



# TEU



Department of Transportation



Our goal is to restore the clarity of Lake Tahoe  
to ensure the pristine beauty of this National Treasure.



# Purpose

- To discuss the Departments proposed 5-year Capital Improvement Program (CIP)/Environmental Improvement Program (EIP) (2008-2013)
- To receive direction from the Board of Supervisors on the Departments proposed 5-year CIP/EIP
- To discuss the future of the Tahoe Program and the EIP/National Pollutant Discharge Elimination System Total Maximum Daily Load (TMDL) Permit requirements





# Agenda



## Background and Evolution of the Tahoe Program

- Program History
- Evolution of Program
- Grant Funding
- Cumulative Expenditures
- Project Accomplishments
- Types of Improvements Completed (Photos)
- Continued Evolution of the Tahoe Program
- Proposed 5 Year CIP/EIP
  - Capital Improvement Program (CIP)/Environmental Improvement Program (EIP) Process
  - Cumulative Funding
  - 5-Year CIP/EIP Implementation Strategy
  - Future Program and Funding Strategies
- Questions



## Tahoe Erosion Control /Environmental Improvement Program History

- 1980 State Water Quality Control Board “Lake Tahoe Basin Water Quality Plan” was developed.
- 1982 El Dorado County Erosion Control Program was initiated.
- 1982-83 Tahoe Erosion Control Project - funded by a State Water Resources Control Board (SWRCB) grant – first project, cost \$37,000.
- 1984 The California Tahoe Conservancy (CTC) was created.
- 1987 CTC Report completed entitled “A Report on Soil Erosion Control Needs and Projects in the Lake Tahoe Basin.”
  - Pursuant to the 1986 Budget Act.
  - Created E.C. Project lists for the three jurisdictions (El Dorado County - 35 Projects, Placer County - 33 Projects, and the City of South Lake Tahoe - 33 Projects).
  - Total Program Estimated Cost - \$160.1 million over ~ 20 years.
  - Total of \$44,203,000 allocated to El Dorado County.



## Tahoe Erosion Control /Environmental Improvement Program History (Cont.)

- 1997 Presidential Forum and the development of the Environmental Improvement Program (EIP)
  - TRPA with the majority of implementing agencies develops a 10 year Project list using the 1987 Report as well as additional updated areas from the CTC and USFS.
  - President Clinton and Vice President Gore visit Tahoe in the summer of 1997 to sign the Federal Restoration Act and commitment by the federal government to fund the EIP.
  - Total estimate of the EIP \$908 million over 10 years.
- 2007 Presidential Forum to present the 10 year Accomplishments Report and to discuss the next phase of the EIP.
  - \$1.1 billion invested from 1997 to the end of 2006.
  - An additional estimated \$2.1 billion needed to complete the next 10 years of EIP programs (Water Quality, Air Quality/Transportation, Forest Management, Recreation and Access, and Invasive/Endangered Species.)



# Evolution of the Tahoe Program

	1982–1997	1997–2008
Program Focus of Fed & State Agencies & DOT Projects	Soil Erosion Control / Water Quality Control	Soil Erosion Control / Water Quality Recreation and Access Fisheries / Wildlife Stream Environment Zone (SEZ)
Primary Funders & Funding Programs (%)	CTC (61%) USFS (14%) SWQCB (12%) TRPA (5%) CSA/County/Local (8%)	CTC (67%) USFS (14%) TRPA (10%) BOR (3%) CSA/County/Local (6%)
Project Prioritization Methodologies	1987 CTC Report 1980 Basin Plan	TRPA EIP NPDES General Permit 1980 Basin Plan
No. Projects Delivered	29	17 (includes the 2008 constructed Projects)
Total Cost of Projects Delivered	\$26,094,443	\$43,777,000
Staffing	6-8 DOT Staff supplemented by consultants (planning and design)	8-15 DOT Staff supplemented by specialty consultants and few planning/design consultants



# Grant Funding Highlights

## 2001-2008

Increased Funding at Lake Tahoe from 2001 to early 2008 became available as a result of:

- Southern Nevada Public Lands Management Act (SNPLMA)
- Increases in State grant programs available to local agencies (i.e. CTC Erosion Control Program increased from \$7 million/year in 2001 to \$10 million/year from 2005-2007, with additional SEZ and Rec and Access funds available)

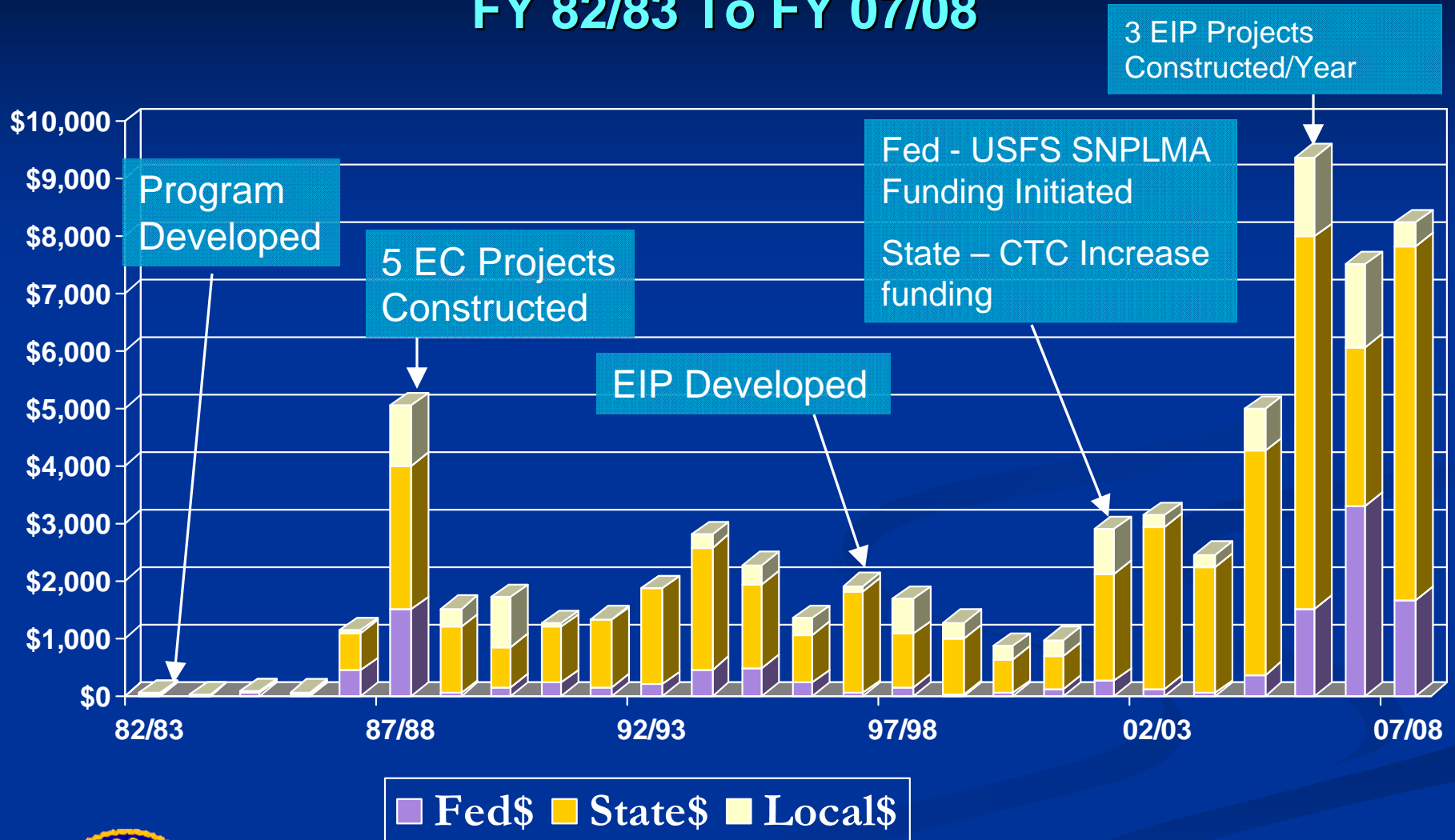
Higher levels of funding presented:

- A significant opportunity to the County to achieve Lake Tahoe Basin environmental improvement and recreational access objectives
- A continuing challenge to increase project development implementation capabilities



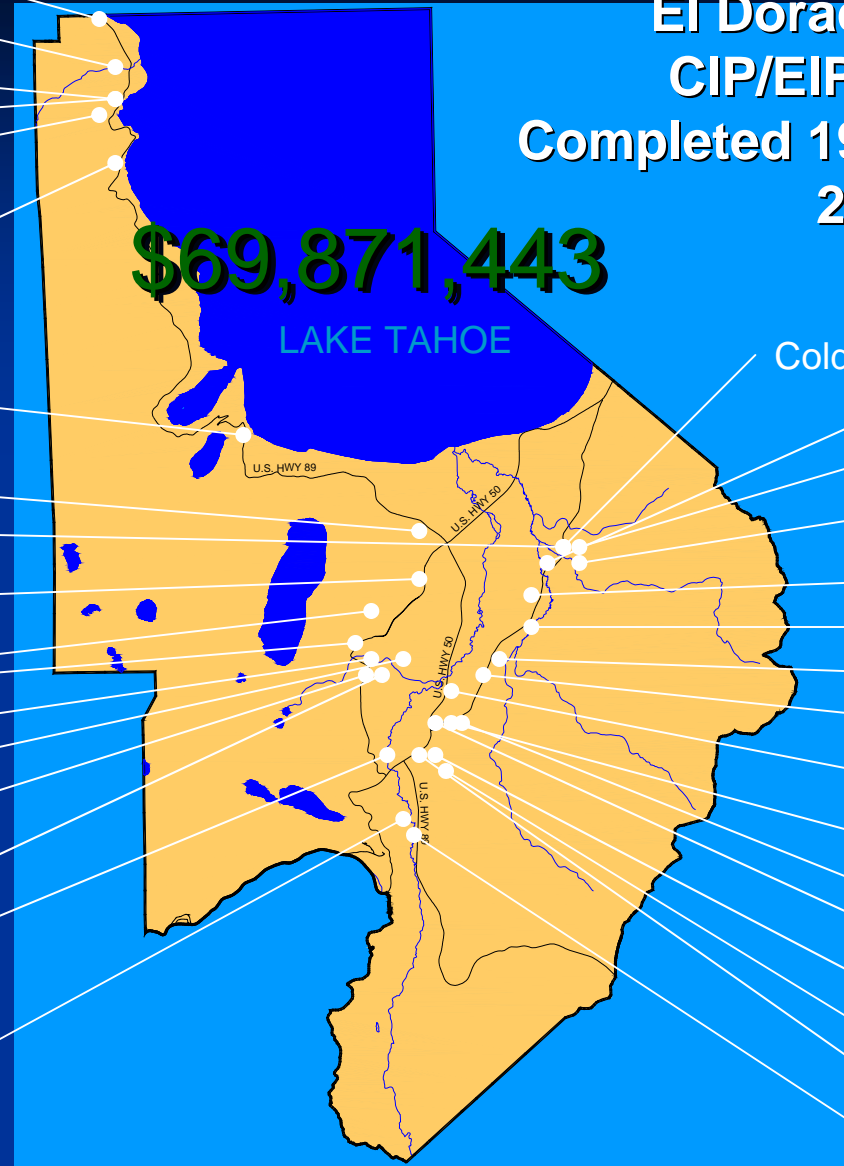


# Cumulative Project Expenditures (\$000s) FY 82/83 To FY 07/08



# El Dorado County CIP/EIP Projects Completed 1982-83 Through 2008

**\$69,871,443**



Tahoma  
Victoria Drive  
Valley View  
Silvertip  
Rubicon  
Woodland, Tamarack,  
Lonely Gulch  
Cascade  
ECP  
15<sup>th</sup> Street Bike  
1982-83 Project  
Lake Tahoe Blvd Overlay  
Tahoe Mountain  
Angora I & II  
Angora Monitoring  
Echo View  
Angora SEZ 1&2  
Angora 3 ECP/SEZ  
North Upper Truckee I  
& II  
Tahoe Paradise Unit #60

Cold Creek Trail Realignment  
Del Norte  
Pioneer Trail 3  
Montgomery Estates 1  
Marshall Trail  
Apalachee 1,2,3  
Hekpa  
1989 CCC  
Country Club  
Pioneer Trail I & II  
Southern Pines  
Sawmill 1A Bikepath  
Apache I & II  
Santa Fe  
Pat Lowe Bike Trail  
Christmas Valley 1  
ECP/SEZ



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# Separate urban runoff from forest runoff until urban runoff is treated





# Flow Dispersal and Erosion Control





# Soil Stabilization/Revegetation





# Infiltration and Treatment





# Natural Treatment Systems





# Stabilizing or restoring channels

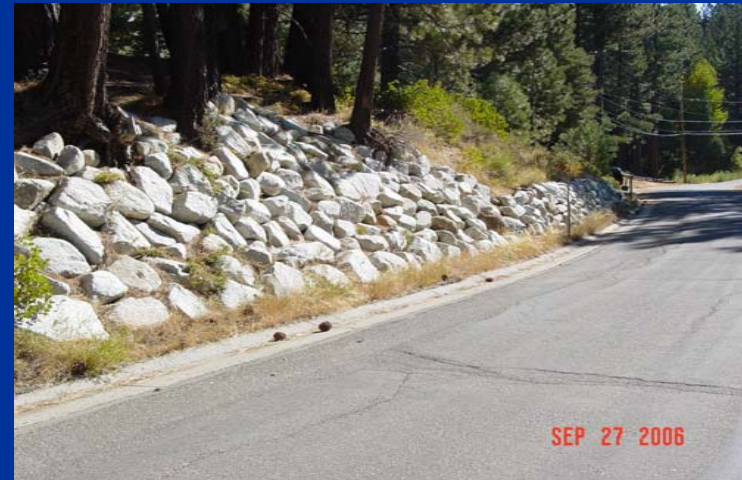




# Bike Trails



# Typical EIP Project BMPs 1997-2008





# Typical EIP Project BMPs 1997-2008 (Cont.)



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- **Continued Evolution of the Tahoe Program**

- **Proposed 5 Year CIP/EIP**

- Capital Improvement Program (CIP)/Environmental Improvement Program (EIP) Process
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# Continued Evolution of the Tahoe Program

	1982–1997	1997–2008	Proposed 5-Year CIP/EIP 2008 – 2013
Program Focus of Fed & State Agencies	Soil Erosion Control/ Water Quality Control	Soil Erosion Control/Water Quality Rec and Access Fisheries/Wildlife SEZ	Soil Erosion Control/Water Quality (TMDL) Rec and Access SEZ/Forest Health
Primary Funders & Funding Programs %	CTC (61%) USFS (14%) TRPA (5%) CSA/County/Local (8%) SWQCB (12%)	CTC (67%) USFS (14%) TRPA (10%) BOR (3%) CSA/County/Local (6%)	<b>USFS (45%)</b> <b>BOR (3%)</b> <b>TRPA (10%)</b> <b>SWQCB (5%)</b> <b>DWR/CTC (30%)</b> <b>CSA/County/Local (7%)</b>
DOT Project Focus	Soil Erosion Control/Water Quality Control	Soil Erosion Control/Water Quality Rec and Access Fisheries/Wildlife SEZ	<b>Watershed Approach</b> <b>TMDL – Water Quality</b> <b>Bike/Ped Master Plan</b> <b>Forest Health</b>



# Continued Evolution of the Tahoe Program 2

	1982–1997	1997–2008	2008 – 2013
Project Prioritization Methodologies	1987 CTC Report 1980 Basin Plan	TRPA EIP NPDES General Permit/ 1980 Basin Plan	TRPA EIP Update Basin Plan(s) Update/TMDL
No. Projects Delivered / Planned	29	17 (includes the 2008 constructed Projects)	22
Total Cost of Projects Delivered / Planned	\$26,094,443	\$43,777,000	\$49,500,000
O&M Requirements	CTC Grant NPDES Permit TRPA Permit	CTC Grant NPDES Permit TRPA Permit	All State Grants NPDES Permit TRPA Permit/Ordinance
Staffing Strategy	6-8 DOT Staff supplemented by consultants (planning and design)	8-15 DOT Staff supplemented by specialty consultants and few planning/design consultants	15 DOT Staff supplemented by specialty consultants



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# Capital Improvement Program (CIP)/Environmental Improvement Program (EIP) Process

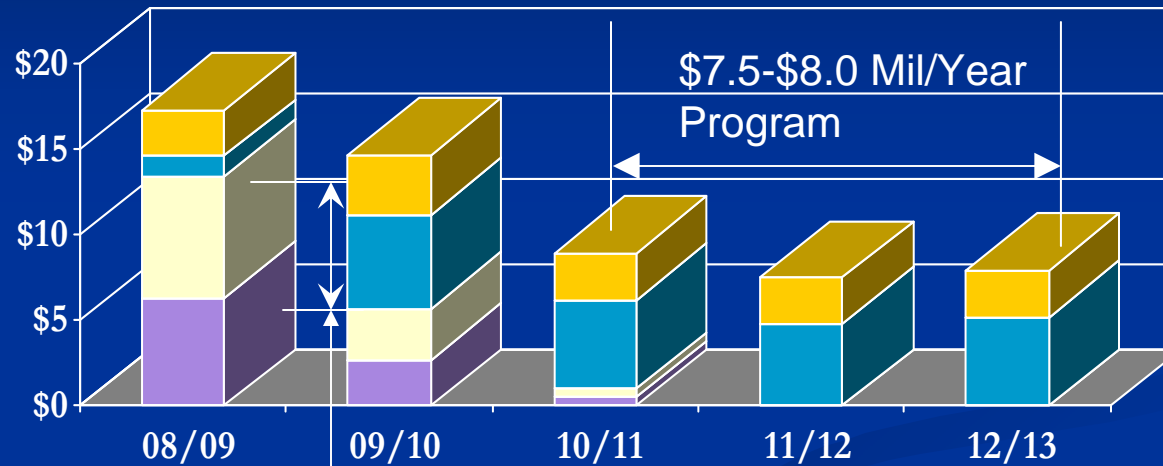
- November-February update the CIP 5 year list based on the EIP updated list with some additional capital Projects not within the EIP.
  - This list is submitted to the Board of Supervisors for review and adoption
- July-November update the EIP 5 year list based on state/fed/local funding grant allocations and current Project status and delivery issues.
  - This list is submitted to TRPA as a requirement within the building allocation program and the mitigation fund utilization for review and acceptance





# Cumulative Project Funding In Millions of Dollars Proposed 5-Year CIP/EIP

## FY 08/09 To FY 12/13



Expenditures in FY  
08/09 ~ \$7.7M

FISCAL YEAR

- |                   |                        |
|-------------------|------------------------|
| Secured Contr. \$ | Secured Plan/Des/CM \$ |
| Added Contr. \$   | Added Plan/Des/CM \$   |



# TEU Implementation Strategy 2008-2013

Projects	08/09 (\$000s)	09/10 (\$000s)	10/11 (\$000s)	11/12 (\$000s)	12/13 (\$000s)
Angora 3 ECP	1,900	90	48	12	
Sawmill 1B ECP	2,200	40	25		
Apalachee 3B ECP	1,400	26	17		
Apalachee 3B.1 ECP	225	115	15	10	
Christmas Valley 2A ECP	210	805	12	12	
Angora Fisheries	215	1,200	37	23	
Rubicon 5 ECP	215	717	333	23	13
Echo View 2 ECP	163	193	552	11	7
Boulder Mountain ECP	178	496	776	500	34
Sawmill 2 BT/ECP	268	858	3,500	1,400	137





# TEU Implementation Strategy 2008-2013 (Cont.)

Projects	08/09 (\$000s)	09/10 (\$000s)	10/11 (\$000s)	11/12 (\$000s)	12/13 (\$000s)
Cold Creek Fisheries	63	25	64	8	7
Christmas Valley 2B ECP		217	1,383	28	15
Christmas Valley 2C ECP	20	340	815	22	10
Montgomery Estates 2 Area 1 ECP	319	374	189	2,089	36
Montgomery Estates 2 Area 2 ECP	28	310	525	200	1,030
Meyers Transit Shelter	25	100	4	3	
Tahoe Hills ECP		250	175	225	1,025
South Upper Truckee 1 ECP		215	300	200	750
Country Club Heights 1 ECP		125	475	125	450



# TEU Implementation Strategy 2008-2013 (Cont.)

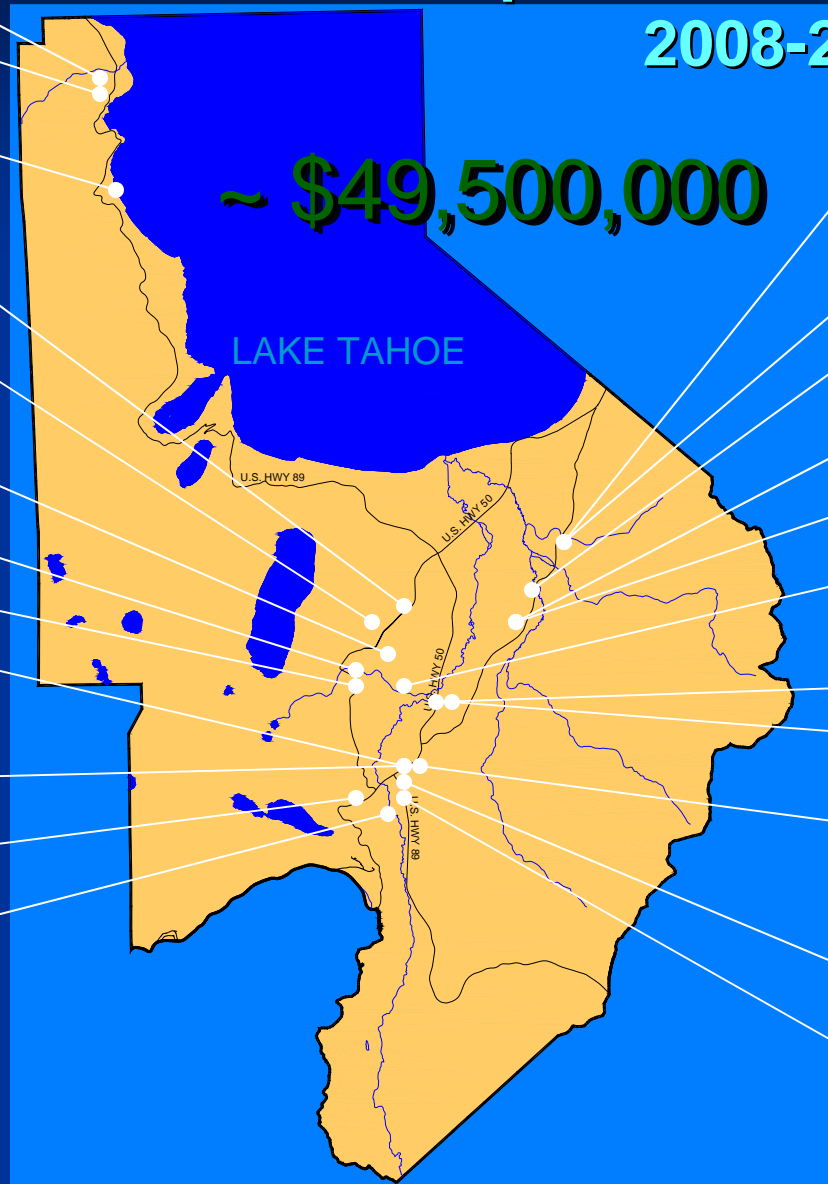
Projects	08/09 (\$000s)	09/10 (\$000s)	10/11 (\$000s)	11/12 (\$000s)	12/13 (\$000s)
Lake Tahoe Boulevard 1 SEZ/EC/BT Project	115	550	651	1,500	3,250
CSA #5 ECP			45	307	200
Meyers Corridor Capital Improvement Project Phase 1	25	440	815	588	500
Montgomery Estates 2 Area 3 ECP		150	268	250	350
Chiapa ECP			65	225	50
Golden Bear ECP				90	200
Apache Ave./US 50 Intersection Signal CIP	25				
Totals	7,594	7,636	11,089	7,851	8,064





# El Dorado County DOT - Tahoe Proposed 5 Year- CIP / EIP 2008-2013

~ \$49,500,000



CSA #5

Tahoe Hills

Rubicon 5

Lake Tahoe Blvd. 1  
SEZ/ECP/BT

Boulder Mountain ECP

Echo View 2 ECP

Angora Fisheries

Angora 3 ECP

Meyers Corridor Capital  
Improvement Project  
Phase 1

Meyers Transit  
Shelter

Chiapa ECP

South Upper Truckee 1  
ECP/SEZ

Montgomery Estates 2  
ECP Area 1 & 2

Cold Creek Fisheries

Golden Bear ECP

Apalachee 3B

Apalachee 3B.1

Sawmill 2 ECP/Bike  
Trail

Sawmill 1B Bikepath

Country Club Heights 1

Apache Ave/US 50  
Intersection  
Signalization

Christmas Valley  
2A ECP

Christmas Valley  
2B/C ECP



# Future CIP/EIP Work

## Storm Water Management /Erosion Control



Sweeping



Stream Restoration



Vactoring



Typical BMP's



Alternative Filter BMP's





# Future CIP/EIP Work Recreation & Access



## Bike Trails



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# Future Program and Funding Strategies

- Continue to work to influence programmatic policy decisions in the Basin.
- Participate in several Basin-wide efforts to assist the County in the continued implementation of its environmental and public recreational access programs.
- Increase project delivery and improve the in-ground environmental solutions.
- Facilitate the creation of a programmatic approach (Master Plan) that will:
  - allow for grant programs that contain Basin-wide funding appropriations.
  - allow for sustainable management strategies for implementing agencies.
- Update Memorandums of Understanding and Joint Power Authority related to the EIP to secure a sustainable funding source.
- Continue to collaborate with the State Water Quality Control Board and Tahoe Regional Planning Agency with the updates to the Total Maximum Daily Load and Basin Plans as it relates to the County's 5-year and 10-year CIP/EIP Project Prioritization.



# Questions and Comments

