Physical Mitigation

EXISTING PROJECTS

SUGGESTIONS

OBSTACLES (1)

SOLUTIONS

OBSTACLES (2)

- ODF: Allowing steep slope burned tree removal by land owners to prevent material in debris flow
- ODF: Encouraging landowners to replant in burned areas
- USFS: Replanting efforts
- Floodplain restoration

- USFS: Target plantings using debris flow maps
- USFS: Diversion channel or debris rack (Detroit Reservoir)
- Dual purpose projects with floodplain restoration to address sediment and debris flow
- Designing deposition area with check dams, berms, or screens
- Pilot projects to test acceptability and effectiveness
- Seasonal closures
- Mitigation of upper channel to avoid highway or communication facility impacts
- Bypass road using rechannelization, larger culverts

- Patchwork of ownership throughout channel
- Project logistics
- Project funding
- Project maintenance
- Complexity of debris flow
- Local and NSA land use rules
- Roads being part initiation and also drainage failure

- Agency collaboration to minimize impacts
- Cumulative approach to enhance current tools that will improve risk reduction benefits
- Propose low maintenance projects (berms/check dams vs. screens)
- Adapt and design current road projects to accommodate debris flows
- Design current road projects with back-up mechanism
- Road drainage maintenance plan
- Use new maps to inventory needs, focusing on higher risk areas (dual purpose areas such as roads close to streams with important fisheries)

- Costly projects can limit how many can be implemented
- Funding is harder to obtain the further away (years) from a disaster









