Instream Turbidity Monitoring Used to Assess Landslide Hazards in the Western Cascades

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High-Turbidity Events
Evans Creek Earth Flow

Sobieszczyk, 2010
Evans Creek (December 2009–February 2010)
- >1, 150 FNU
- 3,300 Mg (suspended)
- 35,000–55,000 FNU
- 15,500–21,000 Mg (suspended)
- 100,000–240,000 m$^3$ (deposited)
- 0.5 km$^2$ deposit extent
Summary

- Landslide sediment contribution:
  - Once, or
  - Repeatedly
- 1,000s–10,000s FNU
- 10,000s Mg in single event (hours)
- Can be unrelated to streamflow
Evans Creek Landslide Profile

- Head scarp
- Failure planes
- Toe

Earth Flow Profile
Debris Flow Deposits