



# It's All Linked: Land Use, Water, the Economy, and the Environment

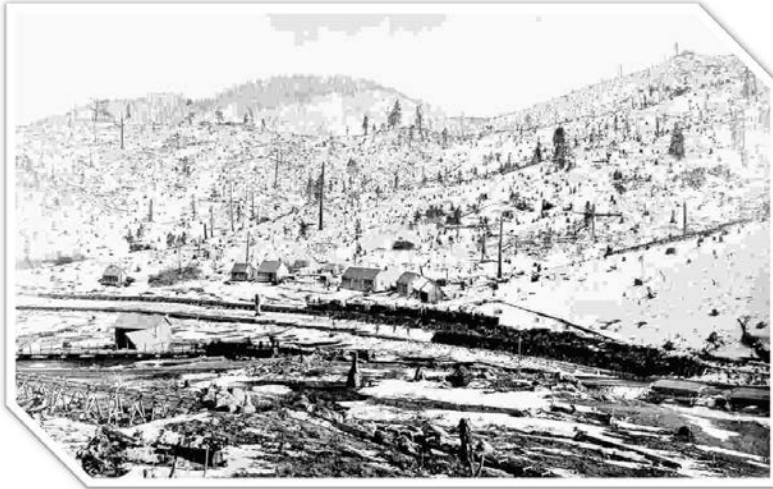
Nevada Water Resources Association Conference  
February 6, 2014



# Overview

- ❑ Historic Impacts and Bi-State Compact
- ❑ TRPA Land Use and Water Quality Regulations
- ❑ Environmental Improvement Program
- ❑ TMDL and 2012 Regional Plan
- ❑ Sustainability and River System Perspective

# Historic Impacts to Tahoe



- ❑ Logging -- 1800s
- ❑ Building boom – 1950-60s
  - ❑ filling wetlands
  - ❑ altering river processes
  - ❑ not including conservation measures in development
- ❑ Road construction/vehicle emissions
- ❑ Recreational impacts
- ❑ Erosion



# Harmful Development Practices

South Lake Tahoe 1939



South Lake Tahoe 1992

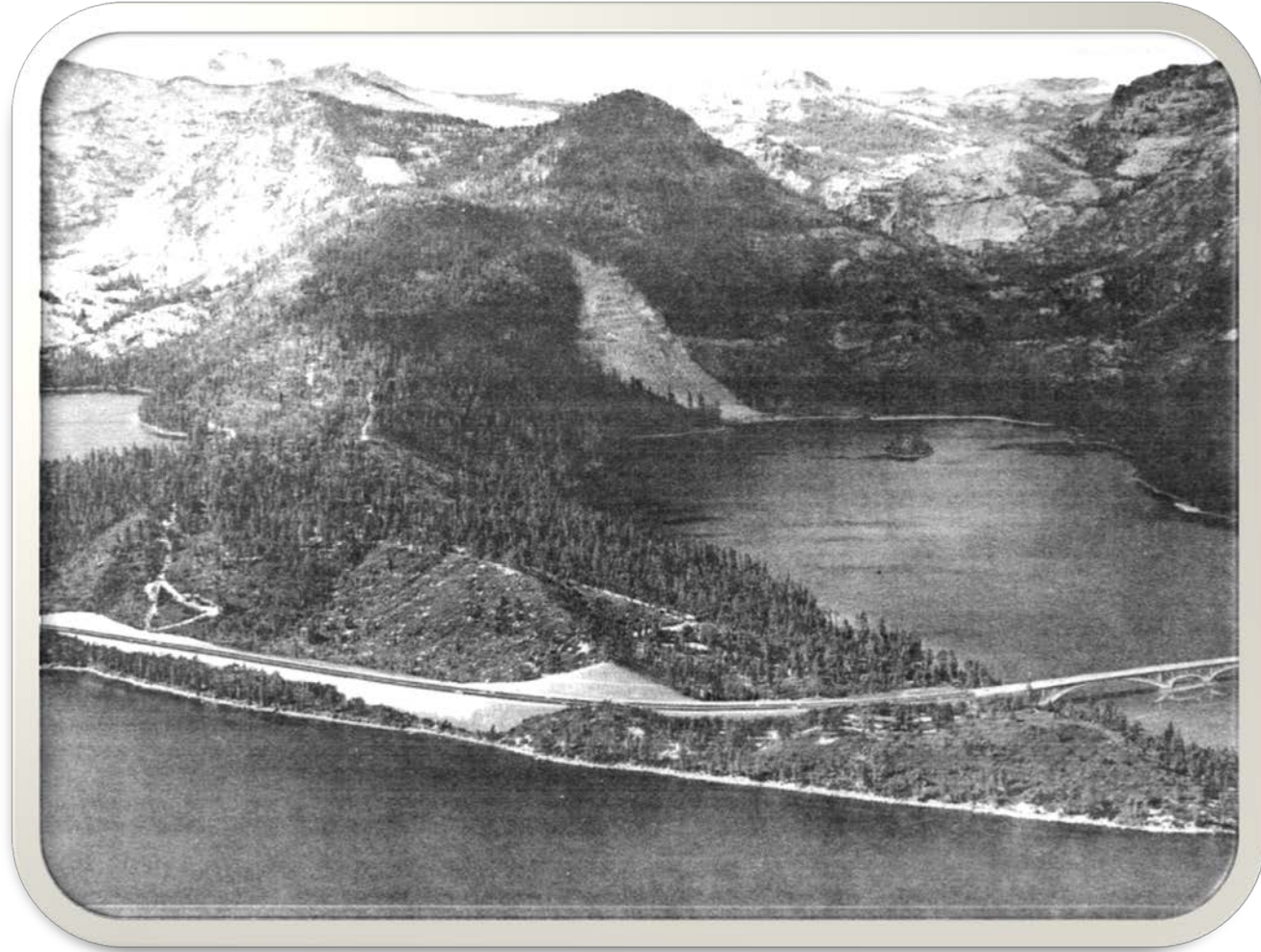








# Threat of Continued Development





Fifth Annual  
Edition  
7 SECTIONS  
82 PAGES

# TAHOE '68

TODAY'S PROGRESS . . .  
TOMORROW'S SUCCESS

## Rain

Sierra Nevada, occasional rain mostly north of Yosemite this evening with chance of more rain late Saturday. Mostly cloudy north.

Yesterday's high, 42; overnight low, 36. Barometer reading at 8 a.m.—30.14.

# Tahoe Daily Tribune

Serving All Lake Tahoe — America's All-Year Playground

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If you have not received the Tahoe Daily Tribune by 5:30 p.m., please call circulation department, 541-3880, until 6:30 p.m., Monday through Friday.

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SOUTH LAKE TAHOE, CALIFORNIA, FRIDAY, FEBRUARY 23, 1968

SEVEN SECTIONS

PRICE 20 CENTS

# Reagan, Laxalt Hail Tahoe Agency

## MESSAGE BY THE HONORABLE PAUL LAXALT GOVERNOR OF NEVADA

Lake Tahoe is truly a "wonder of the world."

This phrase, though often used, indeed reflects what Lake Tahoe is to Nevadans and people throughout the world.

I think much credit is due to residents of the Lake Tahoe basin for their outstanding efforts in keeping Lake Tahoe beautiful and at the same time promoting the area as a most wonderful vacation spot.

However, we share concern with many that as the Lake Tahoe basin area expands, pressures for development will become increasingly heavy. To meet these pressures we are giving our wholehearted support to a regional agency which will join Nevada and California. The agency's primary function will be to assure proper development of the area.

We are confident residents of the Lake Tahoe area and landholders there will support reasonable programs designed to assure its proper development.

In addition, Lake Tahoe is an important part of the economy of our state. We feel that continued and orderly growth, will assure increased prosperity in the Tahoe Basin. Also, development of a state park on the Nevada side of Lake Tahoe is allowing more and more families to enjoy the natural beauty of the Lake and surrounding basin.

PAUL LAXALT

## Compact Is Adopted By 37-2 Vote

CARSON CITY — It's now up to California to decide whether regional control over the entire Lake Tahoe basin will be established quickly.

The Assembly in the special session of the Nevada Legislature Thursday cleared SB9 authorizing the state to join California in a bi-state Tahoe Regional Planning Compact to prevent pollution of the lake's water, guard against overdevelopment around its shores and preserve the scenic beauty of all of the Tahoe Basin.

The bill passed 37-2 under emergency procedure after a fruitless last-minute attempt in committee to assure preferential treatment for the sensitive gaming industry on the Nevada side of the lake. The legislation now goes to Gov. Paul Laxalt for what un-



THE HON. PAUL LAXALT



THE HON. RONALD REAGAN

Compact Is  
Adopted By

This would have exempted from the governing body all authority over gambling except on matters of water quality and

## MESSAGE BY THE HONORABLE RONALD REAGAN GOVERNOR OF CALIFORNIA

The lands and waters of the Tahoe Basin represent a natural resource of incomparable value to the citizens of California, Nevada, and indeed, the entire nation. With the great increase in both population and leisure time, there is a real need for quality recreational areas. Lake Tahoe and the lands of the Tahoe Basin will serve a significant portion of the recreational needs of our citizens for many years.

The summer and winter recreational opportunities which are found in the Tahoe Basin distinguish it as a unique and valuable recreational asset. The basin is located within a four-hour drive of over three million people. It is a single day's drive for approximately 10 per cent of the total population of the United States, a great percentage of whom are residents of California.

The Tahoe Basin must be protected for this and for future generations. Governor Paul Laxalt of Nevada recently stated, "Every possible step should be taken by all parties involved to assure that Lake Tahoe retains its crystal clear quality and the beautiful basin not be destroyed by so-called progress." I endorse Governor Laxalt's statement without qualification. We will work together, citizens of California and Nevada, to preserve the priceless treasure that is Lake Tahoe.

The Tahoe Basin has been described by some writers as a polluted lake surrounded by ugly developments. Perhaps this is why people are surprised when they visit the region. Rather than the polluted waters and eroded landscapes which they were told to expect, they see the blue waters, clearer and purer than they imagined existed, set in a wooded forest backdrop of majestic snow-capped mountains.

"Truly," as Mark Twain described Tahoe, "the fairest picture the whole earth affords."

Water quality records are available for Lake Tahoe from the year 1873. A comparison of the historic data with that collected routinely by the state shows conclusively that no measurable change has taken place in its quality since first sampled. The clarity of Tahoe's waters is presently such that one can see a 9 inch white disc suspended from a rope to a depth of over 130 feet. Only one other lake in the world,

# Bi-State Compact

- ❑ 1969: Visionary legislation established TRPA
- ❑ 1980: Compact amended; Thresholds and a Regional Plan required





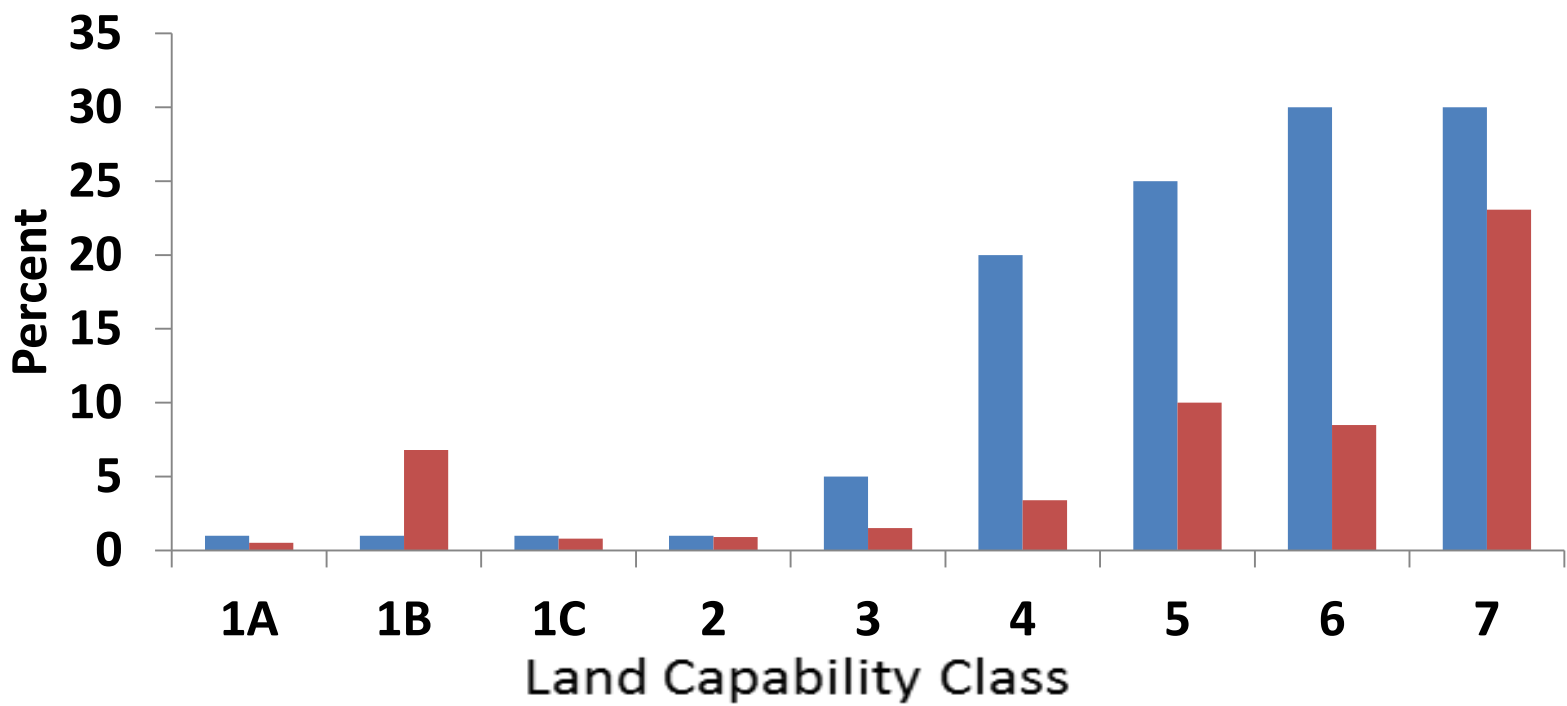
# Threshold Categories

- ❑ Vegetation
- ❑ Recreation
- ❑ Water Quality
- ❑ Soils/SEZ Conservation
- ❑ Fisheries
- ❑ Scenic Resources
- ❑ Air Quality
- ❑ Noise
- ❑ Wildlife





# Land Coverage Limitations



■ Total % Impervious Cover Allowed ■ % Impervious Surface Within Class





# Growth Limitations

	Existing	1987 Regional Plan Remaining	2012 Regional Plan Allocations	Potential	Total
<b>Residential</b>	<b>46,962</b>	<b>1,075</b>	<b>2,600</b>	<b>3,675</b>	<b>50,637</b>
<b>Commercial Floor Area</b>	<b>6,403,893</b>	<b>407,842</b>	<b>0</b>	<b>407,842</b>	<b>6,811,735</b>
<b>Tourist Accomodation Units</b>	<b>11,947</b>	<b>390</b>	<b>0</b>	<b>390</b>	<b>12,337</b>

# Land Acquisitions



- ❑ Acquired over 8,500 parcels late 1980s
- ❑ 90 % of land area now in public ownership

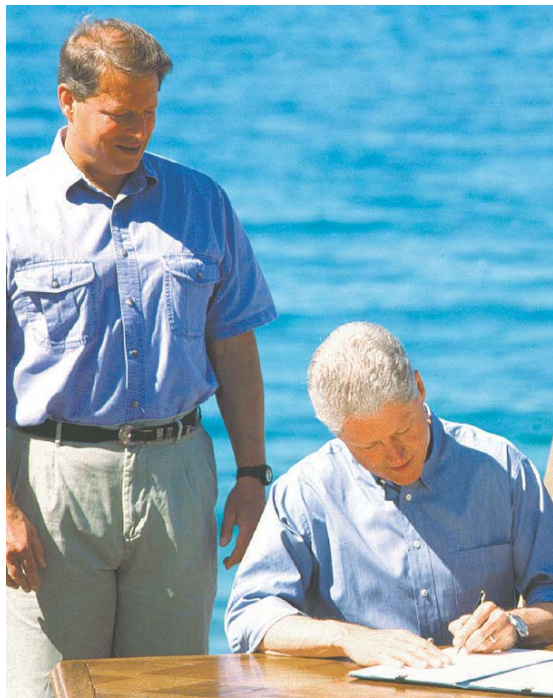


# Water Quality Regulations

Best Management Practices (20 year/1 hour flood) required for all new and existing development in Basin







# San Francisco Chronicle

Printed on recycled paper | WEDNESDAY, SEPTEMBER 5, 2007 | sfgate.com 415-777-1111

Upper Truckee Marsh is first step in restoring Lake Tahoe's pristine standard by which the ecosystem of the entire region is assessed

## HEALING THE LAKE

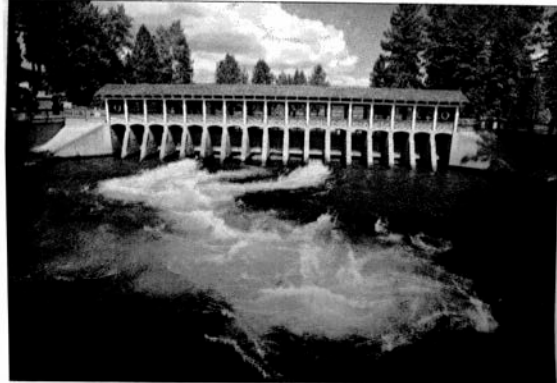


Photo by Scott Korman/The Chronicle  
 Here brown plumes of runoff once spewed, clear water now flows over the Outlet Dam in Tahoe City, as seen from Fantasy Bridge.

## Crashes cut - S.F.'s cameras get the credit

City planning to put red-light devices at 10 more intersections

By Rachel Gordon  
 CHRONICLE STAFF WRITER

The number of injury collisions in San Francisco caused by red-light jumpers has dropped by more than half over the past decade, a dramatic decrease that officials attribute in part to cameras mounted at nearly two dozen treacherous intersections in the city.

"The cameras aren't the panacea, but they certainly help," Bond Yee, the city's director of parking and traffic, said Tuesday. He said public education and old-fashioned police enforcement also contribute to the reduction of red-light violations.

In 1998 — the year after the first red-light cameras were mounted at a handful of intersections in San Francisco — the number of reported injury crashes involving red-light violations was 773. In 2006, the number of such collisions was 377.

## Dorm crackdown on illegal downloading

Students face fines, Internet shutoff if caught

to make students think about violating copyright. The hope, he said, is to let them learn from being sued by







# Environmental Improvement Program (EIP)

- \$1.6 billion invested since 1997 in multi-agency restoration program
- Public funding diminishing, more public-private partnerships encouraged



RESTORING WATERSHED & HABITAT



The Upper Truckee Marsh is the largest wetland in the Sierra Nevada, providing water quality benefits and a wide diversity of wildlife habitats. The Cove East project pictured here restored a disturbed wetland back to its natural condition at the mouth of the Upper Truckee River.



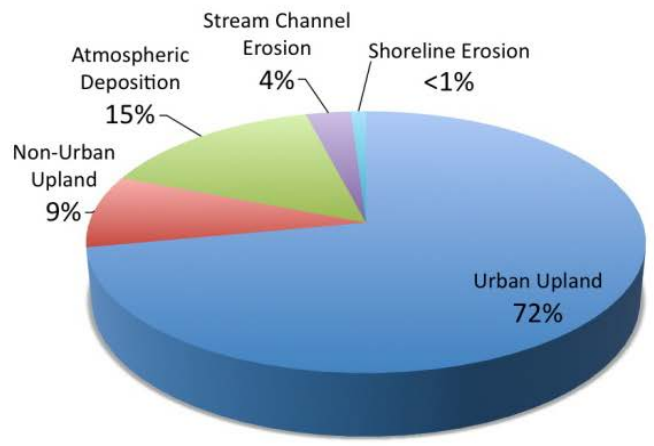
## Restoring the watershed... one project at a time.

Restoring the watershed and habitat of the Lake Tahoe Basin is critical to the health of the entire ecosystem. Given that 75 percent of the marshes and 50 percent of the meadows in the Tahoe Basin have been altered because of development, extensive restoration is necessary to regain naturally functioning wetlands and soils. The following pages highlight successful EIP projects beginning with the Upper Truckee River Restoration.

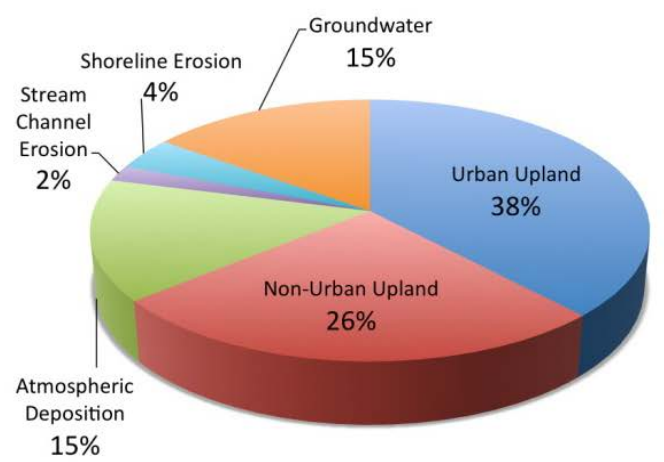
75% } Seventy-five percent of the marshes and 50 percent of the meadows in the Tahoe Basin have been altered because of urbanization and development.



### Fine Sediment Particles



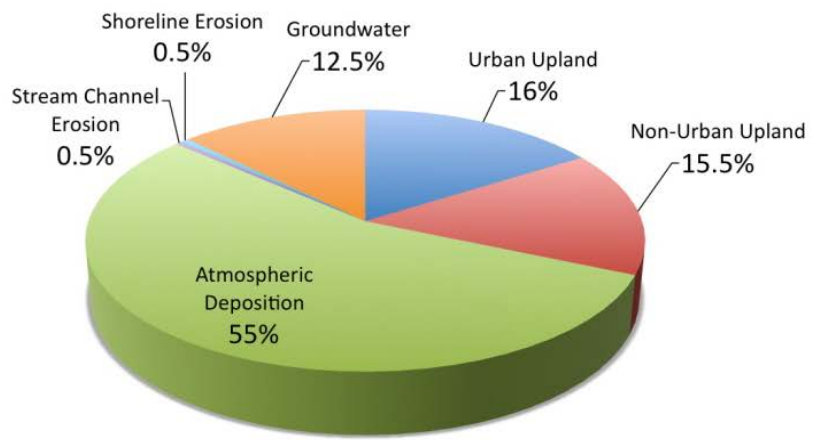
### Total Phosphorus



## Urban Upland + Atmospheric

87% of Fine Sediment  
53% of Phosphorus  
71% of Nitrogen

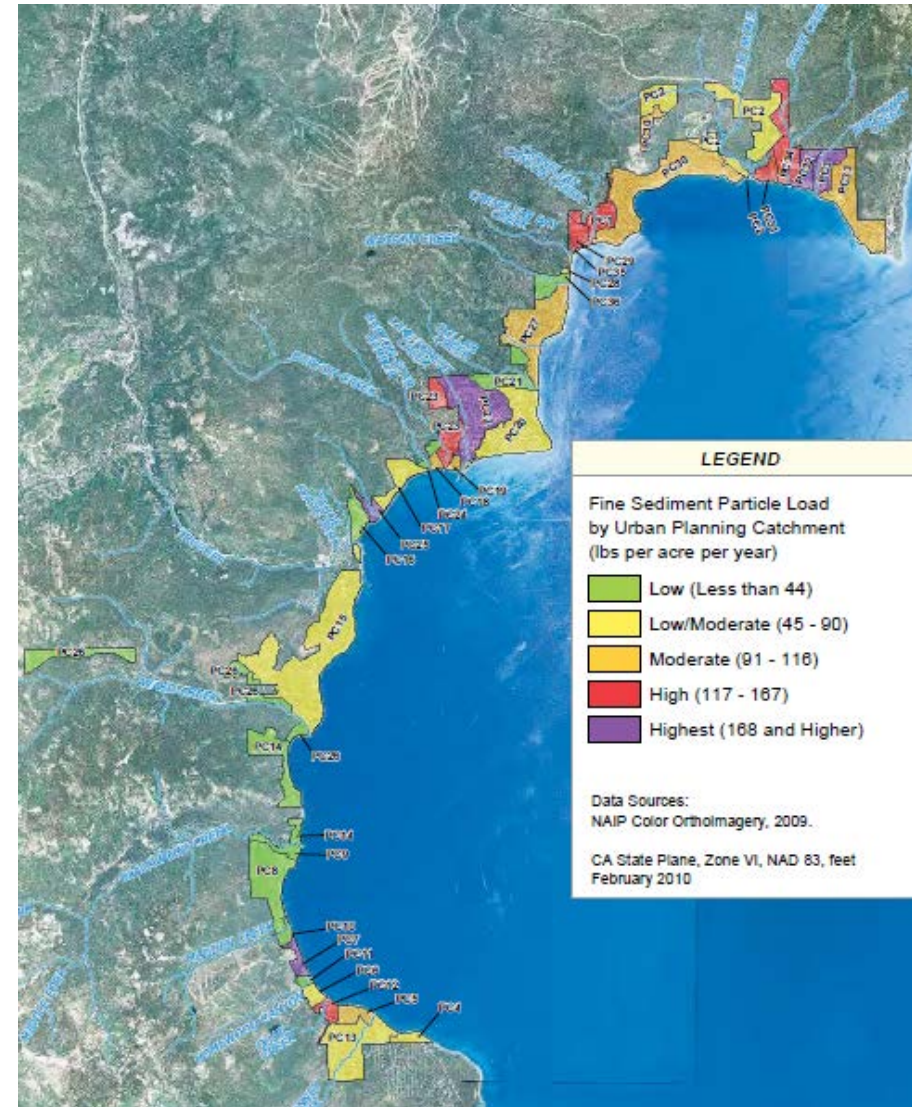
### Total Nitrogen





# TMDL Approach

- Catchment level solutions
  - Fine sediment loads range from less than 44 to over 168 lbs/acre/year
  - Water quality improvement projects in highest load catchments have four times positive impact



# Nevada Senate Bill 271



- ❑ Served as a catalyst for Bi-State engagement
- ❑ Focused attention on completion of Regional Plan by 2012
- ❑ Contained provisions to preserve the Compact if actions occur

# Top Three Priorities of the Regional Plan Update:

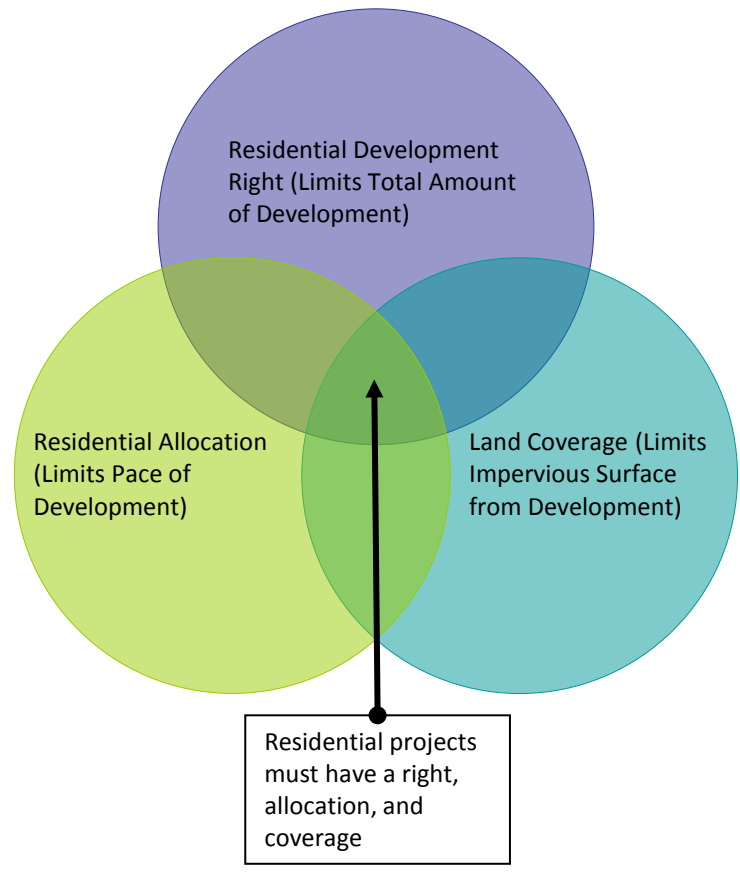
1. Accelerate water quality restoration and other environmental improvements
2. Help create walkable, bike-able communities
3. TRPA focus on regional issues and transition to more local government permitting





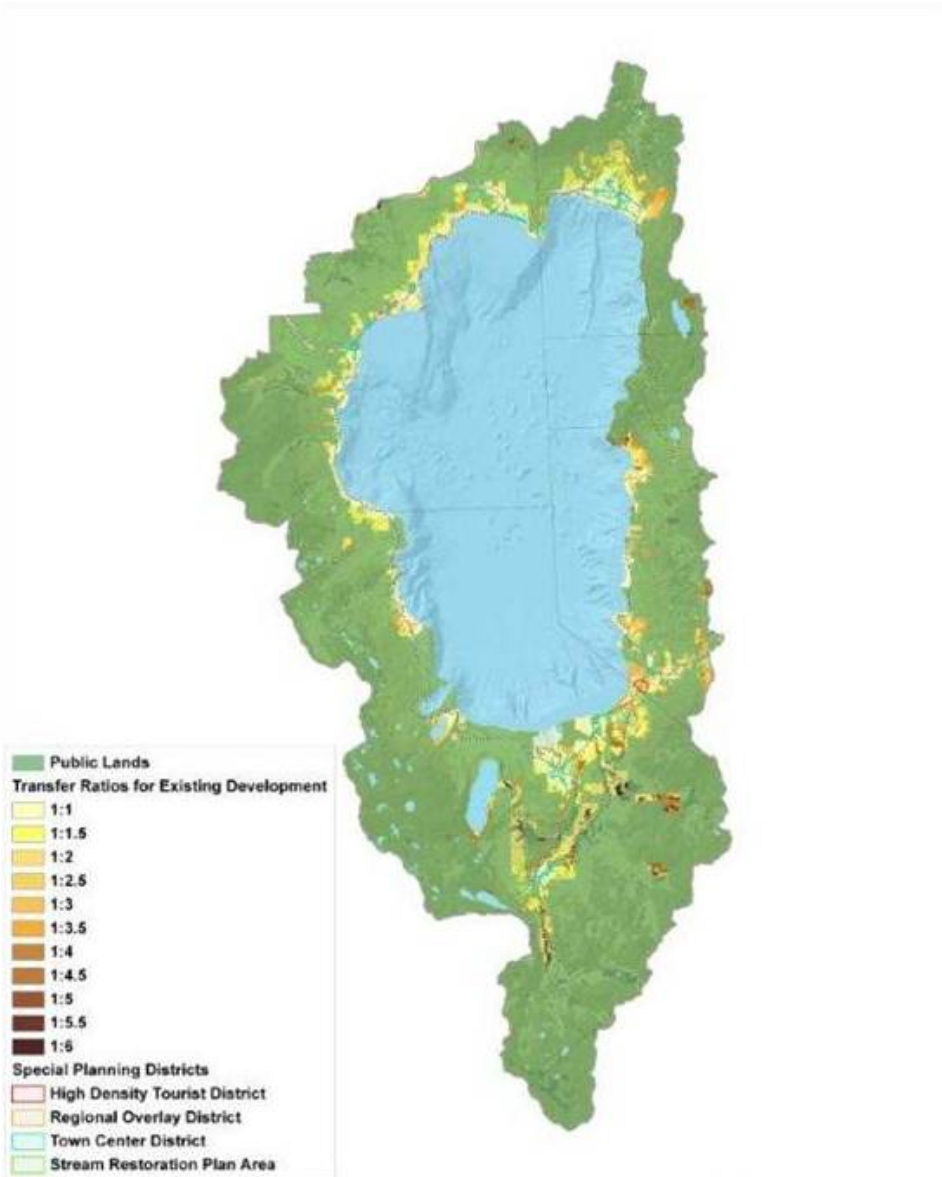


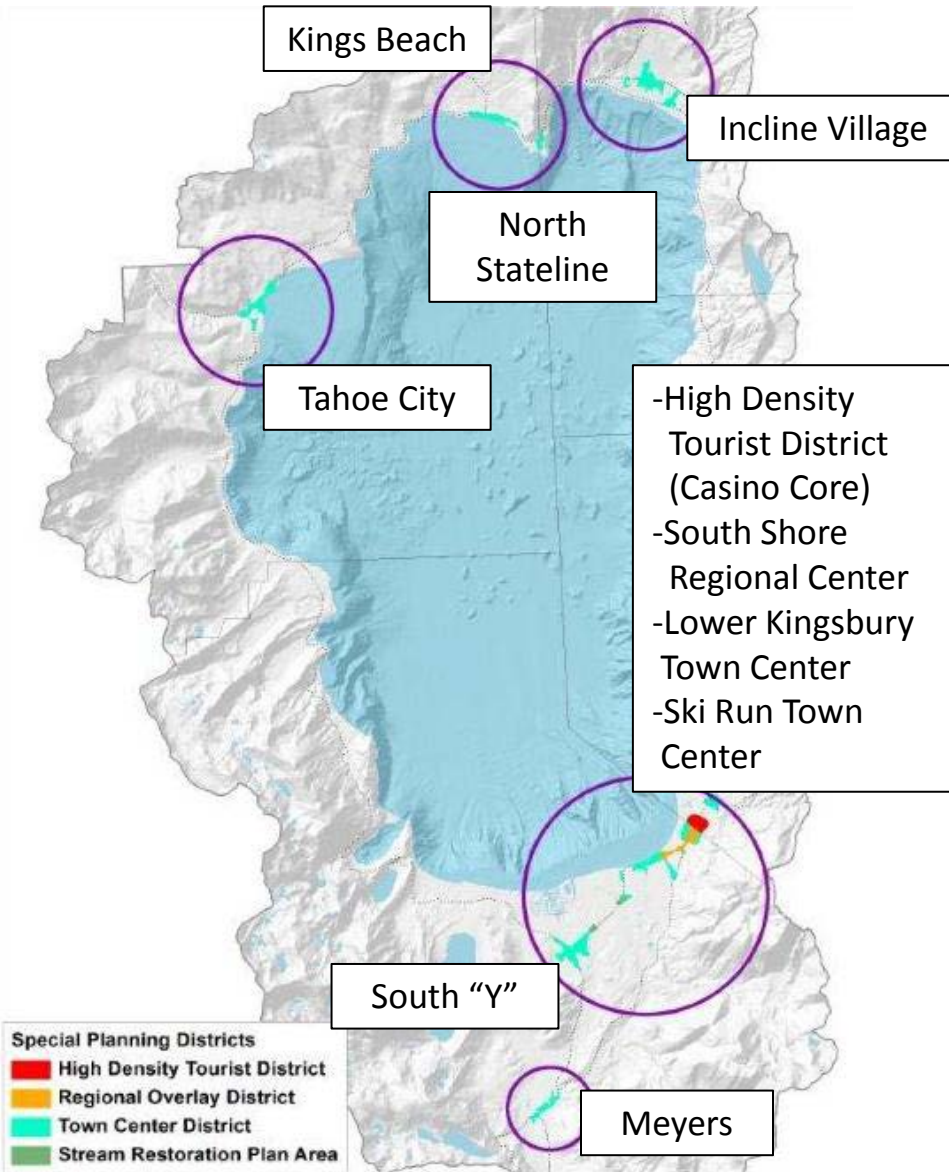
# Transfer of Development Rights





# Transfer of Development Rights: Sending Areas

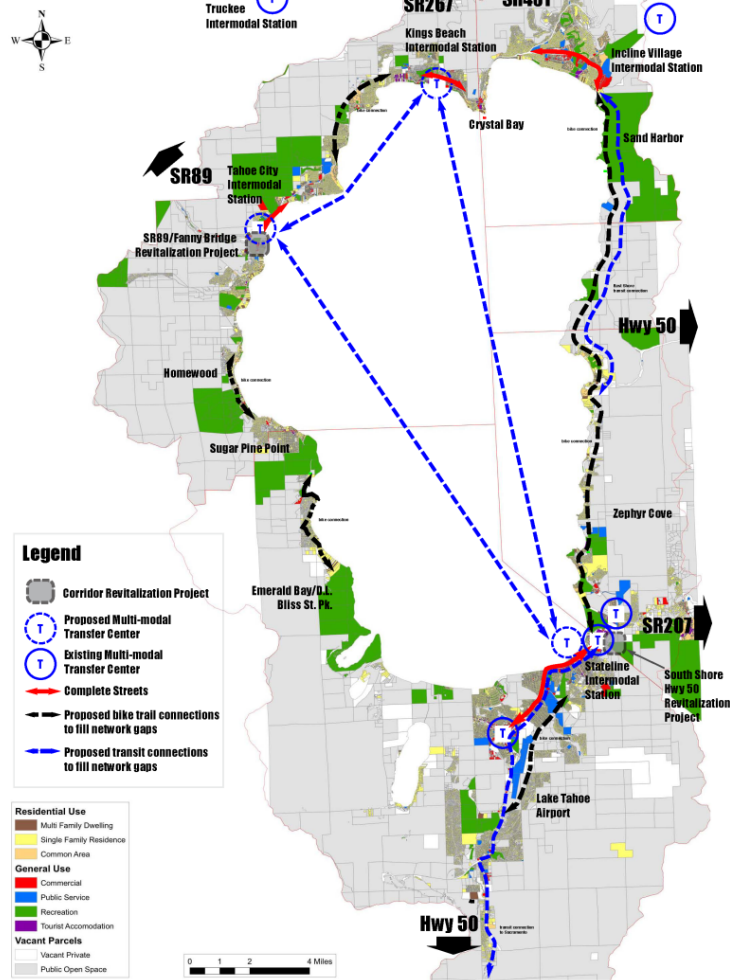




# Transfer of Development Rights: Receiving Areas



**Lake Tahoe**  
 Regional Transportation Plan  
 Proposed Projects



Clearly Linking  
 Land Use and  
 Transportation

# Walkable, Bikeable Redevelopment

- ❑ Scenic Improvements
- ❑ 25% Traffic Reduction
- ❑ 19% Reduction of Impervious Coverage
- ❑ Stormwater treatment form 6 acres of urban land
- ❑ Mixed Uses, Shared Parking and Coordinated Transit

Before:



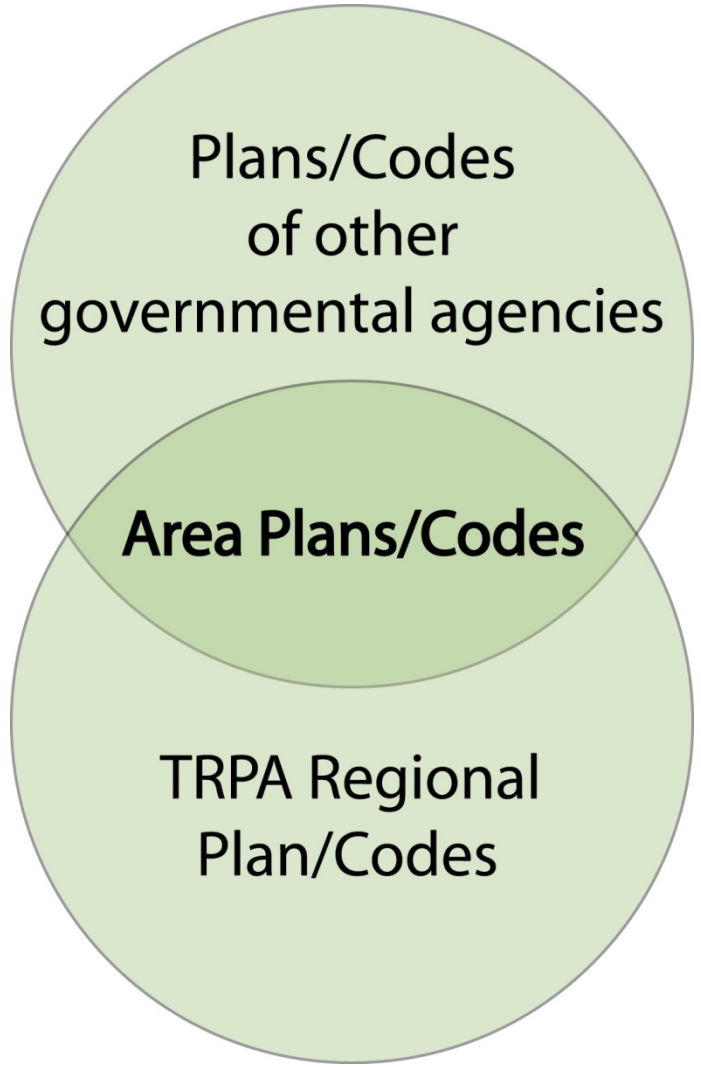
After:





# Area Plans and Delegation

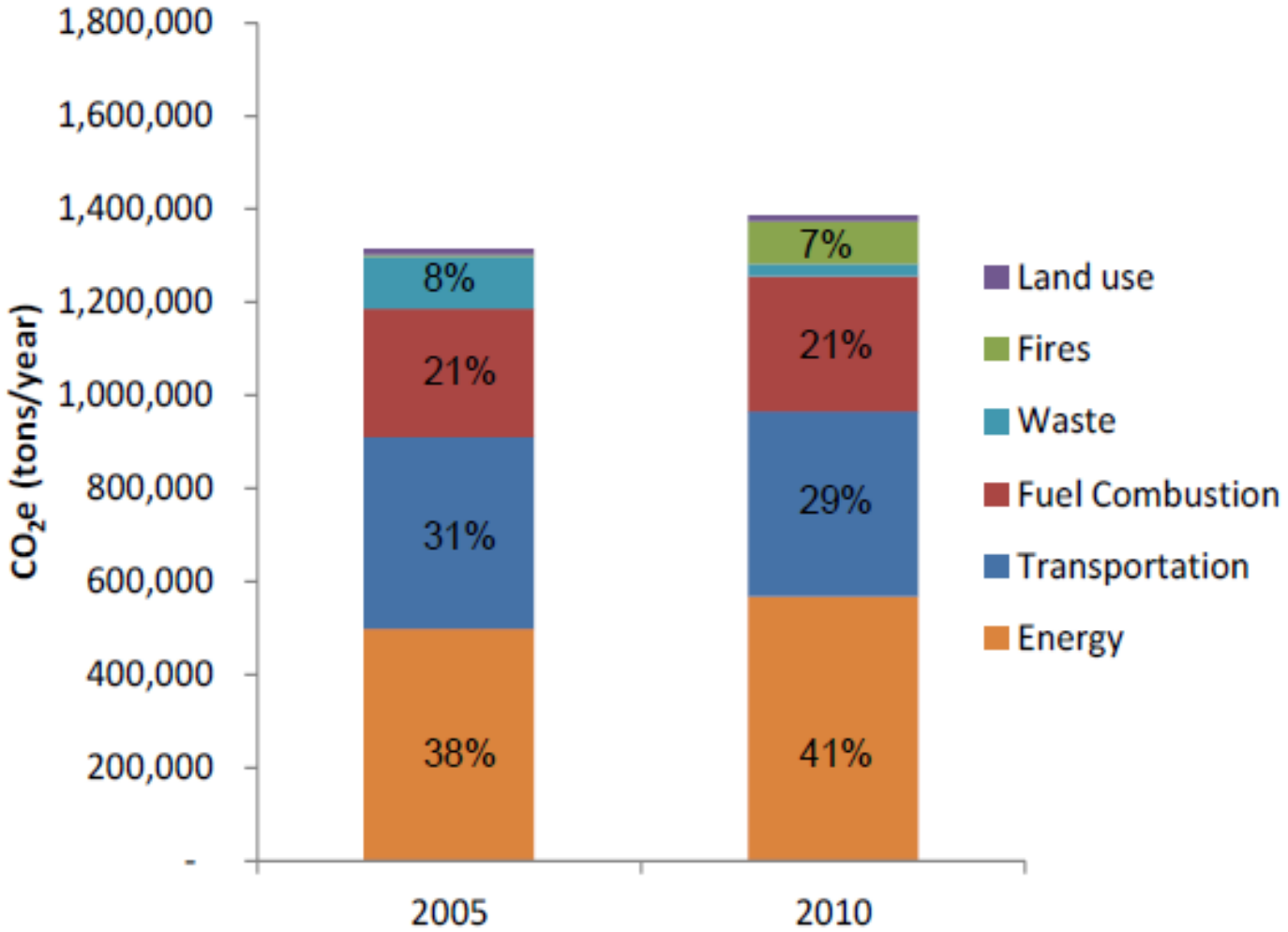
- Plan & Code Consistency
- Expands Existing MOU System
- One Stop Permitting for Most Projects
- Single Entity for Inspection and Code Compliance





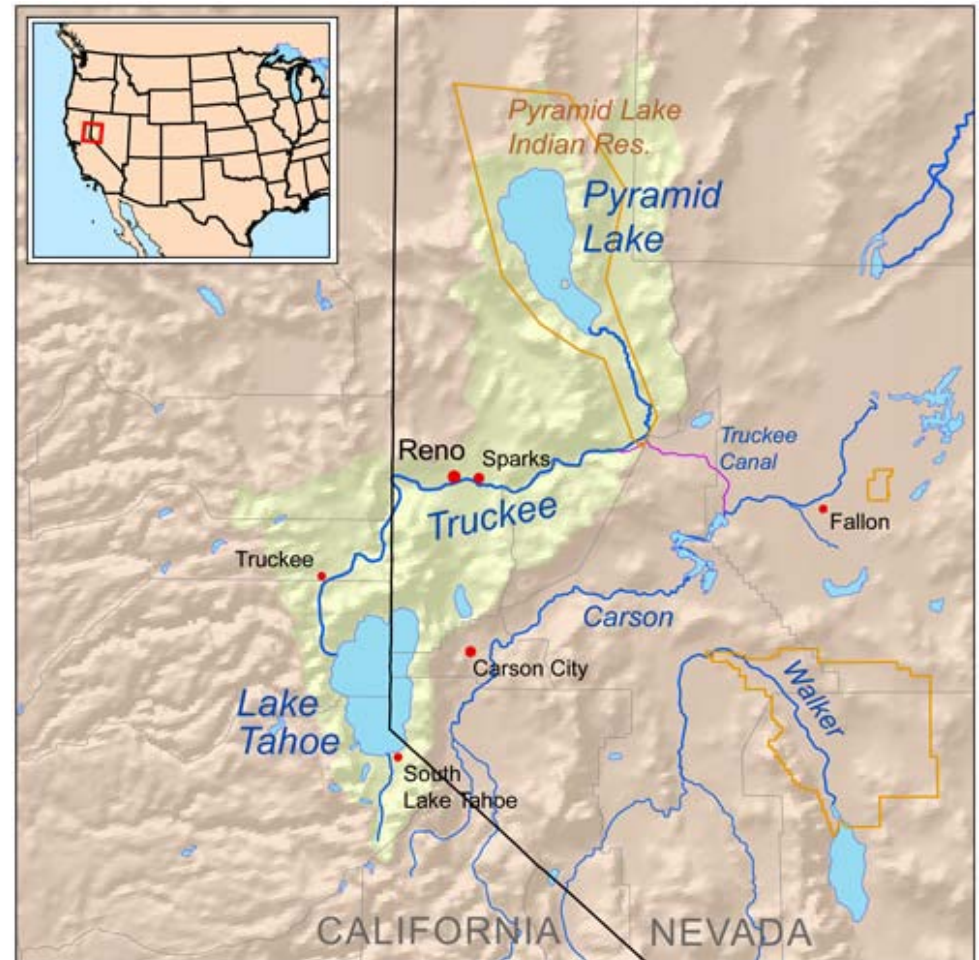


# Climate Change and Sustainability Action Plan

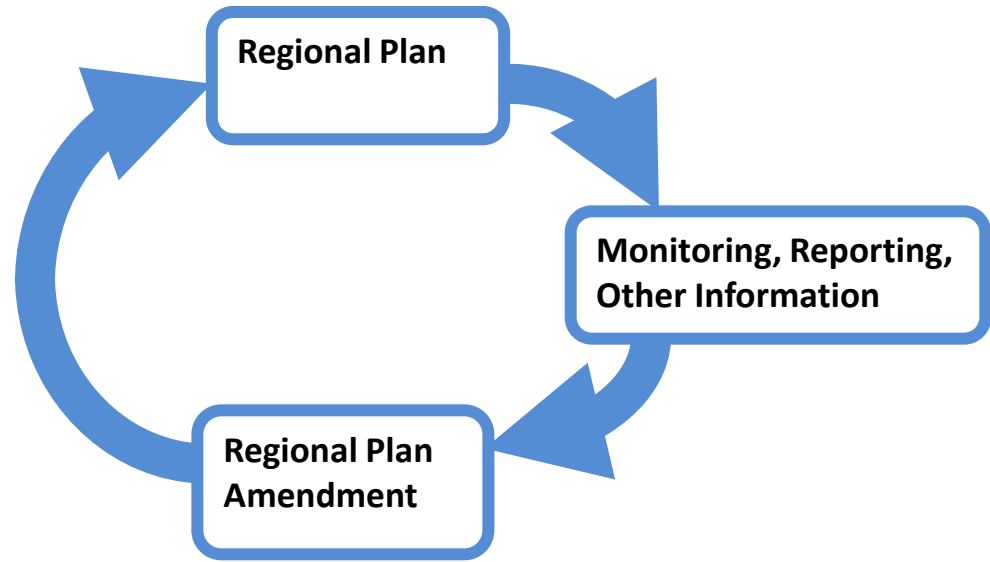


# US Bureau of Reclamation Truckee River System Study

- ❑ Analysis of climate change and impacts to 2099
- ❑ Partners:
  - ❑ TRPA
  - ❑ PCWA
  - ❑ TMWA
  - ❑ TRFMA



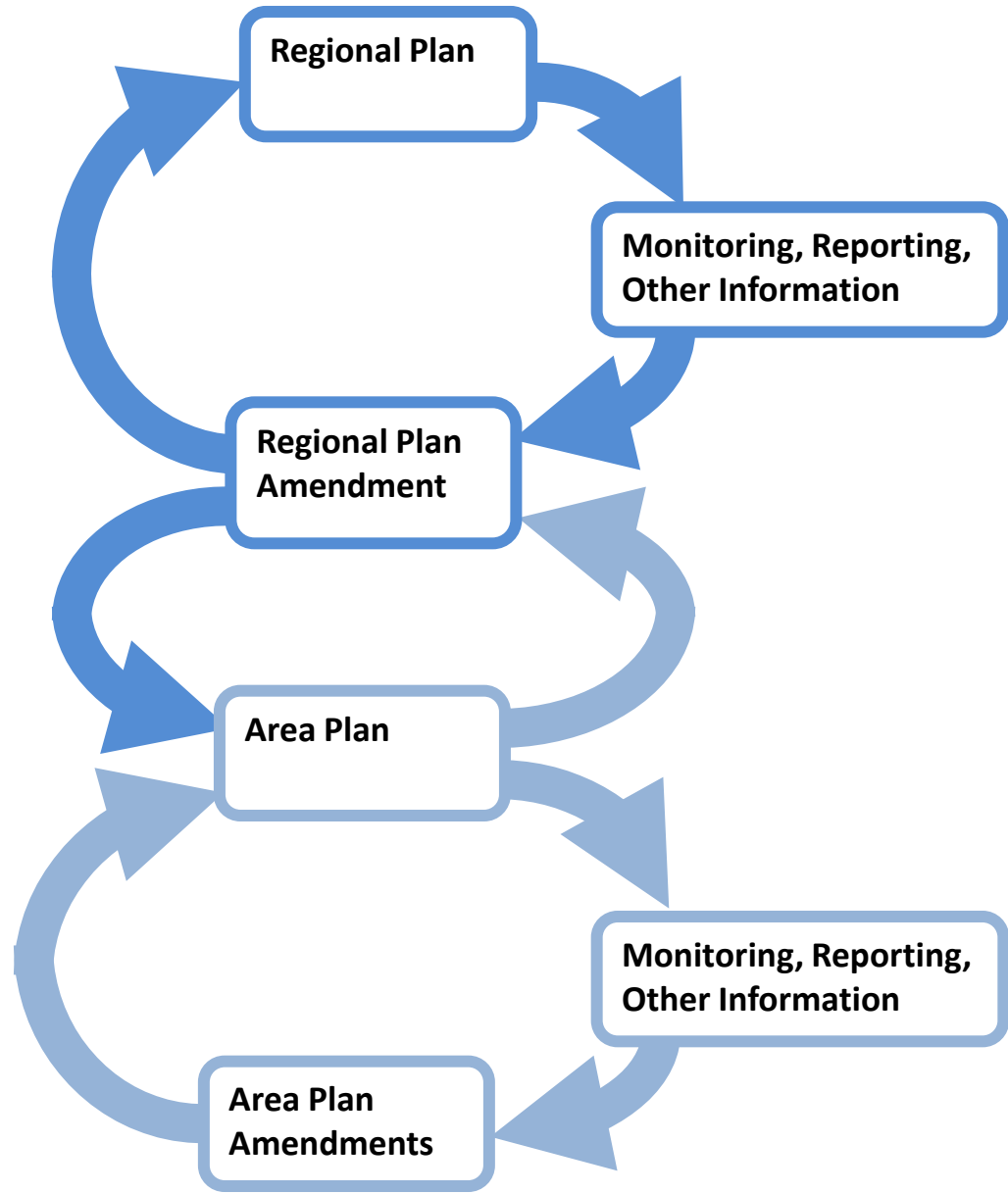




# A New Planning Paradigm

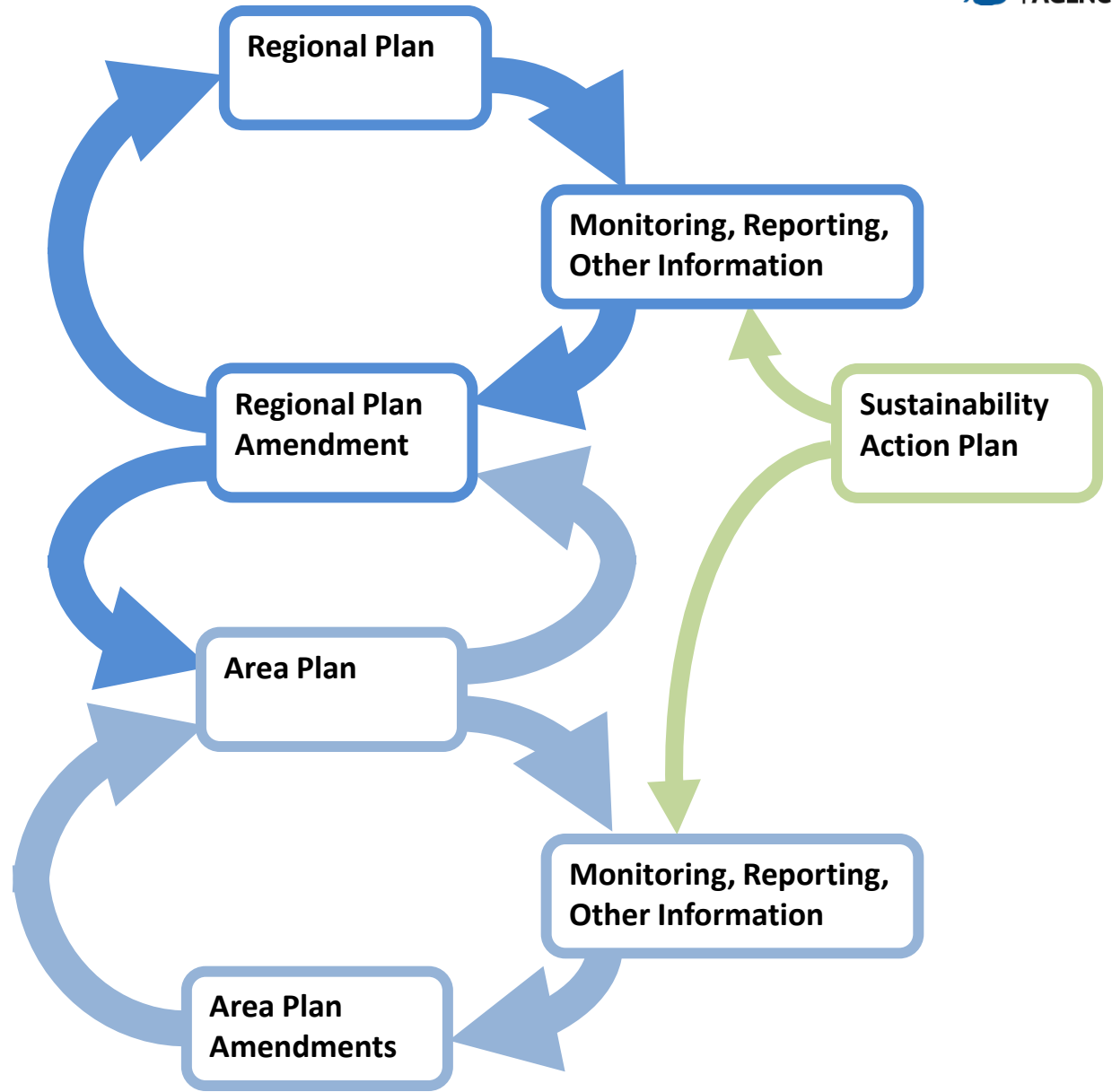


# A New Planning Paradigm





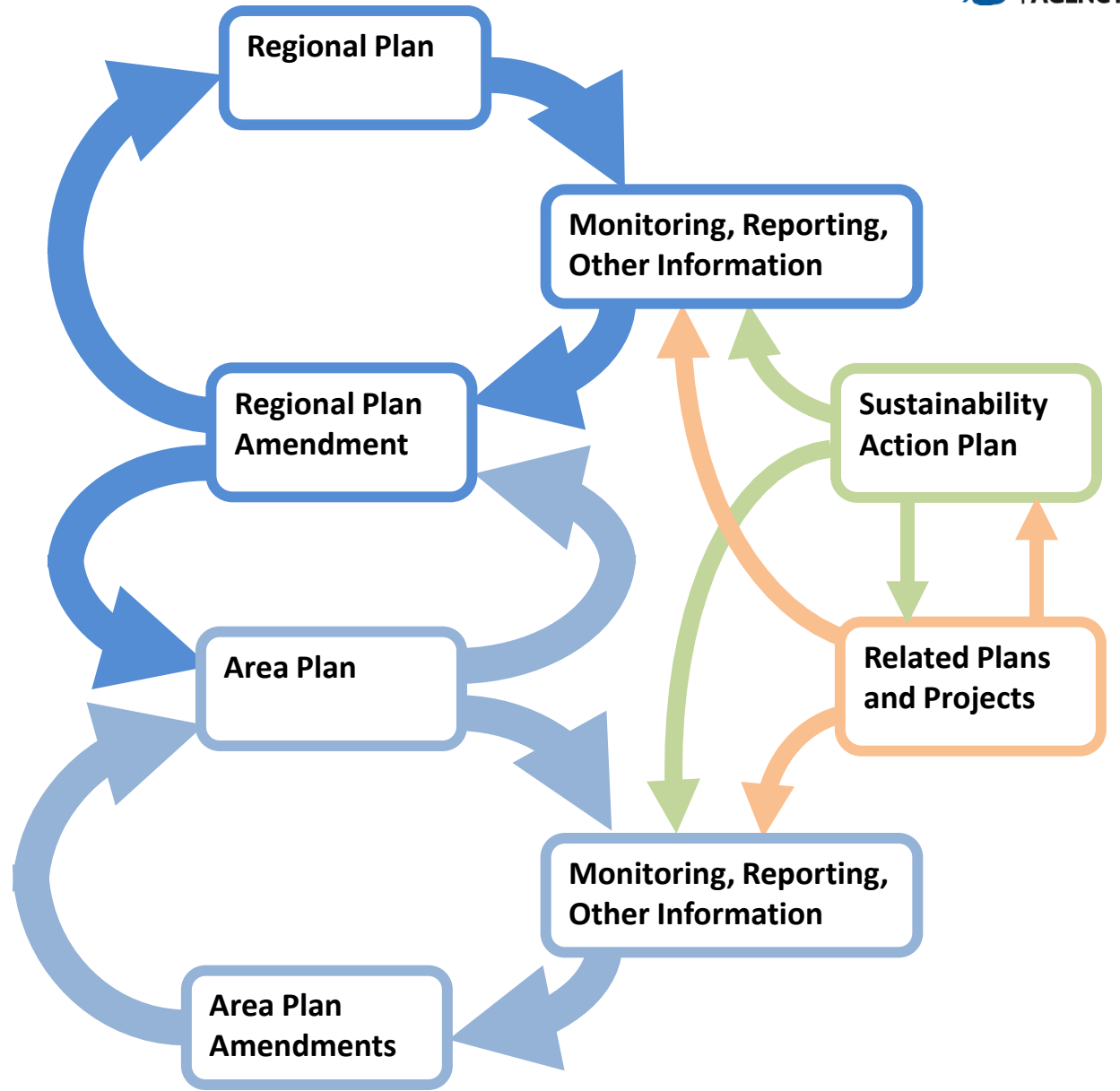
# A New Planning Paradigm







# A New Planning Paradigm



A serene landscape photograph capturing a sunset over a calm lake. The sun is positioned low on the horizon, partially obscured by a range of mountains, creating a bright, golden glow that fills the sky and reflects on the water's surface. The sky transitions from a deep orange near the horizon to a lighter, hazy yellow. The mountains in the background are silhouetted against the bright sky. In the foreground, the dark silhouettes of evergreen trees frame the bottom and left sides of the image. A small, tree-covered island is visible in the middle ground on the right, its form mirrored in the still water. The overall mood is peaceful and contemplative.

**Thank you.**