TRRP Compliance Monitoring

September 2016 Update

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Review…Types of Monitoring

	Status and Trend	Effectiveness	Implementation	Compliance	Validation
Duration	Long-term	Short- or long-term	Short-term if project specific	Short-to long-term	Short-term
Funding Commitment	5-10 yr cycles	Typically 3-5 yrs	Fully fund with project	5-10 yr cycles	Annually or fully fund with project
Annual Reporting	Accomplishments & data summary	Accomplishments & data summary	Evaluates implementation as designed	Based on requirement	Accomplishments – or final if duration is one year
Multi-Year Reporting	Synthesis	Synthesis	Final evaluation at project completion	If multi-year design	If multi-year project

Review…Types of Monitoring

	Status and Trend	Effectiveness	Implementation	Compliance	Validation
Duration	Long-term	Short- or long-term	Short-term if project specific	Short-to long-term	Short-term
Funding Commitment	5-10 yr cycles	Typically 3-5 yrs	Fully fund with project	1-10 yr cycles	Annually or fully fund with project
Annual Reporting	Accomplishments & data summary	Accomplishments & data summary	Evaluates implementation as designed	Based on requirement	Accomplishments – or final if duration is one year
Multi-Year Reporting	Synthesis	Synthesis	Final evaluation at project completion	If multi-year design or revegetation	If multi-year project

Evaluates how closely environmental regulations have been followed, or how well mitigation measures have been met

Legal requirements for compliance monitoring

- CEQA
- Trinity Basin Fish & Wildlife Restoration Act of 1984 (as reauthorized)
- 2000 Record of Decision
- CA 401 permit
- USACE 404 permit
- US Endangered Species Act
- Migratory Bird Treaty Act
- FEMA floodplain modification/County floodplain development permit

Minimum monitoring summarized in “Mitigation Monitoring and Reporting Program and Project Design Elements” (MMRP), an appendix of the CEQA documents

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Turbidity monitoring

- Construction is allowed to temporarily increase turbidity up to 20 NTUs total, or up to 20% above background if turbidity already exceeds 20 NTUs
- Monitor 50’ upstream and 500’ downstream of disturbance

Do we do it?

Yes

Juvenile salmon fry stranding

- For 3 years, a qualified fisheries biologist will survey constructed inundation surfaces immediately after a 1.5 yr (6k cfs) or less flood event.
- Stranded fry will be relocated and surfaces will be modified before next modified flow release.

Do we do it?

Sort of.

Pre-construction sensitive area survey

- A qualified biologist will identify access routes to avoid sensitive features and minimize impacts to wetland/riparian areas
- Reclamation will inspect/maintain flagged areas throughout construction

Do we do it?

Yes

10-year riparian mitigation monitoring

- After five years, riparian vegetation at channel rehab sites will be surveyed and wetlands re-delineated to ensure no net loss at 10 years.
- Transitioning from survival to aerial cover monitoring.

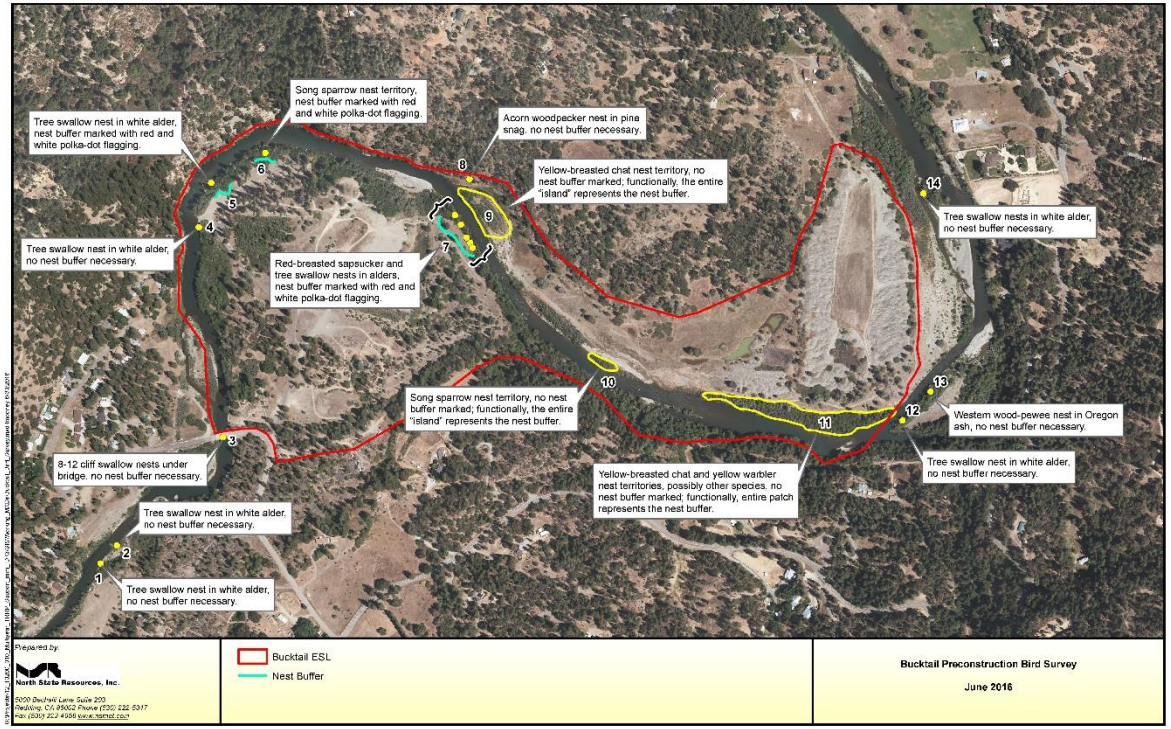
Do we do it?

Yes, but partially as part of a larger long-term status and trends study

Riparian Revegetation and Monitoring Plan

- Plan is to ensure attainment of goals to:
  - Enhance and maintain riparian function
  - Ensure no net loss of riparian or jurisdictional wetlands in channel rehab sites or general 40 mile reach
- “Will continue to implement…”
- Preliminary draft has received comments from relevant agencies; will be ready for TMC review by 31 OCT

Nesting birds



- A qualified biologist will survey sites for nesting:
  - Willow flycatchers
  - Bald eagles
  - Northern goshawks
  - Vaux's swift
  - Yellow-breasted chat
  - California yellow warbler
- Relevant spatial and temporal buffers will be implemented

Do we do it?

Yes

Sensitive herpetofauna

Foothill yellow-legged frog

- Prior to August 1, survey construction site for frog larvae or eggs, relocate if found

Western pond turtle

- During nesting season, survey, flag, and determine if nest can be avoided. If no, excavate and relocate.

If either species detected during construction, stop work and relocate.

Do we do it?

Sort of? There is a long term status and trend monitoring protocol for both species, but we don't specifically survey sites pre-construction.

Bats and “cats”

- Pre-construction surveys for roosting bats and ring-tailed cats will be conducted. No work will be undertaken until surveys completed
- If maternity roosts or ring-tailed cat dens are found, project will be redesigned around them or no disturbance will take place until post-rearing or breeding

Do we do it?

NO

Trickier requirements…

- 1984 Trinity River Basin Fish & Wildlife Management Act (as amended in 1995)
  - "monitor, evaluate, and maintain program investments and fish and wildlife populations in the Trinity River Basin for the purpose of achieving long-term fish and *wildlife* goals."
- EIS/ROD, described in pers. comm. with DOI SOL:
  - "enhancement of riparian species…would be expected to occur with the implementation of the preferred alternative and the few references in the ROD to wildlife restoration would be understood to be pointing at that language in the EIS. As these would be expected outcomes from implementation of the TRRP, there **should be some obligation to monitor for those** [my emphasis]. However, the timing and intensity of the monitoring effort would seem to be left to the discretion of the agency."
  - Presumably obligation for sediment transport modeling would follow from similar implementation requirement to perform that work
- Master EIR and IS' (CEQA)
  - Assumes a maintained or positive trend in riparian species.


Questions?