

# Charting a course to

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# Clarity

# Illustrative Scenario A: Retrofit & Enhanced Best Practices

Continue existing best practices & augment with more-advanced and intensive passive treatments of urban stormwater

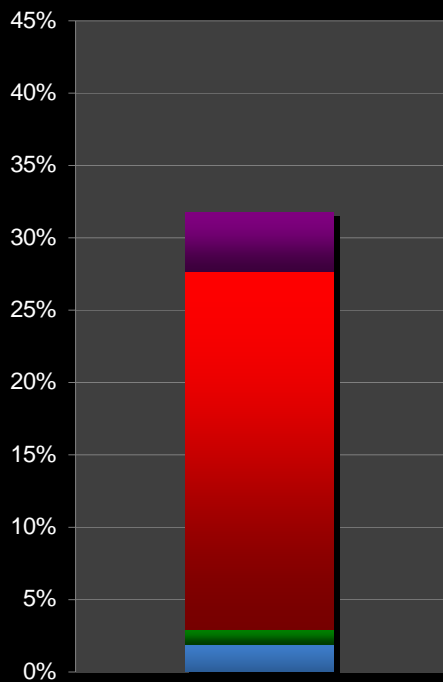
Address transportation infrastructure and stationary sources of atmospheric fine sediment

Forest & Stream recommendations

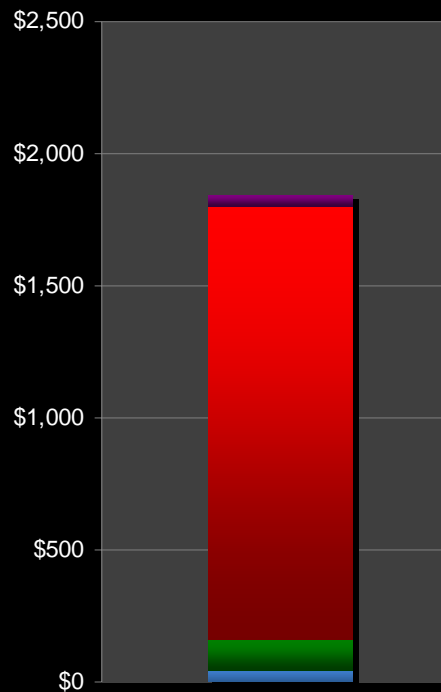
**What strategy should we implement to reduce pollutant inputs to Lake Tahoe?**

# Illustrative Scenario A: Retrofit & Enhanced Best Practices

Share of Fine Sediment  
Budget Reduced



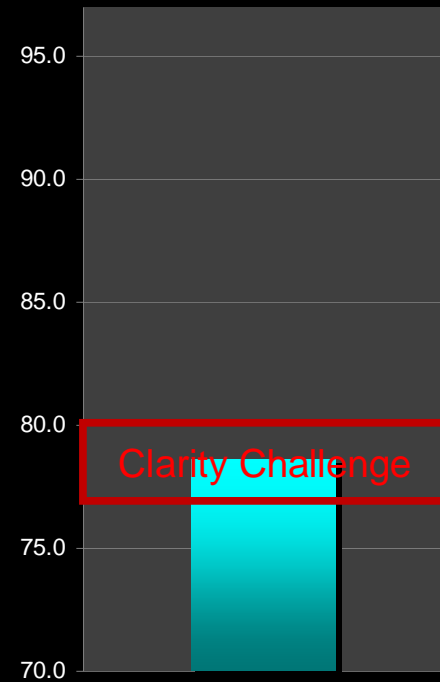
Capital Costs  
20 year (Million \$)



Annual O&M  
Costs (Million \$)



Feet of Clarity  
(±0.5)



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

## **Illustrative Scenario B: Focus on Innovation & Advanced Practices**

Innovate to gain greatest load reduction and treat less area

Use conveyance and treatment in dense urban areas and advanced passive treatments in dispersed urban areas

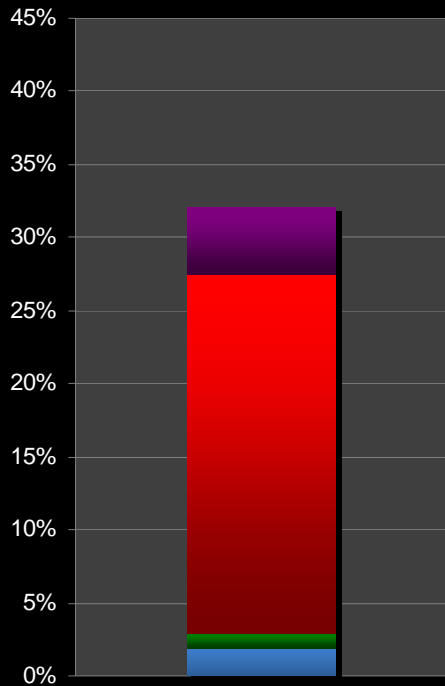
Highly intensive controls to reduce atmospheric deposition of fine sediment from transportation infrastructure and stationary sources

Forest & Stream recommendations

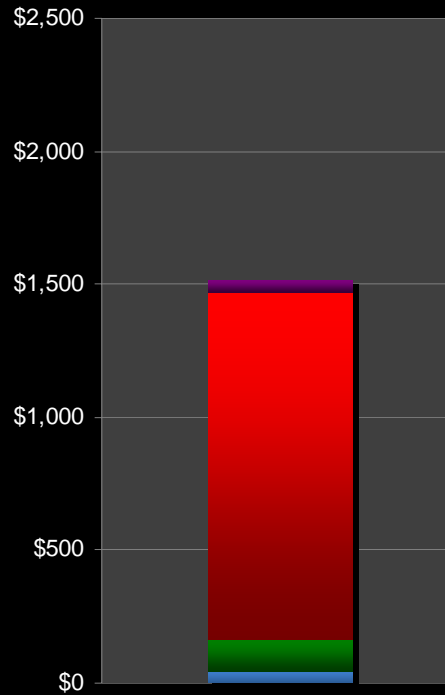
**What strategy should we implement to reduce pollutant inputs to Lake Tahoe?**

# Illustrative Scenario B: Focus on Innovation & Advanced Practices

Share of Fine Sediment  
Budget Reduced



Capital Costs  
20 year (Million \$)



Annual O&M  
Costs (Million \$)



Feet of Clarity  
(±0.5)



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

# Illustrative Scenario C: All Out Push

Treat maximum amount of area possible using the most effective pollutant controls

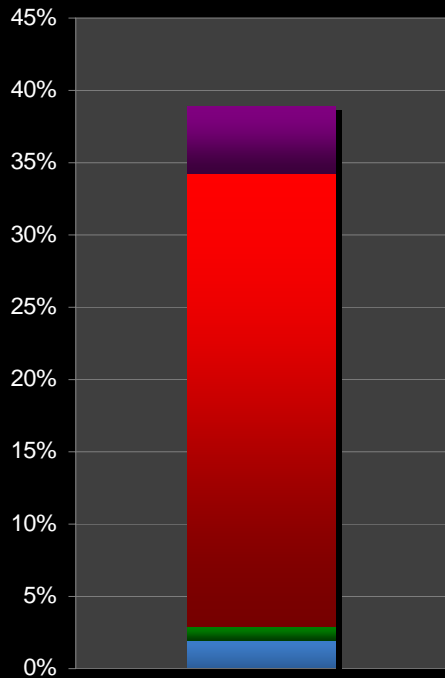
Assumes 80% of all urban and atmospheric sources treated – 60% advanced treatments & 20% current best practice

Forest & Stream recommendations

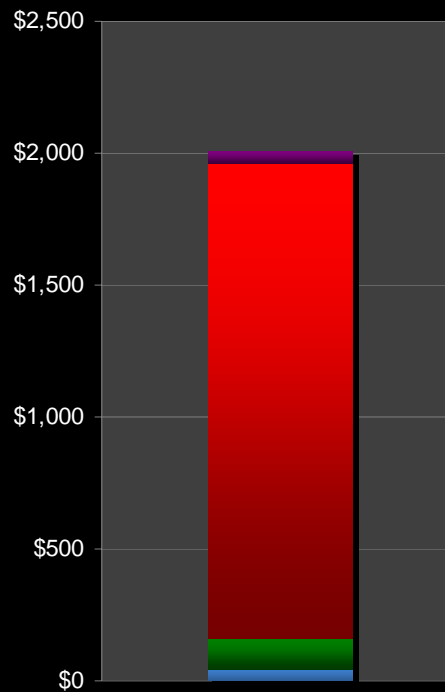
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# Illustrative Scenario C: All Out Push

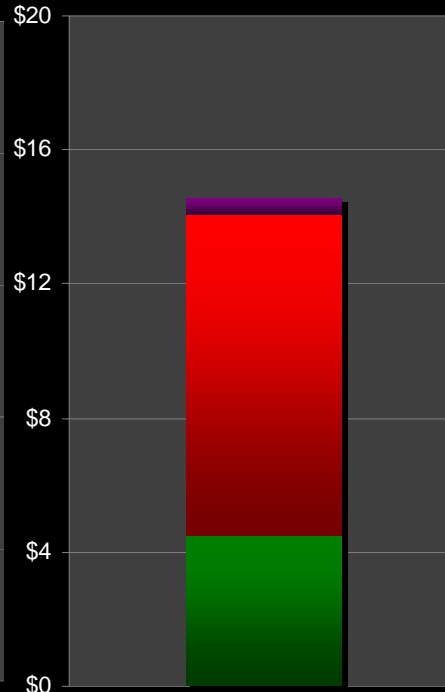
## Share of Fine Sediment Budget Reduced



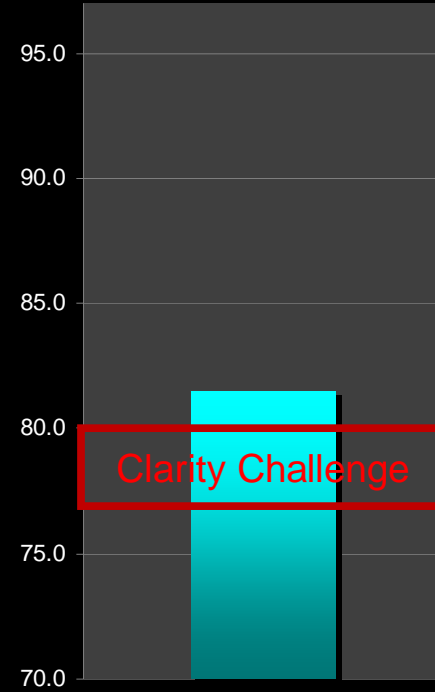
## Capital Costs 20 year (Million \$)



## Annual O&M Costs (Million \$)

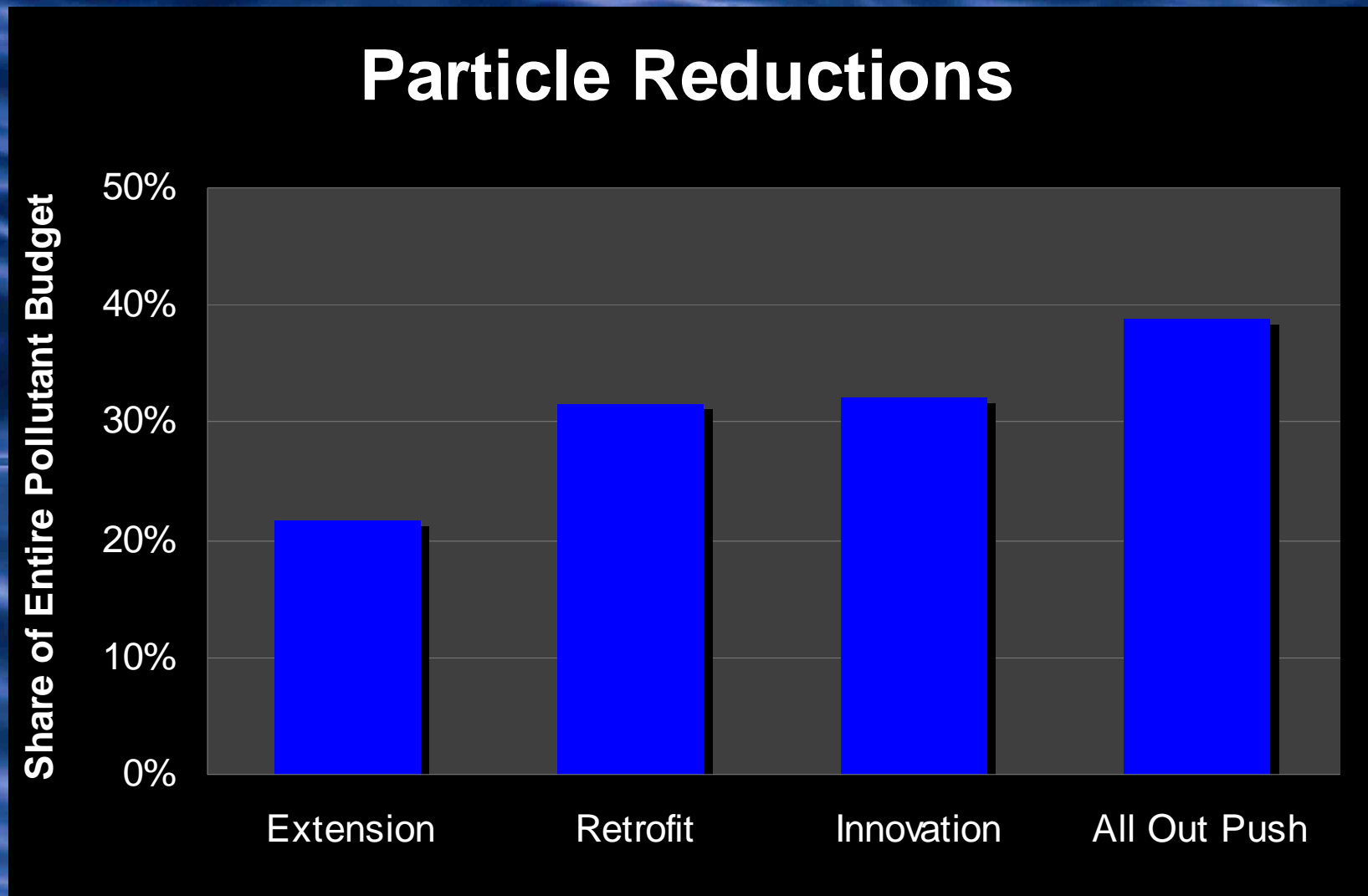


## Feet of Clarity ( $\pm 0.5$ )



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

# Illustrative Scenario Comparison: Fine Sediment Reduction



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

# Illustrative Scenario Comparison: Cost



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

# **Illustrative Scenario Comparison: Clarity Result**



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

# Ways of packaging to meet the Clarity Challenge

## Discussion

- **New / different package approaches you suggest**
- **Your thoughts about the sample scenarios – what are their strengths, weaknesses, benefits, tradeoffs**
- **Your sense of the social, technical and financial range of feasibility for reaching the clarity challenge**
- **Your input about individual pollutant control opportunities – especially for atmospheric and urban sources**

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# Clarity

# Emphasize Fine Sediment Removal

**Fine sediment is responsible for 2/3 of the clarity condition**

**Reducing fine sediment has a greater potential to improve lake clarity**

**Track and account for nutrient removal**

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

# Forest Upland Implementation Recommendation

**Restore/maintain roads as planned**

**Revegetate/treat disturbed lands**

**Treat forest fuels**



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

# Packaging Approach – Forest Uplands

**Treat/maintain 80% of unpaved roads**

**60% Tier 1, 10% Tier 2, 10% Tier 3**

**Restore 80% disturbed areas (ski runs, campgrounds, etc.)**

**60% Tier 1, 10% Tier 2, 10% Tier 3**

**Conduct fuels management on 20% of the forest**

**10% Tier 1, 5% Tier 2**

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

# Stream Channel Restoration Recommendation



**Continue current restoration activities**

**Support monitoring and research**

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

# Packaging Approach – Stream Channel Restoration

**80% implementation on the Upper Truckee River,  
Blackwood Creek, and Ward Creek**

**Assume Tier 2 - mixed restoration and bank protection**

**Support restoration on other disturbed stream systems**

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Lake Tahoe?**

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