



# LAKE TAHOE EIP

**CONSERVATION. CLEARLY.**

# ENVIRONMENTAL IMPROVEMENT PROGRAM

- The EIP is a strategy to achieve the environmental thresholds for the Lake Tahoe Basin.
- The first draft of the EIP was prepared in conjunction with the 1997 Lake Tahoe Presidential Forum.
- Key to this strategy is reliance upon partnerships with all sectors of the community, including the private sector, local, state and federal government.

# Environmental Improvement Program Update

- EIP marked 10-year anniversary at the August 2007 Tahoe Forum
- Successful in bringing together public and private partnerships to benefit Lake Tahoe
- Continued long-term commitment to EIP is needed to produce results

# TRPA Environmental Improvement Program

## 1997-2007 Highlights

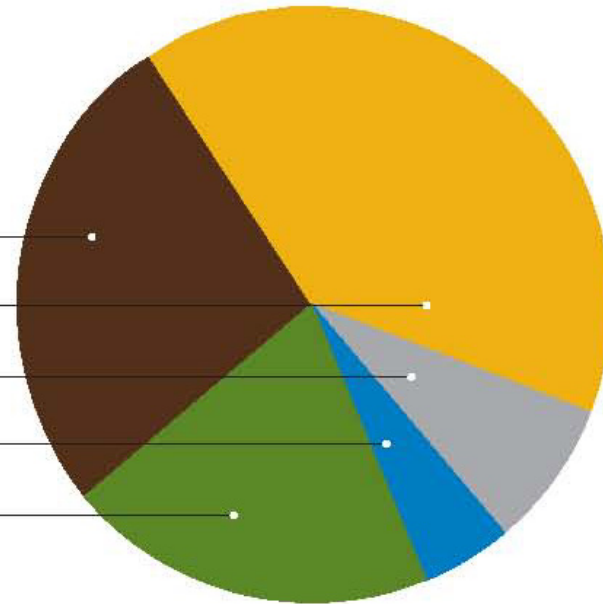
- Approximately 266 environmental improvement capital projects completed
- \$48 million in research/monitoring funded
- 3,064 acres of sensitive land acquired
- 13,000 acres of wildlife habitat improved
- 21,293 acres treated for fuels reduction/ecosystem restoration
- 739 acres of wetlands restored
- 25 restoration projects planned or completed on Upper Truckee River watershed.

# EIP Capital Project Investments

## CAPITAL INVESTMENT IN EIP PROJECTS BY FUNDING SECTOR: 1997-2006

Amounts reflected in this graph represent projects completed or in progress.

● Federal:	\$293 million (27%)
● State of CA:	\$446 million (40%)
● State of NV:	\$82 million (8%)
● Local:	\$53.4 million (5%)
● Private:	\$216 million (20%)
<b>TOTAL:</b>	<b>\$1.1 billion</b>



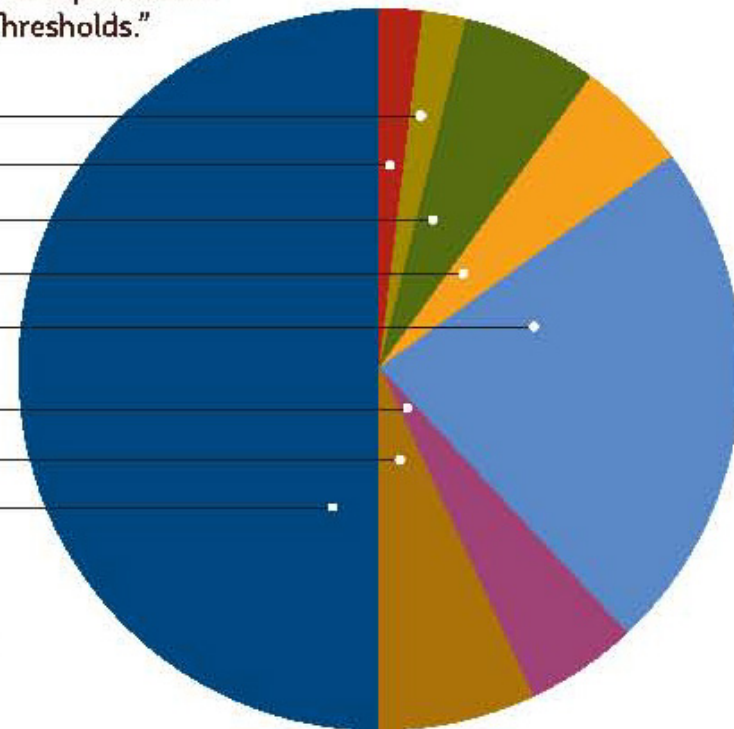
# EIP Investments by Threshold Category

## EIP INVESTMENT BY ENVIRONMENTAL THRESHOLD

### Categories of Investment

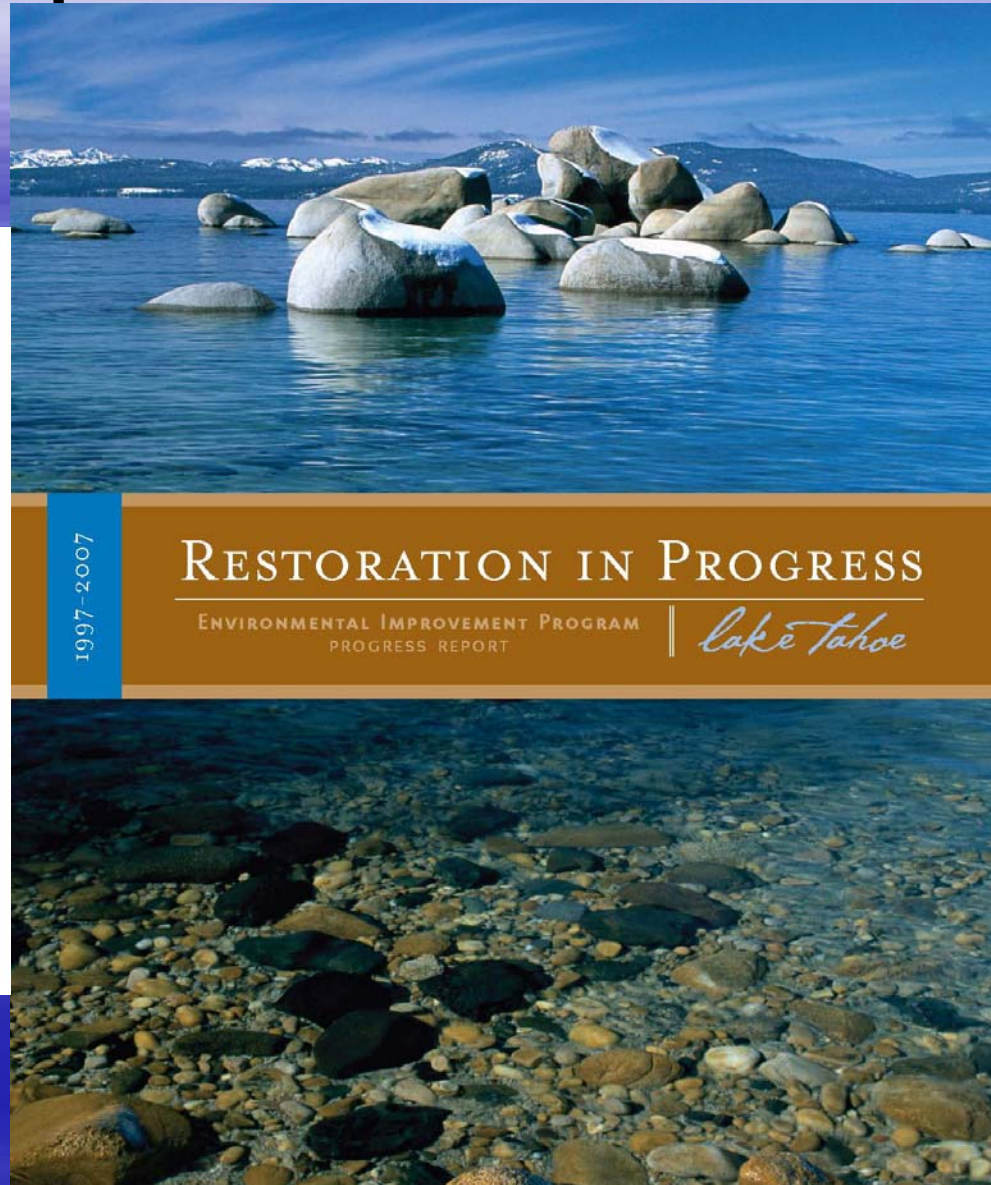
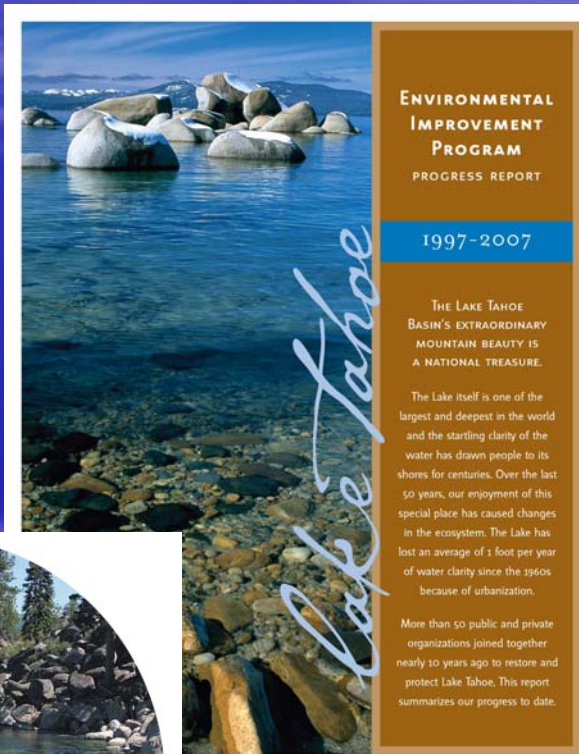
The environmental and ecological value of the Basin is expressed in terms of nine categories called the "Environmental Thresholds."

Fisheries:	2%
Wildlife:	2%
Vegetation:	6%
Recreation:	5%
Air Quality/Transportation:	23%
Scenic Resources:	5%
Soil Conservation:	7%
Water Quality:	50%



Over the last three years, funding for forest health and vegetation projects has increased dramatically and will continue to help reduce the threat of catastrophic wildfire.

# EIP Progress Report



# The Next Phase of the EIP Encompasses Six Focus Areas:

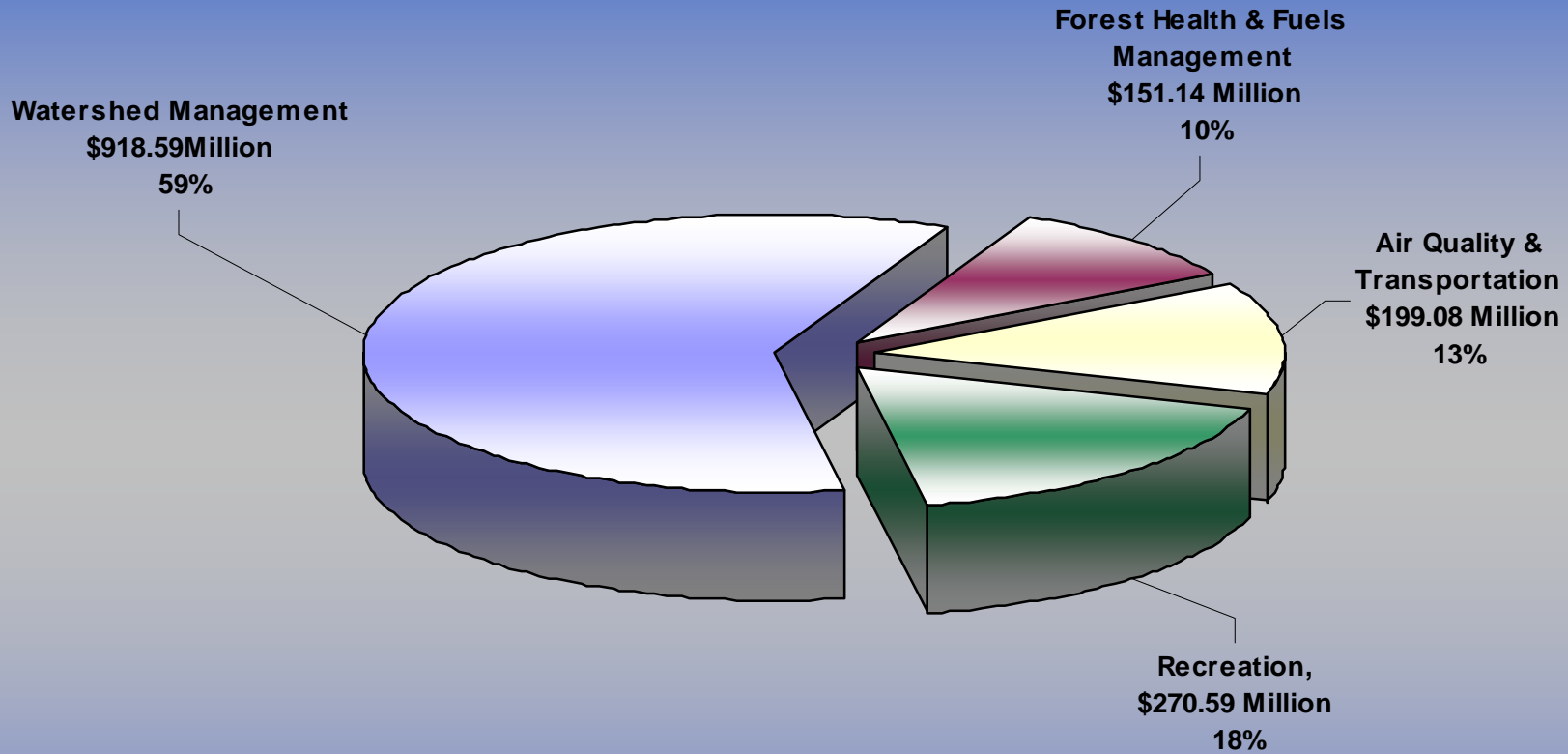
1. Restoring Watershed & Habitat
2. Protecting Forest Health
3. Improving Air Quality & Transportation
4. Enhancing Recreation & Scenic Resources
5. Science & Reporting
6. Public Education & Outreach



## The Unfunded Need Identified for EIP Capital Projects :

Federal	\$512 Million	(33%)
California	\$507 Million	(33%)
Nevada	\$100 Million	(6%)
Local	\$119 Million	(8%)
Private	\$302 Million	(20%)
<hr/> Total	<hr/> \$1.540 Billion	

# Total Unfunded Capital Costs by Focus Area - \$1.540 Billion



10 Year Federal EIP Need by Sub Program	Assumed Funding Shares	Shares of Remaining Capital Cost						
	Federal	Federal						
Stormwater Management	36%	\$186.09						
Watershed Management	22%	\$111.06						
Threatened, Endangered, and Sensitive Species	3%	\$14.20						
Habitat and Vegetation Improvement	1%	\$7.19						
Forest Health & Fuels Management	17%	\$86.00						
Air Quality & Transportation	13%	\$68.18						
Recreation	7%	\$37.80						
Scenic	0.2%	\$1.13						
Total	100.0%	\$511.65						

# Federal Environmental Improvement Programs

## Four Focus Areas:

1. Watershed and Habitat Improvement Focus Area
2. Air Quality and Transportation Focus Area
3. Recreation and Scenic Focus Area
4. Forest Health Focus Area

# Federal Environmental Improvement Programs

## **1. Watershed and Habitat Improvement Focus Area**

- Threatened, Endangered, and Sensitive Species
- Watershed and Stream Environment Zone Restoration
- Habitat Improvement
- Water Quality Protection
- Road and Trail Water Quality Retrofit
- Facilities Water Quality Retrofit

# Federal Environmental Improvement Programs

## **2. Air Quality and Transportation Focus Area**

- Air Quality
- Transportation

## **3. Recreation and Scenic Focus Area**

- Interpretation Services
- Recreation

## **4. Forest Health Focus Area**

- Vegetation Management
- Fuels Management

Table 2. Relationship between Focus Areas and Agencies

Federal Lake Tahoe EIP Programs	Focus Areas			
	Watershed & Habitat Improvement	Air Quality & Transportation	Recreation & Scenic	Forest Health
<b>U.S. Department of Agriculture</b>				
Forest Service	•	•	•	•
Natural Resources Conservation Service	•			•
<b>U.S. Department of Defense</b>				
Army Corps of Engineers	•	•		
<b>U.S. Department of Interior</b>				
Bureau of Reclamation	•			•
Fish and Wildlife Service	•			
Geological Survey	•	•		
<b>U.S. Department of Transportation</b>				
Federal Highway Administration	•	•		
Federal Transit Administration	•	•		
<b>U.S. Environmental Protection Agency</b>	•	•		

# Environmental Threshold Carrying Capacity Status

- Handout shows status of threshold indicators in 2006 which were evaluated as part of the 2006 Threshold Evaluation Report



## Appendix C. Relationship between Threshold Indicators and Programs

### AIR QUALITY

<b>Program</b>	Carbon Monoxide (AQ-1)	Ozone (AQ-2)
Endangered, Threatened and Sensitive Species		
Watershed and Stream Environment Zone		
Habitat Improvement		
Water Quality Protection		
Road and Trail Water Quality Retrofit		
Facilities Water Quality Retrofit		
Air Quality and Transportation	<b>X</b>	<b>X</b>
Education and Outreach	<b>X</b>	<b>X</b>
Recreation		
Vegetation Management		
Fuels Management		

## Appendix C. Relationship between Threshold Indicators and Programs

### AIR QUALITY

<b>Program</b>	Particulate (AQ-3)	Visibility (AQ-4)
Endangered, Threatened and Sensitive Species		
Watershed and Stream Environment Zone		
Habitat Improvement		
Water Quality Protection		
Road and Trail Water Quality Retrofit		
Facilities Water Quality Retrofit		
Air Quality and Transportation	<b>X</b>	<b>X</b>
Education and Outreach	<b>X</b>	<b>X</b>
Recreation		
Vegetation Management		
Fuels Management		

## Appendix C. Relationship between Threshold Indicators and Programs

### AIR QUALITY

<b>Program</b>	U.S. 50 Traffic Volume (AQ-5)	Wood Smoke (AQ-6)
Endangered, Threatened and Sensitive Species		
Watershed and Stream Environment Zone		
Habitat Improvement		
Water Quality Protection		
Road and Trail Water Quality Retrofit		
Facilities Water Quality Retrofit		
Air Quality and Transportation	<b>X</b>	<b>X</b>
Education and Outreach	<b>X</b>	<b>X</b>
Recreation		
Vegetation Management		
Fuels Management		

## Appendix C. Relationship between Threshold Indicators and Programs

### AIR QUALITY

Program	VMT (AQ-7)	Atmospheric Nutrient Loading (AQ-8)
Endangered, Threatened and Sensitive Species		
Watershed and Stream Environment Zone		
Habitat Improvement		
Water Quality Protection		
Road and Trail Water Quality Retrofit		
Facilities Water Quality Retrofit		
Air Quality and Transportation	<b>X</b>	<b>X</b>
Education and Outreach	<b>X</b>	<b>X</b>
Recreation		
Vegetation Management		
Fuels Management		

## Appendix C. Relationship between Threshold Indicators and Programs

### WATER QUALITY

<b>Program</b>	Turbidity (Shallow) (WQ-1)	Clarity Winter (WQ-2)
Endangered, Threatened and Sensitive Species		
Watershed and Stream Environment Zone	<b>X</b>	<b>X</b>
Habitat Improvement	<b>X</b>	<b>X</b>
Water Quality Protection	<b>X</b>	<b>X</b>
Road and Trail Water Quality Retrofit	<b>X</b>	<b>X</b>
Facilities Water Quality Retrofit	<b>X</b>	<b>X</b>
Air Quality and Transportation		<b>X</b>
Education and Outreach	<b>X</b>	<b>X</b>
Recreation		
Vegetation Management		<b>X</b>
Fuels Management		<b>X</b>

## Appendix C. Relationship between Threshold Indicators and Programs

### WATER QUALITY

Program	Phytoplankton PPr (WQ-3)	Tributary Water Quality (WQ-4)
Endangered, Threatened and Sensitive Species		
Watershed and Stream Environment Zone	<b>X</b>	<b>X</b>
Habitat Improvement	<b>X</b>	<b>X</b>
Water Quality Protection	<b>X</b>	<b>X</b>
Road and Trail Water Quality Retrofit	<b>X</b>	<b>X</b>
Facilities Water Quality Retrofit	<b>X</b>	<b>X</b>
Air Quality and Transportation	<b>X</b>	
Education and Outreach	<b>X</b>	<b>X</b>
Recreation		
Vegetation Management	<b>X</b>	
Fuels Management	<b>X</b>	

## Appendix C. Relationship between Threshold Indicators and Programs

### WATER QUALITY

<b>Program</b>	Runoff Water Quality (WQ-5)	Groundwater (WQ-6)	Other Lakes (WQ-7)
Endangered, Threatened and Sensitive Species			
Watershed and Stream Environment Zone	<b>X</b>	<b>X</b>	<b>X</b>
Habitat Improvement	<b>X</b>		<b>X</b>
Water Quality Protection	<b>X</b>	<b>X</b>	<b>X</b>
Road and Trail Water Quality Retrofit	<b>X</b>		<b>X</b>
Facilities Water Quality Retrofit	<b>X</b>		<b>X</b>
Air Quality and Transportation	<b>X</b>		<b>X</b>
Education and Outreach	<b>X</b>	<b>X</b>	<b>X</b>
Recreation			
Vegetation Management	<b>X</b>		<b>X</b>
Fuels Management	<b>X</b>		<b>X</b>

## Appendix C. Relationship between Threshold Indicators and Programs

### SOIL CONSERVATION

<b>Program</b>	Impervious Coverage (SC-1)	Naturally Functioning SEZ (SC-2)
Endangered, Threatened and Sensitive Species		
Watershed and Stream Environment Zone	<b>X</b>	<b>X</b>
Habitat Improvement		<b>X</b>
Water Quality Protection	<b>X</b>	<b>X</b>
Road and Trail Water Quality Retrofit	<b>X</b>	<b>X</b>
Facilities Water Quality Retrofit	<b>X</b>	
Air Quality and Transportation	<b>X</b>	
Education and Outreach	<b>X</b>	<b>X</b>
Recreation		
Vegetation Management		<b>X</b>
Fuels Management		<b>X</b>



## Appendix C. Relationship between Threshold Indicators and Programs

### VEGETATION

Program	Relative Abundance and Pattern (V-1)	Uncommon Plant Communities (V-2)
Endangered, Threatened and Sensitive Species		<b>X</b>
Watershed and Stream Environment Zone	<b>X</b>	<b>X</b>
Habitat Improvement		<b>X</b>
Water Quality Protection		
Road and Trail Water Quality Retrofit		
Facilities Water Quality Retrofit		
Air Quality and Transportation		
Education and Outreach	<b>X</b>	<b>X</b>
Recreation		
Vegetation Management	<b>X</b>	<b>X</b>
Fuels Management	<b>X</b>	

## Appendix C. Relationship between Threshold Indicators and Programs

### VEGETATION

<b>Program</b>	Sensitive Vegetation (V-3)	Late Seral / Old Growth (V-4)
Endangered, Threatened and Sensitive Species	<b>X</b>	
Watershed and Stream Environment Zone	<b>X</b>	
Habitat Improvement	<b>X</b>	<b>X</b>
Water Quality Protection		
Road and Trail Water Quality Retrofit		
Facilities Water Quality Retrofit		
Air Quality and Transportation		
Education and Outreach	<b>X</b>	<b>X</b>
Recreation		
Vegetation Management		<b>X</b>
Fuels Management		<b>X</b>

## Appendix C. Relationship between Threshold Indicators and Programs

### WILDLIFE

<b>Program</b>	Special Interest Species (W-1)	Habitats of Special Significance (W-2)
Endangered, Threatened and Sensitive Species	<b>X</b>	<b>X</b>
Watershed and Stream Environment Zone	<b>X</b>	<b>X</b>
Habitat Improvement	<b>X</b>	<b>X</b>
Water Quality Protection		
Road and Trail Water Quality Retrofit		
Facilities Water Quality Retrofit		
Air Quality and Transportation		
Education and Outreach	<b>X</b>	<b>X</b>
Recreation		
Vegetation Management	<b>X</b>	<b>X</b>
Fuels Management		

## Appendix C. Relationship between Threshold Indicators and Programs

### FISHERIES

<b>Program</b>	Lake Habitat (F-1)	Stream Habitat (F-2)
Endangered, Threatened and Sensitive Species	<b>X</b>	<b>X</b>
Watershed and Stream Environment Zone	<b>X</b>	<b>X</b>
Habitat Improvement	<b>X</b>	<b>X</b>
Water Quality Protection		
Road and Trail Water Quality Retrofit		
Facilities Water Quality Retrofit		
Air Quality and Transportation		
Education and Outreach	<b>X</b>	<b>X</b>
Recreation		
Vegetation Management		<b>X</b>
Fuels Management		

## Appendix C. Relationship between Threshold Indicators and Programs

### FISHERIES

<b>Program</b>	In-Stream Flows (F-3)	Lahontan Cutthroat Trout (New) (F-4)
Endangered, Threatened and Sensitive Species	<b>X</b>	<b>X</b>
Watershed and Stream Environment Zone	<b>X</b>	<b>X</b>
Habitat Improvement		<b>X</b>
Water Quality Protection		
Road and Trail Water Quality Retrofit		
Facilities Water Quality Retrofit		
Air Quality and Transportation		
Education and Outreach	<b>X</b>	<b>X</b>
Recreation		
Vegetation Management		
Fuels Management		

## Appendix C. Relationship between Threshold Indicators and Programs

### RECREATION

<b>Program</b>	High Quality Recreational Experience (R-1)	Capacity Available to the General Public (R-2)
Endangered, Threatened and Sensitive Species		
Watershed and Stream Environment Zone		
Habitat Improvement		
Water Quality Protection		
Road and Trail Water Quality Retrofit	<b>X</b>	
Facilities Water Quality Retrofit	<b>X</b>	
Air Quality and Transportation		
Education and Outreach	<b>X</b>	<b>X</b>
Recreation	<b>X</b>	<b>X</b>
Vegetation Management		
Fuels Management		

## Appendix C. Relationship between Threshold Indicators and Programs

**SCENIC**

<b>Program</b>	Travel Route Ratings (SR-1)	Scenic Quality Ratings (SR-2)
Endangered, Threatened and Sensitive Species		
Watershed and Stream Environment Zone		
Habitat Improvement		
Water Quality Protection		
Road and Trail Water Quality Retrofit		
Facilities Water Quality Retrofit	<b>X</b>	
Air Quality and Transportation		
Education and Outreach	<b>X</b>	<b>X</b>
Recreation		
Vegetation Management	<b>X</b>	<b>X</b>
Fuels Management		

## Appendix C. Relationship between Threshold Indicators and Programs

**SCENIC**

<b>Program</b>	Public Recreation Area Scenic Quality Ratings (SR-3)	Community Design (SR-4)
Endangered, Threatened and Sensitive Species		
Watershed and Stream Environment Zone		
Habitat Improvement		
Water Quality Protection		
Road and Trail Water Quality Retrofit		
Facilities Water Quality Retrofit	<b>X</b>	<b>X</b>
Air Quality and Transportation		
Education and Outreach	<b>X</b>	<b>X</b>
Recreation		
Vegetation Management	<b>X</b>	
Fuels Management		



## Appendix C. Relationship between Threshold Indicators and Programs

### NOISE

<b>Program</b>	Single Event (Aircraft) (N-1)	Single Event (Other) (N-2)	Community Noise (N-3)
Endangered, Threatened and Sensitive Species			
Watershed and Stream Environment Zone			
Habitat Improvement			
Water Quality Protection			
Road and Trail Water Quality Retrofit			
Facilities Water Quality Retrofit			
Air Quality and Transportation			
Education and Outreach			
Recreation			
Vegetation Management			
Fuels Management			