Erosion at Adit 4
Tunnel Spoils Disposal Site
North Fork Stanislaus River Hydroelectric Project

March 2, 2016
Facilities Committee Meeting
Location/Background of Adit 4

- Part of the tunnel between McKays Point & Collierville Powerhouse
- 2,000 - 4,000 yards of spoils eroded
Spoils

Eroded section

Degraded drainage conveyance
Water Infiltration Above Failure
Spoils Failure and Interim Mitigation

Interim Bypass

Creek Conveyance

Tunnel Spoils

Back-cutting

Adit
Interim Erosion Control System
Interim Erosion Control System
Interim Erosion Control System
Interim Erosion Control System
Timber Bents Required
Diverting the Tunnel Drain
Diverting the Tunnel Drain
Completed Project Work

- Phase I – Interim site stabilization complete
  - Water bypass system completed February 22nd
  - Minimize active erosion and scope of needed repairs
  - Remain in place until spoils system is stabilized
  - Installed safety fencing and temporary stairs
  - $129,200 original contract
  - <$80,000 in actual costs
Ongoing Project Work

- Investigating potential insurance claim
  - Initial site visit conducted February 2nd
    - McLarens, Marsh
  - Follow-up with 3rd party engineers March 15th
    - Madsen Kneppers and Associates, McLarens, Marsh
Ongoing Project Work

- Phase II – Preliminary design proceeding
  - Basis of design proposals received February 24th
    - Develop erosion resistant, safe, low-maintenance, and cost-effective design
    - Begin work mid-March and complete June
    - Confirm required environmental permits
    - Develop preliminary construction budget and project timelines
  - Supplied requested information to U.S. Bureau of Land Management February 8th and 10th
    - Conducting sensitive species evaluation
  - Provide Committee update at completion of Phase II
Planned Project Work

- Phase III – Design/permitting of preferred alternative
  - Engineering contracting
  - CEQA and NEPA
  - Permitting with multiple federal and state agencies

- Phase IV – Construct the remediation
Questions?