Informing watershed planning and policy in the Truckee River basin through stakeholder engagement, scenario development, and impact evaluation

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Activities

- Forest restoration
- Meadow restoration
- Land protection
- Riparian restoration
- Dirt road maintenance
Questions

• Will ‘Business as Usual’ activities reach top stakeholder objectives?

• If not, how much and in what activities would stakeholders need to invest to reach their objectives?
Survey Results - Top Stakeholder Objectives

- Erosion Control
- Groundwater recharge enhancement
- Nitrogen Retention
- Flood risk mitigation
- Dry season baseflow
- Reducing fire risk
- Phosphorous retention

Add biodiversity = erosion control
Regulatory Water Quality Goals

Lake Tahoe
Sediment - 12% fine
N - 0%
P - 1%

Middle Truckee
Sediment - 22%

Lower Truckee
Phosphorous - 10%
Scenarios

Business as usual - $70 mill

Increased budget proportional - $175 mill

Increased budget sediment - $175 mill
Increased budget proportional

Cost effective

Business as usual
Sediment Reduction

- Lake Tahoe
- Middle Truckee
- Lower Truckee

**Middle Truckee TMDL = 22% reduction**

- $17 mill – Dirt road restoration
- $55 mill – Land protection

- BAU
- Proportional
- Cost Effective
Nitrogen Reduction

Lake Tahoe TMDL = 0% reduction

- Lake Tahoe
- Middle Truckee
- Lower Truckee

BAU
Proportional
Cost Effective
Phosphorous Reduction

- **Lake Tahoe**: TMDL = 1% reduction
- **Middle Truckee**: TMDL
- **Lower Truckee**: TMDL = 10% reduction

- **BAU**
- **Proportional**
- **Cost Effective**
Conclusions

• ‘Business as usual’ and ‘Increasing the budget proportionally’ does not reach the objectives.

• There is a way to meet a top stakeholder objective: erosion control. Achieved with more dollars and a subset of spatially targeted activities.
Maps are online + kmz files

Additional Scenarios

Business as usual - $70 mill

Increased budget proportional - $175 mill, $527 mill

Increased budget sediment - $175 mill, $527 mill

Climate Change