Workshop and Project Scoping Meeting

on Plans to Reduce Nitrogen, Phosphorus, and Sediment in Lake Tahoe

California Regional Water Quality Control Board Lahontan Region

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Agenda

1. **Lake Tahoe TMDL Program Update**
   - **TMDL Overview**
   - **Implementation Tools**

2. **CEQA Scoping Meeting**
   - **Stormwater Regulatory Approach**
   - **Comments, questions, discussion**

What is the Lake Tahoe TMDL?

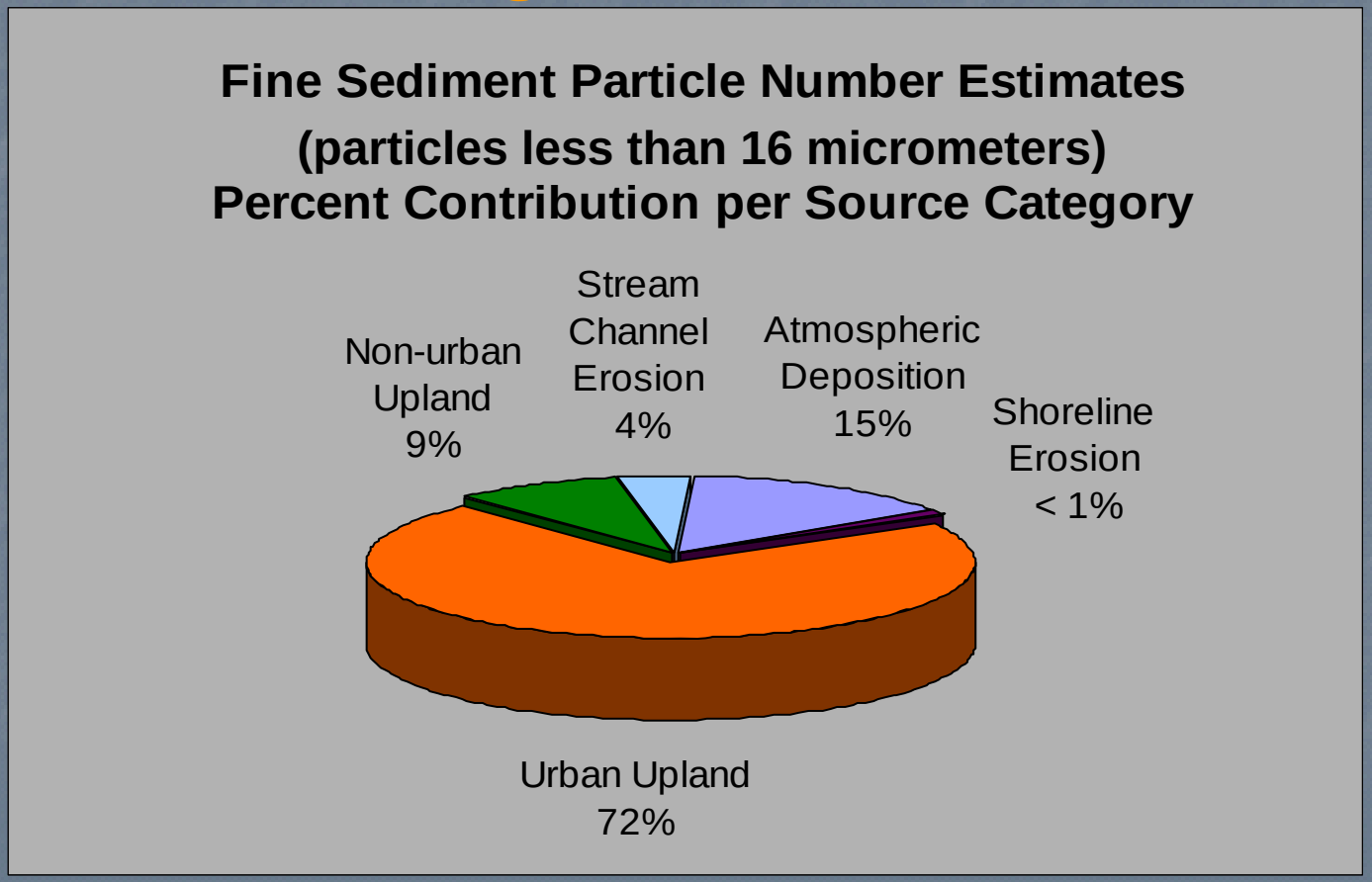
A science-based plan to restore Lake Tahoe's deep water clarity

What pollutants are causing Lake Tahoe's clarity loss?

- **Suspended fine sediment particles**
- **Floating algae – fed by nutrients**

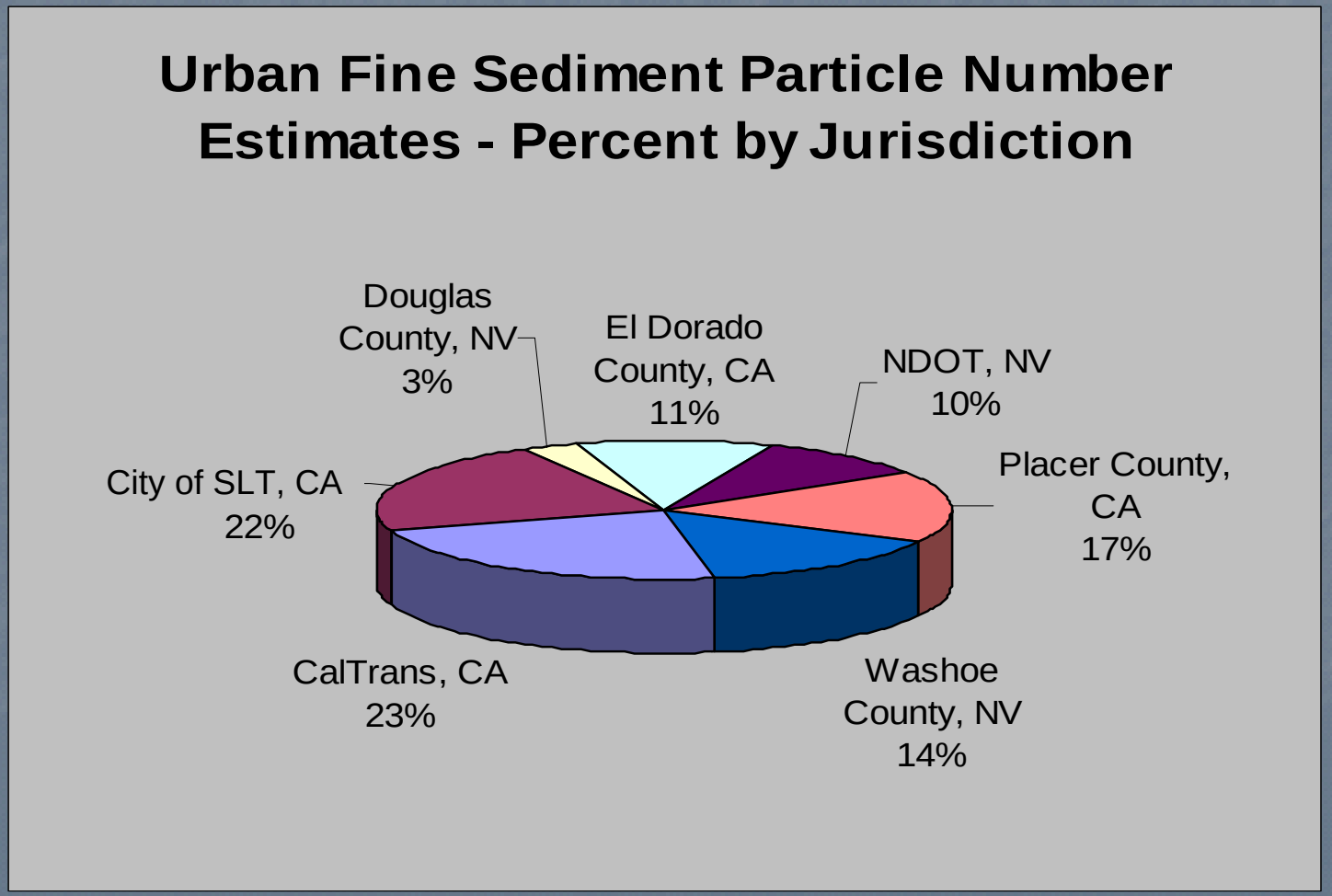
Fine sediment particles (<16 micrometers) account for ~2/3 of the clarity condition

How much of each pollutant is reaching Lake Tahoe?



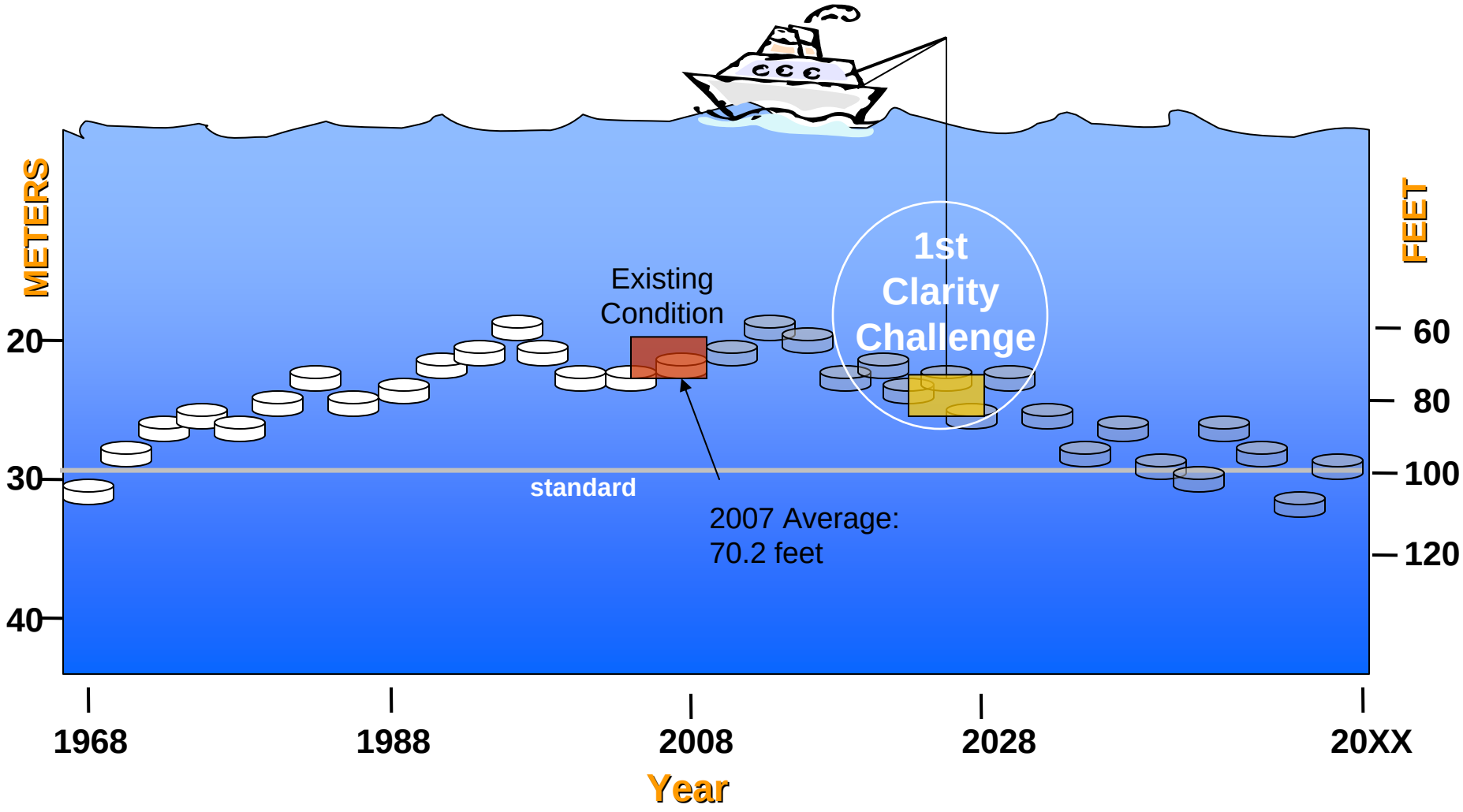
Total Fine Particle Load: 481 x 10^{18} Particles

Urban Particle Load – How the 72% is Distributed



What is a reasonable interim target?

The Clarity Challenge: Reverse clarity decline and measurably improve clarity



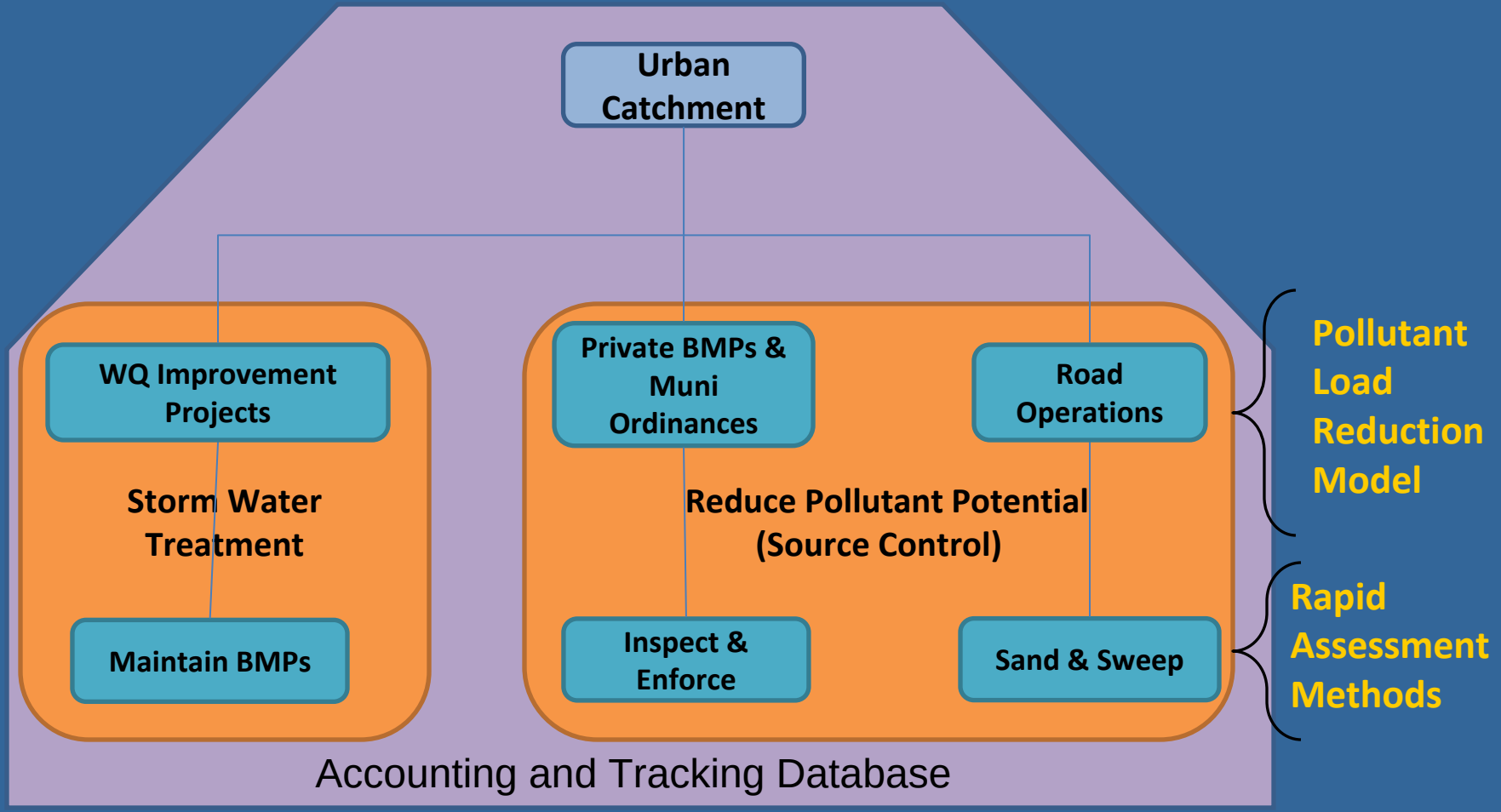
What are the options for reducing pollutant inputs to Lake Tahoe?

Recommended Strategy

Percent Reduction of Basin-wide Particle Load

Pollutant Source Category	Recommended Strategy Load Reduction
Forest Uplands	**1.0%**
Stream Channel Erosion	**1.8%**
Atmospheric Deposition	**4.6%**
Urban Uplands	**24.5%**
Clarity Challenge	**32%**

Lake Clarity Crediting Program & Implementation Tools



Transition to TMDL Implementation

One year "Beta" testing period:

Fall 2009-Fall 2010

- **Lake Clarity Crediting Program**
- **Pollutant Load Reduction Model**
- **Rapid Assessment Methodologies**
- **Accounting and Tracking System**

Schedule

TMDL Peer Review Posting – September

Agency and Public Review Draft – Winter 2009/10

TMDL adoption – Spring 2010

Municipal NPDES Permit & MOA – Fall 2010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California Environmental Quality Act (CEQA)

California law guarantees public involvement in government decision making

Requires evaluation and disclosure of possible adverse environmental impacts

What is “The Project”?

Amending the Water Quality Control Plan for the Lahontan Region (Basin Plan) to:

- **Incorporate the Lake Tahoe TMDL**
- **Adjust Basin Plan language to facilitate TMDL implementation**

The project is NOT on-the-ground actions to reduce pollutant loads

Why Scope for CEQA?

Obtain public feedback to help guide environmental analysis of our Basin Plan Amendment

Identify reasonably foreseeable significant adverse environmental impacts from this Basin Plan amendment

Supplemental Scoping

Previous scoping meetings described TMDL findings

This meeting focuses on changes to support implementation

Current Basin Plan Stormwater Language

20 year, 1-hour design storm

Concentration-Based Numeric Effluent Limits

Turbidity, Nitrogen, Phosphorus, Iron, Oil &Grease

20 year implementation schedule (ending in 2008)

New TMDL Stormwater Approach

Emphasize average annual mass-based load reductions

Identify and target actions in high-polluting watersheds

Link proposed actions to expected pollutant load reductions

Hold municipalities responsible for meeting TMDL load reduction targets

Stormwater Regulation Approach

	Existing Policy
Regulatory Focus	Concentration limits – everywhere, all the time
Compliance Prospects	Not reasonable – even advanced measures may not meet effluent limits
Linkage between actions/benefits	Poor - hard to link projects/actions to lake clarity response
Comparability	Little ability to compare results across different implementers

Stormwater Regulation Approach

	Existing Policy	Proposed Approach
Regulatory Focus	Concentration limits – everywhere, all the time	Load limits – average annual
Compliance Prospects	Not reasonable – even advanced measures may not meet effluent limits	Reasonable – possible demonstrate progress toward achieving stated goals
Linkage between actions/benefits	Poor - hard to link projects/actions to lake clarity response	Strong – TMDL load reductions directly related to clarity response
Comparability	Little ability to compare results across different implementers	Direct performance comparisons, transparent through reporting

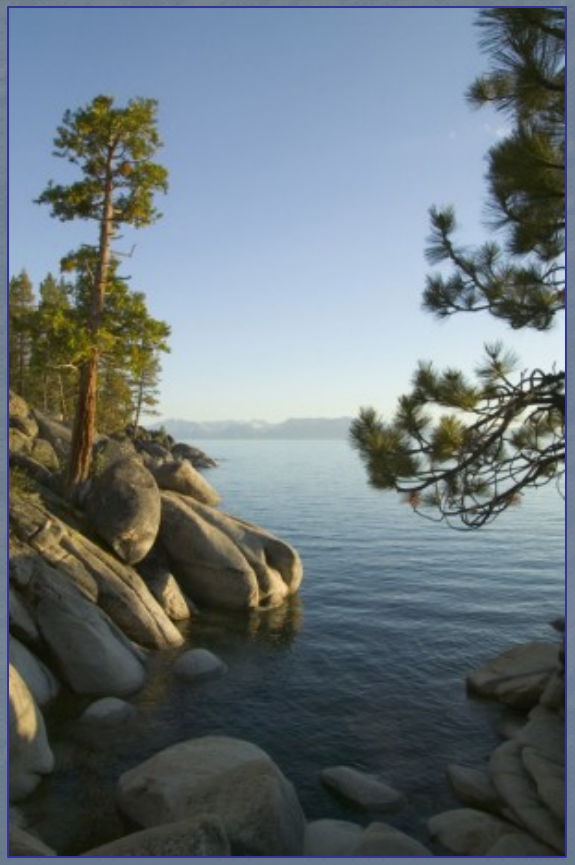
What Will Change?

Intensify erosion control and stormwater treatment actions

- Innovative treatment measures
- Enhanced operations and maintenance

Target areas of highest pollutant loading

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

Checklist Example

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?	☐	☐	☐	☐

Analyze Potential Impacts

CEQA 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 amendment


Questions?

Pollutant Reduction Opportunity Project

Four Source Category Groups

Assessed different levels of effort

Evaluated site-scale and basin-wide implementation

Provided average load reductions and costs

Estimates offer relative benefit comparisons

Forest Uplands Recommended Strategy

Restore/maintain roads as planned

Revegetate/treat disturbed lands

Treat forest fuels

Achieve ~1% reduction in total fine particle budget (12% of Forest load)

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

Stream Channel Restoration Recommended Strategy

Continue current restoration activities on the UTR, Blackwood and Ward Creeks

Support monitoring and research

Achieve ~2% reduction in total fine particle budget (53% of Stream source)

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 (31% of Atmospheric source)

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

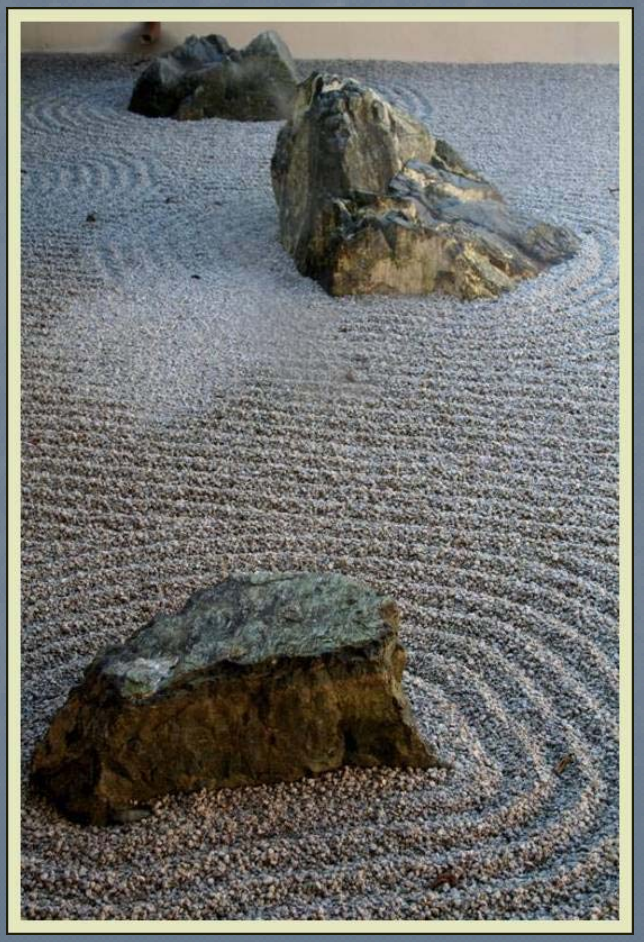
Urban Uplands Recommended Strategy

Continue to implement known technologies

Move toward more innovative practices and intensive operations and maintenance

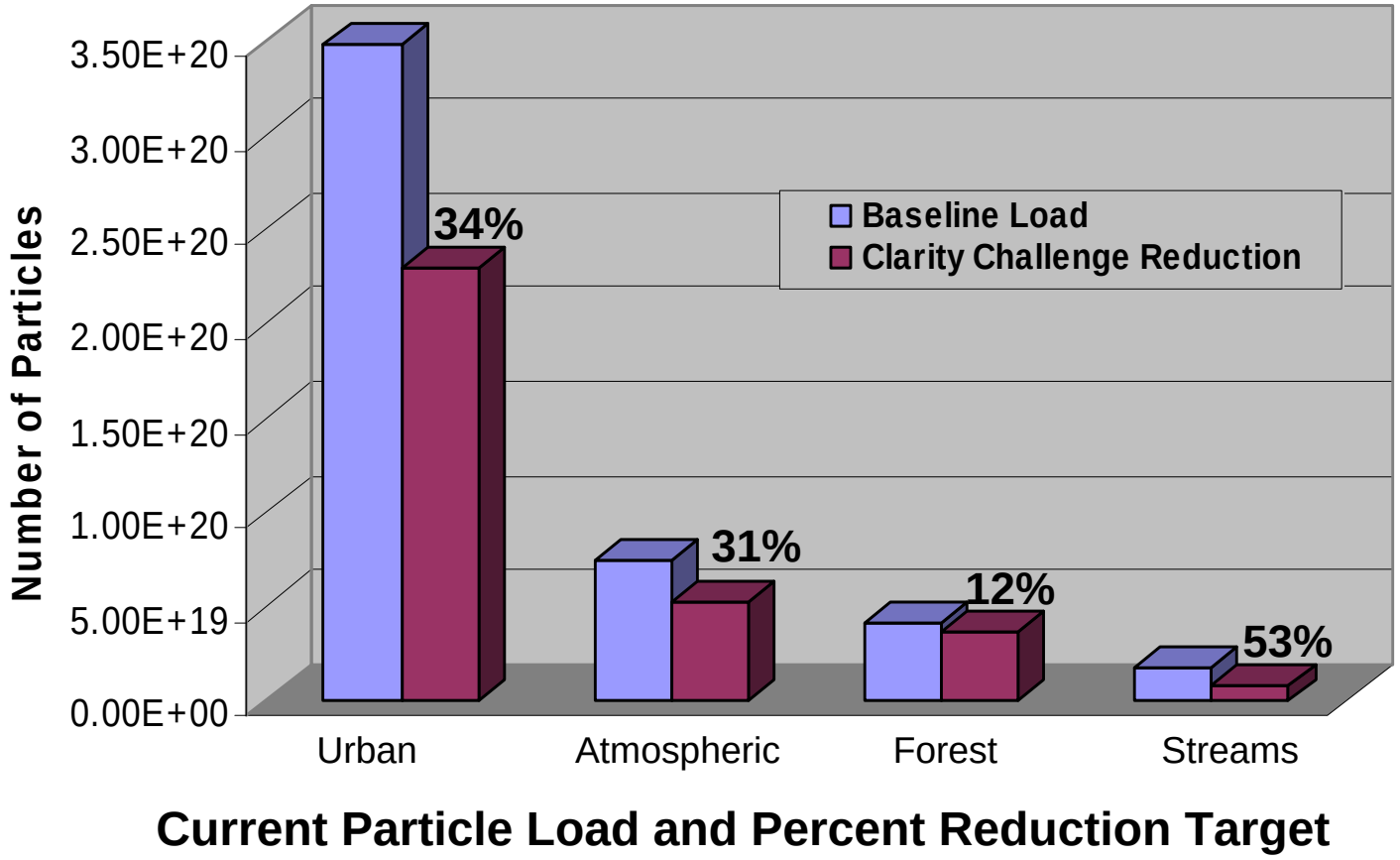
Achieve ~25% reduction in total fine particle budget (34% of Urban Source)

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



Recommended Strategy

Particle Load Reductions by Source Category



Current Particle Load and Percent Reduction Target