Lake Tahoe TMDL

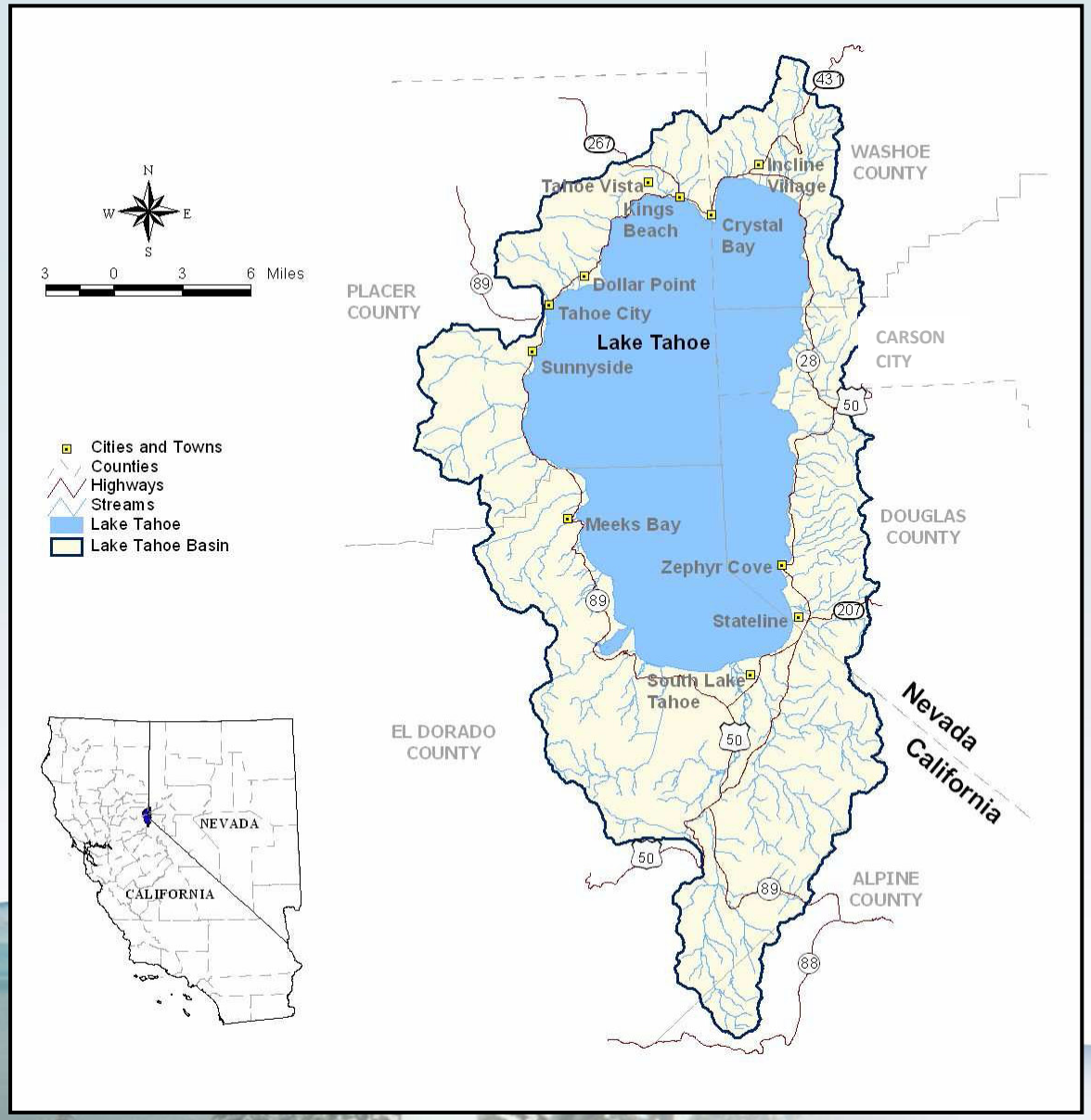
Public Workshop and Scoping Meeting

July 17, 2008

Lahontan Regional Water Quality Control Board

CALIFORNIA Water Boards

Project Setting



What does Lahontan do?

Designate Beneficial Uses (fishing, swimming, drinking, etc.)

Establish water quality standards to protect these beneficial uses

Enforce water quality standards

Compiled in our Water Quality Control Plan, or Basin Plan

Where does our Authority come from?

Federal Water Pollution Control Act (Clean Water Act, 1972)

Porter-Cologne Water Quality Control Act (1969)

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What is a TMDL?

Total Maximum Daily Load

Section 303(d) of the CWA requires states to identify and list impaired surface waters.

States must then determine the pollutants that are causing the impairment.

Determine the capacity of the water body to assimilate the pollutant and meet water quality standards

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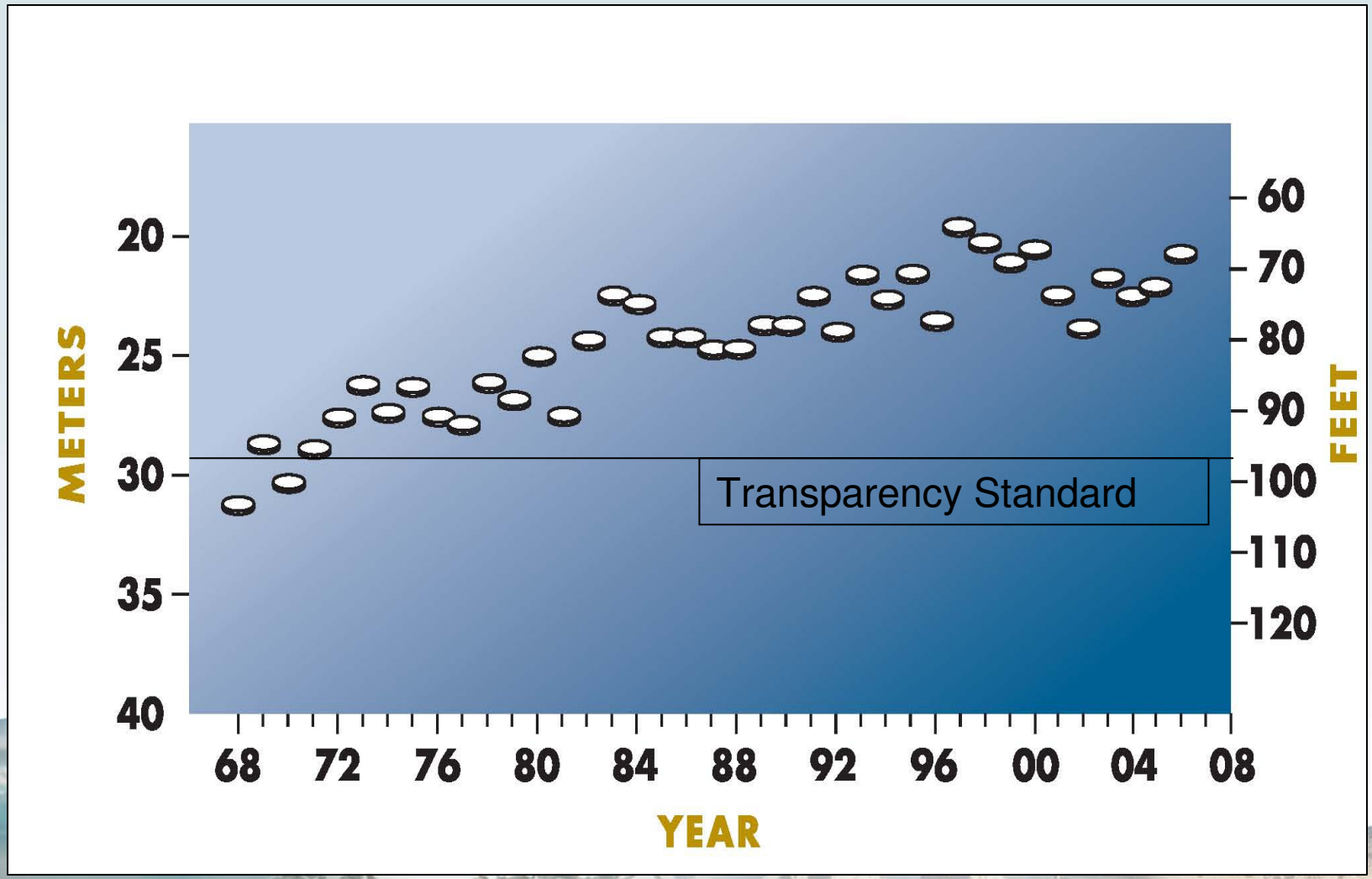
Problem Statement

Lake Tahoe's beneficial use for "recreation (water contact and non-water contact)" is impaired. This beneficial use is also referred to as, "aesthetic enjoyment of Lake Tahoe clarity."

Lake Tahoe is impaired and Lahontan is required to develop a TMDL to address the impairment.

The Water Quality Standard to protect this beneficial use is deep water transparency equal to an average annual Secchi depth of between depth of 29.7 m (97.4 ft). This depth is equal to the average lake transparency from 1967-1971 as measured with a Secchi disk.

Lake Tahoe Average Annual Clarity as Measured by Secchi Disk Observations



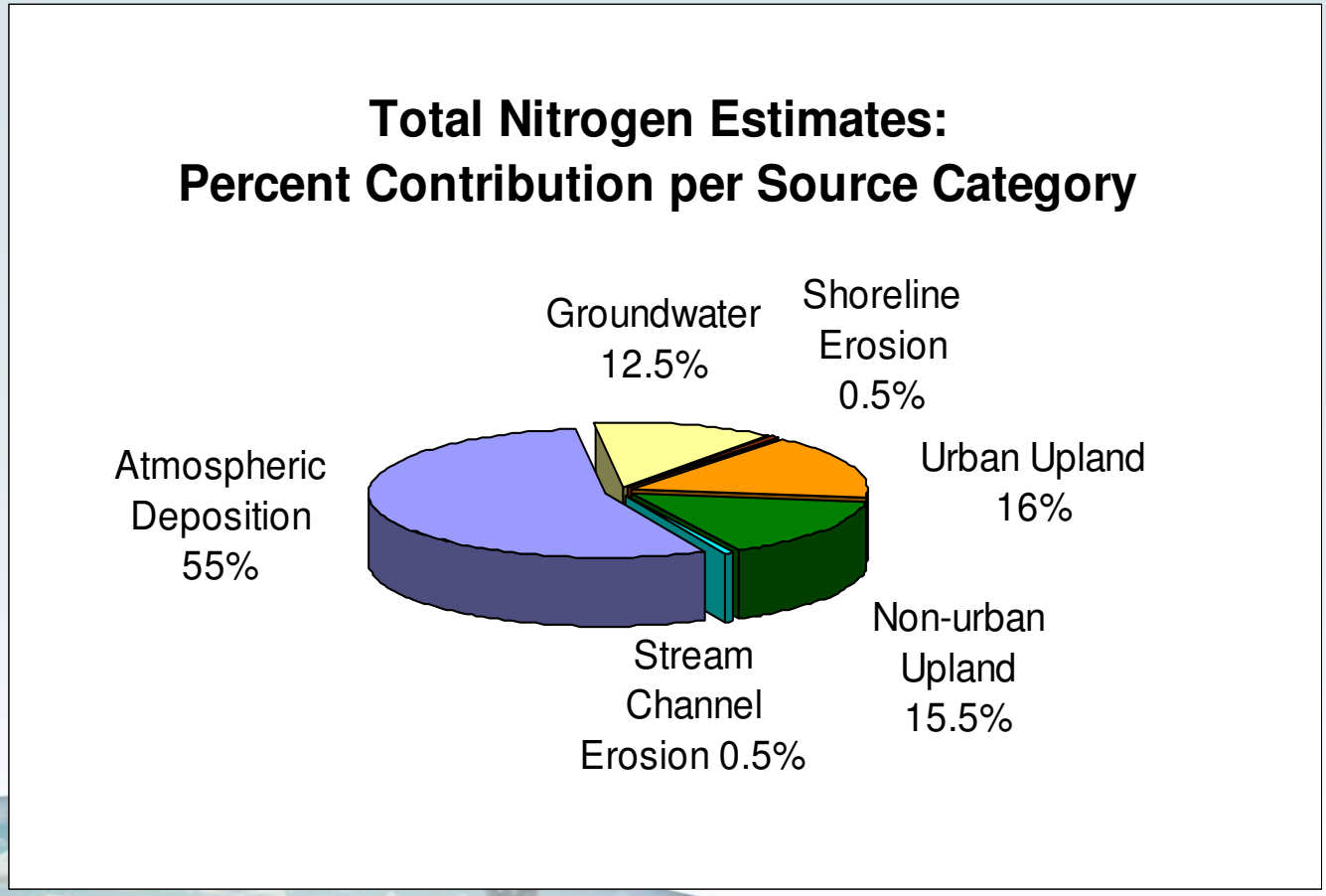
What pollutants are causing Lake Tahoe's clarity loss?

Fine Sediment Particles

Floating algae – fed by nutrients

Very fine sediment (<20 micrometers) accounts for ~2/3 of the clarity conditions

How much of each pollutant is reaching Lake Tahoe?



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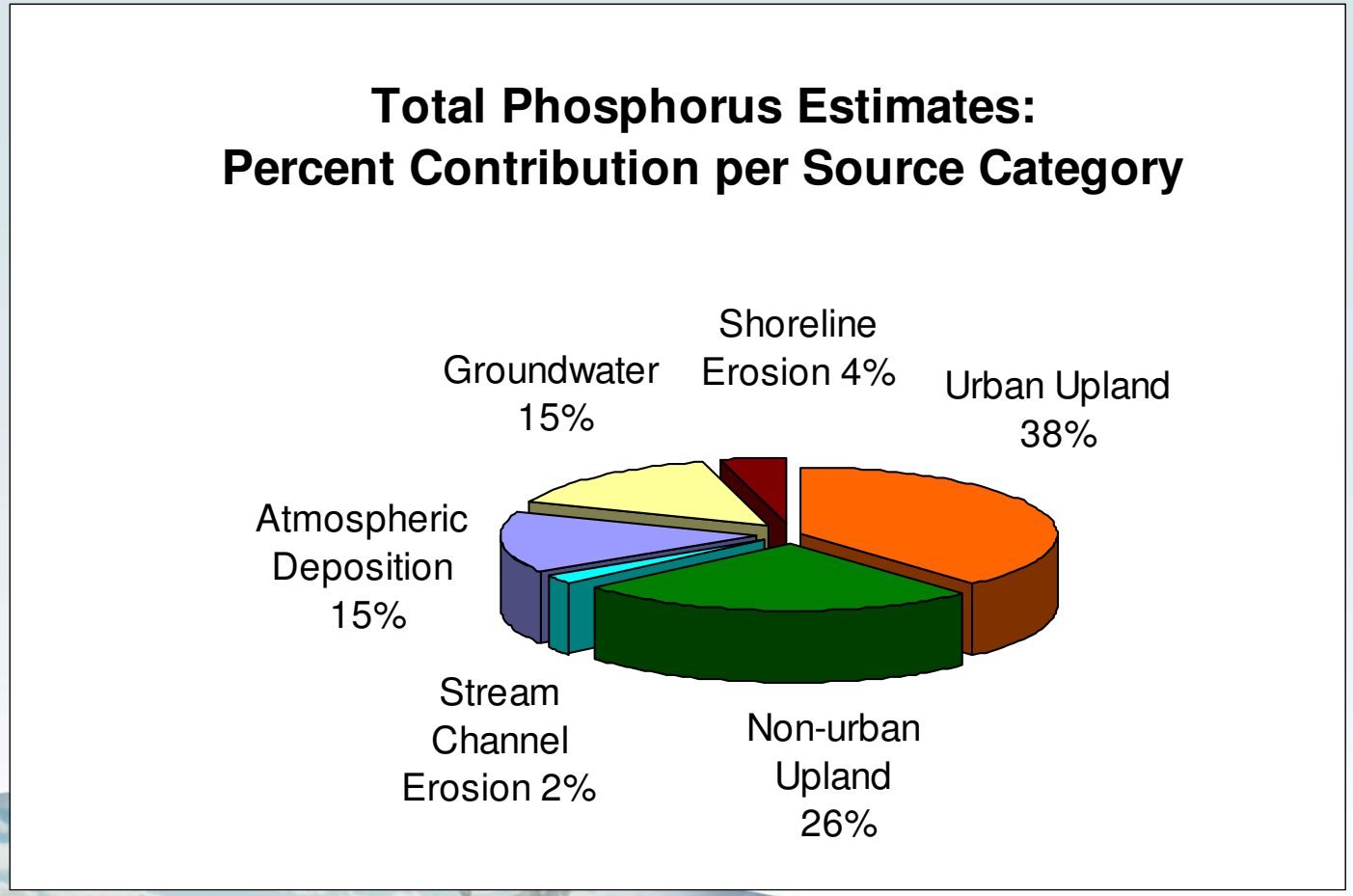
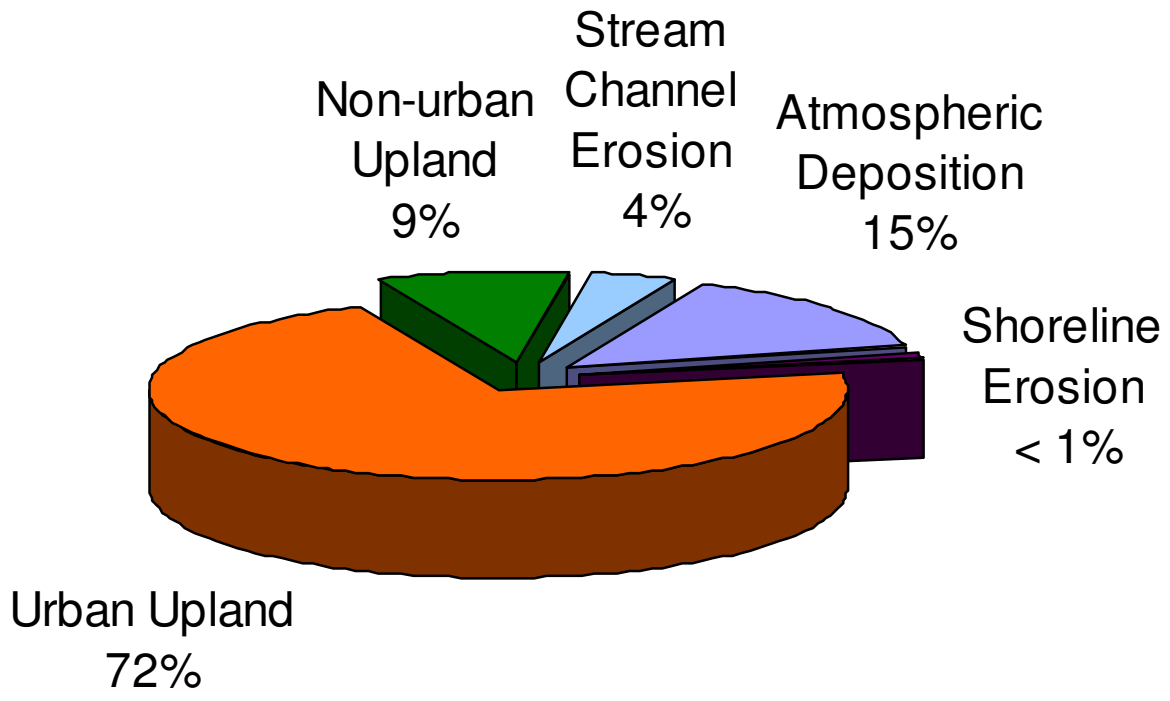


How much of each pollutant is reaching Lake Tahoe?

Fine Sediment Particle Number Estimates (particles less than 20 micrometers): Percent Contribution per Source Category



How much of each pollutant can Lake Tahoe accept and still achieve the clarity goal?

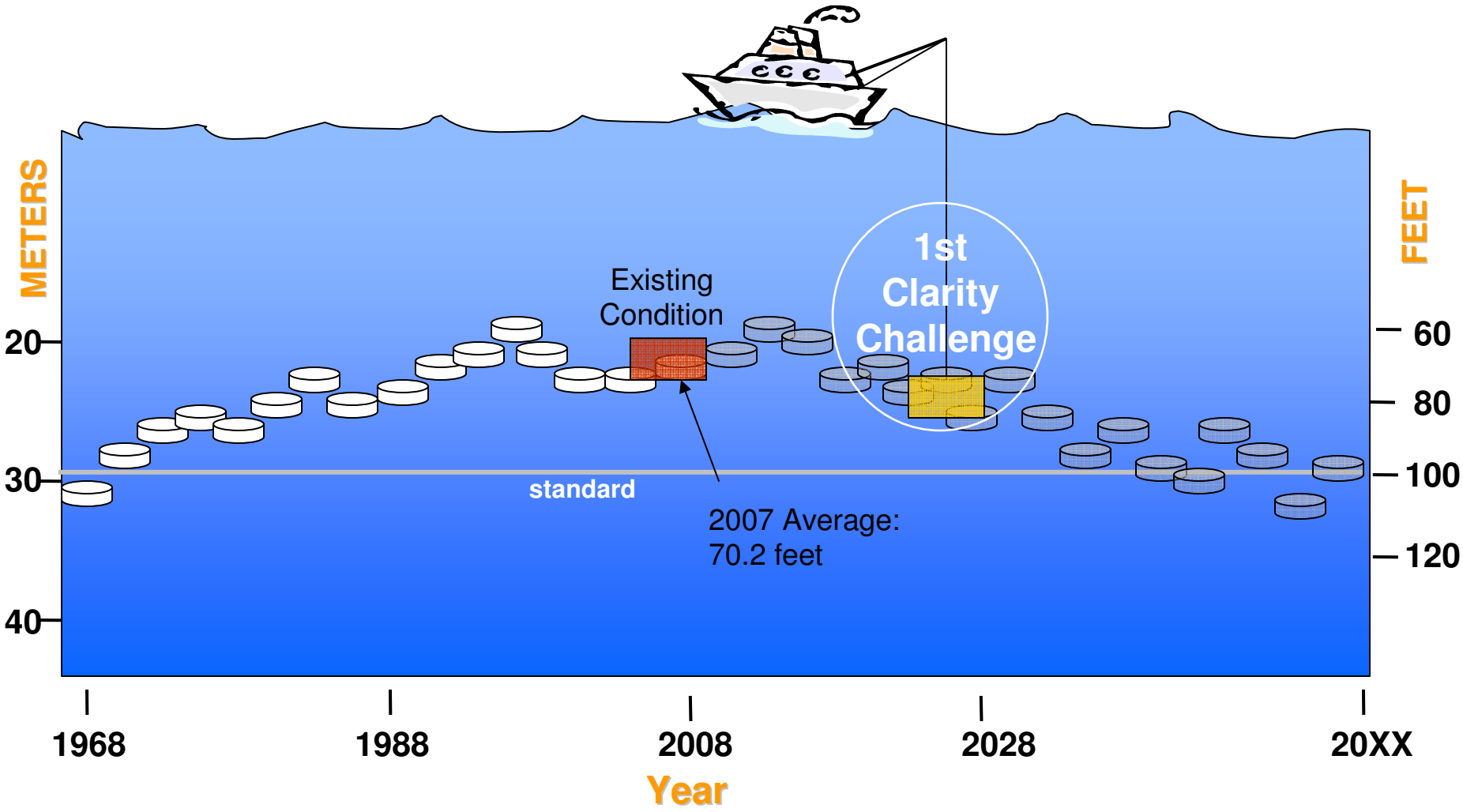
The Lake Clarity Model provides estimates of clarity response to load reductions

Reducing fine sediment particles is the most effective way to improve clarity

Model output indicates significant reductions will be needed to achieve historic clarity

What is a reasonable initial target?

The Clarity Challenge: Reverse clarity decline and measurably improve clarity



What are the options for reducing pollutant inputs to Lake Tahoe?

What strategy should we implement to reduce pollutant inputs to Lake Tahoe?

Forest Uplands

Recommended Strategy

Restore/maintain roads as planned

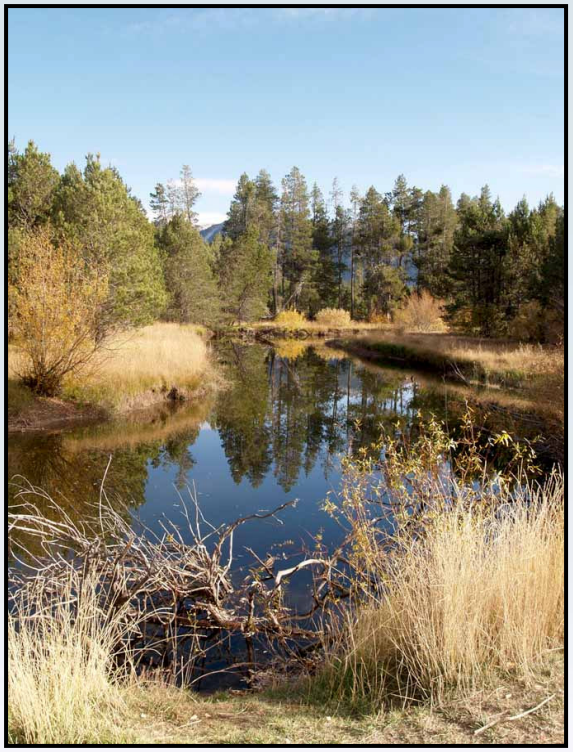
Revegetate/treat disturbed lands

Treat forest fuels

Achieve ~1% reduction in total fine particle budget

Estimated Cost: $120M Capital, $4.5M Annual O&M

Stream Channel Restoration
Recommended Strategy



Continue current restoration activities

Support monitoring and research

Achieve ~2% reduction in total fine particle budget

Estimated Cost: $40M Capital

Atmospheric Deposition
Recommended Strategy

Focus on dust control measures

Continue VMT reduction efforts

Achieve ~5% reduction in total fine particle budget

Estimated Cost: $45M Capital, $0.4M Annual O&M

Urban Uplands
Recommended Strategy

Continue to implement known technologies

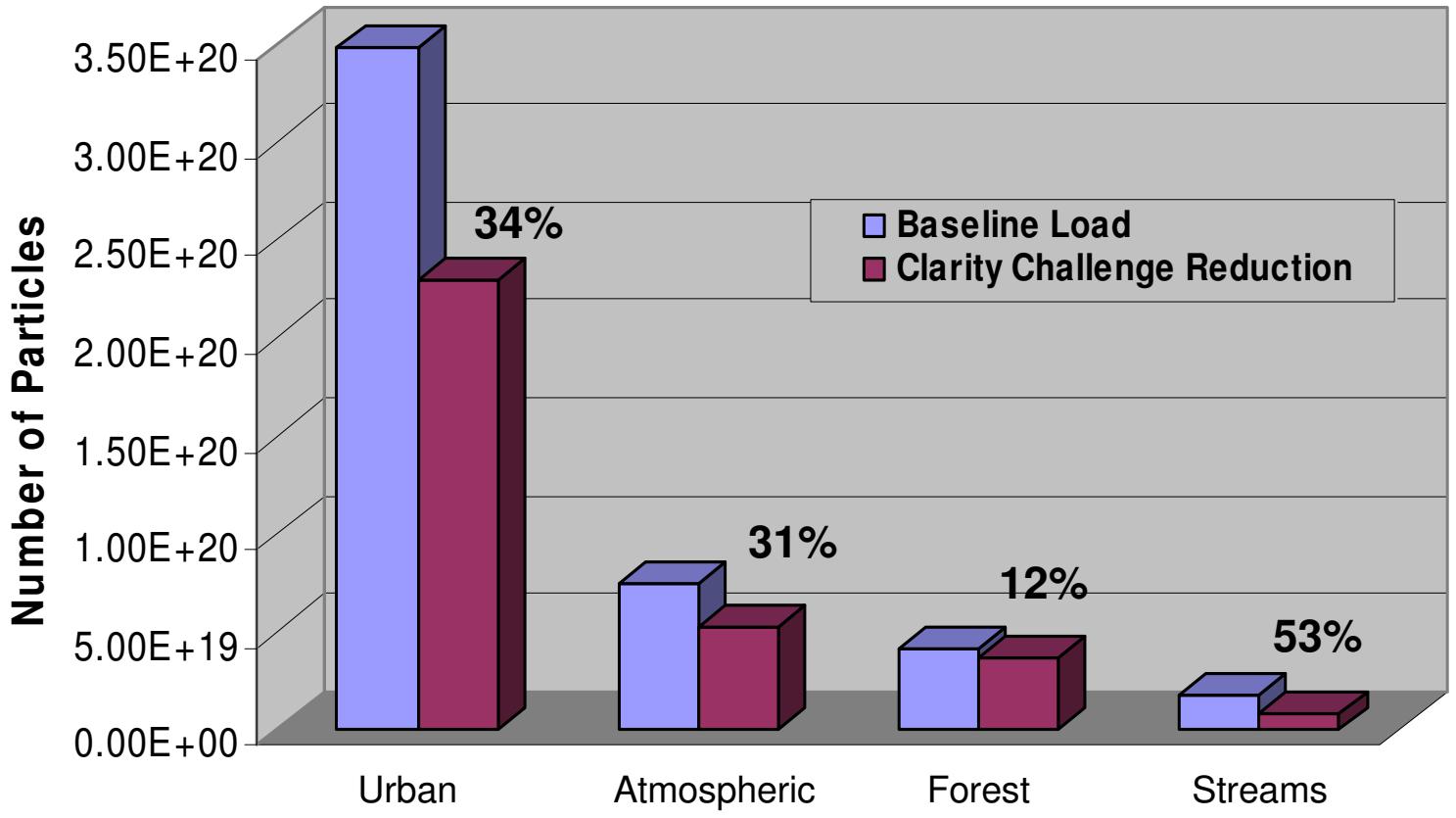
Move toward more innovative practices and intensive operations and maintenance

Achieve ~25% reduction in total fine particle budget

Estimated Cost: $1.3B Capital, $6M Annual O&M

Recommended Strategy

Particle Load Reductions by Source Category



Current Particle Load and Percent Reduction Target

Monitoring & Re-evaluation

Water Quality Monitoring

- Is water quality improving?
- Are corrective actions effective?

Compliance Reporting & Evaluation

- Are corrective actions being implemented?

Projected Schedule for TMDL Basin Plan Amendment

TMDL Document to Peer Review Fall 2008

Finalize Proposed Project Spring 2009

Water Board Hearings and Adoption Summer 2009

Implementation - NPDES Permits 2010

We will now take a 10 minute break before commencing the CEQA scoping session.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Lake Tahoe TMDL

CEQA Scoping Meeting

July 17, 2008

Daniel Sussman
Environmental Scientist
Lahontan Regional Water Quality Control Board

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Purpose of this Meeting

Public feedback to help guide environmental analysis of our Basin Plan Amendment

Identify reasonably foreseeable <u>significant adverse environmental impacts</u> from the Tahoe TMDL Basin Plan Amendment.

We invite your comments

NOTE:

If you wish for your comments to be considered, please fill out the comment forms provided. This will help insure that we capture your comments as you intend.

We invite your comments

To ensure that scoping comments are considered, they must be received in writing at the Water Board by:

August 18, 2008

Send comments to:

Daniel Sussman
Lahontan Water Board
2501 Lake Tahoe Blvd.
South Lake Tahoe, CA 96150

E-mail: dsussman@waterboards.ca.gov

Tahoe TMDL **Basin Plan Amendment**

A change to the Lahontan Water Quality Control Plan

- No new authority (Clean Water Act, Porter-Cologne)
- Will include new performance requirements
- Will codify implementation plan
- Not Prescriptive

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Defining the Project

Project is:

- adoption of a Basin Plan Amendment
- a program level planning action

Project is not:

- addressing the approach of the TMDL
- a project level action

Water Board Environmental Review

The TMDL Basin Plan Amendment and implementation plan is the project as defined by the California Environmental Quality Act (CEQA)

The CEQA document analyzing the Basin Plan Amendment, including environmental checklist, is a Substitute Environmental Document (SED), functionally equivalent to an Environmental Impact Report (EIR).

The CEQA Process

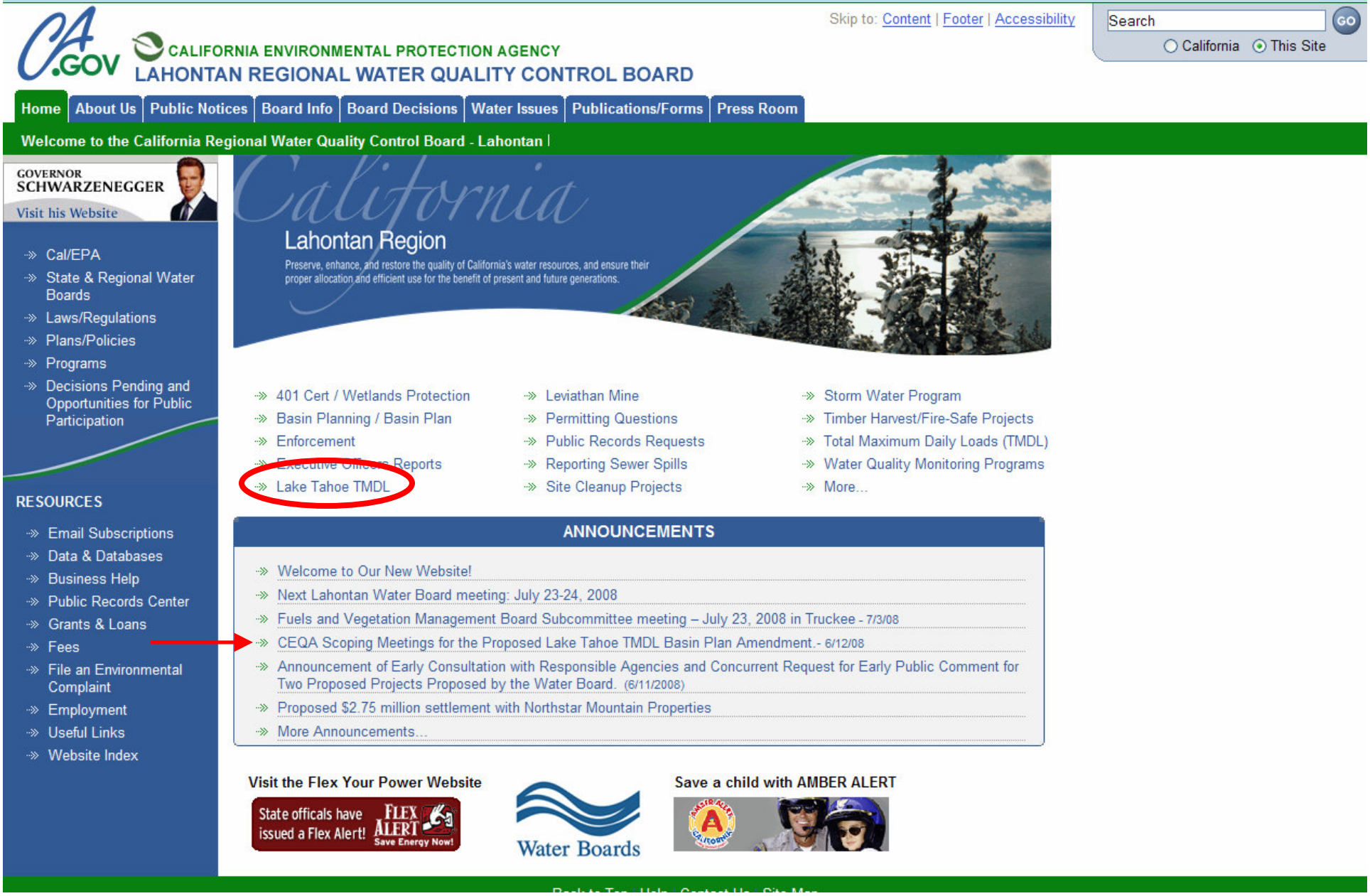
Project scoping meeting under the California Environmental Quality Act (today)

Release of environmental analysis and draft Basin Plan Amendment for public comment (summer 2009)

45-day public comment period following release of documents

Adoption of the Basin Plan Amendment at a public hearing before the Water Board

Lahontan Web Link: http://www.waterboards.ca.gov/rwqcb6/



Considerations for Today's Meeting

The TMDL is designed to benefit the environment

Consider reasonably foreseeable adverse impacts of potential implementation actions

The CEQA process requires discussion of:

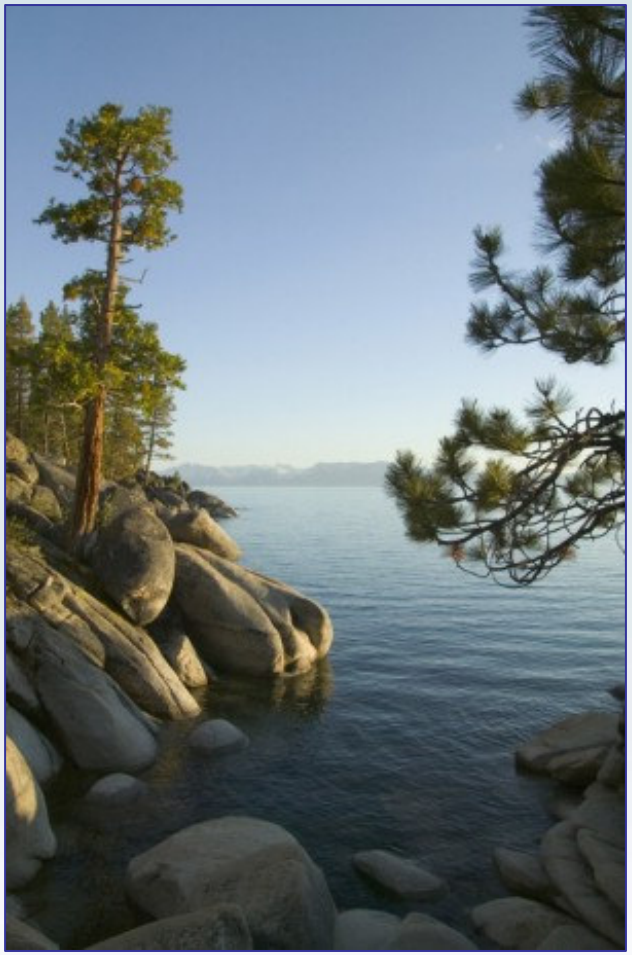
- Environmental issues
- Alternative solutions to the problem
- Potential negative impacts
- Economic factors

Example Implementation Actions

Source Category	Potential Actions
Urban Uplands	Implement current technologies, intensive implementation, maintenance, and innovation. NPDES Permit Compliance (CA)
Forest Uplands	Re-vegetation, road obliteration or maintenance, fuel treatments
Streams	Continue restoration work, support monitoring and research
Atmospheric Sources	Dust control measures, Vehicle Miles Traveled (VMT) reduction efforts

Checklist Categories

I. AESTHETICS
II. AGRICULTURE RESOURCES
III. AIR QUALITY
IV. BIOLOGICAL RESOURCES
V. CULTURAL RESOURCES
VI. GEOLOGY AND SOILS
VII. HAZARDS AND HAZARDOUS MATERIALS
VIII. HYDROLOGY AND WATER QUALITY
IX. LAND USE AND PLANNING
X. MINERAL RESOURCES
XI. NOISE
XII. POPULATION AND HOUSING
XIII. PUBLIC SERVICES
XIV. RECREATION
XV. TRANSPORTATION/TRAFFIC
XVI. UTILITIES AND SERVICE SYSTEMS
XVII. MANDATORY FINDINGS OF SIGNIFICANCE



Checklist: Example Category

ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
I. AESTHETICS -- Would the project:				
a) Have a substantial adverse effect on a scenic vista?	☐	☐	☐	☐
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	☐	☐	☐	☐
c) Substantially degrade the existing visual character or quality of the site and its surroundings?	☐	☐	☐	☐
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	☐	☐	☐	☐

Potential Impacts Analyzed in Environmental Documentation

Will Consider:

Direct physical changes in the environment

Reasonable foreseeable compliance measures

Reasonably foreseeable indirect changes

Will not consider:

Speculative changes

Changes with effects already considered

Changes that would occur regardless of the TMDL

We welcome your comments

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Questions/CEQA Scoping Comments

Thank You

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