



## Caltrans Demonstration, Development and Evaluation Program 2000-2009

The Caltrans Demonstration, Development and Evaluation Program is a collaborative adaptive management-based program designed to test, measure and improve the effectiveness of upland restoration and erosion control practices. IERS has worked in cooperation with Caltrans and UC Davis for 8 years to address current and upcoming water quality regulations through sediment source control treatment approaches. The program includes the construction of treatment test plots, quantitative monitoring of erosion control effectiveness, yearly treatment specification recommendations, and information sharing. The program includes a wide range of drastically disturbed sites, including cut and fill slopes along roadsides, and ski runs.

IERS uses a range of monitoring techniques, including vegetative and soil cover monitoring, soil density measurements, and simulated rainfall to determine which restoration treatments result in the greatest improvement in soil function and erosion reduction. This data, in conjunction with the establishment of success criteria, will aid Caltrans in meeting its obligations for sediment reduction under the Tahoe Basin Total Maximum Daily Load (TMDL) currently in development.

**Project Elements**

- Cooperative approach
- Test plot design
- Performance monitoring
- Data management and analysis
- Annual summary report

**Key Outcome**

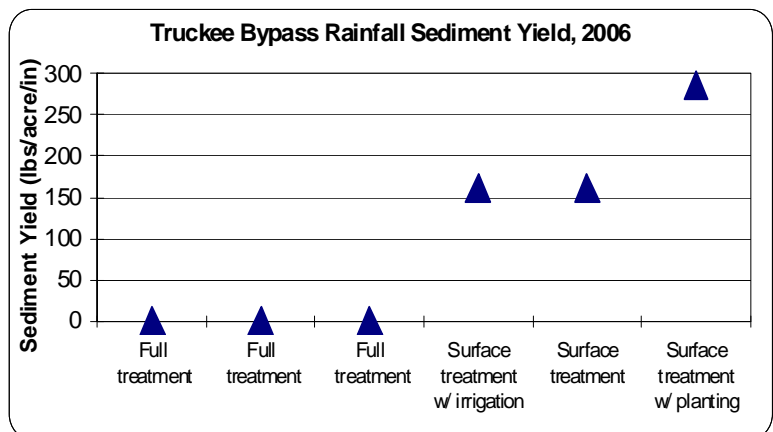
- Site-specific recommendations for specification improvement

**Monitoring Results**

- Monitoring results indicate that full soil-based restoration provided higher infiltration and lower sediment yield than surface (hydroseed) treatments (see graph).



Rainfall Simulation at the Truckee Bypass



**Client:** Caltrans

**References:** Caltrans      Monica Finn      (530) 823-5395

