomes too burdensome to deal with in a timely and cost-efficient manner. Instream monitoring could include an inventory and removal program for undesirable debris build-up in the stream channel.

### **4. STANDARDS FOR BOATING ACTIVITY SHALL BE ESTABLISHED FOR THE SHALLOW ZONE OF LAKE TAHOE.**

There are numerous uses associated with the shorezone of Lake Tahoe. However, some of those activities do not depend on the exclusive use of the nearshore. Boating activity in the nearshore should be permitted only to the extent that it is compatible with shorezone-dependent uses such as swimming and fishing. To minimize impacts to these and other shorezone users, and to reduce the risk of accidents, excessive boat speeds and motor noise should be avoided in the nearshore. Strict enforcement of existing regulations for boat speed close to shore (Cal. Harbors and Navigation Code 655.2 and Nevada Revised Statutes 488.245) and noise (TRPA noise thresholds) will also benefit the fishery which can be affected by the noise and associated activities of boats. Operating standards for boating should be in accordance with U.S. Coast Guard regulations. Specific areas of habitat may require additional regulations to help prevent unacceptable disruption of critical life cycle activities such as spawning.

### **5. HABITAT IMPROVEMENT PROJECTS ARE ACCEPTABLE PRACTICES IN STREAMS AND LAKES.**

Considerable potential exists to improve or expand the fishery habitat of lakes and streams in the Basin. Any improvements are likely to solicit a corresponding improvement to the local fishery and should be encouraged.

**6. INSTREAM FLOWS SHALL BE REGULATED, WHEN FEASIBLE, TO MAINTAIN FISHERY VALUES.**

The maintenance of a minimal level of water throughout the year in streams is necessary to protect instream fishery values. Diversions which artificially lower stream flows beyond a level capable of supporting fish or their food organisms is not desirable and should be avoided. This policy would only apply to those creeks with artificial diversions and be accomplished, in part, with implementation of Policy 7.

**7. EXISTING POINTS OF WATER DIVERSION FROM STREAMS SHALL BE TRANSFERRED TO THE LAKE, WHENEVER FEASIBLE, TO HELP PROTECT INSTREAM BENEFICIAL USES.**

Many of the Basin tributaries are subject to extreme low flows in late summer. Withdrawals from low flow streams aggravate the problem and may even dry out some creeks. A more constant and dependable supply of water would be available from the Lake and such transfers should be encouraged through the use of incentives and cooperation with state agencies responsible for regulating water use.

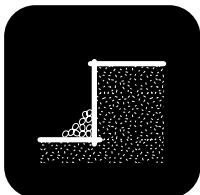
**8. SUPPORT, IN RESPONSE TO JUSTIFIABLE EVIDENCE, STATE AND FEDERAL EFFORTS TO REINTRODUCE LAHONTAN CUTTHROAT TROUT IN APPROPRIATE REMOTE LOCATIONS.**

The Lahontan cutthroat trout is, in all probability, extinct in the Basin. Any efforts to reintroduce this particular strain of cutthroat should be encouraged. Reintroducing Lahontan Cutthroat Trout to Lake Tahoe, itself appears to be infeasible. However, it appears that it may be possible to reintroduce the Lahontan Cutthroat Trout to specific isolated lakes or streams.

**9. THE WATER LEVEL IN LAKE TAHOE SHOULD BE CONTROLLED TO REFLECT CONDITIONS THAT MIGHT BE EXPECTED WITH SEASONAL WEATHER AND WATER RUNOFF PATTERNS.**

Vegetation, fish, wildlife, and other organisms are all affected by sporadic and quickly changing water levels. In addition, unnatural high levels during winter artificially create erosion problems along the shorezone. This policy would encourage the development of a planned program of water release out of Tahoe to minimize these and other environmental problems.

## **SOILS**



The soil resource plays an important role related to all aspects of the physical and biological environment. Soil provides a growing medium to plants, which in turn helps bind and create new soils; the chain of events is complicated and extensive. The value of the soil resource in the Basin is measured by its ability to support vegetation and its contribution to the nutrient and sediment loads entering the streams and lakes. Two environmental thresholds are the basis for developing

strategies for protection of the soil resource:

## **Impervious Cover**

### **MANAGEMENT STANDARD**

*Impervious cover shall comply with the Land-Capability Classification of the Lake Tahoe Basin, California-Nevada, A Guide For Planning, Bailey, 1974.*

## **Stream Environment Zones**

### **NUMERICAL STANDARD**

*Preserve existing naturally functioning SEZ lands in their natural hydrologic condition, restore all disturbed SEZ lands in undeveloped, unsubdivided lands, and restore 25 percent of the SEZ lands that have been identified as disturbed, developed or subdivided, to attain a 5 percent total increase in the area of naturally functioning SEZ lands.*

The thresholds for soil share goals are common to the Water Quality and Vegetation Subelements. Attainment of the soil thresholds is expected to be accomplished in harmony with the goals and policies of those Subelements.

## **GOAL #1**

### **MINIMIZE SOIL EROSION AND THE LOSS OF SOIL PRODUCTIVITY.**

Protection of the Region's soil is important for maintaining soil productivity and vegetative cover and preventing excessive sediment and nutrient transport to the streams and lakes. Soil protection is especially critical in the Basin where the soils are characteristically shallow and highly susceptible to erosion. Strategies for soil conservation are consistent with thresholds established for soil, water, and vegetation.

## **POLICIES**

### **1. ALLOWABLE IMPERVIOUS LAND COVERAGE SHALL BE CONSISTENT WITH THE THRESHOLD FOR IMPERVIOUS LAND COVERAGE.**

The Land Use Subelement (see Goal #4) establishes policies which limit impervious land coverage consistent with the impervious land coverage limits set forth in the "Land-Capability Classification of the Lake Tahoe Basin, California-Nevada, a Guide for Planning", Bailey, 1974.

### **2. NO NEW LAND COVERAGE OR OTHER PERMANENT DISTURBANCE SHALL BE PERMITTED IN LAND CAPABILITY DISTRICTS 1-3 EXCEPT FOR THOSE USES AS NOTED IN A, B, AND C BELOW:**

- A. Single family dwellings may be permitted in land capability districts 1-3 when reviewed and approved pursuant to the individual parcel evaluation system (IPES). (See Goal #1, Policy 2, Development and Implementation Subelement).
- B. Public outdoor recreation facilities may be permitted in land capability districts 1-3 if:
  - (1) The project is a necessary part of a public agency's long range plans for public outdoor recreation;
  - (2) The project is consistent with the recreation element of the Regional Plan;
  - (3) The project, by its very nature must be sited in land capability districts 1-3;

- (4) There is no feasible alternative which avoids or reduces the extent of encroachment in land capability districts 1-3;
- (5) The impacts are fully mitigated; and
- (6) Land capability districts 1-3 lands are restored in the amount of 1.5 times the area of land capability districts 1-3 which is disturbed or developed beyond that permitted by the Bailey coefficients.

To the fullest extent possible, recreation facilities must be sited outside of Land Capability Districts 1-3. However, the six-part test established by the policy allows encroachment of these lands where such encroachment is essential for public outdoor recreation, and precautions are taken to ensure that such lands are protected to the fullest extent possible. The restoration requirements of this policy can be accomplished on-site or off-site, and shall be in lieu of any coverage transfer or coverage mitigation provisions else where in this Plan.

- C. Public service facilities are permissible uses in land capability districts 1-3 if:
- (1) The project is necessary for public health, safety or environmental protection;
  - (2) There is no reasonable alternative, which avoids or reduces the extent of encroachment in land capability districts 1-3;
  - (3) The impacts are fully mitigated; and
  - (4) Land capability districts 1-3 lands are restored in the amount of 1.5 times the area of land capability districts 1-3 which is disturbed or developed beyond that permitted by the Bailey co-efficients.

Development within Land Capability Districts 1-3 is not consistent with the goal to manage high hazard lands for their natural qualities and shall generally be prohibited except under extraordinary circumstances involving public works. Each circumstance shall be evaluated based on the above four-point test of this policy. The restoration requirements of this policy can be accomplished on-site or off-site, and shall be in lieu of any coverage transfer or coverage mitigation provisions else where in this Plan.

**3. THE LAND CAPABILITY MAP MAY BE REVIEWED AND UPDATED.**

TRPA shall provide for a procedure to allow land capability challenges for reclassification of incorrectly mapped areas.

**4. TRPA SHALL DEVELOP SPECIFIC POLICIES TO LIMIT LAND DISTURBANCE AND REDUCE SOIL AND WATER QUALITY IMPACTS OF DISTURBED AREAS.**

Like impervious surfaces, disturbed and compacted areas result in increased soil loss and surface runoff. The Regional Plan sets policies designed to reduce existing surface disturbance and avoid new disturbance (see Water Quality Subelement, Goal #1, Policies 2 and 3; Vegetation Subelement, Goal #1, Policy 5). TRPA shall set guidelines defining "disturbance" and determine what types of disturbed and compacted areas should be counted as impervious surfaces for purposes of applying land coverage limits. Coverage limits shall not be applied so as to prevent application of best management practices to existing disturbed areas.

**5. TRPA SHALL CONDUCT A SURVEY TO IDENTIFY AREAS WHERE EXISTING EXCESS COVERAGE IS CAUSING ENVIRONMENTAL DAMAGE.**

Over a five-year period, TRPA shall survey the streams and watersheds in the Basin to identify areas that show empirical evidence of soil erosion or adverse changes in hydrological conditions as a result of excess coverage. The survey shall propose specific programs to address the problem of excess coverage and may include limits on new coverage, coverage removal, and remedial erosion and runoff control projects.

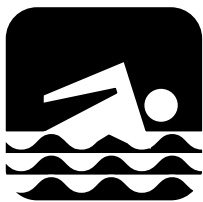
**6. GRADING, FILLING, CLEARING OF VEGETATION (WHICH DISTURBS SOIL), OR OTHER DISTURBANCES OF THE SOIL ARE PROHIBITED DURING INCLEMENT WEATHER AND FOR THE RESULTING PERIOD OF TIME WHEN THE SITE IS COVERED WITH SNOW OR IS IN A SATURATED, MUDDY, OR UNSTABLE CONDITION. SPECIAL REGULATIONS AND CONSTRUCTION TECHNIQUES WILL APPLY TO ALL CONSTRUCTION ACTIVITIES OCCURRING BETWEEN OCTOBER 15 AND MAY 1.**

Impacts related to soil disturbance are highly exaggerated when the soil is wet. For precautionary reasons, all project sites must be adequately winterized by October 15 as a condition for continued work on the site. Exceptions to the grading prohibitions will be permitted in emergency situations where the grading is necessary for reasons of public safety or for erosion control.

**7. ALL EXISTING NATURAL FUNCTIONING SEZs SHALL BE RETAINED AS SUCH AND DISTURBED SEZs SHALL BE RESTORED WHENEVER POSSIBLE.**

Stream environment zones (SEZs) shall be managed to perpetuate their various functional roles, especially pertaining to water cleansing and nutrient trapment. This requires enforcement of a non-degradation philosophy. This policy is common to the Water Quality, Vegetation, Stream Environment Zone, and Wildlife Subelements and will be implemented through the Land Use Element and capital improvements program.

## **SHOREZONE**



The shorezone of Lake Tahoe is of both local and national significance. The scenic quality of the shoreline is enhanced by a diversity of views that range from sandy beaches to isolated coves, rocky shorelines, and steep cliffs. The competing demands for development of the shorezone need to be reconciled in light of the unique qualities that stand to be lost. The existing Shorezone Plan of Lake Tahoe is the basis for developing guidelines for appropriate uses

along the shorezones of Lake Tahoe, Fallen Leaf Lake, and Cascade Lake.

### **GOAL #1**

**PROVIDE FOR THE APPROPRIATE SHOREZONE USES OF LAKE TAHOE, CASCADE LAKE, AND FALLEN LEAF LAKE WHILE PRESERVING THEIR NATURAL AND AESTHETIC QUALITIES.**

The shorezones of the Basin's lakes are inherently suitable to different intensities of use depending on local shorezone characteristics. Both the physical and biological qualities of the shorezone are useful for assessing the development potential of a particular site. Visual quality should be an additional test of an area's capability to accommodate

different types of land use. Policies are developed within the framework of TRPA's existing shorezone plan (which is incorporated into this Subelement) and adopted environmental thresholds.

## **POLICIES**

- 1. ALL VEGETATION AT THE INTERFACE BETWEEN THE BACKSHORE AND FORESHORE ZONES SHALL REMAIN UNDISTURBED UNLESS ALLOWED BY PERMIT FOR USES OTHERWISE CONSISTENT WITH THE SHOREZONE POLICIES.**

Vegetation at the interface between the backshore and the foreshore is significant to buffering the impacts that occur in this zone. It is the last naturally occurring measure for stabilizing soils and absorbing nutrients in the runoff from the backshore. It prevents accelerated shoreline erosion from wave action and reduces the need for engineered structures. Vegetation is an important element of the wildlife and fish habitat that occurs in the zone. The vegetation also screens backshore development, thus preserving the natural appearance of the shoreline. Well established, native vegetation is adapted to the zone and provides a strong binding root system and a protective cover of foliage and branches. The interface is defined as the zone that includes backshore cliffs and other unstable lands influenced, in part or in total, by littoral or wave processes.

- 2. CONSTRUCTION ACTIVITY SHOULD BE SET BACK TO ENSURE NO DISTURBANCE OF THE INTERFACE BETWEEN HIGH CAPABILITY BACKSHORE AND UNSTABLE CLIFF AREAS.**

Building setbacks from the edge of unstable or potentially unstable areas are necessary so as to minimize the risk of accelerated erosion, cliff collapse, or slumping. Retention of a natural buffer to minimize impacts of backshore development is preferred over engineering solutions to backshore instability.

- 3. THE USE OF LAWNS OR ORNAMENTAL VEGETATION IN THE SHOREZONE SHALL BE DISCOURAGED.**

The land area adjacent to water bodies is susceptible to intensive erosion forces such as undercutting. Deep root systems associated with trees and shrubs help stabilize the backshore by binding soil and rock material. Lawns are less effective for this purpose in unstable areas and fertilizer necessary for their maintenance may contribute nutrients directly to the lake. Plant species approved by the Agency (see Vegetation Subelement, Goal #1, Policy 8) shall be selected when revegetating disturbed sites.

- 4. CLASS 1 CAPABILITY SHOREZONES SHALL BE MANAGED CONSISTENT WITH THE GOALS AND POLICIES OF THE STREAM ENVIRONMENT ZONE SUBELEMENT.**

Class 1 shorezones (barrier beaches) are particularly vulnerable to both natural and unnatural perturbations. These areas typically support backshore wetlands and are usually linked hydrologically with the lake. As such, Class 1 shorezones typically exhibit the characteristics of stream environment zones. New development in Class 1 shorezones will be regulated to be consistent with Policies 5, 6, and 7 of the Stream Environment Zone Subelement. These policies generally prohibit new development except for unusual circumstances involving the siting of public outdoor recreation facilities and public works projects. Replacement of existing coverage in barrier shorezones may be permitted in accordance with the policy for replacement of existing coverage in the Stream Environment Zone Subelement (Policy 9).



5. **DISTURBANCE OF CLASS 2 AND CLASS 3 CAPABILITY SHOREZONES SHALL BE MINIMIZED TO AVOID ACCELERATED BACKSHORE EROSION OR CLIFF COLLAPSE.**

Class 2 and Class 3 shorezones are typically steep and have high erosion potential. No activity should be undertaken which is likely to accelerate or initiate backshore erosion.

6. **LOW TO MODERATE INTENSITY DWELLING AND RECREATIONAL USES SHOULD BE ALLOWED IN THE STABLE AND HIGH CAPABILITY BACKSHORE AREAS OF CLASS 4 AND 5 CAPABILITY SHOREZONES.**

The overall capability of Class 4 shorezones is severely limited by the unstable nature of the actual shoreline, beaches, and crumbling cliffs. Vegetation preservation and restricted development are the best means for protecting the unstable rock and soil materials. The erosion, mass movement potential, and rocky ground of Class 5 shorezones limit the construction potential of these sites. Low to moderate recreational development is the best use, where gradual slopes permit.

7. **WATER DEPENDENT RECREATIONAL FACILITIES AND RESIDENTIAL BUILDINGS ARE ACCEPTABLE USES IN CLASS 6, 7, AND 8 CAPABILITY SHOREZONES SO LONG AS SUCH USES (1) PROVIDE FOR THE NATURAL EQUILIBRIUM OF THE SHORELINE INTERFACE, (2) DO NOT ACCELERATE NEARSHORE SHELF EROSION, (3) MINIMIZE DISTURBANCE OF VEGETATION, (4) CONSIDER VISUAL AMENITIES, AND (5) COMPLY WITH OTHER RELEVANT POLICIES OF THIS SUBELEMENT.**

Class 8 shorezones offer the highest capability for development due to their relative resilience to perturbations. Class 6 and Class 7 shorezones are less capable of tolerating disturbances, but still provide suitable development potential when the uses allow for minimum site disturbance.

8. **STREAM CHANNEL ENTRANCES TO THE LAKE SHALL BE MAINTAINED TO ALLOW UNOBSTRUCTED ACCESS OF FISHES TO UPSTREAM SPAWNING SITES.**

Barriers to upstream migration of fish may arise either from actual physical barriers or from disturbances. Activities or structures that pose as upstream barriers are not permitted uses in stream mouths.

9. **THE AGENCY SHALL REGULATE THE PLACEMENT OF NEW PIERS, BUOYS, AND OTHER STRUCTURES IN THE FORESHORE AND NEARSHORE TO AVOID DEGRADATION OF FISH HABITATS, CREATION OF NAVIGATION HAZARDS, INTERFERENCE WITH LITTORAL DRIFT, INTERFERENCE WITH THE ATTAINMENT OF SCENIC THRESHOLDS, AND OTHER RELEVANT CONCERNS.**

The Agency shall conduct studies, as necessary, to determine potential impacts to fish habitats and apply the results of those studies and previous studies on shoreline erosion and shorezone scenic quality in determining the number of, location of, and standards of construction for facilities in the nearshore and foreshore.

10. **PROVISIONS SHOULD BE MADE TO ALLOW MULTIPLE-USE PIERS WHEN SUCH USES ARE INTENDED TO REDUCE THE NUMBER OF SINGLE-USE PIERS EXISTING ON ADJOINING PROPERTIES.**

Fish habitat in the nearshore can be improved if habitat modifications and disturbances are minimized. Centralized activity centers are preferred to numerous points of activity dispersed along the entire shoreline.

**11. THE AGENCY SHALL REGULATE THE MAINTENANCE, REPAIR, AND MODIFICATION OF PIERS AND OTHER STRUCTURES IN THE NEARSHORE AND FORESHORE.**

Piers and other shoreline structures are particularly subject to damage and deterioration caused by the elements. Some fail to conform to the standards of the Agency. Maintenance, repair, and modification projects provide opportunities to remedy existing deficiencies. Ordinances shall set requirements, appropriate for the situation, to correct environmental and navigation problems.

**12. CASCADE AND FALLEN LEAF LAKES SHOULD BE EVALUATED AND CONSIDERED FOR LOW INTENSITY USES TO INCLUDE RESTRICTIONS ON THE USE AND SIZE OF BOAT MOTORS.**

Both of these lakes are relatively small when compared to Lake Tahoe and are, themselves, located in small basins. Use of powerboats on these lakes impacts a greater portion of the shorezone users because of the small size of the lakes and the fact that the noise is accentuated due to the bowl-shaped topography. Restrictions on motor size and use is a strategy to provide for the best use of these lakes while preserving their many different recreational qualities. El Dorado County, in cooperation with the USFS, private land owners, and other agencies, should evaluate the best uses for each lake.

**13. ALLOW PUBLIC ACCESS TO THE SHOREZONE WHERE LAWFUL AND FEASIBLE ON PUBLIC LANDS.**

There is considerable demand for public use of the Lake Tahoe shoreline. Increased opportunities to use the shoreline shall be provided when consistent with the tolerance levels of the shorezone. Improved access to the shorezone should be provided through public lands from expanded public ownership. Trails and support facilities in the backshore should be consistent with the goals and policies of the Recreation Element.

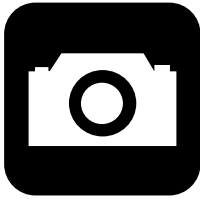
**14. PRIVATE MARINAS SHALL BE ENCOURAGED TO PROVIDE PUBLIC BOAT LAUNCHING FACILITIES.**

Boating access to Lake Tahoe would be increased under this strategy by encouraging all marina facilities to provide public launching facilities, where practical, and by providing incentives for those facilities which improve or provide such services.

**15. TRPA MAY DESIGNATE SHOREZONES AS MAN-MODIFIED. THE ASSIGNMENT OF A MAN-MODIFIED STATUS REQUIRES THE FOLLOWING FINDINGS:**

- Further development will not exacerbate the problems caused by development in shorezones that the original capability rating was meant to avoid;
- The area no longer exhibits the characteristics of the original shorezone capability rating;
- Restoration is infeasible;
- Further development can be mitigated off-site; and
- Mitigation is provided to at least partially offset the losses which were caused by modification of the shorezone.

## **SCENIC**



Scenic quality is perhaps the most often identified natural resource of the Lake Tahoe Basin. The Basin affords views of a magnificent lake setting within a forested mountainous environment. The unique combination of visual elements provides for exceptionally high aesthetic values. The maintenance of the Basin's scenic quality largely depends on careful regulation of the type, location, and intensity of land uses.

Environmental thresholds provide the basis for selecting appropriate strategies for maintaining scenic quality. Scenic resource thresholds are listed below:

### **Roadway and Shoreline Units**

#### *NUMERICAL STANDARD*

*Maintain or improve the numerical rating assigned each unit, including the scenic quality rating of the individual resources within each unit, as recorded in the Scenic Resources Inventory and shown in Tables 13-3, 13-5, 13-8 and 13-9 of the Draft Study Report.*

*Maintain the 1982 ratings for all roadway and shoreline units as shown in Tables 13-6 and 13-7 of the Draft Study Report.*

*Restore scenic quality in roadway units rated 15 or below and shoreline units rated 7 or below.*

### **Other Areas**

#### *NUMERICAL STANDARD*

*Maintain or improve the numerical rating assigned to each identified scenic resource, including individual subcomponent numerical ratings, for views from bike paths and other recreation areas open to the general public as recorded in the 1993 Lake Tahoe Basin Scenic Resource Evaluation.*

The following goals and policies directly address the issue of maintaining or restoring the natural scenic quality of the Lake Tahoe Basin. Attainment of the scenic thresholds is expected to be a long-term goal and achieved incrementally over the next 20 years.

## **GOAL #1**

### **MAINTAIN AND RESTORE THE SCENIC QUALITIES OF THE NATURAL APPEARING LANDSCAPE.**

As with many of the Region's natural resources, the scenic qualities of the Basin are vulnerable to change. Modifying the natural scenic features of the Basin is a by-product of development, but such impacts need not be devastating. A coordinated effort that incorporates architectural design and location considerations in the project review process is a useful means for promoting scenic and aesthetic values. Policies to achieve this goal are consistent with the adopted environmental thresholds.

## **POLICIES**

- 1. ALL PROPOSED DEVELOPMENT SHALL EXAMINE IMPACTS TO THE IDENTIFIED LANDSCAPE VIEWS FROM ROADWAYS, BIKEPATHS, PUBLIC RECREATION AREAS, AND LAKE TAHOE.**

The impact of development on the landscape views and scenic qualities of the Tahoe Region should be considered as part of the project review process. Conditions should be placed on project approval in a manner capable of mitigating any likely impacts. Impacts shall be evaluated against specific management directions provided for each identified landscape view. Management and remedial criteria for each roadway and shoreline unit shall be updated through appropriate studies so they are consistent with the format and detail of the 1983 scenic analysis of the recreation areas. *Lake Tahoe Basin Scenic Resource Evaluation*, 1983, Wagstaff and Brady. In addition, the Scenic Quality Improvement Program (SQIP, adopted September, 1989) and Design Review Guidelines for Scenic Quality (September, 1989) are to provide direction for the design, review, and implementation of projects viewed from identified roadways, bikepaths, public recreation areas, and Lake Tahoe. <sup>§</sup>

- 2. ANY DEVELOPMENT PROPOSED IN AREAS TARGETED FOR SCENIC RESTORATION OR WITHIN A UNIT HIGHLY SENSITIVE TO CHANGE SHALL DEMONSTRATE THE EFFECT OF THE PROJECT ON THE 1982 TRAVEL ROUTE RATINGS OF THE SCENIC THRESHOLDS.**

Projects proposed in areas sensitive to scenic degradation shall be closely scrutinized to ensure that the scenic quality of the area is improved or, at the very least, not further compromised by the action.

- 3. THE FACTORS OR CONDITIONS THAT CONTRIBUTE TO SCENIC DEGRADATION IN IDENTIFIED AREAS NEED TO BE RECOGNIZED AND APPROPRIATELY CONSIDERED IN RESTORATION PROGRAMS TO IMPROVE SCENIC QUALITY.**

To the extent funding is available, the studies identified by Policy 1 above shall be completed. Areas in need of scenic restoration and appropriate remedial measures shall be identified within two years.

## **GOAL #2**

### **IMPROVE THE ACCESSIBILITY OF LAKE TAHOE FOR PUBLIC VIEWING.**

Lake Tahoe is the dominant landscape feature in the Basin. Yet, opportunities to view the Lake from roadways are often limited due to inadequate or unmarked pull-off facilities, traffic congestion, and manmade obstructions.

#### **POLICIES**

- 1. ENHANCE THE OPPORTUNITIES TO VIEW LAKE TAHOE BY DESIGNING VIEW CORRIDORS FROM HIGHWAYS.**

View corridors to the Lake should be incorporated into the design of urban areas as a strategy for preserving open space areas and improving the role of the Lake as a visitor attraction.

- 2. SCENIC VIEWPOINTS FROM ROADWAYS SHOULD BE IDENTIFIED AND PULL-OFF FACILITIES PROVIDED ON PUBLIC PROPERTY, WHEREVER DESIRABLE.**

This policy would increase the opportunities for motorists to park and view Lake Tahoe and would limit the tendency or need to pull-off onto unimproved shoulders of roadways.

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<sup>§</sup> Amended 11/20/02

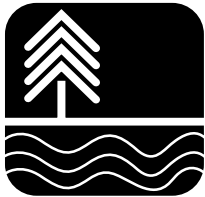
**3. SIGNS SHOULD BE PLACED ALONG THE ROADWAYS, AS APPROPRIATE, TO IDENTIFY PHOTO SITES AND SCENIC TURNOUTS.**

Signing of photo sites and scenic viewpoints adequately notifies travelers of opportunities to view Lake Tahoe. This information will help visitors plan for stops and also will help reduce traffic congestion associated with slow moving vehicles.

**4. TIME LIMITS FOR PARKING AT ROADSIDE TURNOUTS SHOULD BE ESTABLISHED.**

The length of stay at roadside turnouts should be limited depending upon the purpose of the turnout. For viewing and picture-taking purposes, parking should be short-term, as necessary, to minimize the number of parking spaces and provide for quick turnover.

## **OPEN SPACE**



Open space is not a separate land use district but is a descriptive term that distinguishes land areas void of development and reserved for their natural values. Stream zones and forested lands in public ownership often adopt the title of open space. Such distinction is important for identifying land areas necessary to protect a particular resource or to provide a public benefit. On private lands, open space is a generic term that describes the undeveloped portion of lots where impervious coverage is not permitted as determined through the policies of this Plan and its implementing ordinances. Important roles of open space in the Tahoe Basin include preservation of vegetation, maintenance of scenic qualities, and watershed protection. The Compact specifically requires open space to be included within the Agency's Conservation Plan.

## **GOAL #1**

### **MANAGE AREAS OF OPEN SPACE TO PROMOTE CONSERVATION OF VEGETATION AND PROTECTION OF WATERSHEDS.**

Achieving this goal requires that open space be managed for its appropriate resource value or function so that vegetation preservation and water quality thresholds can be met.

## **POLICIES**

**1. MANAGEMENT PRACTICES IN OPEN SPACE THAT PROVIDE FOR THE LONG TERM HEALTH AND PROTECTION OF THE RESOURCE(S) SHALL BE PERMITTED WHEN CONSISTENT WITH THE OTHER GOALS AND POLICIES OF THIS PLAN.**

Managing open space for its natural qualities and potential will generate numerous benefits related to such valuable resources as water, vegetation, wildlife, soil, and air. Management criteria are set forth by the other goals and policies of this Plan.

**2. THE BENEFICIAL USES OF OPEN SPACE SHALL BE PROTECTED BY REGULATING USES AND RESTRICTING ACCESS AS NECESSARY TO MAINTAIN SOIL PRODUCTIVITY AND ACCEPTABLE VEGETATIVE COVER.**

This policy restricts vehicular access and other intensive uses to those areas of authorized use or existing impervious coverage. Barriers will be required as necessary to prevent additional disturbance to the soil and vegetation resources.

## **STREAM ENVIRONMENT ZONE**



Stream environment zones (SEZs) and related hydrologic zones consist of the natural marsh and meadowlands, watercourses and drainageways, and floodplains which provide surface water conveyance from upland areas into Lake Tahoe and its tributaries. Stream environment zones are determined by the presence of riparian vegetation, alluvial soil, minimum buffer strips, water influence areas, and floodplains. The plant associations of stream environment zones constitute only a small portion of the Basin's total land area, but are perhaps the single most valuable plant communities in terms of their role in providing for wildlife habitat, purification of water, and scenic enjoyment. Protection and restoration of stream environment zones are essential for improving and maintaining the environmental amenities of the Lake Tahoe Basin and for achieving environmental thresholds for water quality, vegetation preservation, and soil conservation.

### **GOAL #1**

#### **PROVIDE FOR THE LONG-TERM PRESERVATION AND RESTORATION OF STREAM ENVIRONMENT ZONES.**

The preservation of SEZs is a means for achieving numerous environmental thresholds. Policies that promote their maintenance, protection, and restoration are listed below.

#### **POLICIES**

- 1. RESTORE ALL DISTURBED STREAM ENVIRONMENT ZONE LANDS IN UNDEVELOPED, UNSUBDIVIDED LANDS, AND RESTORE 25 PERCENT OF THE SEZ LANDS THAT HAVE BEEN DISTURBED, DEVELOPED, OR SUBDIVIDED.**

Many acres of SEZ lands have been modified or disturbed. TRPA shall identify the number of acres to be restored and prepare a list of projects to achieve the environmental threshold carrying capacity for stream environment zones. TRPA shall develop an implementation program to restore the necessary acreage, and establish an annual tracking program. The implementation program shall provide for restoration over a twenty year period, with 90 percent of the acreage to be restored within the first fifteen years.

- 2. SEZ LANDS SHALL BE PROTECTED AND MANAGED FOR THEIR NATURAL VALUES.**

SEZ lands and associated riparian vegetation are scarce in the Basin relative to other plant communities. Because SEZs provide many beneficial functions (especially pertaining to water quality) only forest management practices, stream improvement programs, and habitat restoration projects are permissible uses.

- 3. GROUNDWATER DEVELOPMENT IN SEZ LANDS SHALL BE DISCOURAGED WHEN SUCH DEVELOPMENT COULD POSSIBLY IMPACT ASSOCIATED PLANT COMMUNITIES OR INSTREAM FLOWS.**

Withdrawal of water from SEZ lands may lower surface and ground waters and, by so doing, alter plant composition of the riparian vegetation and reduce instream flows. Groundwater proposals in SEZs and riparian plant communities will be evaluated against those concerns.

**4. GOLF COURSES IN STREAM ENVIRONMENT ZONES SHALL BE ENCOURAGED TO RETROFIT COURSE DESIGN IN COMBINATION WITH FERTILIZER APPLICATION STANDARDS (SEE WATER QUALITY SUBELEMENT, GOAL #1, POLICY 5) TO PREVENT RELEASE OF NUTRIENTS TO ADJOINING GROUND AND SURFACE WATERS.**

A combination of strategies to include fertilizer application standards and course redesign may be necessary to control off-site nutrient release from golf course fairways and greens.

**5. NO NEW LAND COVERAGE OR OTHER PERMANENT LAND DISTURBANCE SHALL BE PERMITTED IN STREAM ENVIRONMENT ZONES EXCEPT FOR THOSE USES AS NOTED IN A, B, C, D, AND E BELOW:**

A. Public outdoor recreation facilities are permissible uses in stream environment zones if:

- (1) The project is a necessary part of a public agency's long range plans for public outdoor recreation;
- (2) The project is consistent with the recreation element of the regional plan;
- (3) The project, by its very nature, must be sited in a stream environment zone;
- (4) There is no feasible alternative which would reduce the extent of encroachment in stream environment zones;
- (5) The impacts are fully mitigated;
- (6) Stream environment zone lands are restored in the amount of 1.5 times the area of stream environment zone which is disturbed or developed by the project.

To the fullest extent possible, recreation facilities must be sited outside of stream environment zones. Some recreation facilities, such as river access points or stream crossings for hiking trails, by their very nature require some encroachment of stream environment zones. However, the six-part test established by this policy allows encroachment of SEZs where such encroachment is essential for public outdoor recreation and precautions are taken to ensure that stream environment zones are protected to the fullest extent possible. The restoration requirements of this policy can be accomplished on-site or off-site, and shall be in lieu of any coverage transfer or coverage mitigation provisions elsewhere in this Plan.

B. Public service facilities are permissible uses in stream environment zones if:

- (1) The project is necessary for public health, safety, or environmental protection;
- (2) There is no reasonable alternative, including spans, which avoids or reduces the extent of encroachment in stream environment zones;

- (3) The impacts are fully mitigated; and
- (4) Stream environment zone lands are restored in the amount of 1.5 times the area of stream environment zone which is disturbed or developed by the project.

Development within stream environment zones is not consistent with the goal of managing stream environment zones for their natural qualities and shall generally be prohibited except under extraordinary circumstances involving public works. Each circumstance shall be evaluated based on the conditions of this policy. The restoration requirements of this policy can be accomplished on-site or off-site, and shall be in lieu of any coverage transfer or coverage mitigation provisions elsewhere in this Plan.

C. Projects which require access across stream environment zones to otherwise buildable sites are permissible in SEZs if:

- (1) There is no reasonable alternative, which avoids or reduces the extent of encroachment in the SEZ;
- (2) The impacts are fully mitigated; and
- (3) SEZ lands are restored in the amount of 1.5 times the area of stream environment zone which is disturbed or developed by the project.

The restoration requirements can be accomplished on-site or off-site, and shall be in lieu of any coverage transfer or coverage mitigation provisions elsewhere in this Plan.

D. New development may be permitted in man-modified stream environment zones where:

- (1) The area no longer exhibits the characteristics of a stream environment zone;
- (2) Further development will not exacerbate the problems caused by development in stream environment zones;
- (3) Restoration is infeasible; and
- (4) Mitigation is provided to at least partially offset the losses which were caused by modification of the stream environment zones.

E. Stream environment zone restoration projects and erosion control projects.

**6. REPLACEMENT OF EXISTING COVERAGE IN STREAM ENVIRONMENT ZONES MAY BE PERMITTED WHERE THE PROJECT WILL REDUCE IMPACTS ON STREAM ENVIRONMENT ZONES AND WILL NOT IMPEDE RESTORATION EFFORTS.**

Existing structures in stream environment zones may be repaired or rebuilt. Minor reconstruction may be permitted so long as drainage improvements, protection of the stream environment zone from disturbances, or other measures are carried out which provide a net benefit to the area's capacity to serve as a naturally-functioning stream environment zone. Major reconstruction or replacement may also be permitted if there is a net benefit to the stream environment zone and if the replacement or reconstruction is consistent with stream environment zone restoration programs (see Policy 1).



**7. THE PROCEDURES FOR STREAM ENVIRONMENT ZONE IDENTIFICATION SHALL BE UPDATED.**

The Handbook of Best Management Practices establishes a procedure for delineating stream environment and related hydrologic zones. This procedure shall be reviewed and revised pursuant to the recommendations of the Individual Parcel Evaluation technical team. These revisions shall become effective on January 1, 1989. This review and update of The Handbook of Best Management Practices shall include consideration of the procedures to be followed for artificial drainageways and man-modified stream environment zones.

## **CULTURAL**



The Tahoe Basin has a rich historical background that began prior to the arrival of white settlers. Remnants of Tahoe's past exist in the form of Indian camps, trails, way stations, mansions, and resorts. These and other historical resources often come in conflict with competing interests that threaten their preservation. Tahoe's landmarks are valuable examples of its past and should be appropriately preserved.

### **GOAL #1**

#### **IDENTIFY AND PRESERVE SITES OF HISTORICAL, CULTURAL AND ARCHITECTURAL SIGNIFICANCE WITHIN THE REGION.**

The Tahoe Region has a heritage that should be recognized and appropriately protected. Due to the harsh weather conditions, changing development standards, and changing uses of the Region, many structures that had significant historical or architectural value have been destroyed or lost.

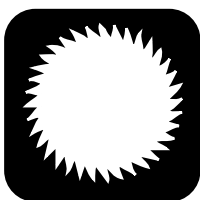
#### **POLICIES**

**1. HISTORICAL OR CULTURALLY SIGNIFICANT LANDMARKS IN THE BASIN SHALL BE IDENTIFIED AND PROTECTED FROM INDISCRIMINATE DAMAGE OR ALTERATION.**

The Agency will establish a list of significant historical, architectural, and archaeological sites within the Region. Special review criteria will be established to protect such designated sites in cooperation with local governments.

**2. SITES AND STRUCTURES DESIGNATED AS HISTORICALLY, CULTURALLY, OR ARCHAEOLOGICALLY SIGNIFICANT SHALL BE GIVEN SPECIAL INCENTIVES AND EXEMPTIONS TO PROMOTE THE PRESERVATION AND RESTORATION OF SUCH STRUCTURES AND SITES.**

## **ENERGY**



Conservation is important in order to decrease the consumption and cost of our non-renewable energy resources, such as fossil fuels. Development of alternative energy sources also represents a solution to the supply/cost dilemma. Conservation programs and the feasibility of adjusting to alternative energy sources in the Basin need to be assessed.

## **GOAL #1**

### **PROMOTE ENERGY CONSERVATION PROGRAMS AND DEVELOPMENT OF ALTERNATIVE ENERGY SOURCES TO LESSEN DEPENDENCE ON SCARCE AND HIGH-COST ENERGY SUPPLIES.**

There are a number of ways to address the energy issue. Acceptable strategies are those that promote energy conservation while maintaining the natural qualities of the Tahoe Basin.

#### **POLICIES**

**1. ALL NEW DEVELOPMENT SHALL COMPLY WITH STATE AND FEDERAL ENERGY EFFICIENCY STANDARDS.**

Incorporation of energy efficiency standards in building design is a conservation strategy for reducing energy consumption and costs. Innovative techniques of reducing home and business energy needs should be encouraged.

**2. A COORDINATED PROGRAM TO ENCOURAGE RECYCLING OF WASTE PRODUCTS SHOULD BE DEVELOPED.**

Reusable waste products such as newspaper and aluminum cans should be targeted for recycling by providing a coordinated program of collection.

**3. DEVELOPMENT OF ALTERNATIVE ENERGY SOURCES SHOULD BE ENCOURAGED WHEN SUCH DEVELOPMENT IS BOTH TECHNOLOGICALLY AND ENVIRONMENTALLY FEASIBLE.**

A variety of techniques for providing alternative energy sources are both technologically and economically feasible. Environmentally acceptable techniques should be allowed whenever desirable.

**4. ENVIRONMENTAL IMPACTS TO THE FISHERY, INSTREAM FLOWS, AND SCENIC QUALITY OF ALL PROPOSED HYDROELECTRIC PROJECT SITES SHALL BE CONSIDERED TOGETHER WITH OTHER ENVIRONMENTAL CONSIDERATIONS.**

Dams and other water diversion facilities possibly pose the greatest single impact to the stream fishery. Project proposals must consider the impact on the resident and migratory fishery and adequately mitigate all significant adverse impacts.

**5. INCORPORATE POLICIES 4 AND 5 OF GOAL #11, POLICIES 2, 3, 4, 7, and 8 OF GOAL #2, AND POLICIES 1, 5, 7, 8, AND 9 OF GOAL #4 OF THE AIR QUALITY SUBELEMENT AS ENERGY SAVING MEASURES.**

These policies complement goals to improve the Basin's air quality and to reduce local consumption of energy.

# RECREATION ELEMENT



Dispersed Recreation



Developed Recreation



Urban Recreation



# CHAPTER V

## RECREATION ELEMENT

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The Recreation Element of the Regional Plan provides for the development, utilization, and management of the recreational resources of the Region, among which include wilderness and forested lands, parks, riding and hiking trails, beaches, playgrounds, marinas, skiing areas, and other recreational facilities. Specific activities occur as a part of the recreational opportunity provided within the Lake Tahoe Basin. While many activities may take place in dispersed areas without benefit of constructed facilities, other activities require the use of developed facilities. Dispersed recreational activities include hiking, riding, cross country skiing, and back country camping. Developed recreational facilities includes such facilities as campgrounds, visitor information centers, boat launching and marina facilities, and downhill ski areas. Urban recreation includes such facilities as day use areas, recreation centers, and golf courses, participant sports facilities and sport assembly. Urban recreation is normally provided in urban areas and is primarily intended to serve local needs. Dispersed recreation use normally takes place in the rural portions of the Basin while developed recreation is provided in both rural and urban settings.

Policy direction for recreational development in the Lake Tahoe Basin is provided, in part, by policy statements adopted as environmental thresholds by the TRPA Governing Board:

### **POLICY STATEMENT**

***It shall be the policy of the TRPA Governing Body in development of the Regional Plan to preserve and enhance the high quality recreational experience including preservation of high-quality undeveloped shorezone and other natural areas. In developing the Regional Plan, the staff and Governing Body shall consider provisions for additional access, where lawful and feasible, to the shorezone and high quality undeveloped areas for low density recreational uses.***

***It shall be the policy of the TRPA Governing Body in development of the Regional Plan to establish and ensure a fair share of the total Basin capacity for outdoor recreation is available to the general public.***

The three Subelements considered under Recreation are Dispersed Recreation, Developed Recreation, and Urban Recreation. Together, the goals and policies of these Subelements are expected to achieve the intent of the thresholds over the life of the Plan by ensuring that recreational opportunities keep pace with public demand, that recreational facilities remain high on the development priority list, and that the quality of the outdoor recreational experience will be maintained.

### **DISPERSED RECREATION**

The varied natural landscape features of the Tahoe Basin provide excellent opportunities for dispersed forms of recreation that require little or no developed facilities. The value or quality of a particular activity depends on preserving the

attractiveness of the use areas and managing the resource base to be consistent with its environmental capabilities.

## **GOAL #1**

### **ENCOURAGE OPPORTUNITIES FOR DISPERSED RECREATION WHEN CONSISTENT WITH ENVIRONMENTAL VALUES AND PROTECTION OF THE NATURAL RESOURCES.**

Dispersed recreation involves such activities as hiking, jogging, primitive camping, nature study, fishing, cross country skiing, rafting/kayaking, and swimming. All these activities require a quality resource base and some degree of solitude. Achieving this goal will require commitments to develop support facilities and provide access such as trails, trailheads, restrooms in heavily used areas, and some hardening to protect the land.

## **POLICIES**

**1. LOW DENSITY RECREATIONAL EXPERIENCES SHALL BE PROVIDED ALONG UNDEVELOPED SHORELINES AND OTHER NATURAL AREAS, CONSISTENT WITH THE TOLERANCE CAPABILITIES AND CHARACTER OF SUCH AREAS.**

Consistent with attainment and maintenance of environmental thresholds, use and access to undeveloped publicly owned segments of Lake Tahoe's shoreline, such as the U. S. Forest Service beaches in Carson and Washoe Counties, can be increased by providing or utilizing transportation systems such as buses, shuttles, and parking and pull-out facilities which link to trail systems along the public owned portions of the shoreline. The establishment of trails and transportation facilities must be compatible with the tolerance capability and special resource and recreation values of the planning area. In some instances, it may be desirable to decrease the use in areas where those values are threatened.

**2. AREAS SELECTED FOR NATURE STUDY AND WILDLIFE OBSERVATION SHALL BE APPROPRIATELY REGULATED TO PREVENT UNACCEPTABLE DISTURBANCE OF THE HABITAT AND WILDLIFE.**

To prevent losing resource areas for study or observation, of attraction by disturbances that would either directly or indirectly impact the habitat or influence the behavior of the wildlife shall be limited. Controls might include observation boundaries, limits on the number of users, or total exclusion.

**3. TRAIL SYSTEMS FOR HIKING AND HORSEBACK RIDING SHALL BE EXPANDED TO ACCOMMODATE PROJECTED DEMANDS AND PROVIDE A LINK WITH MAJOR REGIONAL OR INTERSTATE TRAILS.**

Local and regional surveys suggest that additional trails may be necessary to satisfy public demand. New trail construction for purposes of hiking, horseback riding, and walking shall be allowed throughout the Lake Tahoe Basin in planning areas where there is allowable land coverage and base facilities. Trails will be accommodated in areas of excess coverage through a coverage replacement program.

**4. EXISTING TRAILS THAT ARE EITHER UNDERUTILIZED OR LOCATED IN ENVIRONMENTALLY SENSITIVE AREAS SHALL BE RELOCATED TO ENHANCE THEIR USE AND TO PROTECT NATURAL RESOURCES.**

Trails that adversely impact a valuable resource or aggravate other environmental concerns should be either redesigned to mitigate impacts or relocated. Trails that are underutilized or not maintained should be appropriately restored to a natural state.

**5. OFF-ROAD VEHICLE USE IS PROHIBITED IN THE LAKE TAHOE BASIN EXCEPT ON SPECIFIED ROADS, TRAILS, OR DESIGNATED AREAS WHERE THE IMPACTS CAN BE MITIGATED.**

Off-road vehicles are creating erosion and trailhead road maintenance problems throughout the Basin. This policy would prohibit the use of motorized vehicles in areas other than those designated for such use. Areas for this form of recreation shall be determined in cooperation with off-road vehicle clubs, the U. S. Forest Service, county and state governments, and this Agency. Continued use of designated areas will depend on compliance with this policy and the ability to mitigate significant impacts.

**GOAL #2**

**PROVIDE HIGH-QUALITY RECREATIONAL OPPORTUNITIES.**

Numerous opportunities exist in the Tahoe Basin to provide varied and quality recreational experiences. High-quality recreational opportunities often depend on limiting conflicts between uses and ensuring that uses are compatible with affected resources.

**POLICIES**

**1. WILDERNESS AND OTHER UNDEVELOPED AND UNROADED AREAS SHALL BE MANAGED FOR LOW-DENSITY USE.**

Natural areas with limited road access are ideal for dispersed recreational activities keyed to solitude and appreciation of wilderness values. Such areas offer unique qualities best suited to such activities as primitive camping, hiking, fishing, and nature study.

**2. SEPARATE USE AREAS SHALL BE ESTABLISHED FOR THE DISPERSED WINTER ACTIVITIES OF SNOWMOBILING, CROSS-COUNTRY SKIING AND SNOWSHOEING WHEN CONFLICTS OF USE EXIST.**

Conflicts of interest and competition for limited resources can detract from the recreational experience. The most vivid example of such a conflict involves the simultaneous use of snow-covered meadows by both cross country skiers and snowmobiles. This policy will establish separate use zones as a strategy to minimize conflicts.

**3. NEARSHORE/FORESHORE STRUCTURES SHOULD BE APPROPRIATELY LOCATED TO MINIMIZE IMPACTS TO RECREATIONAL BOATING AND TOP LINE FISHING.**

Excellent recreational fishing is possible in the nearshore of Lake Tahoe. Fish concentrate in this zone due to favorable habitat conditions. To the extent feasible, buoys and other nearshore structures in areas of prime fish habitats should be located to provide for safe navigation through this zone.

## **DEVELOPED RECREATION**

The Tahoe Basin is a recreation destination for many outdoor enthusiasts. Developed facilities attracting visitors to the Basin include marina/launch facilities, five ski areas, 21 campgrounds with more than 2,000 sites, several group facilities, one visitor information center, and beaches. Campground and boat launching facilities are at capacity during a major portion of the summer season. Surveys of areawide recreation demand and existing use demonstrate the need for more campgrounds, boat launching facilities and beach areas. Based on criteria of the California Department of State Parks and Recreation and U. S. Forest Service, the use of the existing facilities warrants expansion of facilities to prevent deterioration of the quality of experience and to prevent resource damage.

### **GOAL #1**

#### **PROVIDE A FAIR SHARE OF THE TOTAL BASIN CAPACITY FOR OUTDOOR RECREATION.**

This goal addresses the need to reserve capacity for recreation-oriented types of development. Capacity will be reserved in terms of water supply, land coverage, and air and water quality. Public roads and transportation systems shall be managed to provide service to outdoor recreation areas.

### **POLICIES**

**1. ALL EXISTING RESERVATIONS OF SERVICES FOR OUTDOOR RECREATION SHALL CONTINUE TO BE COMMITTED FOR SUCH PURPOSES.**

The purpose of this policy is to recognize existing reserve commitments for outdoor recreation, such as the reservation of sewage capacity by the U. S. Forest Service, and to ensure such commitments are not lost or diverted to interests other than recreation.

**2. WHEN REVIEWING PROJECTS THAT COMMIT SIGNIFICANT RESOURCES OR SERVICES TO NON-OUTDOOR RECREATIONAL USES, TRPA SHALL BE REQUIRED TO MAKE WRITTEN FINDINGS THAT SUFFICIENT RESOURCE CAPACITY REMAINS TO OBTAIN THE RECREATION GOALS AND POLICIES OF THIS PLAN.**

Based on estimated recreational development permitted by this Plan, the Agency shall specify "fair share" estimates for the Region and for local areas of critical services and resources. No non-recreational projects may be approved that would rely on the utilization of such reserved capacities.

**3. PROVISIONS SHALL BE MADE FOR ADDITIONAL DEVELOPED OUTDOOR RECREATION FACILITIES CAPABLE OF ACCOMMODATING 6,114 PAOT IN OVERNIGHT FACILITIES AND 6,761 PAOT IN SUMMER DAY USE FACILITIES AND 12,400 PAOT IN WINTER DAY-USE FACILITIES.**

To assure that the fair share of remaining capacity is allocated to outdoor recreation, agencies that have responsibility for such facilities and activities have collectively estimated the opportunities and needs as reflected in the policy. Ability to build depends on availability of public funds or the willingness of private investors. Therefore, scheduling is not possible for this Plan. It is estimated that 11 percent of the capacity may be developed in the first 5 to 10 years.



## **GOAL #2**

### **PROVIDE FOR THE APPROPRIATE TYPE, LOCATION, AND RATE OF DEVELOPMENT OF OUTDOOR RECREATIONAL USES.**

The appropriate type of outdoor recreational development should depend on demonstrated need. The rate of development should be responsive to demand. The location of facilities should be responsive to both environmental concerns and site amenities.

#### **POLICIES**

**1. EXPANSION OF RECREATIONAL FACILITIES AND OPPORTUNITIES SHOULD BE IN RESPONSE TO DEMAND.**

This strategy provides for expansion of existing recreational facilities and opportunity for development of new facilities if they meet environmental thresholds. Opportunity may be expanded to respond to public need if physical resources are available and traffic mitigation measures can be implemented.

**2. BIKE TRAILS SHALL BE EXPANDED TO PROVIDE ALTERNATIVES FOR TRAVEL IN CONJUNCTION WITH TRANSPORTATION SYSTEMS.**

This strategy would encourage construction of additional trail systems for bicycling. Emphasis would be on expansion near urban areas to help establish alternative modes of travel to help reduce vehicle miles of travel.

**3. PUBLIC BOAT LAUNCHING FACILITIES SHALL BE EXPANDED, WHERE APPROPRIATE, AND WHEN CONSISTENT WITH ENVIRONMENTAL CONSTRAINTS.**

There is a need for additional boat launching capacity on Lake Tahoe. This policy would encourage expansion of existing facilities or conversion of private facilities to allow public use. Incentives for redevelopment or conversion of existing facilities to provide expansion of public use will be provided in areas where these opportunities exist.

**4. PRIVATE MARINAS SHALL BE ENCOURAGED TO PROVIDE PUBLIC BOAT LAUNCHING FACILITIES.**

This policy would increase boat access to Lake Tahoe by encouraging marina facilities to provide public launching facilities, where practical, and provide incentives to those facilities which improve or provide such services.

**5. NEW CAMPGROUND FACILITIES SHALL BE LOCATED IN AREAS OF SUITABLE LAND CAPABILITY AND IN PROXIMITY TO THE NECESSARY INFRASTRUCTURE.**

This strategy would promote the siting of new campgrounds where the least environmental impact can be expected and where the necessary roads and services are easily accessible. Actual site selection will be guided by the policies of this Plan and the other plans of federal and state agencies.

**6. EXISTING RECREATIONAL FACILITIES IN SOME SENSITIVE AREAS, EXCEPT THOSE THAT ARE SLOPE DEPENDENT SUCH AS DOWNHILL SKIING, SHALL BE ENCOURAGED, THROUGH INCENTIVES, TO RELOCATE TO HIGHER CAPABILITY LANDS.**

This strategy would allow all existing recreational facilities located in insensitive areas (Land Capability Districts 1a, 1b, 1c, 2, and 3) to relocate in better capability areas. This action is intended to reduce coverage on sensitive lands and eliminate associated impacts.

**7. DEVELOPMENT OF DAY-USE FACILITIES SHALL BE ENCOURAGED IN OR NEAR ESTABLISHED URBAN AREAS, WHENEVER PRACTICAL.**

Day-use facilities are generally in high demand close to urban areas. The proximity to urban services provides the user with nearby conveniences such as stores and overnight accommodations. Residents also are able to take advantage of these day-use facilities without travelling excessive distances from their homes. This policy would encourage the siting of additional day-use facilities near population centers or where the particular use or service is best suited.

**8. VISITOR INFORMATION FACILITIES SHALL BE LOCATED, TO THE EXTENT FEASIBLE, NEAR ENTRY POINTS TO THE BASIN OR CLOSE TO URBAN AREAS.**

These facilities provide a valuable service to the general public through the exchange of information and by providing travelers with directions to major attractions. The siting of these facilities should complement objectives to reduce the vehicle miles of travel in the Basin.

**9. PARKING ALONG SCENIC CORRIDORS SHALL BE RESTRICTED TO PROTECT ROADWAY VIEWS AND ROADSIDE VEGETATION.**

This policy would reduce roadside parking by providing off-road parking "satellites" in conjunction with roadside barriers.

**10. TRANSIT OPERATIONS, INCLUDING SHUTTLE-TYPE BOAT SERVICE, SHOULD SERVE MAJOR RECREATION FACILITIES AND ATTRACTIONS.**

Vehicle trips related to the use of recreation areas or facilities can be mitigated by the use of transit systems. In some areas, the availability of parking is the limiting factor to recreational use of the area. Transit service could allow more people to utilize existing areas without expanding of auto parking or increasing vehicle trips. Decreased auto use in many areas would enhance the recreational experience.

**11. EXPANSION OF EXISTING SKI FACILITIES MAY BE PERMITTED BASED ON A MASTER PLAN FOR THE ENTIRE SKI AREA. THE PLAN MUST DEMONSTRATE (1) CONSISTENCY WITH THE OTHER GOALS AND POLICIES OF THIS PLAN AND THE REQUIREMENTS OF THE COMPACT, (2) THAT THE EXPANSION IS CONSISTENT WITH THE AVAILABILITY OF ACCOMMODATIONS AND INFRASTRUCTURES TO SUPPORT VISITORS WHEN THEY ARE OFF THE SKI AREA, AND (3) EXPANSION OF EXISTING PARKING FACILITIES FOR DAY USE DOES NOT OCCUR.**

The Lake Tahoe Region excels in snow and topographic conditions for alpine skiing. Existing tourist accommodations can adequately support large numbers of destination skiers. Also in place is a transportation network that is being expanded and improved to handle the large summer time population. This transportation system also could be managed to accommodate wintertime use in the Basin. Development of recreation opportunities emphasizing winter sport activities can, therefore, improve the year-round efficiency of both the transportation system and tourist accommodations. However, alpine skiing does

impact large areas of low capability land. Often the areas include oversteepened slopes, fragile soils, sparse vegetation, and stream environment zones. In addition, day use skiers, in particular, contribute significantly to local and areawide traffic congestion. Plans to increase skiing capacity would therefore require careful consideration of on-site impacts as well as off-site impacts on transportation systems.

All ski area expansion will be evaluated based on a master plan which, at a minimum, includes consideration of each item listed in the policy. The master plan will assist in designing the most efficient operation with the least environmental disturbance, and will direct phased development where it is appropriate. Since automobile access to and parking at ski area base facilities has been the source of many problems, new facilities should be planned to avoid these problems. Enlargement or construction of new facilities to provide shelter, sanitation, food service, and first aid would be permitted to serve skiers on the mountain, but enlarged parking lots would not be permitted.

Although there are numerous undeveloped areas suitable for skiing, a finding has been made that expansion of existing areas within and adjacent to the Basin can meet future demand. This would not preclude construction of satellite parking provided it is part of the transportation facilities otherwise provided for in this Plan.

### **GOAL #3**

#### **PROTECT NATURAL RESOURCES FROM OVERUSE AND RECTIFY INCOMPATIBILITY BETWEEN USES.**

Overcrowding of facilities or areas can lead to the deterioration of the recreation resource and recreational experience. In the same manner, the quality of the recreational experience can be affected by conflicting uses within the same area. Strategies that address these issues are listed below.

#### **POLICIES**

**1. RECREATION DEVELOPMENT IN THE TAHOE BASIN SHALL BE CONSISTENT WITH THE SPECIAL RESOURCES OF THE AREA.**

The physical and biological characteristics of the Tahoe Basin combine to create a unique variety of recreational opportunities. These qualities define the types of recreational activities that are compatible with the Basin's natural features. Those activities that can best be served elsewhere or which are incompatible with the Basin's natural qualities should be avoided.

**2. REGULATE INTENSITY, TIMING, TYPE, AND LOCATION OF USE TO PROTECT RESOURCES AND SEPARATE INCOMPATIBLE USES.**

This policy would regulate the intensity and type of recreation use in specific locations. Regulations will be adopted and enforced dealing with the types of use and numbers of people at one time permitted for various activities. Timing of permitted uses would be closely regulated to avoid conflict with other resources required by fish, wildlife, and vegetation. Incompatible activities between visitors would be separated by establishing use areas for dispersed recreation separate from developed recreation areas. This strategy would examine overall demand and planned capacity and determine site specific areas within the Basin for the various demands to be met.

## **GOAL #4**

### **PROVIDE FOR THE EFFICIENT USE OF OUTDOOR RECREATION RESOURCES.**

Some recreation attractions in the Basin, such as ski areas, beaches, campgrounds, and picnic areas, experience wide fluctuations in seasonal and weekday use. This goal would attempt to promote a more balanced use of certain facilities and sites on a year-round and weekly basis.

#### **POLICIES**

- 1. PROMOTE THE USE OF UNDERUTILIZED RECREATION AREAS THROUGH PROGRAMS THAT IMPROVE THE PUBLIC AWARENESS OF RECREATION OPPORTUNITIES AND THROUGH AN EXPANDED WATER AND INLAND TRANSIT SYSTEM.**

Visitor centers and other public information sources can help inform visitors of the recreation opportunities in the Region and regular transit service can help facilitate the use of lesser known or accessible sites.

- 2. SEASONAL FACILITIES SHOULD PROVIDE OPPORTUNITIES FOR ALTERNATIVE USES IN THE OFF-SEASON, WHEREVER APPROPRIATE.**

Seasonal facilities tend to be busy only during a particular time of year. Ski areas, for example, are busy in the winter, but much of the associated infrastructure is idle and unused during the summer. This policy would attempt to buffer the variations in use by permitting alternative uses of the facilities during the off-season.

## **URBAN RECREATION**

Numerous outdoor recreational opportunities are conveniently located near urban areas. High-demand facilities include participant sports facilities and day-use facilities such as picnic areas, parks, and recreation centers. The demand for such public facilities must be anticipated in order to reserve sufficient capacity for future expansion or development.

## **GOAL #1**

### **PROVIDE SUFFICIENT CAPACITY FOR LOCAL-ORIENTED FORMS OF OUTDOOR AND INDOOR RECREATION IN URBAN AREAS.**

The Tahoe Basin has an abundance of recreational facilities that would more than accommodate the needs of local residents. However, these facilities are more regional in nature and cater to the visitors. The specialized recreational needs of the Tahoe resident need to be considered apart from the more general demands of the tourist.

#### **POLICIES**

- 1. RESERVE SUFFICIENT PUBLIC SERVICE AND FACILITY CAPACITY TO ACCOMMODATE ALL FORMS OF URBAN RECREATION.**

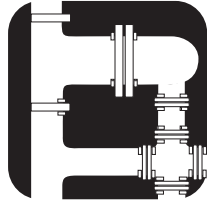
Urban-oriented types of recreation facilities require space and services much like any other developed facility. Areas that are suitable for these specialized facilities need to be identified, appropriately acquired, and managed by local government or service districts. The demand for such forms of recreation must be determined by local residents and local government.

**2. URBAN OUTDOOR RECREATIONAL FACILITIES LOCATED IN SENSITIVE AREAS SHOULD BE ENCOURAGED TO RELOCATE TO OTHER SUITABLE SITES.**

This strategy would provide incentives to relocate existing facilities outside sensitive areas such as Land Capability Districts 1a, 1b, 1c, 2, and 3.



# PUBLIC SERVICE ELEMENT



Public Service & Facilities

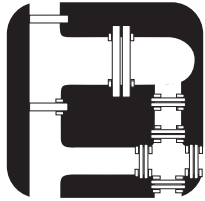




# CHAPTER VI

## PUBLIC SERVICES AND FACILITIES ELEMENT

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Existing residential, tourist, commercial, and other development in the Tahoe Region requires supporting infrastructure including water, sewer, and public health and safety programs. Additional development permitted under this Plan creates the need for additional services. The Regional Plan must provide for an adequate level of public services and facilities consistent with the environmental thresholds and the other elements of the Plan.

Under Article (V)(C)(1) of the Tahoe Regional Planning Compact, the Regional Plan must establish the location and scale, and means of providing the necessary services and public facilities.

### **GOAL #1**

**PUBLIC SERVICES AND FACILITIES SHOULD BE ALLOWED TO UPGRADE AND EXPAND TO SUPPORT EXISTING AND NEW DEVELOPMENT CONSISTENT WITH THE REGIONAL PLAN.**

The intent of the Regional Plan is neither to stimulate nor to hinder development through the provision of public services and facilities. Rather, the Plan attempts to provide for supportive public services and facilities consistent with the development anticipated under the Plan.

### **POLICIES**

- 1. PUBLIC SERVICES AND FACILITIES SHOULD BE ALLOWED TO UPGRADE AND EXPAND CONSISTENT WITH THE LAND USE ELEMENT OF THE REGIONAL PLAN AND FEDERAL, STATE, AND LOCAL STANDARDS.**

The environmental impact statement for this Plan identifies possible shortages of public services. The major shortfall is in sewage treatment in the service area of the South Tahoe Public Utility District, which is already very close to its capacity. Such facilities should be expanded, with due consideration of Policy 2, below.

- 2. EXPANSION OF PUBLIC SERVICES AND FACILITIES SHOULD BE PHASED IN TO MEET THE NEEDS OF NEW DEVELOPMENT WITHOUT CREATING INEFFICIENCIES FROM OVEREXPANSION OR UNDER-EXPANSION.**

The Regional Plan provides for periodic evaluations of the capital improvements plan and attainment of environmental thresholds. These evaluations may lead to adjustments in the development management system which could affect the need for, and the timing of, expansion of public services and facilities. For this reason, prudent staging or phasing of expansion programs should be employed to minimize the risk of errors in sizing.

- 3. ALL NEW DEVELOPMENT SHALL EMPLOY APPROPRIATE DEVICES TO CONSERVE WATER AND REDUCE WATER CONSUMPTION. EXISTING DEVELOPMENT SHALL BE RETROFITTED WITH WATER CONSERVATION DEVICES ON A VOLUNTARY BASIS IN CONJUNCTION WITH A PUBLIC EDUCATION PROGRAM OPERATED BY THE UTILITY DISTRICTS.**

Water conservation will be necessary to comply with the limits of the California-Nevada Compact (1969). The ability of the water purveyors in the Region to provide adequate water for domestic and other uses depends on water conservation programs. Coordination involving water issues should be pursuant to local, state, and federal law.

## **GOAL #2**

### **CONSIDER THE EXISTENCE OF ADEQUATE AND RELIABLE PUBLIC SERVICES AND FACILITIES IN APPROVING NEW DEVELOPMENT UNDER THE PLAN.**

To prevent the over-burdening of public services and facilities, all new development approvals consistent with the development priorities and the planning area statements also should consider the adequacy of services and facilities. It also will be necessary to monitor the ability of utility districts and other entities to provide public services and facilities.

#### **POLICIES**

- 1. NO ADDITIONAL DEVELOPMENT REQUIRING WATER SHOULD BE ALLOWED IN ANY AREA UNLESS IT CAN BE DEMONSTRATED THAT THERE IS ADEQUATE WATER SUPPLY WITHIN AN EXISTING WATER RIGHT.**

This policy is necessary to prevent conflicts from arising between approved development and state water law. Conditional approvals may be appropriate in situations where the existence of a water right is uncertain.

- 2. TRPA, WATER PURVEYORS, AND THE STATES SHOULD MONITOR THE USE OF WATER WITHIN THE TAHOE REGION AND EVALUATE CONFORMANCE WITH CALIFORNIA-NEVADA COMPACT (1969) WHICH ADDRESSES WATER DIVERSIONS IN THE BASIN.**

It will be impossible to assess compliance with the California-Nevada Compact without a regular monitoring program. Such a program should be a cooperative venture of TRPA, the states, and the water purveyors.

- 3. NO ADDITIONAL DEVELOPMENT REQUIRING WATER SHALL BE ALLOWED IN ANY AREA UNLESS THERE EXISTS ADEQUATE STORAGE AND DISTRIBUTION SYSTEMS TO DELIVER AN ADEQUATE QUANTITY AND QUALITY OF WATER FOR DOMESTIC CONSUMPTION AND FIRE PROTECTION.**

The simple existence of a water supply does not, by itself, guarantee the ability of the water purveyor to deliver adequate quantities of good quality water for domestic consumption and fire protection. These aspects are most commonly a function of system design, involving the distribution and storage of water. System design should take into account peak demands and necessary fire flows, pursuant to local, state, federal and utility district standards or Agency standards where no other standards apply.

### **GOAL #3**

#### **PREVENT LIQUID AND SOLID WASTES FROM DEGRADING LAKE TAHOE AND THE SURFACE AND GROUNDWATERS OF THE REGION.**

Although this goal pertains to many of the policies included in the Water Quality Subelement, it also applies to the provision of public services and facilities.

#### **POLICIES**

- 1. THE DISCHARGE OF MUNICIPAL OR INDUSTRIAL WASTEWATERS TO THE SURFACE AND GROUNDWATERS OF THE TAHOE REGION IS PROHIBITED, EXCEPT FOR EXISTING DEVELOPMENT DISCHARGING WASTEWATERS UNDER A STATE- OR TRPA-APPROVED DISPOSAL PLAN.**

This policy is a reiteration of state laws and existing TRPA policy to prevent the degradation of the water quality of the Region due to sewage discharges. Certain minor facilities already in existence have exemptions from this policy. TRPA will study the feasibility of minor reuse programs within the Region.

- 2. ALL SOLID WASTES SHALL BE EXPORTED FROM THE REGION. CONSOLIDATION AND TRANSFER METHODS SHALL BE DEVELOPED TO ACHIEVE A REDUCTION IN THE VOLUME OF WASTES BEING TRANSPORTED TO LANDFILLS.**

Because of their potentially harmful effects on water quality, solid wastes should be exported from the Region. To minimize the impacts of the requirement on air quality, a reduction in the volume of wastes should be achieved to bring about a corresponding reduction in the vehicle miles travelled by the export vehicles.

- 3. GARBAGE PICK-UP SERVICE SHALL BE MANDATORY THROUGHOUT THE REGION, AND WILL BE SO STRUCTURED AS TO ENCOURAGE CLEAN-UPS AND RECYCLING.**

Because of the fragile environment of the Tahoe Region, certain waste disposal practices may be required to ensure the maintenance of air quality, water quality, and scenic values. Waste disposal programs should be reviewed by local governments (e.g., TBAG) to provide incentives and remove disincentives for clean-up programs, composting, and recycling.

### **GOAL #4**

#### **TO ENSURE PROTECTION OF THE PUBLIC HEALTH, SAFETY AND GENERAL WELFARE OF THE REGION, EDUCATIONAL AND PUBLIC SAFETY SERVICES SHOULD BE SIZED TO BE CONSISTENT WITH PROJECTED GROWTH LEVELS IN THIS PLAN.**

The Regional Plan will encourage educational and public safety services including police, fire, educational and health services to provide for protection of the public health safety and welfare. TRPA will coordinate programs with appropriate local, state and federal agencies to ensure that the planned growth will also be consistent with the ability to provide these services.

## **POLICIES**

- 1. THE IMPACT ON EDUCATIONAL AND PUBLIC SAFETY SERVICES SHALL BE CONSIDERED WHEN REVIEWING PROJECTS AND PLAN AMENDMENTS PROPOSED WITHIN THE REGION. TO THE EXTENT FEASIBLE, ADVERSE IMPACTS SHOULD BE MITIGATED AS PART OF THE REVIEW PROCESS.**

TRPA shall attempt to coordinate a regionwide review process that will include the above considerations. Except for environmentally related impacts, TRPA intends to rely on local, state and federal agencies of expertise to insure implementation of this policy.

- 2. EDUCATIONAL AND EMERGENCY SERVICE ORGANIZATIONS SHOULD ANTICIPATE AND PLAN FOR PROJECTED DEMANDS AND NEEDS CONSISTENT WITH THE REGIONAL PLAN AND ARE ENCOURAGED TO ADVISE THE AGENCY WHEN DEVELOPMENT POTENTIALS EXCEED CURRENT OR ANTICIPATED SERVICE CAPABILITIES OR CAPACITIES.**

TRPA and other relevant agencies will coordinate with social service agencies to help identify future demands and needs anticipated with implementation of the Plan. That information will be used to identify possible deficiencies and to develop appropriate strategies to maintain an acceptable level of service.

# IMPLEMENTATION ELEMENT



Institutional



Development and  
Implementation Priorities



Financing



Monitoring and Evaluation



# CHAPTER VII

## IMPLEMENTATION ELEMENT

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The Implementation Element provides for commitment and coordination of effort, development of management and financial programs, and incorporation of a monitoring program to measure progress of Plan implementation. It is also a function of this Element to indicate a schedule for attaining environmental thresholds consistent with the programs, strategies, and costs specified by the goals and policies of this Plan. The Subelements are: 1) Institutional, 2) Development and Implementation Priorities, 3) Financing, and 4) Monitoring and Evaluation.

### **INSTITUTIONAL**



The institutional responsibilities of Plan development and implementation are shared among numerous agencies and individuals. This Subelement establishes a framework for the coordination, responsibilities, and commitments necessary to implement the goals and policies of the Plan. A consensus is sought as to who will conduct planning, design, contracting, cost sharing, and evaluation.

### **GOAL #1**

#### **COORDINATE ALL PLANNING AND DEVELOPMENT REVIEW ACTIVITIES WITH THE AFFECTED JURISDICTIONS AND AGENCIES.**

Implementation of the Regional Plan follows two broad approaches. The approaches range from the TRPA establishing and enforcing regulatory standards to TRPA establishing regional regulations to be carried out by local governments. Successful implementation of the Plan requires coordination of all phases of planning between the affected jurisdictions and the public.

### **POLICIES**

- 1. ALL PROJECTS PROPOSED IN THE REGION [OTHER THAN THOSE TO BE REVIEWED AND APPROVED UNDER THE SPECIAL PROVISIONS OF THE COMPACT RELATING TO GAMING] SHALL OBTAIN THE REVIEW AND APPROVAL OF THE AGENCY.**

This policy is consistent with Article VI(b) of the Compact which states: "No project other than those to be reviewed and approved under the special provisions of subdivisions (d), (e), (f) and (g) may be developed in the Region without obtaining the review and approval of the agency and no project may be approved unless it is found to comply with the Regional Plan and with the ordinances, rules and regulations enacted pursuant to subdivision (a) to effectuate that Plan." A project is defined by the Compact as..."an activity undertaken by any person, including any public agency, if the activity may substantially affect the land, water, air, space or any other natural resources of the region." However, it is the intent of the TRPA within the limits of the Compact to coordinate project review functions with local, state, and federal agencies.

- 2. NO PROJECT MAY BE APPROVED UNLESS IT IS FOUND TO COMPLY WITH THE REGIONAL PLAN AND WITH ANY ORDINANCES, RULES, AND REGULATIONS ENACTED TO EFFECTUATE THE REGIONAL PLAN.**

Articles V (g) and VI (b) of the Compact, require a set of findings to be adopted by ordinance, as set forth above, to ensure that projects under consideration will not adversely affect implementation of the Regional Plan and will not cause the environmental thresholds to be exceeded.

- 3. THE AGENCY SHALL PRESCRIBE BY ORDINANCE THOSE ACTIVITIES WHICH HAVE NO SUBSTANTIAL EFFECT ON THE LAND, AIR, SPACE, OR ANY OTHER NATURAL RESOURCES OF THE REGION. SUCH IDENTIFIED ACTIVITIES WILL BE EXEMPT FROM TRPA REVIEW AND APPROVAL.**

Ordinance 81-1, the TRPA ordinance implementing Article VI (a) which lists activities that are exempt from Agency review and approval, shall be reconsidered and possibly expanded.

- 4. TRPA SHALL IDENTIFY THE PLANNING AND REVIEW RESPONSIBILITIES OF LOCAL, STATE, AND FEDERAL JURISDICTIONS.**

Whenever possible, without diminishing the effectiveness of the Regional Plan, TRPA ordinances, rules, regulations and policies shall be confined to matters which are general and regional in application, leaving to the jurisdiction of the respective states, counties, and cities the enactment of specific and local ordinances, rules, regulations, and policies which conform to the Regional Plan. General planning and implementation responsibilities are shared among TRPA, and local, state, and federal agencies as set forth in the Compact or agreed to in a Memorandum of Understanding.

- 5. TRPA, IN CONJUNCTION WITH OTHER AGENCIES OF JURISDICTION, SHALL DEVELOP AND ACTIVELY PURSUE AN EFFECTIVE ENFORCEMENT PROGRAM TO ENSURE COMPLIANCE WITH THE PLAN AND ORDINANCES OF THE AGENCY.**

## **GOAL #2**

### **IDENTIFY AND SEEK COMMITMENTS FROM AGENCIES TO IMPLEMENT THE CAPITAL IMPROVEMENTS AND REMEDIAL PROGRAMS IDENTIFIED IN THIS PLAN.**

TRPA will seek consensus among the individuals and agencies responsible for specific functions pertaining to capital improvements and remedial programs. Memoranda of Understanding (MOUs) or other forms of agreements between TRPA and implementing agencies will provide the coordination necessary to ensure efficient implementation of the Plan.

## **POLICIES**

- 1. APPROPRIATE ROLES AND RESPONSIBILITIES OF VARIOUS AGENCIES FOR IMPLEMENTING THE PLAN SHALL BE IDENTIFIED AND VERIFIED THROUGH A MANAGEMENT/ AGENCY AGREEMENT.**



## **DEVELOPMENT AND IMPLEMENTATION PRIORITIES**



The Development and Implementation Priorities Subelement coordinates the implementation provisions and time schedules of each Plan Element to achieve and maintain adopted environmental thresholds. To provide for effective management of the Region's resources and attain environmental thresholds, three factors must be considered and planned carefully. First, the feasible rate for correcting or mitigating existing resource utilization problems will determine how rapidly improvements in environmental quality will take place. Second, the rate and type of new development will absorb or negate some of the progress made toward environmental goals and standards. Third, uncertainty exists regarding the effectiveness of water quality BMPs and programs to reduce vehicle miles traveled.

As an illustration of these factors, reductions in nutrient loads to Lake Tahoe from remedial programs will improve water quality only if remedial measures keep pace with new loads from land coverage and disturbance permitted by the Plan. The timing and phasing of both new development and remedial measures must, therefore, be carefully linked to ensure steady progress toward the environmental thresholds. If BMPs prove to be less effective than originally thought, further adjustments to development and remedial priorities will be required. The Monitoring and Evaluation Subelement identifies study needs for determining the effectiveness of control strategies.

The Plan also must provide incentives for correcting existing problems within the Region. Properly structured incentives can provide for broader participation in meeting regional goals and expedite desired improvements.

### **GOAL #1**

**DIRECT ALL RESIDENTIAL DEVELOPMENT FIRST TO THOSE AREAS MOST SUITABLE FOR DEVELOPMENT IN ACCORDANCE WITH ENVIRONMENTAL THRESHOLD CARRYING CAPACITIES AND OTHER CONSIDERATIONS, SUCH AS INFRASTRUCTURE CAPACITY AND PROGRESS TOWARD ACCOMPLISHING WATER QUALITY IMPROVEMENT PROGRAMS.**

### **POLICIES**

1. **UPON ADOPTION OF THIS PLAN, EVALUATION AND RANKING OF ALL VACANT RESIDENTIAL PARCELS UNDER AN INDIVIDUAL PARCEL EVALUATION SYSTEM (IPES) SHALL BE UNDERTAKEN AND COMPLETED BY DECEMBER 31, 1988. COMMENCING ON JANUARY 1, 1989, NEW SINGLE-FAMILY DWELLING CONSTRUCTION SHALL BE EVALUATED IN ACCORDANCE WITH IPES. THIS SYSTEM SHALL RANK ALL VACANT RESIDENTIAL PARCELS WITH RESPECT TO THEIR RELATIVE ENVIRONMENTAL SUITABILITY FOR DEVELOPMENT.**

**REVIEW OF PROJECTS UNDER IPES SHALL NOT COMMENCE UNTIL ALL PARCELS HAVE BEEN EVALUATED AND RANKED IN ACCORDANCE WITH IPES. THE STANDARDS SET FORTH IN GOAL #1, POLICY 2, OF THIS SUBELEMENT SHALL APPLY UNTIL IMPLEMENTATION OF IPES. NEW RESIDENTIAL CONSTRUCTION SHALL BE SUBJECT TO THE ALLOCATION LIMITS SET FORTH IN GOAL #2, POLICY 2 OF THIS SUBELEMENT.**

- A. IPES is an objective and scientific system based on the report entitled Individual Parcel Evaluation System (1986), which evaluates relative environmental suitability for development. IPES shall evaluate each

parcel with respect to the criteria listed below. Details of IPES, including a rating system, shall be included in implementing ordinances.

- 1) Relative erosion hazard (soil erodability, slope length and gradient, climatic conditions, surface roughness and mass wasting).
  - 2) Runoff potential (depth to seasonal high water table, percolation rate, permeability and depth to very slowly permeable layer).
  - 3) Degree of difficulty to access building site (amount of excavation and soil disturbance required to provide minimum driveway and parking area and degree of difficulty for excavation due to soil properties).
  - 4) Water influence areas (proximity to and extent of disturbance in water influence areas).
  - 5) Condition of watershed (extent to which watersheds and intervening drainage areas conform to land coverage allowances set forth in the land capability system, hydrologic characteristics and known sediment/nutrient production).
  - 6) Ability to revegetate (climatic conditions and the available water holding capacity, fertility, texture, drainage and permeability of the soil).
  - 7) Need for water quality improvements in vicinity of parcel (stable roadside drainage channels, storm drainage system and stable cut and fill slopes).
- B. IPES shall include an element, separate from the criteria used for rating each parcel, to encourage physical mitigation of existing water quality problems by individual property owners. The rating of a parcel may be increased, to a limited and finite degree, by the property owner constructing off-site water quality improvements. The extra consideration for off-site work shall result in benefits that fully offset the difference in impacts between developing the subject parcel and developing a parcel with a rating equivalent to the subject parcel's rating without applying the bonus.
- C. IPES shall be implemented by ordinance consistent with the following:
- 1) A team of experts shall evaluate each vacant residential parcel using a standardized approach in accordance with IPES.
    - a) For parcels of 1/3 acre or less in size, the entire parcel shall be evaluated for purposes of establishing the IPES rating, except in cases where the parcel contains an SEZ. SEZs shall be excluded from the area evaluated. For parcels with less than 5,000 square feet outside an SEZ, the IPES rating shall be reduced by a factor equal to the ratio of land available for construction to 5,000 square feet (See Goal #1, Policy 2, SEZ Subelement).
    - b) For parcels greater than 1/3 acre but less than 5 acres in size, the evaluation team shall select and evaluate the 1/3 acre portion of the parcel that results in the highest rating.

If the selected 1/3 acre portion contains an SEZ, the procedure set forth in (a) above shall be followed. If the property owner wishes to locate the residence outside the area evaluated, a reevaluation shall be required of the 1/3 acre portion of the parcel containing the desired building site.

- c) For parcels of 5 acres or greater in size, the property owner shall be notified and asked to identify the desired building site. Once a building site has been identified, the evaluation team shall evaluate the best 1/3 acre portion of the parcel containing the identified building site. If this 1/3 acre contains an SEZ, the procedures set forth in (a) above shall be followed.
  - d) Installation of water quality improvements in the vicinity of a parcel, subsequent to the initial rating, may increase the rating of a parcel. The amount of increase shall depend on the weight given that factor in IPES and the degree of water quality improvement.
  - e) Changes in the condition of a watershed, subsequent to the initial rating, may change the rating of parcels located in that watershed. The amount of change in the rating shall depend on the weight given that factor in IPES. Such changes in the condition of a watershed may cause the initial rating to increase or decrease.
  - f) The rating of all parcels shall be based on the assumption that when developed, all required BMPs shall be installed and maintained.
  - g) Property owners may appeal parcel ratings to an independent body of qualified experts not involved in the original field evaluation of that particular parcel. These independent experts shall then apply the criteria established in IPES. The decision of the independent body shall be deemed the final action of the Agency unless the property owner appeals the decision to the Governing Board. The Governing Board may change the rating of a parcel only upon expressly finding, based on substantial evidence in the record, that the criteria established in the IPES were not applied correctly.
- 2) TRPA shall rate all vacant residential parcels numerically and then rank them from the most suitable to the least suitable by jurisdiction. TRPA may reconsider the rating upon request before the rankings are officially adopted except as otherwise provided in (d) and (e) above.
  - 3) The Agency shall establish a level in the numerical ranking immediately above the most sensitive parcels, based on recommendations from a technical committee.

- 4) All vacant residential parcels may compete for building allocations. Those above the initial level, referred to in 3) above, and as may be adjusted in accordance with 5) below, shall comprise the top rank and, if receiving an allocation, may pursue a permit. Those below that level, if receiving an allocation, may exercise the options listed below:
  - a) transfer the allocation in accordance with policies in Goal #3 of this Subelement.
  - b) relinquish the allocation and wait for the level to drop to include the parcel within the top rank.
  - c) transfer other development rights as permitted elsewhere in the Plan.
  
- 5) The numerical level defining the top rank for any jurisdiction shall be lowered on an annual basis by the number of allocations utilized in that jurisdiction during the previous year, provided that:
  - a) all parcels included in the top rank are otherwise eligible for development under the applicable state water quality management plans for the Lake Tahoe Basin and other legal limitations;
  - b) a monitoring program for that jurisdiction is in place in accordance with the Monitoring and Evaluation Subelement;
  - c) demonstrable progress is being made on capital improvement programs for water quality within that jurisdiction (see Monitoring and Evaluation Subelement);
  - d) there is a satisfactory rate of reduction in the inventory of vacant sensitive parcels. The IPES line shall not move down in any jurisdiction unless the number of parcels below the IPES line in that jurisdiction compared to the number that were deemed sensitive on January 1, 1986, does not exceed the following percentages.
 

El Dorado	20 percent
Placer	20 percent
Douglas	33 percent
Washoe	33 percent
  - e) the level of compliance with conditions of project approvals within that jurisdiction is satisfactory;
  
- 6) Where an allocating authority does not use a random allocation system for IPES allocations after December 31, 1988, its allocations to parcels which are ranked below the line existing on January 1, 1989 may not exceed the number of allocations which would otherwise occur if chosen by a random system.
  
- 7) Allowable land coverage for parcels evaluated under IPES shall be a function of the parcel's IPES rating as set forth in Goal #3, Policy 1.C. of the Land Use Subelement.

**2. THRU DECEMBER 31, 1988, UNTIL THE INDIVIDUAL PARCEL EVALUATION SYSTEM IS IMPLEMENTED, AN INTERIM SYSTEM SHALL BE UTILIZED FOR REVIEW OF VACANT RESIDENTIAL PARCELS, SUBJECT TO THE ALLOCATION LIMITS SET FORTH IN GOAL #2, POLICY 2 OF THIS SUBELEMENT.**

A. The following categories of projects shall be eligible to receive a residential permit, provided that, to be eligible under categories 1), 2) or 3), parcels shall, consistent with the Bailey coefficients, contain sufficient high-capability (land capability districts 4-7) land so that at least 1,200 square feet of impervious surface area can be created on the parcel; and shall be served by at least three of the services listed in Policy 3:

- 1) Parcels in California with 1983 allocations.
- 2) Parcels with Placer County permits which were extended by ordinance to August 1, 1986, have expired CTRPA/TRPA permits, and have not commenced construction.
- 3) Parcels with local county building permits which were issued prior to December 19, 1980, have been continuously renewed, and have not commenced construction.
- 4) Projects which received TRPA conditional approval prior to August 27, 1983, but which did not receive a TRPA permit prior to May 1, 1984, shall be permitted to proceed under the original conditions of approvals.

B. If not eligible to be processed under A. above, to be eligible to obtain a permit under the interim system, a parcel must meet the criteria set forth below as determined by Agency staff, based on field review:

- 1) The parcel contains sufficient land in Land Capability Districts 4, 5, 6 and 7, so that a single family dwelling and all related land coverage may be constructed in accordance with Agency development standards; and
- 2) The parcel is served by a paved road, water service utilities, sewer service utilities, and electrical utilities pursuant to Policy 3 below; and
- 3) The development of the parcel shall not require disturbance or land coverage in land capability districts 1a, 1b SEZ, 1c, 2, and 3, except as provided in Goal #1, Policy 5c, SEZ Subelement; and
- 4) The parcel shall otherwise be eligible for development under this Plan.
- 5) Ordinances shall set forth provisions for the waiver of the paved road criteria.

C. If a parcel receiving an allocation is determined to be ineligible for a permit under A. or B. above, the owner may, within applicable time limits set forth in implementing ordinances:

- 1) relinquish the allocation;
- 2) transfer the allocation to a parcel which is eligible for development in Land Capability Districts 4 - 7, provided the parcel from which

the allocation is transferred is retired in accordance with Goal #3, Policy 4 of this Subelement;

3. combine one or more adjacent parcels in order to meet the criteria in B. above;
4. appeal to the TRPA Governing Board and demonstrate that the parcel meets the criteria in A. or B. above; or
5. transfer other development rights in accordance with Goal #3 of this Subelement.

D. For parcels located in Tyrolian Village Units #1-5, for which complete applications were filed and accepted pursuant to the "Agreement Between The Tyrolian Village Association, Inc. And The Tahoe Regional Planning Agency Regarding Erosion Control Improvements and Reclassification of Upper Tyrolian Village" dated May 26, 1983, an interim system shall be developed and implemented by ordinance.

3. **TO APPROVE A PROJECT ON A PARCEL RATED AND RANKED BY IPES THE PARCEL MUST BE SERVED BY PAVED ROAD, WATER SERVICE, SEWER SERVICE AND ELECTRIC UTILITY. ORDINANCES SHALL SET FORTH PROVISIONS FOR THE WAIVER OF THE PAVED ROAD CRITERIA.**

## **GOAL #2**

### **MANAGE THE GROWTH OF DEVELOPMENT CONSISTENT WITH PROGRESS TOWARD MEETING ENVIRONMENTAL THRESHOLDS.**

#### **POLICIES**

1. **IN 1992 AND EVERY FIVE YEARS THEREAFTER, TRPA SHALL CONDUCT AN INDEPTH REEVALUATION OF THIS PLAN IN COMPARISON WITH PROGRESS TOWARD MEETING THE ENVIRONMENTAL THRESHOLD CARRYING CAPACITIES.**

It is the intent of this Plan to comply with the directives of the Compact and to be responsive to new evidence and changing conditions. Therefore, periodic reevaluation is required. If progress toward the environmental goals set forth in the Monitoring and Evaluation Subelement is other than anticipated by this Plan, TRPA shall make adjustments in one or more of the following areas: (1) rate of growth; (2) types of development permitted; (3) development limitations; (4) capital improvement programs; (5) enforcement programs; (6) financial programs; and (7) any other appropriate element of the Plan. These reevaluations shall be conducted pursuant to established procedures and criteria set forth in this Plan and the implementing ordinances. This review shall ensure that the Regional Plan, and all of its associated parts, are proceeding in conformance with the directives of the Compact.

2. **A MAXIMUM OF 2,000 ADDITIONAL RESIDENTIAL UNITS MAY BE AUTHORIZED TO RECEIVE PERMITS FOR CONSTRUCTION DURING THE FIRST SIX YEARS OF THE PLAN, EXCEPT THAT THIS LIMITATION SHALL NOT APPLY TO AFFORDABLE HOUSING UNITS AS DESCRIBED IN THE HOUSING SUBELEMENT. SUBJECT TO THE PROVISIONS BELOW, ANY ALLOCATIONS WHICH ARE NOT UTILIZED MAY BE REALLOCATED BY THE LOCAL JURISDICTION. THE ALLOCATION OF THESE PERMITS SHALL BE MADE AS FOLLOWS:**

FIGURE 6

<b>ALLOCATION TABLE</b>						
<b>ADDITIONAL RESIDENTIAL DWELLING UNIT ALLOCATION</b>						
<b>CATEGORIES OF RES. UNITS</b>	<b>1986</b>	<b>1987</b>	<b>1988</b>	<b>1989</b>	<b>1990</b>	<b>1991</b>
South Lake Tahoe						
Prior Approvals (4-7)	3					
New Allocations				42*	60*	60*
'83 Allocations	104	107	96			
El Dorado County						
'83 Allocations						
New Allocations				55*	96*	96*
TTSA Service Area			10	10	18	18
Placer County						
Prior Approvals (4-7)	6					
'83 Allocations	97	103	103	103[22]	63[40]	63[40]
New/Reissued Alloc.						
Douglas County						
Prior Approvals (4-7)	6					
Case-by case Approvals	0	16	16	15		
New/Reissued Alloc.	17	23	23	23	18[8]	18[8]
Washoe County						
Prior Approvals (4-7)	32					
Case-by case Approvals	0	51	51	52		
New/Reissued Alloc.	35	67	67	67	45[32]	45[32]
<b>Total</b>	<b>300</b>	<b>367</b>	<b>366</b>	<b>367</b>	<b>300</b>	<b>300</b>

- A. In the event South Tahoe Public Utility District (STPUD) has the ability to serve new development in years 1989, 1990 and 1991, the amounts to be allocated to the STPUD service area during those years are shown with asterisks on Figure 6. In the event disposal capacity is lacking, a portion of the amount available shall be allocated to other jurisdictions, as shown in square brackets. The remaining portion of the El Dorado allocation may be allocated outside of the STPUD service area in the TTSA portion of El Dorado, or in other areas for which sewer capacity exists in El Dorado County. In addition, a program to recognize the imbalance in allocations to the STPUD service area shall be developed for the year 1992 and beyond, if sewage capacity becomes available.
- B. Local jurisdictions shall set their own priorities within the categories of residential units listed in the allocation table (Figure 6) except that in the category of New/Reissued Allocations, the reissued allocations shall have priority over the new allocations. Any allocations which are not utilized may be reallocated by the local jurisdiction.
- C. The categories in the residential allocation table are defined as follows:
  1. New Allocations - are allocations which are to be assigned to properties that currently do not have allocations and do not fall into the categories below.

2. 1983 Allocations - are allocations which shall be assigned to properties which received a 1983 single family building allocation from the City of South Lake Tahoe, El Dorado County, or Placer County.
  3. Reissued Allocations - are allocations that shall be assigned to properties which fall into the following special classes:
    - (a) Parcels with Placer County permits which were extended by ordinance to August 1, 1986, have expired CTRPA/TRPA permits and have not commenced construction.
    - (b) Parcels with a local county building permit which were issued prior to December 19, 1980, have been continuously renewed, and have not commenced construction.

The provision for reissued allocations ((a) and (b) above) shall expire December 31, 1989.
  4. Case-By-Case Approvals - are allocations which shall be assigned to Nevada properties which received a conditional approval for a single-family residence under the case-by-case review procedure prior to August 27, 1983, but did not receive a TRPA permit prior to May 1, 1984.
  5. Prior Approvals (4-7) - are allocations which shall be assigned to properties located in land capability districts 4-7 which received a TRPA conditional approval for a single-family residence prior to August 27, 1983, but which did not receive a TRPA permit before May 1, 1984.
- D. California jurisdictions shall be authorized to issue all the 1983 allocations when notified by TRPA. As applications are processed and permits issued by TRPA, conditions shall be imposed so that no more than 50 percent of the allocations issued are authorized to start construction in those jurisdictions in either of the first two years.
  - E. Nevada jurisdictions shall be authorized to issue all the case-by-case allocations when notified by TRPA. As permits are issued by TRPA, conditions shall be imposed so that no more than one-third of the permits issued are to be authorized to start construction in those jurisdictions in either of the first two years.
  - F. A total of 1,400 additional multi-residential units shall be available for the 20 year life of this Plan as bonus units in conjunction with transfer of development rights or other Agency incentive programs designed to attain the goals and objectives of this Plan. Except for affordable housing as defined in the Housing Subelement, these multi-density residential units shall be included in the allocation limitations above (see Land Use Subelement, Goal #2, Policy 5).<sup>§</sup>
  - G. Unused allocations may be added to a jurisdiction's successive years allocations, through 1991. A residential development policy beyond year 1991 shall be considered at an appropriate time in the future.

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<sup>§</sup> Amended 04/24/02



3. **§A MAXIMUM OF 200 ADDITIONAL TOURIST ACCOMMODATION BONUS UNITS MAY BE PERMITTED. (SEE POLICY 9 FOR 200 ADDITIONAL TOURIST ACCOMMODATION UNIT ALLOCATIONS.)**

(See Goal #3, of the Development and Implementations Priorities Subelement.)

4. **§A MAXIMUM OF 400,000 SQUARE FEET OF ADDITIONAL GROSS COMMERCIAL FLOOR AREA MAY BE PERMITTED. (SEE POLICY 8 FOR ADDITIONAL COMMERCIAL FLOOR AREA ALLOCATIONS.) DEVELOPMENT OF ADDITIONAL COMMERCIAL FLOOR AREA SHALL BE ALLOCATED AS FOLLOWS:**

Commercial development poses a particularly difficult problem in terms of demands on transportation systems. Controlling the rate of new commercial development will minimize these impacts and provide an opportunity for transportation systems to keep pace.

- A. The amount of additional commercial floor area allowed within a community plan for the first ten years of the Regional Plan shall be 360,000 square feet. Seventy-five percent of that amount shall be distributed to local jurisdictions by ordinance based on recommendations of APC and the local jurisdictions, considering such factors as available water and sewage disposal service, the inventory of potentially developable properties, and anticipated needs. TRPA shall then further allocate those amounts to community plans as part of the community planning process. (See Goal #2, Policy 6, of the Land Use Subelement.)

Of the 360,000 square feet, 25 percent shall be retained by TRPA for later distribution to community plans. Of that 25 percent, 36,000 square feet may be allocated by TRPA to projects within CPs before the CP is adopted. Such projects shall be subject to the rules that apply outside CP areas. The remaining 15 percent shall be allocated by TRPA pursuant to the provisions governing the CP process. (See Goal #2, Policy 6, of the Land Use Subelement.)

The rate of development within a CP shall be set forth in a schedule in the adopted CP. The schedule shall be correlated with schedules for the accomplishment of other CP programs such as transportation improvements and watershed restoration work. If those are behind schedule, adjustments in CP growth rates shall be required.

- B. The amount of additional commercial floor area allowed outside community plans shall be no more than 40,000 square feet for the first ten years of the Regional Plan and shall be allocated to individual projects by TRPA. TRPA may, by ordinance, allow reassignment of this commercial floor area to community plan areas in conjunction with adoption or amendment of community plans.

The amount of commercial development outside CPs shall be checked at two-year intervals to determine if the rate at which projects are being approved exceeds the projected 4,000 square feet a year rate by more than 25 percent.

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§ Amended 10/25/06

- C. The term "additional commercial floor area" shall not include tourist accommodation area, or outdoor recreation floor area, or their accessory uses, as defined by ordinance. Additional commercial floor area shall not include area added in minor remodeling of existing commercial facilities so long as no change in use occurs, there is no added traffic as a result, the increase is no more than 500 square feet or five percent of the existing facility, whichever is less, and the appropriate coverage rules apply. The exception for minor remodeling is limited to one project for a facility in a ten year period.
- D. Structures housing gaming shall be considered separately under the provisions set forth in the compact.

5. **THE DEVELOPMENT OF ADDITIONAL OUTDOOR RECREATIONAL USES SHALL BE PURSUANT TO SHORT- AND LONG-RANGE PROGRAMS. CRITERIA FOR INCLUSION IN THESE PROGRAMS SHALL BE DEVELOPED BY ORDINANCE.**

6. **A MAXIMUM OF 1,500 ADDITIONAL RESIDENTIAL UNITS MAY BE AUTHORIZED TO RECEIVE PERMITS FOR CONSTRUCTION DURING THE YEARS 1992 THROUGH 1996, INCLUSIVE. THIS LIMITATION SHALL NOT APPLY TO AFFORDABLE HOUSING UNITS AS DESCRIBED IN THE HOUSING SUBELEMENT. UNUSED ALLOCATIONS MAY BE REALLOCATED BY THE LOCAL JURISDICTIONS IN SUCCESSIVE YEARS THROUGH 1996. THE ALLOCATION OF THESE RESIDENTIAL UNITS SHALL BE MADE AS FOLLOWS:**

	1992	1993	1994	1995	1996
El Dorado					
TTSA	14	14	14	14	14
STPUD	78	78	78	78	78
City of South Lake Tahoe	38	38	38	38	38
Placer County	88	88	88	88	88
Washoe County	59	59	59	59	59
Douglas County	23	23	23	23	23

7. **A MAXIMUM OF 1500 ADDITIONAL RESIDENTIAL UNITS MAY BE AUTHORIZED TO RECEIVE PERMITS FOR CONSTRUCTION DURING THE YEARS 1997 THROUGH 2001. THIS LIMITATION SHALL NOT APPLY TO AFFORDABLE HOUSING UNITS AS DESCRIBED IN THE HOUSING SUBELEMENT. UNUSED ALLOCATIONS FROM 1996 AND PRIOR YEARS SHALL NOT BE REISSUED TO THE LOCAL JURISDICTIONS. THE ALLOCATIONS ASSIGNED YEARLY TO EACH JURISDICTION SHALL BE LINKED TO THE LOCAL JURISDICTION'S PERFORMANCE ON PERMIT COMPLIANCE, IMPLEMENTATION OF WATER QUALITY IMPROVEMENTS, AND MONITORING. UNUSED ALLOCATIONS FROM 1997 AND LATER YEARS SHALL BE ASSIGNED TO AN ALLOCATION POOL ADMINISTERED BY TRPA. THE ALLOCATION POOL SHALL BE USED TO REWARD A JURISDICTION'S GOOD PERFORMANCE AND TO ALLOW PROPERTY OWNERS WHO RETIRE SENSITIVE PARCELS TO RECEIVE AN ALLOCATION. THE ALLOCATION AND DISTRIBUTION OF ALLOCATIONS EACH YEAR SHALL NOT EXCEED THE FOLLOWING, EXCEPT FOR ASSIGNMENT OF ALLOCATIONS FROM THE ALLOCATION POOL ADMINISTERED BY TRPA.**

JURISDICTION	PER YEAR
El Dorado TTSA STPUD	
City of South Lake Tahoe	38
Placer County	88
Washoe County	59
Douglas County	23
Allocation Pool Loan	100

**8. <sup>§§</sup>A MAXIMUM OF 400,000 SQUARE FEET OF ADDITIONAL GROSS COMMERCIAL FLOOR AREA MAY BE PERMITTED AFTER 1997. DEVELOPMENT OF ADDITIONAL COMMERCIAL FLOOR AREA SHALL BE ALLOCATED AS FOLLOWS:**

<sup>§§</sup>The commercial floor area allocations after 1997 shall focus on the implementation of projects listed in the Environmental Improvement Program (EIP) and promotion of the transfer and rehabilitation of substandard development.

- A. A maximum of 100,000 square feet of commercial floor area may be permitted in adopted community plans. A portion of this allocation may also be permitted outside community plans when used to replace commercial allocations used in the first ten years for outside community plans and if it is linked to environmental improvements.
- B. A maximum of 150,000 sq. ft. may be allocated to special projects in community plan areas or adopted master plan areas. These projects shall be evaluated on their implementation of environmental improvement projects.
- C. <sup>§§</sup>A maximum of 150,000 square feet of commercial floor area may be allocated after 2002. 50,000 square feet may be allocated to projects within adopted community plans. A maximum of 100,000 square feet of commercial floor area allocation shall be allocated to Special Projects pursuant to "B" above.<sup>§</sup>

**9. <sup>§§</sup>A MAXIMUM OF 200 ADDITIONAL TOURIST ACCOMMODATION UNITS MAY BE PERMITTED AFTER 1997 FOR SPECIAL PROJECTS THAT RETIRE TOURIST UNITS FROM SENSITIVE LANDS.<sup>§</sup>**

**10. A MAXIMUM OF 1475 ADDITIONAL RESIDENTIAL UNITS MAY BE AUTHORIZED TO RECEIVE PERMITS FOR CONSTRUCTION DURING THE YEARS 2002 THROUGH 2006. THIS LIMITATION SHALL NOT APPLY TO AFFORDABLE HOUSING UNITS AS DESCRIBED IN THE HOUSING SUBELEMENT. ALL UNUSED DISTRIBUTED ALLOCATIONS AS OF JANUARY 1 OF EACH YEAR SHALL BE ASSIGNED TO THE ALLOCATION POOL ADMINISTERED BY TRPA. ALL UNALLOCATED OR DEDUCTED ALLOCATIONS SHALL NOT BE PLACED INTO THE ALLOCATION POOL. THE ALLOCATIONS ASSIGNED YEARLY TO EACH JURISDICTION SHALL BE LINKED TO THE LOCAL JURISDICTION'S PERFORMANCE ON PERMIT**

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<sup>§§</sup> Amended 10/25/06

<sup>§</sup> Amended 12/18/02

COMPLIANCE, IMPLEMENTATION OF WATER QUALITY AND AIR QUALITY EIP IMPROVEMENTS, AND MONITORING AND INCREASED TRANSIT OPERATIONS. THE ALLOCATION POOL SHALL BE USED TO ALLOW PROPERTY OWNERS WHO RETIRE SENSITIVE PARCELS TO RECEIVE AN ALLOCATION. THE ALLOCATION AND DISTRIBUTION OF ALLOCATIONS EACH YEAR SHALL NOT EXCEED THE FOLLOWING, EXCEPT FOR ASSIGNMENT OF ALLOCATIONS FROM THE ALLOCATION POOL ADMINISTERED BY TRPA.<sup>§</sup>

MAXIMUM YEARLY ALLOCATIONS		
YEAR	2002	2003-06
EL Dorado County	92	111
City of SLT	38	47
Placer County	88	66
Washoe County	59	49
Douglas County	22	21
TOTAL	299	294

11. <sup>§§</sup>FROM JANUARY 1, 2007, THE MAXIMUM ADDITIONAL RESIDENTIAL UNITS THAT MAY BE AUTHORIZED IS EQUAL TO THE NUMBER OF UNITS IN THE ALLOCATION POOL CARRIED OVER FROM 2006 PLUS THE 236 UNUSED PRIOR TO 1996 ALLOCATIONS THAT SHALL BE ADDED TO THE POOL. THIS LIMITATION SHALL NOT APPLY TO AFFORDABLE HOUSING UNITS DESCRIBED IN THE HOUSING SUBELEMENT. ALL UNUSED DISTRIBUTED ALLOCATIONS AS OF JANUARY 1 OF EACH YEAR SHALL BE REASSIGNED TO THE ALLOCATION POOL ADMINISTERED BY TRPA. THE ALLOCATION POOL SHALL BE USED TO ALLOW PROPERTY OWNERS WHO RETIRE SENSITIVE PARCELS TO RECEIVE AN ALLOCATION, APPLICANTS FOR MODERATE HOUSING UNITS UNDER THE MODERATE HOUSING PROGRAM TO RECEIVE ALLOCATIONS, AND FOR LOCAL JURISDICTIONS TO EARN ALLOCATIONS FOR ANNUAL DISTRIBUTION. ALLOCATIONS ASSIGNED YEARLY TO EACH JURISDICTION SHALL BE LINKED TO THE LOCAL JURISDICTION'S PERFORMANCE ON PERMIT COMPLIANCE, IMPLEMENTATION OF WATER QUALITY AND AIR QUALITY IMPROVEMENTS AND MONITORING, AND INCREASED TRANSIT OPERATIONS. THE ALLOCATION AND DISTRIBUTION OF ALLOCATIONS EACH YEAR FOR LOCAL JURISDICTIONS SHALL NOT EXCEED THE FOLLOWING:

MAXIMUM YEARLY ALLOCATIONS	
EL Dorado County	111
City of SLT	47
Placer County	66
Washoe County	49
Douglas County	21
TOTAL	294

<sup>§</sup> Amended 12/18/02

<sup>§§</sup> Amended 10/25/06

### **GOAL #3**

## **ENCOURAGE CONSOLIDATION OF DEVELOPMENT THROUGH SEPARATE TRANSFER OF DEVELOPMENT RIGHTS AND TRANSFER OF LAND COVERAGE PROGRAMS.**

### **POLICIES**

- 1. TRANSFERS OF RESIDENTIAL DEVELOPMENT RIGHTS TO PARCELS IN AREAS DESIGNATED AS RECEIVING AREAS IN PLAN AREA STATEMENTS MAY BE PERMITTED. THE NUMBER OF DEVELOPMENT RIGHTS THAT MAY BE TRANSFERRED IS LIMITED TO ONE UNIT FOR UNDEVELOPED PARCELS, OR TO THE NUMBER OF RESIDENTIAL UNITS EXISTING ON A DEVELOPED PARCEL.**
  - A. Residential development rights may be transferred with approval of TRPA. Residential development rights transferred from undeveloped parcels may only be exercised on a receiving parcel, upon receiving a residential allocation in accordance with the provisions regarding those allocations.
  - B. As provided in Goal #2 of this subelement and Goal #2 of the Land Use Subelement, up to 1,400 bonus units may be granted to parcels for multi-residential units in conjunction with transfer of development rights from other parcels or other agency incentive programs. Ordinances shall establish detailed provisions which shall provide for bonuses of varying amounts in relation to a right transferred or implementation of an agency incentive program, depending on the public benefits being provided by the project. More bonuses shall be granted for projects within community plans than for those outside CPs. Other benefits to consider shall include the extent of coverage planned, transportation improvements, water quality improvements, and scenic improvements. More bonuses shall be granted for projects designed to house local residents at median income or below.
  
- 2. TRANSFERS OF EXISTING TOURIST ACCOMMODATION UNITS INTO DESIGNATED AREAS MAY BE PERMITTED.**
  - A. Existing tourist accommodation units may be transferred to designated areas, in conjunction with TRPA approval of a project. The buildings shall be removed and the site restored, except in special circumstances of public benefits as set forth by ordinance.
  - B. <sup>§</sup>As provided in Goal #2 of this subelement and Goal #2 of the land Use Subelement, up to 400 additional units may be granted as bonus units in conjunction with transfer of development. Ordinances shall establish detailed provisions which shall allow bonuses of varying amounts in relation to a unit transferred, depending on the public benefits being provided by the project. No bonuses shall be allowed for projects outside adopted CPs. Benefits to consider shall include extent of coverage planned, transportation improvements, water quality improvements, scenic improvements, and accessory services provided.

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<sup>§</sup>Amended 10/25/06

**3. LAND COVERAGE MAY BE TRANSFERRED AS SET FORTH IN GOAL #3, POLICY 2, OF THE LAND USE SUBELEMENT, WITHIN THE RELATED HYDROLOGIC AREA, PROVIDED THE COVERAGE LIMITS SET FORTH IN THE LAND USE SUBELEMENT ARE NOT EXCEEDED.**

The transfer of land coverage may be implemented by parcel consolidation, parcel retirement, land coverage banking systems or other mechanisms approved by the TRPA.

- A. Coverage utilized as mitigation for excess coverage on commercial and tourist accommodation projects shall be existing hard coverage as defined by ordinance, except where the Governing Board finds that there is an inadequate supply of hard coverage at a reasonable cost in the related hydrologic area. In that event, the Board may authorize an increase in the supply of coverage for transfer in the following order of priority: (1) including existing soft coverage or disturbed areas within the definition of coverage; (2) including potential coverage; and (3) redefining the hydrologic boundaries in that area. Potential coverage shall be defined as base coverage.
- B. Coverage transferred or used as mitigation to accommodate residential projects, outdoor recreation projects, public service projects, regional public facilities, and public health and safety facilities may be either existing or potential coverage. Potential coverage shall be defined as base coverage.
- C. Linear public facilities projects, when transferring or mitigating coverage over base coverage, shall have the option of transferring hard or soft coverage in accordance with these provisions.
- D. TRPA, in cooperation with other agencies, shall establish a land coverage banking system.

TRPA, to the extent possible, shall utilize a land coverage banking system to facilitate the elimination of excess land coverage and to provide transfer mechanisms. TRPA shall certify appropriate entities to acquire land coverage and implement restoration programs pursuant to this policy.
- E. Coverage transfers shall be at a ration of 1:1 or greater. Each square foot of coverage added by transfer shall require removal of one square foot of coverage, except for the special provision for additional commercial coverage over 50 percent, as set forth in the Land Use Subelement Goal #3, Policy 2.B and other rations as set by this plan.
- F. Coverage transferred for a single-family house shall be from a parcel equal to, or more environmentally sensitive than, the receiving parcel.
- G. In the case of individual parcels containing a stream environment zone (SEZ), the amount of coverage attributable to the SEZ portion of the parcel may be transferred to the non-SEZ portion of the parcel or may be utilized in the SEZ pursuant to the access provision set forth in Goal #1, Policy 5, of the Stream Environment Zone Subelement.

**4. THE RESIDENTIAL PERMIT ALLOCATION SYSTEM SHALL PERMIT THE TRANSFER OF BUILDING ALLOCATIONS FROM PARCELS LOCATED ON SENSITIVE LANDS TO MORE SUITABLE PARCELS.**

As part of the permit allocation system, TRPA shall permit the transfer of building allocations from parcels in stream environment zones, Land Capability Districts 1-3, lands determined to be sensitive under IPES, or Class 1-4 shorezones, to parcels outside of these areas. However, no allocations shall be transferred to any parcel that is below the level defining the IPES top rank on January 1, 1989 unless the number of vacant parcels in the top rank is less than one-half the total inventory in that jurisdiction. Recipients of allocations may transfer across jurisdictional boundaries so long as the jurisdiction to which allocations are transferred has capacity to serve the additional development, both jurisdictions approve the transfer, and the receiving parcel is in land capability districts 4-7 or has an IPES rating above the January, 1989 level. Such inter-jurisdictional transfers shall be counted against the number of permits allocated to the jurisdiction from which the allocations are transferred.

**5. BEFORE TRANSFER OF ANY DEVELOPMENT RIGHT OR LAND COVERAGE UNDER THIS GOAL IS EFFECTIVE, THE TRANSFEROR LOT SHALL BE APPROPRIATELY RESTRICTED OR RETIRED. IN THE CASE WHERE AN ALLOCATION HAS BEEN TRANSFERRED, OR ALL THE DEVELOPMENT RIGHTS OR COVERAGE HAS BEEN TRANSFERRED OFF A PARCEL DEEMED INAPPROPRIATE FOR FUTURE DEVELOPMENT, THE ENTIRE PARCEL SHALL BE RETIRED.**

In restricting or retiring a parcel, the implementing ordinances shall consider the retirement of all bonded indebtedness, site restoration, removal of future development potential, disclosure statements, public notice or recordation, and other requirements TRPA deems necessary. All transfers shall be approved by the affected jurisdictions.

**6. TRANSFERS OF DEVELOPMENT RIGHTS, OTHER THAN LAND COVERAGE, SHALL BE LIMITED TO EQUIVALENT USES WITH NO INCREASE IN THE PARAMETERS BY WHICH THE USES ARE MEASURED BY THIS PLAN (E.G., FLOOR AREA, UNITS, PAOT). EQUIVALENT USES SHALL BE DEFINED BY ORDINANCE. DEVELOPMENT IMPACTS DUE TO THE RESULTING PROJECTS SHALL BE ADDRESSED AS PART OF THE PROJECT REVIEW PROCESS.**

**GOAL #4**

**CONDITION APPROVALS FOR NEW DEVELOPMENT IN THE TAHOE REGION ON POSITIVE IMPROVEMENTS IN OFF-SITE EROSION AND RUNOFF CONTROL AND AIR QUALITY.**

To generate offsetting mitigation measures, which in turn will accelerate progress toward meeting the environmental thresholds, the Agency will implement the following policies:

**POLICIES**

**1. NEW RESIDENTIAL, COMMERCIAL, AND PUBLIC PROJECTS SHALL COMPLETELY OFFSET THEIR WATER QUALITY IMPACTS THROUGH ONE OF THE FOLLOWING METHODS:**

- A. Implementing off-site erosion and runoff control projects as a condition of project approval and subject to Agency concurrence as to effectiveness,

or

- B. Contributing to a fund established by the Agency for implementing off-site erosion and runoff control projects. The amount of such contributions is established by Agency ordinance.

This policy continues the water quality mitigation funds established as part of TRPA's Lake Tahoe Basin Water Quality Management Plan. The fee schedules and distribution formula shall be reviewed and revised as part of the Agency's implementing ordinances and programs.

**2. ALL PROJECTS SHALL OFFSET THE TRANSPORTATION AND AIR QUALITY IMPACTS OF THEIR DEVELOPMENT.**

The implementing ordinances for the Regional Plan will define stationary sources of air pollution which may locate in the Region, and define what constitutes a significant environmental impact on air quality from stationary sources. Commercial and residential development contribute indirect impacts to air quality by increasing the number of vehicle trips in the Region. The cumulative impact of such trips is significant.

The ordinances will establish a fee to offset the impacts from minor projects. The fee will be assessed on both commercial and residential development. The ordinances will also define what projects have significant environmental impacts; these projects will be required to complete an EIS and mitigate air quality and traffic impacts with specific projects or programs.

**FINANCING**



The purpose of this Subelement is to set forth the financing policies and programs to implement the Regional Plan. The Subelement provides for the creation of new revenue sources, the phasing of expenditures to meet performance targets, and coordination of financing programs with other agencies.

Adequate long-term financing is essential to meet the environmental thresholds and protect the values of the Tahoe Region. The Regional Plan creates a linkage between the rate of funding for capital improvements, the development management system, and the environmental thresholds. If progress toward meeting the environmental thresholds is slower than anticipated, the Plan calls for adjustments in the rate of both capital improvements and development.

**GOAL #1**

**IN COOPERATION WITH OTHER AGENCIES, PROVIDE FUNDS TO CARRY OUT THE CAPITAL IMPROVEMENTS PROGRAM AND OTHER PROGRAMS OF THE REGIONAL PLAN, PROVIDE FOR REVENUE SOURCES THAT DISTRIBUTE COSTS EQUITABLY AMONG THE USERS OF THE BASIN, MEET PERFORMANCE OBJECTIVES, AND ATTAIN ENVIRONMENTAL THRESHOLDS.**

It will cost approximately \$259 million (1982 dollars) over 20 years to implement the Regional Plan and attain the environmental thresholds. The major expenditures under the Plan are for water quality (\$146 million) and transportation (\$113 million).



The implementing agencies in the Basin have only limited ability to provide funds for capital improvements at this time. It will take time to develop new revenue sources. Therefore, the Regional Plan provides for a low-cost program for the first five years, while new sources are being developed, and triggers Phase II development priorities with funding of Phase II capital improvements.

In the first five years, transportation needs are about \$32 million (1982), primarily for expansion of existing systems. For water quality, the needs are about \$30 million, targeted to the most cost-effective locations for erosion and runoff control.

## **POLICIES**

**1. TRPA SHALL DEVELOP AND CARRY OUT FINANCIAL PROGRAMS TO PROVIDE THE FUNDING NECESSARY TO IMPLEMENT THE CAPITAL IMPROVEMENTS PROGRAM FOR WATER QUALITY AND TRANSPORTATION.**

The expected sources of revenue during the first five years are mitigation funds, Burton/Santini Act funds, sales taxes, and room occupancy taxes. The expediency and revenue-gathering ability of these sources, the best mix, and the priority will be set forth through implementing programs.

The potential revenue sources TRPA will evaluate for use during later phases of the capital improvements program are utility taxes, assessments, automobile registration and license fees, property transfer taxes, and Forest Service special use fees.

**2. FINANCIAL PROGRAMS SHALL PROVIDE FOR AN EQUITABLE DISTRIBUTION OF COSTS AMONG GOVERNMENTAL ENTITIES AND BASIN USER GROUPS.**

Since many people throughout the Region, the nation, and the world enjoy the amenities of the Tahoe Region, the Regional Plan calls for a financial approach that spreads the costs of protecting environmental quality among property owners, businesses, overnight and day visitors, transportation systems users, and local, state, and federal governments.

## **GOAL #2**

**COORDINATE THE REVENUE PROGRAM FOR IMPLEMENTATION OF THE REGIONAL PLAN WITH OTHER RESPONSIBLE AGENCIES; DIRECT THE UTILIZATION OF REGIONAL REVENUES TO SOLVE HIGH-PRIORITY WATER QUALITY AND TRANSPORTATION PROBLEMS.**

TRPA depends on the actions of local governments, state environmental agencies and transportation departments, and special entities including the Tahoe Transportation District to carry out the capital improvements programs, and other programs (e.g., enforcement). Therefore, the development of a financing approach has been coordinated, and will continue to be coordinated, with these other entities. TRPA will oversee the use of the regional revenue sources to ensure the proper phasing of capital improvements.

## **POLICIES**

**1. THE AGENCY SHALL CONSULT WITH OTHER RESPONSIBLE AGENCIES AND ESTABLISH REGIONAL WATER QUALITY AND TRANSPORTATION PROJECT PRIORITIES CONSISTENT WITH THE REGIONAL PLAN.**

Local units of government and other implementing agencies require flexibility in scheduling capital improvements. TRPA, after consultation with those entities, will provide guidance on project priorities and, through project review, will ensure that all capital improvements are consistent with the Regional Plan. The detailed capital improvements program will be reviewed and revised periodically in cooperation with all the affected agencies.

**2. THE AGENCY SHALL CONSULT WITH OTHER RESPONSIBLE AGENCIES IN THE DEVELOPMENT AND IMPLEMENTATION OF LONG-TERM REVENUE PROGRAMS, TO AVOID DUPLICATION OF EFFORT, AND TO IMPROVE THE EFFICIENCY OF CAPITAL PROGRAMS.**

All of the agencies which will carry out water quality and transportation programs under this Plan have similar financial needs. Working in cooperation with these entities, TRPA will identify programs that generate funds efficiently and with minimal administrative burden so as to assist them in fulfilling their capital needs.

**3. REGIONAL REVENUE SOURCES SHALL BE APPLIED TO HIGH-PRIORITY CAPITAL IMPROVEMENTS THROUGHOUT THE REGION.**

Because many of the Tahoe Region's environmental problems are regional in nature, and do not observe jurisdictional boundaries, it is appropriate to develop and administer regional revenue sources (e.g., utility taxes) to pay for high-priority capital improvements, as set forth in the Capital Improvements Program.

**GOAL #3**

**THROUGH A CAPITAL IMPROVEMENTS PROGRAM, MEET THE PERFORMANCE TARGETS IDENTIFIED IN THE MONITORING AND EVALUATION SUBELEMENT FOR REDUCTIONS IN LOADS OF DISSOLVED INORGANIC NITROGEN TO LAKE TAHOE AND RESTORATION OF SEZS.**

The capital improvements program identifies the water quality programs necessary to attain and maintain the environmental thresholds. The program specifies projects, costs, and responsible entities over a 20-year schedule.

The capital improvements for water quality stress the most cost-effective projects during the first phase, and move into less cost-effective projects in later phases, to give TRPA and other agencies an opportunity to develop new revenue sources for the more expensive projects. The most cost-effective water quality projects in terms of nutrient and sediment load reductions are those which emphasize slope stabilization and revegetation. The least cost-effective projects (which, it must be emphasized, are still essential for meeting water quality objectives) are those which emphasize storm drainage.

**POLICIES**

**1. LOCAL UNITS OF GOVERNMENT, STATE TRANSPORTATION DEPARTMENTS, AND OTHER AGENCIES SHALL BE RESPONSIBLE FOR CARRYING OUT CAPITAL IMPROVEMENTS FOR WATER QUALITY, WITH OVERSIGHT BY TRPA. FUNDING ASSISTANCE FROM REGIONAL REVENUE SOURCES SHALL BE MADE AVAILABLE TO LOCAL GOVERNMENTS.**

As in the existing water quality plan for the Basin, the primary responsibility for carrying out capital improvements lies with local government, CalTrans, NDOT,

and the U. S. Forest Service. Utility districts also have capital improvement programs related to water quality, but the Capital Improvements Program does not discuss these in any detail. Through its financial program, TRPA shall develop means of assisting local governments with funding.

- 2. LOCAL UNITS OF GOVERNMENT AND STATE TRANSPORTATION DEPARTMENTS SHALL GENERALLY OBSERVE THE WATER QUALITY PRIORITIES SET FORTH IN THE CAPITAL IMPROVEMENTS PROGRAM TO ENSURE THAT CAPITAL IMPROVEMENTS AND AVAILABLE REVENUES ARE CONSISTENT.**

Although implementing agencies may have other considerations which affect project priorities (e.g., earmarked funding sources, projects already "in the pipeline"), they should generally observe the priorities set forth in the capital improvements program, which have been tailored to be consistent with the financial program and the development management system. TRPA will review project proposals to ensure consistency with the Plan.

- 3. ALL CAPITAL IMPROVEMENTS PROJECTS SHALL BE DESIGNED AND CONSTRUCTED IN ACCORDANCE WITH THE HANDBOOK OF BEST MANAGEMENT PRACTICES.**

The Handbook of Best Management Practices sets forth both temporary (construction) and permanent BMPs that will apply to many of the remedial water quality projects in the capital improvements program. Where applicable, these BMPs should be fully implemented.

#### **GOAL #4**

**THROUGH A CAPITAL IMPROVEMENTS PROGRAM, MEET THE PERFORMANCE TARGETS IDENTIFIED IN THE MANAGEMENT AND EVALUATION SUBELEMENT FOR REDUCTIONS IN VEHICLE MILES TRAVELLED AND EMISSIONS OF OXIDES OF NITROGEN FOR PHASES I-IV OF THE TRANSPORTATION ELEMENT.**

The capital improvements program identifies the transportation system improvements necessary to attain and maintain environmental thresholds. The four-phase program, to be carried out over 20 years, is expected to meet the performance criteria set forth in the Monitoring and Evaluation Subelement.

The capital improvements program for transportation emphasizes a cautious approach to transportation-related investments during the first five-year phase. TRPA will bring about necessary reductions in VMT and NO<sub>x</sub> emissions through improvements in existing transportation programs. More capital intensive programs, such as the fixed guideway and the Lake ferries, will occur in Phase III and IV, after the Agency has had the opportunity to (1) build ridership on existing systems, (2) develop new sources of funding, and (3) evaluate the need for more expensive systems based on the reduction of nitrogen loading to Lake Tahoe.

#### **POLICIES**

- 1. THE TAHOE TRANSPORTATION DISTRICT AND LOCAL, STATE, AND FEDERAL UNITS OF GOVERNMENT SHALL BE RESPONSIBLE FOR CARRYING OUT THE TRANSPORTATION PORTION OF THE CAPITAL IMPROVEMENTS PROGRAM, WITH FUNDING ASSISTANCE FROM REGIONAL REVENUE SOURCES, AND WITH THE OVERSIGHT OF TRPA.**

The Tahoe Regional Planning Compact designated the Tahoe Transportation District to implement transit and public transportation improvements contained in the Regional Plan. Other related improvements should be the responsibility of local, state, or federal government, depending upon the jurisdiction. The financial program distributes regional revenues to the implementing agencies.

2. **THE TAHOE TRANSPORTATION DISTRICT AND LOCAL, STATE, AND FEDERAL UNITS OF GOVERNMENT SHALL OBSERVE THE TRANSPORTATION IMPROVEMENT PRIORITIES SET FORTH IN THE CAPITAL IMPROVEMENTS PROGRAM TO ENSURE THE APPROPRIATE PHASING OF IMPROVEMENTS AND THAT CAPITAL IMPROVEMENTS PROGRAMS ARE CONSISTENT WITH AVAILABLE FUNDING.**

The proper phasing of transportation improvements under this Plan is essential since it will take several years to increase public transit ridership to improve public awareness of transportation-related problems, to refine cause-effect relationships, and to develop new revenue sources for the later phases. For this reason, agencies which provide transportation improvements must follow the priorities set forth in the Plan.

3. **TRPA SHALL REVIEW AND APPROVE ALL TRANSPORTATION-RELATED CAPITAL IMPROVEMENTS PROJECTS.**

To ensure consistency between proposed transportation improvements and this Plan, TRPA shall review and approve all project proposals.

## **MONITORING AND EVALUATION**



The Monitoring and Evaluation Subelement serves three functions. First, it establishes performance standards for evaluating the effectiveness of the Regional Plan and, if necessary, triggering Plan revisions. Second, it identifies needs for further study in the area of cause-effect relationships. Third, it establishes a monitoring program to collect and analyze data necessary to evaluate progress toward maintenance of the environmental thresholds.

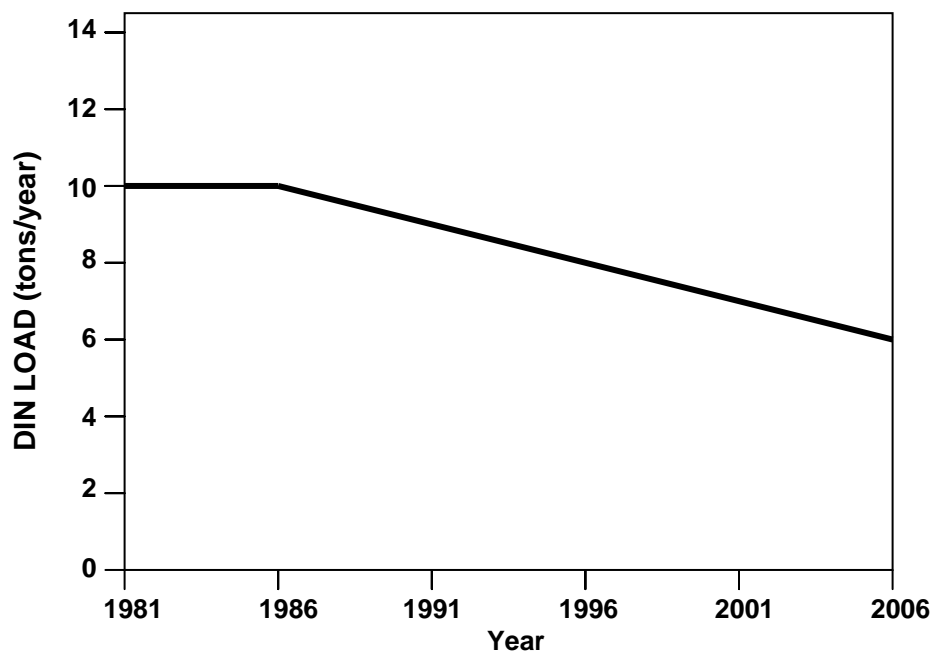
## GOAL #1

**EVALUATE PROGRESS TOWARD ATTAINING AND MAINTAINING THE ENVIRONMENTAL THRESHOLDS THROUGH THE USE OF A DETAILED MONITORING PROGRAM AND PERFORMANCE STANDARDS.**

### **POLICIES**

1. **THE AGENCY SHALL USE REASONABLE PROGRESS LINES (SEE EXAMPLE, FIGURE 7) TO EVALUATE PROGRESS IN IMPLEMENTING THE REGIONAL PLAN. THE REASONABLE PROGRESS LINES SHALL BE SET FORTH IN AGENCY ORDINANCE.**

**FIGURE 7**  
**EXAMPLE: REASONABLE PROGRESS LINE**  
Tributary Threshold



**Figure 7. Dissolved Inorganic Nitrogen**

The thresholds for pelagic Lake Tahoe and littoral Lake Tahoe call for a reduction in dissolved organic nitrogen (DIN) loads from surface runoff by approximately 50 percent. The Environmental Threshold Carrying Capacities Study Report (TRPA, 1982) states that the basin wide 1973-81 annual average was ten tons/year for DIN.

2. **BASED ON THE RESULTS OF THE SPECIAL STUDIES DESCRIBED UNDER GOAL #2, THE TRPA SHALL ADJUST THE REASONABLE PROGRESS LINES AT LEAST EVERY FIVE YEARS TO REFLECT THE BEST SCIENTIFIC KNOWLEDGE.**

Because of uncertainty in identifying and quantifying cause-effect relationships for air quality, water quality, and other environmental components, this Plan identifies study needs to clear up the uncertainty. Based on the results of these studies, the Agency may adjust the reasonable progress lines to make them consistent with the latest scientific information.

**3. BASED ON DEGREE OF PROGRESS TOWARD ENVIRONMENTAL GOALS, AS MEASURED IN POLICY 1, TRPA SHALL MAKE ADJUSTMENTS IN THE REGIONAL PLAN.**

If this Regional Plan produces the expected benefits to the environment sooner than anticipated, or more slowly than anticipated, 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.

The detailed monitoring program may also provide information outside the realm of the key indicators that would indicate a need for adjustment in one of the five areas.

**GOAL #2**

**IMPROVE UNDERSTANDING OF CAUSE-EFFECT RELATIONSHIPS FOR LAKE TAHOE AND THE LAKE TAHOE REGION.**

**POLICIES**

**1. EVALUATE AND REFINE ESTIMATES OF NITROGEN LOADING TO LAKE TAHOE FROM RUNOFF AND ATMOSPHERIC DEPOSITION.**

It is important to understand more clearly the relative contributions of nitrogen to Lake Tahoe from surface runoff, groundwater, and atmospheric deposition; from natural and anthropogenic sources; and from controllable and uncontrollable sources. The Agency will use this information to refine its estimates of Lake Tahoe's nutrient budget.

**2. DEVELOP INFORMATION ON THE EXACT SOURCES OF SEDIMENTS AND NUTRIENTS WITHIN INDIVIDUAL WATERSHEDS.**

Through studies of sediment transport mechanisms, stream channel geometry, flow and load relationships, and sediment-nutrient relationships, TRPA will gain a better understanding of the processes and activities in the watershed which cause sediment and nutrient delivery to Lake Tahoe. TRPA will also attempt to develop better information on the sources of sediment and nutrients in urbanized portions of the Tahoe Region.

**3. EVALUATE THE EFFECTIVENESS OF BEST MANAGEMENT PRACTICES IN MITIGATING THE WATER QUALITY IMPACTS FROM THE WATERSHED, AND RECOMMEND REVISIONS TO THE HANDBOOK OF BEST MANAGEMENT PRACTICES AS APPROPRIATE.**

When a better understanding of the causes and sources of pollutants, such as nitrogen, is arrived at, it will be important to evaluate how alternative management practices mitigate the impacts from each source.

**4. IMPROVE UNDERSTANDING OF THE CAUSE-EFFECT RELATIONSHIPS AFFECTING VISUAL RANGE IN THE BASIN.**

TRPA will conduct research into the contributions of auto, boat, and airplane emissions, wood smoke, particulates transported from upwind, fugitive dust, and natural background compounds to impaired visual range.

**5. IMPROVE THE UNDERSTANDING OF THE CAUSE-EFFECT RELATIONSHIPS BETWEEN PIERS AND BUOYS AND FISH HABITATS AND FISH BEHAVIOR IN LAKE TAHOE.**

TRPA will conduct research into uses and activities in the shorezone and their impacts on fish habitats and behavior. The study will consider such uses as piers, buoys, marinas, and breakwaters, and activities such as power boating.

**6. ESTABLISH INSTREAM FLOW STANDARDS FOR EACH OF THE BASIN'S TRIBUTARIES.**

During 1985, TRPA collected the data necessary to begin to set instream flow standards for approximately 64 tributary streams. The Agency will publish a report based on this data, and set instream flow standards designed to protect habitats for resident and migratory fish. (see Instream Flow Threshold, Resolution 82-11.)

**7. EVALUATE THE FEASIBILITY AND EFFECTIVENESS OF PONDING FACILITIES ALONG STREAM CORRIDORS AS A STRATEGY FOR REMOVING INSTREAM LOADS OF SEDIMENT AND NUTRIENTS.**

Streams in the Lake Tahoe Basin act as receiving waters for overland runoff which may contain substantial quantities of sediments, nutrients, and other impurities. In the absence of an effective filtering mechanism along the stream such as a marsh, these contaminants eventually will be deposited into Lake Tahoe. Diversions of stream water into settling ponds or marshes might be an effective mechanism for cleansing the stream water prior to it emptying into Lake Tahoe. The feasibility of this concept should be further evaluated based on its technical and environmental merits and consistency with the other goals and policies of this Plan.

**8. TRPA SHALL CONDUCT A SURVEY TO IDENTIFY AREAS WHERE EXISTING EXCESS COVERAGE IS CAUSING ENVIRONMENTAL DAMAGE.**

Over a five-year period, TRPA shall survey the streams and watersheds in the Basin to identify areas that show empirical evidence of soil erosion or adverse changes in hydrological conditions as a result of excess coverage. The survey shall propose specific programs to address the problem of excess coverage and may include limits on new coverage, cover age removal, and remedial erosion and runoff control projects.

**9. TRPA SHALL STUDY ON A CONTINUING BASIS THE CAUSE-EFFECT RELATIONSHIPS RELATED TO THE REGION'S ECONOMY, TO PROMOTE A BETTER UNDERSTANDING OF THE POSSIBLE ECONOMIC IMPACTS OF THE REGIONAL PLAN.**

Although economic cause-effect relationships are extremely difficult to establish, the Agency will track key economic indicators (see Goal #3) and investigate possible connections between these indicators and TRPA's policies, using both economic modeling and expert analysis.

### **GOAL #3**

## **IMPLEMENT A MONITORING PROGRAM TO EVALUATE THE ENVIRONMENTAL THRESHOLDS, THE EFFECTIVENESS OF THE REGIONAL PLAN, AND THE IMPLEMENTING ORDINANCES AND PROGRAMS.**

### **POLICIES**

- 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.**

The monitoring program shall include four main components:

- a) Continuous scientific monitoring of environmental conditions related to the thresholds for pelagic Lake Tahoe, littoral Lake Tahoe, tributary streams, surface runoff, groundwater, coverage, stream habitat, lake habitat, carbon monoxide, ozone, visibility and nitrogen deposition.
- b) Periodic evaluations of environmental conditions related to the thresholds for odor, common vegetation, uncommon vegetation, sensitive plants, special interest species, significant habitat, instream flow, Lahontan Cutthroat Trout, noise, recreation, and scenic quality.
- c) Monitoring of socio-economic data to allow analysis of possible socio-economic impacts of the Regional Plan.
- d) Monitoring of management-related data (e.g., numbers of permits issued, numbers and types of enforcement actions) to allow tracking and analysis of TRPA management functions.
- e) As required under the Development and Implementation Priorities Subelement, Goal #1, Policy 1(B)(5), the Agency shall monitor representative tributaries as needed to provide a basis for evaluating the relative health of the watershed within which development is contemplated and progress being made toward meeting thresholds. The monitoring program will monitor stream flows and concentrations of nutrients and sediments to determine annual pollutant loads. This monitoring program shall be in place in a local jurisdiction, and shall establish baseline water quality conditions, before the numerical level defining the top rank for any jurisdiction is lowered.
- f) At least every five years, the Agency shall evaluate the results of its monitoring program. A special component of the monitoring program shall be designed to evaluate the success of IPES at the end of five years. This special component shall be the basis for extending, modifying, or eliminating IPES. The factors for monitoring shall include some nonscientific but readily observable matters, such as the rate of installation of remedial erosion control projects as set forth in the capital improvement program and the extent of retrofitting existing development



with BMPs. Other factors may require more scientific analysis of data gathered, such as stream flow water quality. All such factors shall have predetermined regional and subregional benchmarks to measure against to evaluate the degree of success, based on the recommendations of the Agency's technical committee on monitoring. Indications shall be provided of expected adjustments to be made depending on the results of monitoring. The results of the first five-year evaluation shall not affect the allocations in the sixth year of the schedule included in Goal #2, Policy 2 of the Development and Implementation Priorities Subelement.

**2. THE AGENCY WILL ESTABLISH A SCIENCE ADVISORY PANEL TO REVIEW PERIODICALLY THE TECHNICAL ASSUMPTIONS, TECHNIQUES, AND PROCEDURES ASSOCIATED WITH MONITORING AND ANALYSIS EFFORTS.**

The Science Advisory Panel, comprised of technical experts in various fields, will assist TRPA staff and the APC in developing and implementing the monitoring program. Panel members will be selected based on their technical expertise, professional objectivity, and impartiality.

**3. THE AGENCY WILL PUBLISH PERIODIC REPORTS COVERING PROGRESS ON THRESHOLD ATTAINMENT AND MAINTENANCE, RESEARCH, AND OVERALL MONITORING RESULTS.**

The Agency will publish annual or semi-annual reports on the implementation of the Monitoring and Evaluation Subelement. These reports will generally initiate routine problem assessment and program evaluation functions of the Agency.

**4. THE AGENCY WILL ESTABLISH A SOCIO-ECONOMIC ADVISORY PANEL TO HELP DEVELOP A SOCIO-ECONOMIC MONITORING PROGRAM, TO PERIODICALLY REVIEW AND REPORT ON THE STATE OF THE BASIN'S ECONOMY AND MAKE RECOMMENDATIONS TO THE GOVERNING BOARD.**

TRPA should consider the impacts of the Regional Plan on the Basin's economy and periodically consider adjustments consistent with attainment of environmental threshold carrying capacities. A panel of socio-economic experts should be assembled to assist TRPA in this task.



# ***ATTACHMENT A LAND USE AND MANAGEMENT DESIGNATIONS FOR PLANNING AREAS***

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<u>PLANNING AREA NUMBER AND NAME</u>	<u>DESIGNATIONS</u>	
	<u>Land Use</u>	<u>Management</u>
001A Tahoe City CP	Commercial/ Public Service	Redirection
001B Tahoe City Industrial	Commercial/ Public Service	Mitigation
002 Fairway Tract	Residential	Mitigation
003 Lower Truckee	Recreation	Redirection
004 Burton Creek	Conservation	Mitigation
005 Rocky Ridge	Residential	Mitigation
006 Fish Hatchery	Recreation	Redirection
007 Lake Forest Glen	Residential	Mitigation
008 Lake Forest	Residential	Mitigation
009A Lake Forest Commercial	Commercial/ Public Service	Redirection
009B Dollar Hill	Commercial/ Public Service	Mitigation
010 Dollar Point	Residential	Mitigation
011 Highlands	Residential	Mitigation
012 North Tahoe High School	Recreation	Mitigation
013 Watson Creek	Conservation	Mitigation
014 Cedar Flat	Residential	Mitigation
015 North Star	Recreation	Mitigation
016A Carnelian Woods	Residential	Mitigation
016B Carnelian Bay Subdivision	Residential	Mitigation
017 Carnelian Bay CP	Tourist	Redirection

<u>PLANNING AREA NUMBER AND NAME</u>		<u>DESIGNATIONS</u>	
		<u>Land Use</u>	<u>Management</u>
018	Flick Point/Agate Bay	Residential	Mitigation
019	Martis Peak	Conservation	Mitigation
020	Kingswood West	Residential	Mitigation
021	Tahoe Estates	Residential	Mitigation
022	Tahoe Vista CP	Tourist	Redirection
023	Tahoe Vista Subdivision	Residential	Mitigation
024A	North Tahoe Recreation Area	Recreation	Mitigation
024B	Snow Creek	Recreation	Mitigation
025	Kingswood East	Residential	Mitigation
026	Kings Beach Industrial CP	Commercial/ Public Service	Redirection
027	Woodvista	Residential	Mitigation
028	Kings Beach Residential	Residential	Redirection
029	Kings Beach Commercial CP	Commercial/ Public Service	Redirection
030	Mount Rose	Conservation	Mitigation
031	Brockway	Residential	Mitigation
032	North Stateline Casino Core CP	Tourist	Redirection
033	Stateline Point	Residential	Mitigation
034	Crystal Bay	Residential	Mitigation
035	Crystal Bay Condominiums	Residential	Mitigation
036	Incline Village #4/Ponderosa	Residential	Mitigation
037	Lakeview	Residential	Mitigation
038	Wood Creek	Residential	Mitigation
039	Incline Village #2	Residential	Mitigation
040	Incline Village #1	Residential	Mitigation
041	Incline Village #3	Residential	Mitigation

<u>PLANNING AREA NUMBER AND NAME</u>		<u>DESIGNATIONS</u>	
		<u>Land Use</u>	<u>Management</u>
042	Incline Village #5	Residential	Mitigation
043	Chateau/Country Club	Residential	Mitigation
044	Fairway	Residential	Mitigation
045	Incline Village Commercial CP	Commercial/ Public Service	Mitigation
046	Incline Village Residential	Residential	Mitigation
047	Tunnel Creek	Conservation	Mitigation
048	Incline Village Tourist CP	Tourist	Mitigation
049	Mill Creek	Residential	Mitigation
050	Mt. Shadows	Residential	Mitigation
051	Tyrolian Village	Residential	Mitigation
052	Incline Ski	Recreation	Mitigation
053	Incline Lake	Recreation	Mitigation
054	Ponderosa Ranch CP	Commercial/ Public Service	Redirection
055	East Shore	Recreation	Mitigation
056	Marlette Lake	Conservation	Mitigation
057	Spooner Lake	Recreation	Mitigation
058	Glenbrook	Residential	Mitigation
059	Shakespeare Point	Residential	Mitigation
060	Genoa Peak	Conservation	Mitigation
061	Logan Creek	Residential	Mitigation
062	Cave Rock	Residential	Mitigation
063	Lincoln	Residential	Mitigation
064	Lakeridge	Residential	Mitigation
065	Skyland	Residential	Mitigation

<u>PLANNING AREA NUMBER AND NAME</u>		<u>DESIGNATIONS</u>	
		<u>Land Use</u>	<u>Management</u>
066	Zephyr Cove	Recreation	Mitigation
067	Marla Bay/Zephyr Heights	Residential	Mitigation
068	Round Mound	Recreation	Mitigation
069	Elk Point	Residential	Mitigation
070A	Edgewood	Recreation	Mitigation
070B	Rabe	Recreation	Mitigation
071	Round Hill Commercial CP	Commercial/ Public Service	Mitigation
072	Round Hill/Tahoe Dempsy	Residential	Mitigation
073	Lake Village	Residential	Mitigation
074	Round Hill Residential	Residential	Mitigation
075	Douglas County Sewer Improvement District	Commercial/ Public Service	Mitigation
076	Kingsbury Commercial CP	Commercial/ Public Service	Mitigation
077	Oliver Park	Residential	Redirection
078	Middle Kingsbury	Residential	Mitigation
079	Chimney Rock	Residential	Mitigation
080	Kingsbury Drainage	Conservation	Mitigation
081	Kingsbury Village	Residential	Mitigation
082	Upper Kingsbury	Residential	Mitigation
083	Kingsbury Heights	Residential	Mitigation
084	Palisades	Residential	Mitigation
085	Lakeview Heights	Residential	Mitigation
086	Heavenly Valley Nevada	Recreation	Mitigation
087	Heavenly Valley California	Recreation	Mitigation
088	Tahoe Village	Residential	Mitigation

<u>PLANNING AREA NUMBER AND NAME</u>		<u>DESIGNATIONS</u>	
		<u>Land Use</u>	<u>Management</u>
089	Lakeside Park	Residential	Mitigation
089A	Stateline CP	Tourist	Mitigation
089B	Stateline/Ski Run CP	Tourist	Redirection
090	Tahoe Meadows	Residential	Mitigation
091	Stateline/Ski Run CP	Tourist	Redirection
092	Pioneer/Ski Run	Residential	Redirection
093	Bijou	Residential	Mitigation
094	Glenwood	Residential	Mitigation
095	Trout/Cold Creek	Conservation	Mitigation
096	Pioneer Village	Residential	Mitigation
097	Bijou Pines	Residential	Mitigation
098	Bijou/Al Tahoe CP	Commercial/ Public Service	Redirection
099	Al Tahoe Residential	Residential	Redirection
100	Truckee Marsh	Conservation	Maximum Regulation
101	Bijou Meadow	Recreation	Mitigation
102	Tahoe Keys	Residential	Mitigation
103	Sierra Tract - Commercial	Commercial/ Public Service	Redirection
104	Highland Woods	Residential	Mitigation
105	Sierra Tract	Residential	Redirection
106	Montgomery Estates	Residential	Mitigation
107	Black Bart	Residential	Mitigation
108	Winnemucca	Residential	Mitigation
109	Tahoe Valley Campground	Recreation	Mitigation
110	South "Y"	Commercial/ Public Service	Redirection

<u>PLANNING AREA NUMBER AND NAME</u>		<u>DESIGNATIONS</u>	
		<u>Land Use</u>	<u>Management</u>
111	Tahoe Island	Residential	Mitigation
112	Gardner Mountain	Residential	Mitigation
113	Industrial Tract	Commercial/ Public Service	Redirection
114	Bonanza	Residential	Mitigation
115	Golden Bear	Residential	Mitigation
116	Airport	Commercial/ Public Service	Redirection
117	Tahoe Paradise (T.P.) Washoan	Residential	Mitigation
118	Twin Peaks	Conservation	Mitigation
119	Country Club Meadow	Recreation	Mitigation
120	Tahoe Paradise (T.P.) Meadowvale	Residential	Mitigation
121	Freel Peak	Conservation	Maximum Regulation
122	Tahoe Paradise - Mandan	Residential	Mitigation
123	Meyers Forest	Conservation	Mitigation
124	Meyers Residential	Residential	Mitigation
125	Meyers Commercial CP	Commercial/ Public Service	Mitigation
126	Pope Beach	Recreation	Redirection
127	Camp Richardson	Recreation	Mitigation
128	Baldwin	Recreation	Redirection
129	Fallen Leaf North	Recreation	Mitigation
130	Angora Ridge	Conservation	Mitigation
131	Angora Highlands	Residential	Mitigation
132	Mountain View	Residential	Mitigation
133	Tahoe Paradise - Upper Truckee	Residential	Mitigation
134	Echo View	Residential	Mitigation



<u>PLANNING AREA NUMBER AND NAME</u>		<u>DESIGNATIONS</u>	
		<u>Land Use</u>	<u>Management</u>
135	Tahoe Paradise - Chiapa	Residential	Mitigation
136	KOA/Rainbow	Recreation	Mitigation
137	Christmas Valley	Residential	Mitigation
138	Tahoe Paradise - Nahane	Residential	Mitigation
139	Dardenelles	Conservation	Maximum Regulation
140	Echo Summit	Recreation	Mitigation
141	Luther Pass	Recreation	Mitigation
142	Echo Lake	Recreation	Mitigation
143	Desolation	Conservation	Maximum Regulation
144A	Fallen Leaf Forest Service Tracts	Recreation	Mitigation
144B	Lily/Angora Lakes	Recreation	Mitigation
145	South Fallen Leaf Lake	Residential	Mitigation
146	Emerald Bay	Recreation	Mitigation
147	Paradise Flat	Residential	Mitigation
148	Meeks Creek	Conservation	Mitigation
149	Rubicon	Residential	Mitigation
150	Meeks Bay	Recreation	Redirection
151	Glenridge	Residential	Mitigation
152	McKinney Lake	Conservation	Mitigation
153	Sugar Pine Point	Recreation	Mitigation
154	Tahoma Residential	Residential	Mitigation
155	Tahoma Commercial	Tourist	Redirection
156	Chambers Landing	Residential	Mitigation
157	Homewood/Tahoe Ski Bowl	Recreation	Mitigation
158	McKinney Tract	Residential	Mitigation

<u>PLANNING AREA NUMBER AND NAME</u>		<u>DESIGNATIONS</u>	
		<u>Land Use</u>	<u>Management</u>
159	Homewood Commercial	Tourist	Redirection
160	Homewood Residential	Residential	Mitigation
161	Tahoe Pines	Residential	Mitigation
162	Blackwood	Conservation	Mitigation
163	Lower Ward Valley	Conservation	Mitigation
164	Sunnyside/Skyland	Residential	Mitigation
165	Timberland	Residential	Mitigation
166	Upper Ward Valley	Recreation	Mitigation
167	Alpine Peaks	Residential	Mitigation
168	Talmont	Residential	Mitigation
169	Sunnyside	Tourist	Redirection
170	Tahoe Park/Pineland	Residential	Mitigation
171	Tavern Heights	Residential	Mitigation
172	Mark Twain Tract	Residential	Redirection
173	Granlibakken	Tourist	Mitigation
174	64 Acre Tract	Recreation	Redirection
175	Cascade Properties	Residential	Mitigation

# ***ATTACHMENT B***

## ***REGIONAL PLAN GLOSSARY***

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For the purpose of this Plan, certain terms or words used herein shall be interpreted as follows: Words in the present tense include the future; words in the singular number include the plural number, and words in the plural number include the singular number. The word "shall" is mandatory, not permissive, unless the context indicates that a directory meaning is intended. <sup>§</sup>

**Accessory Uses:** A use, building or other facility customarily a part of any permitted use that is clearly incidental and secondary to the permitted use and which does not change the character or intensity of the permitted use, or affect other properties in the vicinity. Such uses are dependent on the primary use and may not operate independent of the primary use.

**Activity:** Any conduct, active or passive, which may have an impact on the land, air, water, space or other natural resource of the Region.

**Additional Development:** Development that did not exist, or was not approved, on the effective date of the Regional Plan. Relocation or reconstruction of development is not additional development.

**Advisory Planning Commission (APC):** The Advisory Planning Commission of TRPA (Compact, Article III(h)).

**Agency:** The Tahoe Regional Planning Agency including the Agency Governing Body and Agency staff.

**Allocation:** An apportionment of additional development opportunity for residential, commercial, tourist accommodation, and certain recreational projects.

**Best Management Practices:** Alternative structural and nonstructural practices, proven effective in erosion control and management of surface runoff in Lake Tahoe Region.

**Commercial:** The retail or wholesale sale or rental of any article, substance, commodity or service.

**Compact:** The Tahoe Regional Planning Compact, as amended and set forth in California Government Code Section 66801, Nevada Revised Statutes Section 277.200, or Public Law 96-551, 94 Stat. 3233, (December 19, 1980).

**Condominium:** An interest in real property defined or recognized under applicable (California or Nevada) state law as a condominium.

**Coverage:** See Land Coverage

**Develop:** The act of creating, establishing, constructing, or altering any project or activity.

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<sup>§</sup> Amended 6/23/04

Development Potential: Additional development which may be permitted by this Plan.

Division of Land: See Subdivision.

Effective Date of the Regional Plan: The date upon which TRPA commences implementation of the Regional Plan required by Article V of the Compact. This date shall be set forth by ordinance.

Exist: Legally present on the effective date of the TRPA Regional Plan.

Findings: A written statement supported by substantial evidence in the record of the ultimate facts and the rationale supporting a conclusion that applicable Code or Compact requirements are met.

Fish Habitat: The combination of qualities that create suitable conditions for the growth, reproduction, and production of fish. Specifically refers to those special environmental characteristics necessary for habitat needs of food, water, cover, and reproduction.

Flood Plain: Areas adjoining a watercourse, lake or other body of water that have been or may be covered by flood waters.

Governing Board: The governing board of TRPA (Compact, Article III (a)).

Household: Collectively refers to all the individuals residing in a residential unit, whether related or not.

Land Coverage: 1) A man-made structure, improvement or covering, either created before February 10, 1972 or created after February 10, 1972 pursuant to either TRPA Ordinance No. 4, as amended, or other TRPA approval, that prevents normal precipitation from directly reaching the surface of the land underlying the structure, improvement or covering. Such structures, improvements and coverings include but are not limited to roofs, decks, surfaces that are paved with asphalt, concrete or stone, roads, streets, sidewalks, driveways, parking lots, tennis courts, patios; and 2) lands so used before February 10, 1972, for such uses as for the parking of cars and heavy and repeated pedestrian traffic that the soil is compacted so as to prevent substantial infiltration. A structure, improvement or covering shall not be considered as land coverage if it permits at least 75 percent of normal precipitation directly to reach the ground and permits growth of vegetation on the approved species list. Common terms related to land coverage are:

- 1) Hard Coverage--man-made structures as defined above.
- 2) Soft Coverage--compacted areas without structures as defined above.

Land Disturbance: Disruption of land that includes alteration of soil, vegetation, surface hydrology, or subsurface hydrology on a temporary or permanent basis, through action including, but not limited to, grading.

Level of Service: For an intersection or roadway segment, the level of service is the delay to motorized vehicles and the volume/capacity ratio and is expressed by a series of letter grades from A (low v/c ratio and delay) through E (high v/c ratio and delay) and F (blocked).

Linear Public Facility: Public service facilities which are linear in nature such as roads, streets, trails, utilities transmission facilities and other similar right-of-ways. This also includes accessory uses directly relating to facilities such as pump houses, lift stations, sub stations, and access right-of-ways.

Lot: A parcel.

Multiple Family Dwelling: More than one residential unit located on a parcel. Multiple family dwellings may be contained in separate buildings such as two or more detached houses on a single parcel, or in a larger building on a parcel such as a duplex, a triplex, or an apartment building. Vacation rentals are included, up to but not exceeding a fourplex, provided they meet the Local Government Neighborhood Compatibility Requirements as defined in Chapter 2. One detached secondary residence is included under secondary residence.

Multi-Residential: Residential development at a greater density than one unit per parcel.

Native Plants: Plants indigenous or occurring naturally in the Lake Tahoe Basin.

Nonconforming Uses: Uses legally commenced prior to the effective date of the Regional Plan, July 1, 1987, which would be prohibited if new, are nonconforming uses and may be continued, subject to the provisions of Section 18.5. Existing development in a special use category for which the findings in subsection 18.1.B have not been or can not be made shall be nonconforming uses.

Off-Road Vehicle Courses: Areas authorized by the Agency for the use of off road vehicles; including, but not limited to, dirt bike, enduro, hill climbing or other off-road motorcycle courses; also, areas authorized by the Agency for competitive events utilizing four wheel drive vehicles. Off road vehicle use does not include the use of vehicles associated with timber harvest activities on approved skid trails or maintenance vehicles.

PAOT (People At One Time): The number of people that a recreation use can accommodate at a given time. A measure of recreation capacity.

Parcel: An area of land or in the case of a condominium, separate space, whose boundaries have been established by some legal instrument such as a recorded map or recorded deed and which is recognized as a separate legal entity for purposes of transfer of title.

Permitted: Projects which have been reviewed and approved by the Agency.

Project: An activity undertaken by any person, including any public agency, that may substantially affect the land, water, air, space or any other natural resources of the region (Compact, Article II(h)).

Public Right-of-Way: Lands dedicated or offered for dedication by title or easement for the purpose of access by the general public.

Public Service: Public service shall be public or quasi-public uses or activities pertaining to communication, transportation, utilities, government, religion, public assembly, education, health and welfare, or cultural and civic support. It does not include such uses or activities that are primarily involved in commercial enterprises.

Public Health and Safety Facilities: Facilities operated by public agencies for protection of the public, including but not limited to, fire stations, other fire prevention and fire-fighting facilities, water and sewage facilities, transportation maintenance/storage facilities, police and sheriff substations and headquarters, including interim incarceration facilities able to accommodate a maximum of 100 prisoners at one time, and emergency facilities.

Recreation: Uses and facilities pertaining to outdoor forms of play, amusement, and relaxation.

Redevelopment: Development by a redevelopment agency pursuant to state and federal redevelopment law.

Region: All that area described in Article II(a) of the Tahoe Regional Planning Compact. See also Basin.

Regional Plan: The long-term general plan for the development of the region (Compact, Article II(d)).

Residential: Uses, facilities and activities primarily pertaining to the occupation of buildings for living, cooking, and sleeping by the owner as a permanent or second home, by renters on a monthly or longer term basis, or by renters of a vacation rental that meets the Local Government Neighborhood Compatibility Requirements.

Residential Unit: One or more rooms containing one or more bedrooms, with not more than one kitchen, designed to be occupied permanently as an independent housekeeping unit by one family or one collective household with facilities for living, cooking, sleeping and eating.

Resource Management: Uses, facilities, and activities pertaining to the utilization, management, or conservation of natural resources.

Scenic Highway and Corridor: Roadway that has been determined to have outstanding scenic value. The scenic corridor includes the roadway right-of-way and extends 100 feet perpendicularly from the edge of the right-of-way boundary.

Shorezone: The area including the nearshore, foreshore, and backshore.

Single Family House: A detached structure which contains one residential unit.

Subdivision: A subdivision is the act or product of dividing, by a legal instrument such as a recorded deed or map, land, airspace, structures, boat slips or other property into two or more entities, and which entities are recognized, under the law of either state, as separate legal entities for purposes of transfer of title. Subdivisions include but are not limited to divisions of real property, improved or unimproved, for the purpose of use, sale, lease or financing, immediate or future, into two or more condominiums, community apartments, stock cooperatives, lots or parcels.

Tahoe Basin: A general term for the Lake Tahoe drainage basin and portions of the Lower Truckee River basin within the Region. Often used in place of the term "Region."

Thresholds: Environmental threshold carrying capacities (Compact, Article II(i)).

Tolerance District: A segment of shoreline which exhibits a unique assemblage of compositional and geometric properties, possessing a distinctive physical capability in terms of present or projected use. Eight shorezone districts are recognized and described in more detail in the 1983 Shorezone Plan for Lake Tahoe.

Tourist Accommodation: Uses, facilities, and activities primarily pertaining to the occupation of buildings for eating, sleeping, and living on a temporary basis by persons whose permanent residence is elsewhere.

TRPA: Tahoe Regional Planning Agency, including the Governing Board, Advisory Planning Commission and staff.

Urban Area: Urban areas are those areas designated as residential, tourist, or commercial/public service by the plan area statements. [Amended 12/21/94]

Vehicle Miles Traveled (VMT): The total miles traveled by a motorized vehicle, or a number of motorized vehicles, within a specific area or during a specified period of time.

Vehicle Trip: A vehicle trip is a one directional vehicle movement to or from a project area. The number of vehicle trips assigned to a project shall be the total daily vehicle trips to or from the project at its maximum hours of full operation during the review period. When exact numbers of vehicle trips are not known for a use, they shall be determined from the Trip Table or other competent technical information.





## ***TABLE OF AMENDMENTS***

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<b>August 26, 1992, Resolution 92-27;</b>	Amends the footnote (1), to the single event noise threshold for aircraft.
<b>September 22, 1993, Resolution 93-16;</b>	Deletion of the Management Standard and the addition of a Numerical Standard
<b>May 28, 1997, Resolution 97-08;</b>	Amends Exhibit A to revise the Noise, Fisheries, and Vegetation Thresholds
<b>March 22, 2000, Resolution 00-05</b>	Amends Exhibit A to revise the Air Quality Thresholds
<b>May 23, 2001, Resolution 01-13</b>	Amends Exhibit A to add Numerical Standard for Late Seral and Old Growth Forest Ecosystems
<b>April 24, 2002, Resolution 02-07</b>	Amends Exhibit A to revise the Vegetation Thresholds
<b>July 23, 2003, Resolution 03-16</b>	Additional Noise Measurement Standards for Watercraft



# ATTACHMENT C

## RESOLUTION NO. 82-11

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### RESOLUTION OF THE GOVERNING BODY OF THE TAHOE REGIONAL PLANNING AGENCY ADOPTING ENVIRONMENTAL THRESHOLD CARRYING CAPACITIES FOR THE LAKE TAHOE REGION

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WHEREAS, the Governing Body of the Tahoe Regional Planning Agency (“TRPA”) finds:

1. On December 19, 1980 the Tahoe Regional Planning Compact (“Compact”) was amended, requiring, among other things, that the TRPA adopt Environmental Threshold Carrying Capacities for the Lake Tahoe Region. The Compact further requires that, within one (1) year after the adoption of the Environmental Threshold Carrying Capacities TRPA shall amend its regional plan so that, at a minimum, the plan and all of its elements, as implemented through Agency ordinances, rules and regulations, achieves and maintains the adopted Environmental Threshold Carrying Capacities.

2. The Compact finds, among other things, that: (a) the waters of Lake Tahoe and other resources of the Lake Tahoe Region are threatened with deterioration or degeneration; (b) said region exhibits unique environmental and ecological values; (c) said region is experiencing problems of resource use and deficiencies of environmental control; (d) increasing urbanization is threatening the ecological values of said region; (e) maintenance of the social and economic health of the region depends on maintaining the significant scenic, recreational, educational, scientific, natural and public health values provided by said region; (f) there is a public interest in protecting, preserving and enhancing said values for the residents of and visitors to said region; (g) in order to preserve the scenic beauty and outdoor recreational opportunities of said region, there is a need to insure an equilibrium between said region’s natural endowment and its man-made environment; and (h) it is imperative that there be established a TRPA with the powers, among others, to establish Environmental Threshold Carrying Capacities and to adopt and enforce a regional plan and implementing ordinances which will achieve and maintain such capacities while providing opportunities for orderly growth and development consistent therewith.

3. The Compact defines “environmental threshold carrying capacity” as “an environmental standard necessary to maintain a significant scenic, recreational, educational, scientific or natural value of the region or to maintain public health and safety within the region”.

4. Although not required to do so by the Compact, the Governing Body and Advisory Planning Commission of the TRPA, prior to the adoption of this resolution, conducted duly-noticed public hearings, at which hearings considerable oral testimony and documentary evidence were received and considered by the Governing Body and Advisory Planning Commission. Evidence in the record of said hearings, which evidence is hereby determined substantial, established that each of the Environmental Threshold Carrying Capacities adopted by this resolution is necessary to maintain significant scenic, recreational, educational, scientific or natural value of the Lake Tahoe region or to maintain public health and safety within the region.

5. The Environmental Threshold Carrying Capacities adopted hereby comply in all respects, procedural and substantive, with the Compact, as amended, and are necessary to effectuate and implement the same.

6. In addition to other evidence received at said public hearings, the Governing Body of the TRPA, prior to the adoption of this resolution, has received for the administrative record and had opportunity to review, a lengthy detailed study report concerning the Environmental Threshold Carrying Capacities, which report was prepared by TRPA staff and consultants and substantiates the Environmental Threshold Carrying Capacities adopted hereby.

7. The Environmental Threshold Carrying Capacities adopted by this resolution were the subject of an environmental impact statement (“EIS”), which was prepared, considered, circulated, certified and otherwise processed, reviewed and approved by the TRPA in accordance with the substantive and procedural provisions of Article VII of the Compact. Without limiting the generality of the foregoing, the Governing Body further finds that the said EIS contained the information required by Article VII (a)(2) of the Compact and provided the Governing Body substantial information upon which it could base a reasoned review and evaluation of the environmental impacts of the Environmental Threshold Carrying Capacities adopted by this resolution. The Governing Body further finds that, prior to approving this resolution, it made the alternative written findings required by Article VII (d) of the Compact, a separate written finding having been made for each significant effect identified in the EIS as resulting from the Environmental Threshold Carrying Capacities adopted hereby. The Governing Body further finds that said written findings are supported by substantial evidence in the record.

8. Pursuant to Article II (l) of the Compact, Environmental Threshold Carrying Capacities are to include, but not be limited to, standards for air quality, water quality, soil conservation, vegetation preservation and noise, thus permitting, if not requiring, the adoption of standards for other elements necessary to maintain a significant scenic, recreational, educational, scientific or natural value of the Lake Tahoe Region or to maintain public health and safety within the region.

9. In certain instances it was not reasonably possible or feasible to set forth Environmental Threshold Carrying Capacities as numerical standards, requiring in such instances that standards be set forth as management standards. The Governing Body further finds that the inability to set forth a numerical standard for a particular Environmental Threshold Carrying Capacity does not render such Environmental Threshold Carrying Capacity improper or inappropriate for adoption under the Compact. In association with adoption of Environmental Threshold Carrying Capacities, the Governing Body is adopting policy statements that will provide specific direction for Agency staff in development of the regional plan. It is the intent of the Governing Body that amendment or repeal of the Policy Statements shall be subject to the dual-majority voting provisions of Article III (g)(1) of the Compact.

10. The definition of “environmental threshold carrying capacity” set forth in Article II (i) of the Compact requires an exercise of discretion by the Governing Body in setting a standard “necessary to maintain a significant scenic, recreational, educational, scientific or natural value of the region or to maintain public health and safety within the region.” In approving this resolution, the Governing Body of the TRPA recognizes that it

must amend the TRPA regional plan so that, at a minimum, the plan and all of its elements, as implemented through TRPA ordinances, rules and regulations, achieves and maintains the adopted Environmental Threshold Carrying Capacities. The Governing Body further recognizes that it is required under Article V (d) of the Compact to adopt a regional plan attaining and maintaining federal, state, or local air and water quality standards, whichever are strictest, in the respective portions of the Lake Tahoe Region for which such standards are applicable.

11. The Environmental Threshold Carrying Capacities adopted by this resolution are to be achieved and maintained through implementation of TRPA's regional plan, may be achieved and maintained pursuant to an orderly time schedule adopted for that purpose.

12. In adopting this resolution, the TRPA Governing Body expressly recognizes that there is a distinction between adoption of Environmental Threshold Carrying Capacities and the subsequent planning process resulting in an amended regional plan so that, at a minimum, the plan and all of its elements achieves and maintains the adopted Environmental Threshold Carrying Capacities.

13. Inasmuch as the Compact specifies no particular method for the adoption of Environmental Threshold Carrying Capacities, this resolution is a proper method for the adoption thereof.

14. The Governing Body recognizes that, in adoption of Environmental Threshold Carrying Capacities, it is establishing standards for the Lake Tahoe Region which must be carried out through the regional plan and that its jurisdiction to achieve and maintain those standards is limited to the Lake Tahoe Region.

15. The Governing Body recognizes that, in establishing Environmental Threshold Carrying Capacities for the Lake Tahoe Region, it is establishing the basis for a long-term program which will protect and enhance the significant environmental values of the region, which program will be reviewed from time to time to ensure its consistency with the currently available scientific evidence and technical and other information. Attainment of the Environmental Threshold Carrying Capacities prior to the dates scheduled in the regional plan, while beneficial, is not required.

16. The Governing Body recognizes that the Tahoe Regional Planning Compact, as amended, provides for the adoption of an orderly program to attain the environmental standards through the development of its regional plan, including time schedules for implementation of specific measures necessary to attain those standards and that an immediate or short-range demonstration of attainment of some standards is physically impossible.

17. The Governing Body recognizes and respects the legislative intent of the States of Nevada and California and the United States Congress in entering into and approving the Tahoe Regional Planning Compact, as amended.

18. The Governing Body recognizes that the degree of success in attaining and maintaining the Environmental Threshold Carrying Capacities depends upon a program of mutual cooperation among the two states, local governmental entities, the Federal Government and the private sector in implementing its regional plan.

NOW, THEREFORE, BE IT RESOLVED by the Governing Body of the Tahoe Regional Planning Agency as follows:

1. That the Governing Body will develop its regional plan, recognizing that out-of-basin sources of air pollution may affect its ability to achieve and maintain environmental standards. The cooperation of the States of California and Nevada and the Federal Government will be required to control sources of air pollution which contribute nitrogen loadings to the Lake Tahoe Region.

2. That the Governing Body hereby recognizes the long-term nature of the planning process established by the Compact and further recognizes that attainment and maintenance of the Environmental Threshold Carrying Capacities is a continuing process requiring establishment of time schedules by which the environmental standards will be attained, and the Governing Body intends to amend its regional plan to meet such requirements with realistic time schedules and the best available means.

3. That the Governing Body hereby recognizes the long-term nature of the planning process established by the Compact and further recognizes that some of the Environmental Threshold Carrying Capacities for water quality are currently being, and will likely continue to be, exceeded until some time after the full implementation of the loading reductions prescribed by the thresholds.

4. The Environmental Threshold Carrying Capacities shall be reviewed by staff and the Governing Body at the time of adoption of the regional plan to assure that said plan and the Environmental Threshold Carrying Capacities are consistent, and shall be reviewed at least every five years thereafter by the most appropriate means. After such review, the pertinent environmental threshold standards shall be amended where the scientific evidence and technical information indicate:

- (a) two or more threshold standards are mutually exclusive; or
- (b) substantial evidence to provide a basis for a threshold standard does not exist; or
- (c) a threshold standard cannot be achieved; or
- (d) a threshold standard is not sufficient to maintain a significant value of the Region or additional threshold standards are required to maintain a significant value.

The Agency shall maintain a monitoring program to determine progress towards attainment of threshold standards and to provide the basis for such review and amendment of the threshold standards pursuant to the foregoing criteria.

5. That the Governing Body hereby recognizes the long-term nature of establishing, planning for and actually achieving the Environmental Threshold Carrying Capacities and will diligently pursue the attainment of those environmental standards through the regional plan and its schedule for implementation. The Governing Body further recognizes that the environmental standards adopted hereby may be considered as part of the environmental review process on projects reviewed pursuant to Article VI (b) of the Compact during the period of time prior to adoption of the regional plan

envisioned by Article V(c) of the Compact and adoption of the ordinances required by Article V (g), and that no provision of this resolution or the environmental standards adopted hereby shall affect the maximum number of building permits authorized under the provisions of Article VI(c) of the Compact.

6. That the Governing Body hereby adopts the following as a statement of intent, which will guide the development of the regional plan and actions subsequent to the adoption of that plan:

- (a) The Governing Board hereby finds and declares that in adopting these Environmental Threshold Carrying Capacities it does not intend, and it shall not be construed as authorizing the Agency, to exercise its power to grant or deny a permit in a manner which shall take or damage private property for public use without payment of just compensation.
- (b) Nothing in the adoption of these Environmental Threshold Carrying Capacities is intended to increase or decrease the rights of any property owner under the Constitution of California, Nevada or the United States.
- (c) It is the intent of the Governing Body that the Environmental Threshold Carrying Capacities will provide the basis for the adoption and enforcement of a regional plan and implementing ordinances which will achieve and maintain such capacities while at the same time providing opportunities for orderly growth and development consistent with such capacities. It is further the intent of the Governing Body that the regional plan will provide for carrying out all of the policies expressed in Article I of the compact.

7. That the Governing Body directs that the regional plan be so structured as to require a fair share of the financial resources required to implement the plan be borne by each of the entities or groups with interests in the region, including the State of California, the State of Nevada, the United States Government, entities of local government with jurisdiction within the Lake Tahoe Region, and the private sector; and

8. That the Environmental Threshold Carrying Capacities set forth in Exhibit "A", attached hereto and incorporated herein by this reference, be, and the same hereby are, adopted pursuant to Article V (b) of the Compact.

PASSED AND ADOPTED by the Governing Body of the Tahoe Regional Planning Agency this twenty-sixth day of August, 1982, by the following vote:

Ayes: Mr. Heikka, Mr. Hsieh, Mr. Meder, Mr. Stewart, Mr. Kjer, Mr. Steele,  
Mr. Swackhamer, Mr. Sevison, Mr. Weise, Mr. Reed, Mr. Jacobsen,  
Mr. Hall, Mr. Woods, Mr. Ferrari

Nays: None

Abstain: None

Absent: None



Bennie D. Ferrari, Chairman



EXHIBIT A  
TO RESOLUTION NO. 82-11  
AS AMENDED

RESOLUTION OF THE GOVERNING BODY OF THE TAHOE REGIONAL PLANNING  
AGENCY ADOPTING ENVIRONMENTAL THRESHOLD CARRYING CAPACITIES FOR  
THE LAKE TAHOE REGION

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**WATER QUALITY**

Pelagic Lake Tahoe

NUMERICAL STANDARD

Reduce dissolved inorganic nitrogen (N) loading from all sources by 25 percent of the 1973-81 annual average. Achieve the following long-term water quality standards:

- Annual mean phytoplankton primary productivity: 52gmC/m<sup>2</sup>/yr.
- Winter (December - March) mean Secchi disk transparency: 33.4m.

POLICY

This threshold is currently being exceeded and will likely continue to be exceeded until some time after full implementation of the loading reductions prescribed by the thresholds.

MANAGEMENT STANDARD

Reduce the loading of dissolved phosphorus, iron, and other algal nutrients from all sources as required to achieve ambient standards for primary productivity and transparency.

Reduce dissolved inorganic nitrogen loads from surface runoff by approximately 50 percent, from groundwater approximately 30 percent, and from atmospheric sources approximately 20 percent of the 1973-81 annual average. This threshold relies on predicted reductions in pollutant loadings from out-of-basin sources as part of the total pollutant loading reduction necessary to attain environmental standards, even though the Agency has no direct control over out-of-basin sources. The cooperation of the states of California and Nevada will be required to control sources of air pollution which contribute nitrogen loadings to the Lake Tahoe Region.

Littoral Lake Tahoe

NUMERICAL STANDARD

Reduce dissolved inorganic nitrogen loading to Lake Tahoe from all sources by 25 percent of the 1973-81 annual average.

MANAGEMENT STANDARD

Reduce dissolved inorganic nitrogen loads from surface runoff by approximately 50 percent, from groundwater approximately 30 percent, and from atmospheric sources approximately 20 percent of the 1973-81 annual average. This threshold relies on predicted reductions in pollutant loadings from out-of-basin sources as part of the total pollutant loading reduction necessary to attain environmental standards, even though the Agency has no direct control over out of Basin sources. The cooperation of the states of California and Nevada will be required to control sources of air pollution which contribute nitrogen loadings to the Lake Tahoe Region.

#### NUMERICAL STANDARD

Decrease sediment load as required to attain turbidity values not to exceed three NTU. In addition, turbidity shall not exceed one NTU in shallow waters of the Lake not directly influenced by stream discharges.

Reduce the loading of dissolved inorganic nitrogen, dissolved phosphorus, iron, and other algal nutrients from all sources to meet the 1967-71 mean values for phytoplankton primary productivity and periphyton biomass in the littoral zone.

#### Tributaries

##### NUMERICAL STANDARD

Attain applicable state standards for concentrations of dissolved inorganic nitrogen, dissolved phosphorus, and dissolved iron. Attain a 90 percentile value for suspended sediment concentration of 60 mg/1.

##### MANAGEMENT STANDARD

Reduce total annual nutrient and suspended sediment load to achieve loading thresholds for littoral and pelagic Lake Tahoe.

#### Surface Runoff

##### NUMERICAL STANDARD

Achieve a 90 percentile concentration value for dissolved inorganic nitrogen of 0.5 mg/1, for dissolved phosphorus of 0.1 mg/1, and for dissolved iron of 0.5 mg/1 in surface runoff directly discharged to a surface water body in the Basin.

Achieve a 90 percentile concentration value for suspended sediment of 250 mg/1.

##### MANAGEMENT STANDARD

Reduce total annual nutrient and suspended sediment loads as necessary to achieve loading thresholds for tributaries and littoral and pelagic Lake Tahoe.

#### Groundwater

##### MANAGEMENT STANDARD

Surface runoff infiltration into the groundwater shall comply with the uniform Regional Runoff Quality Guidelines as set forth in Table 4-12 of the Draft Environmental Threshold Carrying Capacity Study Report, May, 1982.

Where there is a direct and immediate hydraulic connection between ground and surface waters, discharges to groundwater shall meet the guidelines for surface discharges, and the Uniform Regional Runoff Quality Guidelines shall be amended accordingly.

#### Other Lakes

##### NUMERICAL STANDARD

Attain existing water quality standards.

## SOIL CONSERVATION

### Impervious Cover

#### MANAGEMENT STANDARD

Impervious cover shall comply with the Land-Capability Classification of the Lake Tahoe Basin, California-Nevada, A Guide For Planning, Bailey, 1974.

### Stream Environment Zones

#### NUMERICAL STANDARD

Preserve existing naturally functioning SEZ lands in their natural hydrologic condition, restore all disturbed SEZ lands in undeveloped, unsubdivided lands, and restore 25 percent of the SEZ lands that have been identified as disturbed, developed or subdivided, to attain a 5 percent total increase in the area of naturally functioning SEZ lands.

## AIR QUALITY

### Carbon Monoxide

#### NUMERICAL STANDARD

Maintain carbon monoxide concentrations at or below 9 parts per million averaged over 8 hours provided that each state shall review and certify to TRPA by February 28, 1983, as to what their carbon monoxide standards are as of that date, and this TRPA threshold standard shall be changed effective February 28, 1983, if necessary, to be the applicable state carbon monoxide standard applicable to the respective portions of the region in accordance with Article V (d) of the Compact.

#### MANAGEMENT STANDARD

Reduce traffic volumes on the U.S. 50 Corridor by 7 percent during the winter from the 1981 base year between 4:00 p.m. and 12:00 midnight, provided that those traffic volumes shall be amended as necessary to meet the respective state standards.

### Ozone

#### NUMERICAL STANDARD

Maintain ozone concentrations at or below 0.08 parts per million averaged over 1 hour.

Maintain oxides of nitrogen (NO<sub>x</sub>) emissions at or below the 1981 level.

### Regional Visibility

#### NUMERICAL STANDARDS<sup>§</sup>

Achieve an extinction coefficient of 25 Mm<sup>-1</sup> at least 50 percent of the time as calculated from aerosol species concentrations measured at the Bliss State Park monitoring site (visual range of 156 kilometers, 97 miles); and

Achieve an extinction coefficient of 34 Mm<sup>-1</sup> at least 90 percent of the time as calculated from aerosol species concentrations measured at the Bliss State Park monitoring site (visual range of 115 kilometers, 71 miles).

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<sup>§</sup> Amended 03/22/00

§(Calculations will be made on three year running periods. Beginning with the existing 1991-93 monitoring data as the performance standards to be met or exceeded.)

Reduce wood smoke emissions by 15% of the 1981 base values through technology, management practices and educational programs.

### Subregional Visibility

#### NUMERICAL STANDARD<sup>§</sup>

Achieve an extinction coefficient of  $50 \text{ Mm}^{-1}$  at least 50 percent of the time as calculated from aerosol species concentrations measured at the South Lake Tahoe monitoring site (visual range of 78 kilometers, 48 miles); and

Achieve an extinction coefficient of  $125 \text{ Mm}^{-1}$  at least 90 percent of the time as calculated from aerosol species concentrations measured at the South Lake Tahoe monitoring site (visual range of 31 kilometers, 19 miles); and

Calculations will be made on three year running periods. Beginning with the existing 1991-93 monitoring data as the performance standards to be met or exceeded.)

Reduce suspended soil particles by 30% of the 1981 base values through technology, management practices and educational programs. Reduce wood smoke emissions by 15% of the 1981 base values through technology, management practices and educational programs. Reduce vehicle miles of travel by 10% of the 1981 base values.

### Nitrate Deposition

#### MANAGEMENT STANDARD

Reduce the transport of nitrates into the Basin and reduce oxides of nitrogen (NO<sub>x</sub>) produced in the Basin consistent with the water quality thresholds.

Reduce vehicle miles of travel in the Basin by 10% of the 1981 base year values.

### Odor

#### POLICY STATEMENT

It is the policy of the TRPA Governing Board in the development of the Regional Plan to reduce fumes from diesel engines to the extent possible.

## **VEGETATION PRESERVATION**

### Common Vegetation

#### MANAGEMENT STANDARD

Increase plant and structural diversity of forest communities through appropriate management practices as measured by diversity indices of species richness, relative abundance, and pattern.

- Maintain the existing species richness of the Basin by providing for the perpetuation of the following plant associations:

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<sup>§</sup> Amended 03/22/00

Yellow Pine Forest: Jeffrey pine, White fir, Incense cedar, Sugar pine.

Red Fir Forest: Red fir, Jeffrey pine, Lodgepole pine, Western white pine, Mountain hemlock, Western juniper.

Subalpine Forest: Whitebark pine, Mountain hemlock, Mountain mahogany.

Shrub Association: Greenleaf and Pinemat manzanita, Tobacco brush, Sierra chinquapin, Huckleberry oak, Mountain whitethorn.

Sagebrush Scrub Vegetation: Basin sagebrush, Bitterbrush, Douglas chaenactis.

Deciduous Riparian: Quaking aspen, Mountain alder, Black cotton-wood, Willow.

Meadow Associations (Wet and Dry Meadow): Mountain squirrel tail, Alpine gentian, Whorled penstemon, Asters, Fescues, Mountain brome, Corn lilies, Mountain bentgrass, Hairgrass, Marsh marigold, Elephant heads, Tinker's penney, Mountain Timothy, Sedges, Rushes, Buttercups.

Wetland Associations (Marsh Vegetation): Pond lilies, Buckbean, Mare's tail, Pondweed, Common bladderwort, Bottle sedge, Common spikerush.

Cushion Plant Association (Alpine Scrub): Alpine phlox, Dwarf ragwort, Draba.

- Relative Abundance - of the total amount of undisturbed vegetation in the Tahoe Basin;
  1. Maintain at least four percent meadow and wetland vegetation.
  2. Maintain at least four percent deciduous riparian vegetation.
  3. Maintain no more than 25 percent dominant shrub association vegetation.
  4. Maintain 15-25 percent of the Yellow Pine Forest in seral stages other than mature.
  5. Maintain 15-25 percent of the Red Fir Forest in seral stages other than mature.
- Pattern - Provide for the proper juxtaposition of vegetation communities and age classes by;
  1. Limiting acreage size of new forest openings to no more than eight acres.
  2. Adjacent openings shall not be of the same relative age class or successional stage to avoid uniformity in stand composition and age.

A nondegradation standard to preserve plant communities shall apply to native deciduous trees, wetlands, and meadows while providing for opportunities to increase the acreage of such riparian associations to be consistent with the SEZ threshold.

Native vegetation shall be maintained at a maximum level to be consistent with the limits defined in the Land Capability Classification of the Lake Tahoe Basin, California-Nevada, A Guide For Planning, Bailey, 1974, for allowable impervious cover and permanent site disturbance.

#### POLICY STATEMENT

It shall be a policy of the TRPA Governing Board that a nondegradation standard shall permit appropriate management practices.

## Late Seral and Old Growth Forest Ecosystems<sup>§</sup>

### NUMERICAL STANDARD

Attain and maintain a minimum percentage of 55% by area of forested lands within the Tahoe Region in a late seral or old growth condition, and distributed across elevation zones. To achieve the 55%, the elevation zones shall contribute as follows:

- The Subalpine zone (greater than 8,500 feet elevation) will contribute 5% (7,600 acres) of the forested lands;
- The Upper Montane zone (between 7,000 and 8,500 feet elevation) will contribute 30% (45,900 acres) of forested lands;
- The Montane zone (lower than 7,000 feet elevation) will contribute 20% (30,600 acres) of forested lands.

Forested lands within TRPA designated urban areas are excluded in the calculation for threshold attainment. Areas of the montane zone within 1,250 feet of urban areas may be included in the calculation for threshold attainment if the area is actively being managed for late seral and old growth conditions and has been mapped by TRPA. A maximum value of 40% of the lands within 1,250 feet of urban areas may be included in the calculation.

Because of these restrictions the following percentage of each elevation zone must be attained to achieve this threshold:

- 61% of the Subalpine zone must be in a late seral or old growth condition;
- 60% of the Upper Montane zone must be in a late seral or old growth condition;
- 48% of the Montane zone must be in a late seral or old growth condition;

## Uncommon Plant Communities

### NUMERICAL STANDARD<sup>§§</sup>

Provide for the nondegradation of the natural qualities of any plant community that is uncommon to the Basin or of exceptional scientific, ecological, or scenic value. This threshold shall apply but not be limited to (1) the deepwater plants of Lake Tahoe, (2) Grass Lake (sphagnum bog), (3) Osgood swamp, (4) the Freel Peak Cushion Plant community, (5) Taylor Creek Marsh, (6) Pope Marsh, (7) Upper Truckee Marsh, and (8) Hell Hole.

## Sensitive Plants

### NUMERICAL STANDARD

Maintain a minimum number of population sites for each of five sensitive plant species.

<u>Species<sup>§§</sup></u>	<u>Number of Population Sites</u>
<u>Lewisia pygmaea longipetala</u>	2
<u>Draba asterophora v. macrocarpa</u>	2
<u>Draba asterophora v. asterophora</u>	5
<u>Rorippa subumbellata</u>	26
<u>Arabis rigidissima v. demote</u>	7

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<sup>§</sup> Amended 5/23/01

<sup>§§</sup> Amended 04/24/02

## **WILDLIFE**

### Special Interest Species

#### NUMERICAL STANDARD

Provide a minimum number of population sites and disturbance zones for the following species:

<u>Species of interest</u>	<u>Population sites</u>	<u>Disturbance zone (mi.)</u>	<u>Influence zone (mi.)</u>
Goshawk	12	0.50	3.50
Osprey	4	0.25	0.60
Bald Eagle (Winter)	2	Mapped areas	Mapped areas
Bald Eagle (Nesting)	1	0.50	Variable
Golden Eagle	4	0.25	9.0
Peregrine	2	0.25	7.6
Waterfowl	18	Mapped areas	Mapped areas
Deer	-	Mapped areas	Meadows

### Habitats of Special Significance

#### MANAGEMENT STANDARD

A nondegradation standard shall apply to significant wildlife habitat consisting of deciduous trees, wetlands, and meadows while providing for opportunities to increase the acreage of such riparian associations.

## **FISHERIES**

### Stream Habitat

#### NUMERICAL STANDARD

Maintain the 75 miles of excellent, 105 miles of good, and 38 miles of marginal stream habitat as indicated by the <sup>§</sup>Stream Habitat Quality Overlay map, amended May 1997, based upon the re-rated stream scores set forth in Appendix C-1 of the 1996 Evaluation Report.

### Instream Flows

#### MANAGEMENT STANDARD

Until instream flow standards are established in the Regional Plan to protect fishery values, a nondegradation standard shall apply to instream flows.

#### POLICY STATEMENT

It shall be a policy of the TRPA Governing Board to seek transfers of existing points of water diversion from streams to Lake Tahoe.

### Lahontan Cutthroat Trout

#### POLICY STATEMENT

It shall be the policy of the TRPA Governing Board to support, in response to justifiable evidence, state and federal efforts to reintroduce Lahontan cutthroat trout.

### Lake Habitat

#### MANAGEMENT STANDARD

A nondegradation standard shall apply to fish habitat in Lake Tahoe. Achieve the equivalent of 5,948 total acres of excellent habitat <sup>§</sup>as indicated by the Prime Fish Habitat Overlay Map

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<sup>§</sup> Amended 5/28/97

dated 5/19/97 as may be amended from time to time.

**NOISE**

Single Noise Events

NUMERICAL STANDARD

The following maximum noise levels are allowed: All values are in decibels)

Source	Threshold - dBA			Monitoring Distances
	Overall	Less Than 35 MPH	Greater Than 35 MPH	
Aircraft	80 <sup>1</sup>	--	--	6,500 m-start of takeoff roll 2,000 m-runway threshold approach
	77.1 <sup>2</sup>	--	--	6,500 m-start of takeoff roll 2,000 m-runway threshold approach
Watercraft <sup>3§</sup>				
1. Pass-By Test	82 L <sub>max</sub>	--	--	50 ft.-engine at 3,000 rpm
2. Shoreline Test	75 L <sub>max</sub>	--	--	Microphone 5 ft. above water, 2 ft., above curve of shore, dock or platform. Watercraft in Lake, no minimum distance.
3. Stationary Test	88 dBA L <sub>max</sub> for boats manufactured before January 1, 1993;	--	--	Microphone 3.3 feet from exhaust outlet - 5 feet above water.
	90 dBA L <sub>max</sub> for boats manufactured after January 1, 1993	--	--	
Motor Vehicles Less Than 6,000 GVW	--	76	82	50 ft.
Motor Vehicles Greater Than 6,000	--	82	86	50 ft.
Motorcycles	--	77	86	50 ft.
Off-Road Vehicles	--	72	86	50 ft.
Snowmobiles	--	82	--	50 ft.
<p>1. <sup>§§</sup>The single event noise standard of 80 dBA L<sub>max</sub> for aircraft departures at Lake Tahoe Airport shall be effective immediately. The single event noise standard of 80 dBA L<sub>max</sub> for aircraft arrivals at Lake Tahoe Airport is not to be effective until ten years after the adoption of an airport master plan by TRPA. The schedule for phasing in the 80 dBA arrival standard shall be based on a review and consideration of the relevant factors, including best available technology and environmental concerns, and shall maximize the reduction in noise impacts caused by aircraft arrivals while allowing for the continuation of general aviation and commercial service. The beginning arrival standard shall not exceed 84 dBA for general aviation and commuter aircraft, and 86 dBA for transport category aircraft.</p> <p>2. Between the hours of 8 p.m. and 8 a.m.</p> <p>3. Failure to meet any one of these three test standards exceeds the single noise event threshold for watercraft.</p>				

<sup>§</sup> Amended 7/23/03

<sup>§§</sup> Amended 08/26/92



Cumulative Noise Events<sup>§</sup>

**NUMERICAL STANDARD**

Background noise levels shall not exceed the following levels:

<b>Land Use Category</b>	<b>Average Noise Level Or CNEL range (dBA)</b>
High Density Residential Areas	55
Low Density Residential Areas	50
Hotel/Motel Areas	60
Commercial Areas	60
Industrial Areas	65
Urban Outdoor Recreation Areas	55
Rural Outdoor Recreation Areas	50
Wilderness and Roadless Areas	45
Critical Wildlife Habitat Areas	45

**POLICY STATEMENT**

It shall be the policy of the TRPA Governing Body in development of the Regional Plan to define, locate, and establish CNEL levels for transportation corridors

**RECREATION**

**POLICY STATEMENT**

It shall be the policy of the TRPA Governing Body in development of the Regional Plan to preserve and enhance the high quality recreational experience including preservation of high-quality undeveloped shorezone and other natural areas. In developing the Regional Plan, the staff and Governing Body shall consider provisions for additional access, where lawful and feasible, to the shorezone and high quality undeveloped areas for low density recreational uses.

It shall be the policy of the TRPA Governing Body in development of the Regional Plan to establish and ensure a fair share of the total Basin capacity for outdoor recreation is available to the general public.

**SCENIC RESOURCES**

Roadway and Shoreline Units

**NUMERICAL STANDARD**

Maintain or improve the numerical rating assigned each unit, including the scenic quality rating of the individual resources within each unit, as recorded in the Scenic Resources Inventory and shown in Tables 13-3, 13-5, 13-8 and 13-9 of the Draft Study Report.

Maintain the 1982 ratings for all roadway and shoreline units as shown in Tables 13-6 and 13-7 of the Draft Study Report.

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<sup>§</sup> Amended 5/28/97

Restore scenic quality in roadway units rated 15 or below and shoreline units rated 7 or below.

Other Areas<sup>§</sup>

NUMERICAL STANDARD

Maintain or improve the numerical rating assigned to each identified scenic resource, including individual subcomponent numerical ratings, for views from bike paths and other recreation areas open to the general public as recorded in the 1993 Lake Tahoe Basin Scenic Resource Evaluation.

Built Environment

POLICY STATEMENT

It shall be the policy of the TRPA Governing Body in development of the Regional Plan, in cooperation with local jurisdictions, to insure the height, bulk, texture, form, materials, colors, lighting, signing and other design elements of new, remodeled and redeveloped buildings be compatible with the natural, scenic, and recreational values of the region.

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<sup>§</sup> Amended 09/22/93





# ***ATTACHMENT D***

## ***TRPA-APPROVED SUBDIVISIONS IN***

### ***CONFORMANCE WITH BAILEY COEFFICIENTS***

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The following is a list of TRPA-approved subdivisions (including planned unit developments) in which the Bailey coefficients were used to determine the base land coverage permitted on a lot. The approved coverages for each lot shall be the base coverage for that lot. Parcel maps of four or less units are not listed, but, may be included if it is found that they conform to the Bailey coefficients. This list may be updated by resolution of the Governing Board to be consistent with the provisions of Goal #3, Policy 1.A of the Land Use Subelement.

#### **Washoe County**

1. Brookstone Condominium
2. Club Tahoe
3. Crystal Bay Palisades
4. Incline Crest
5. Forest Pines
6. Miners Ridge
7. Sea Cap Villas
8. Tahoe Palisades
9. Tyrolian Village #8

#### **Douglas County**

1. Chalet Village
2. Chimney Rock Estates
3. Edgewood Creek Estates
4. Glenbrook Units 1, 2, and 3
5. Granite Springs
6. Hansens Hilltop Estates
7. Kingsbury Glen
8. Kingsbury Heights #3
9. Lake Village Professional Building
10. Marla Bay (Pinewild)
11. Uppaway (portion in Land Capability District 4)

#### **Placer County**

1. Agate Bay Pines
2. Cedar Point
3. Highlands #4
4. Mein Trust Subdivision
5. Northshore Unit 2
6. Rocky Ridge Units 4 and 5
7. Tall Trees Tract

**El Dorado County/South Lake Tahoe**

1. Christmas Valley Acres
2. Cove South Townhouses
3. Highland Woods
4. Lighthouse Shores
5. Pine Hill
6. Sugar Pine Townhouses
7. Tahoe Tyrol
8. Tahoe Valley Apartments

# ***ATTACHMENT E***

## ***PLANNED UNIT DEVELOPMENTS***

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The following is a list of planned unit developments that do not conform to the Bailey coefficients and require consideration of common areas to calculate the base coverage for a lot. Parcel maps of four or less units are not listed, but, may be included if it is found that they conform to the Bailey coefficients. This list may be updated by resolution of the Governing Board to be consistent with the provisions of Goal #3, Policy 1.A of the Land Use Subelement.

### **El Dorado County**

Rubicon Park Estates  
Waters Edge

### **City of South Lake Tahoe**

Al Tahoe Lakeview Townhouses  
Chateau du Lac Townhouses  
Concept/Sierra Condominiums  
Cote D'Azure  
Cove (Dillingham) South 3A, 3B, 3C  
El Rancho Estates  
Heavenly Pines  
Heavenly Valley Hotel & Townhouses  
Heavenly Valley Village  
Highland Woods Planned Development  
J. P. Townhouses  
Kings IV Subdivision  
Lakeland Village Condominium & Apartments  
Lakeland Village Units #1, 2, 3, 4  
Lakeview Pines  
Le Chateau  
Needle Peak Villas  
Pioneer Homes  
Sitzmark, A Condominium  
Ski Run Village Townhouses  
Sky Meadows  
St. Francis of the Woods  
St. Moritz Isle Townhouses  
The Summit at Heavenly Valley  
Tahoe Marina Condominium  
Tahoe Marina Shores  
Tahoe Valley Apartments  
Villa Tahoe

\* Litigation Settlements

## **Placer County**

Brockway Springs of Tahoe  
\*Brockway Vista  
Carnelian Woods  
\*Chambers Landing  
Chateau Chamonix  
Chinquapin  
Crystal Tower  
Dollar Cove  
Dollar Hill Unit #2  
\*Fleur du Lac Condominiums  
Four Seasons Estates  
Heritage Cove  
\*Kings Run  
Kingswood Village  
Kingswood West  
Lake Forest Glen  
Lakeside Terrace  
McKinney's Landing  
The North Rim #1  
Rocky Ridge Unit #2  
Star Harbor Unit #1  
Tahoe Marina Shores  
Tahoe Taverns  
Tahoya Shores  
Talmont Estates  
Tavern Shores  
Villas at Lake Forest

## **Douglas County**

Castle Rock Park  
Cave Rock Villas  
Kingsbury Pines  
Lake Village  
Manzanita Heights  
Ponderosa Park  
Stanford Square  
Summit Village  
Tahoe Village  
Uppaway (Land Capability Districts 1 and 2)  
Villagers Townhouses

\* Litigation Settlements



## **Washoe County**

Alpine Terrace  
The Aspen  
Brookside  
Cedar Creek Housing  
Cedar Crest  
The Cedars  
The Chalets  
Chateau Apartments  
Coeur du Lac  
Country Club Court  
Creekside East  
Creekside West  
Crystal Bay Cove  
Fairway Pines  
Fairway Woods  
Forest Flower  
Glenrock  
Golf Green Court  
High Sierra Condominiums  
Incline Manor  
Incline Mt. Rose Chalets  
Incline Pines  
Incline Pinnate  
Incline Villa  
Incline Village Unit #3  
Incline Way Financial Center  
Lake Haven I and II  
1000 Lakeshore  
999 Lakeshore  
Lakeshore Terrace  
Lakewood Square  
McCloud Condominiums  
Millstone Manor  
Montclair Villas  
Mountain House  
Mountain Shadows of Incline  
Northwood Estates  
Peepsight Manor  
Pine Creek  
Royal Pines Condominiums  
\*Ski Lane - Bitterbrush  
Skylake Condominiums  
Southwood Court  
Southwood Glen

\* Litigation Settlements

**Washoe County PUDs – Continued**

Southwood Pines  
Southwood Shadows  
Still Water Cove  
Tahoe Pines  
Tahoe Racquet Club  
Third Creek  
Titlist Manor  
Tyrolian Village (all units except #8)  
The Village at Incline  
Village Court  
Village Highlands  
Village Pines  
Woodlake Villas  
Woodmere of Incline  
Woodminister  
Woodstock

\* Litigation Settlements