

# 2010-11 AMP Fish Monitoring: Incorporating Protocol Review



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# Fish Monitoring PEP General Findings

- **Robust Monitoring Elements**
  - Lees Ferry Trout
  - LCR Humpback Chub
  - Mainstem Colorado River Trout
- **Insufficient Monitoring Elements**
  - Mainstem Nonnatives (Besides Trout)
  - Mainstem Native Fish (Besides LCR humpback chub)
- **Recommendations:**
  - Shift resources from robust monitoring elements (as appropriate) to insufficient monitoring elements
  - Implement recommendations subject to analyses of proposed program changes

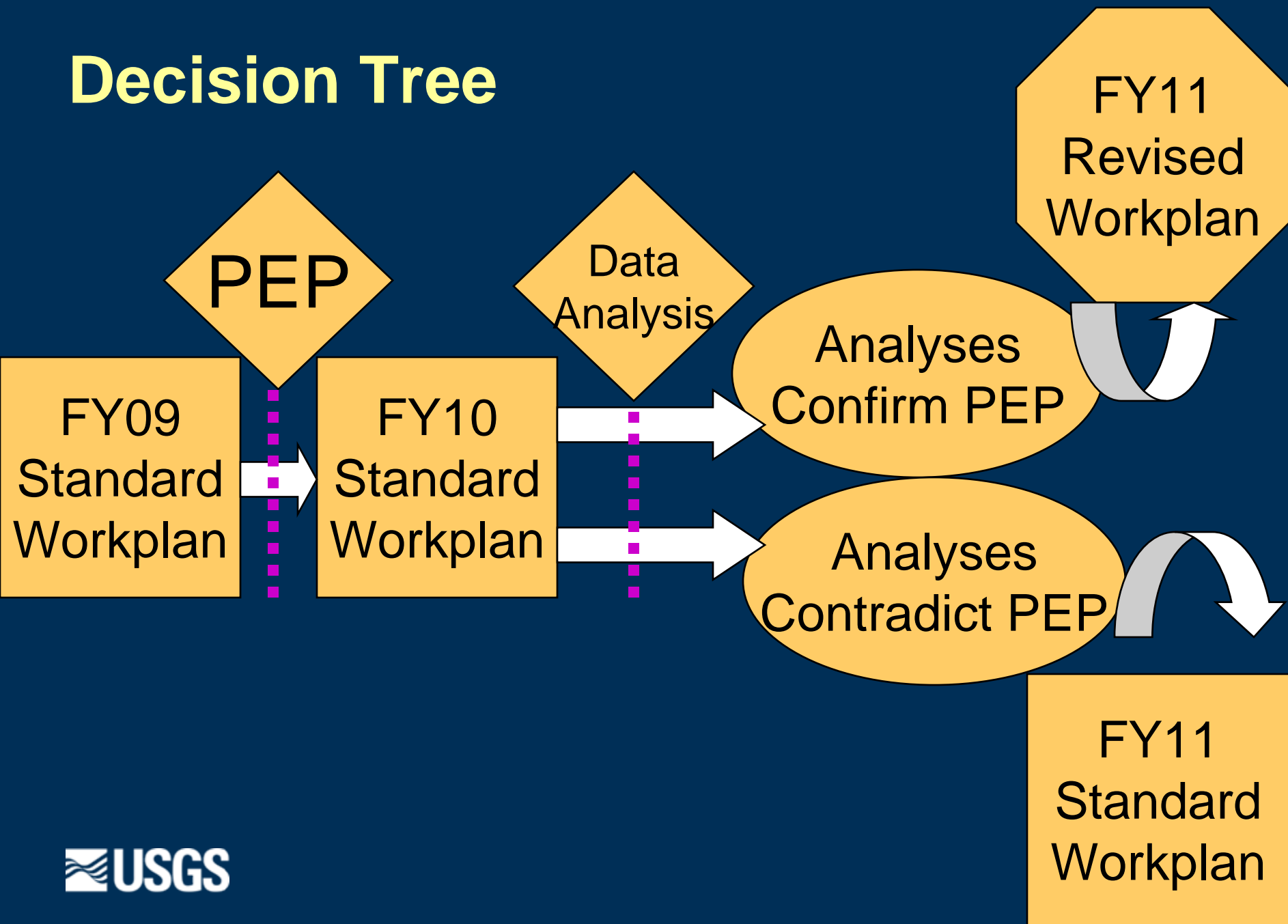


# General Approach

- **FY10: Generally consistent with FY09**
  - **Exceptions: Lees Ferry trout monitoring and one additional mainstem Colorado River effort**
- **FY10: Conduct analyses recommended by PEP**
- **FY11: Implement changes to monitoring unless contradicted by analyses and/or Science Advisor Review**



# Decision Tree





# Little Colorado River HBC Monitoring

- **FY10: Maintain spring and fall mark-recapture, closed population estimate in lower 13.6 km**
- **FY10: Maintain spring HBC monitoring lower 1200 m**
- **FY 11: Integrate efforts listed above and possibly discontinue fall sampling as recommended by analysis of current data**



# Mainstem Colorado R. Monitoring

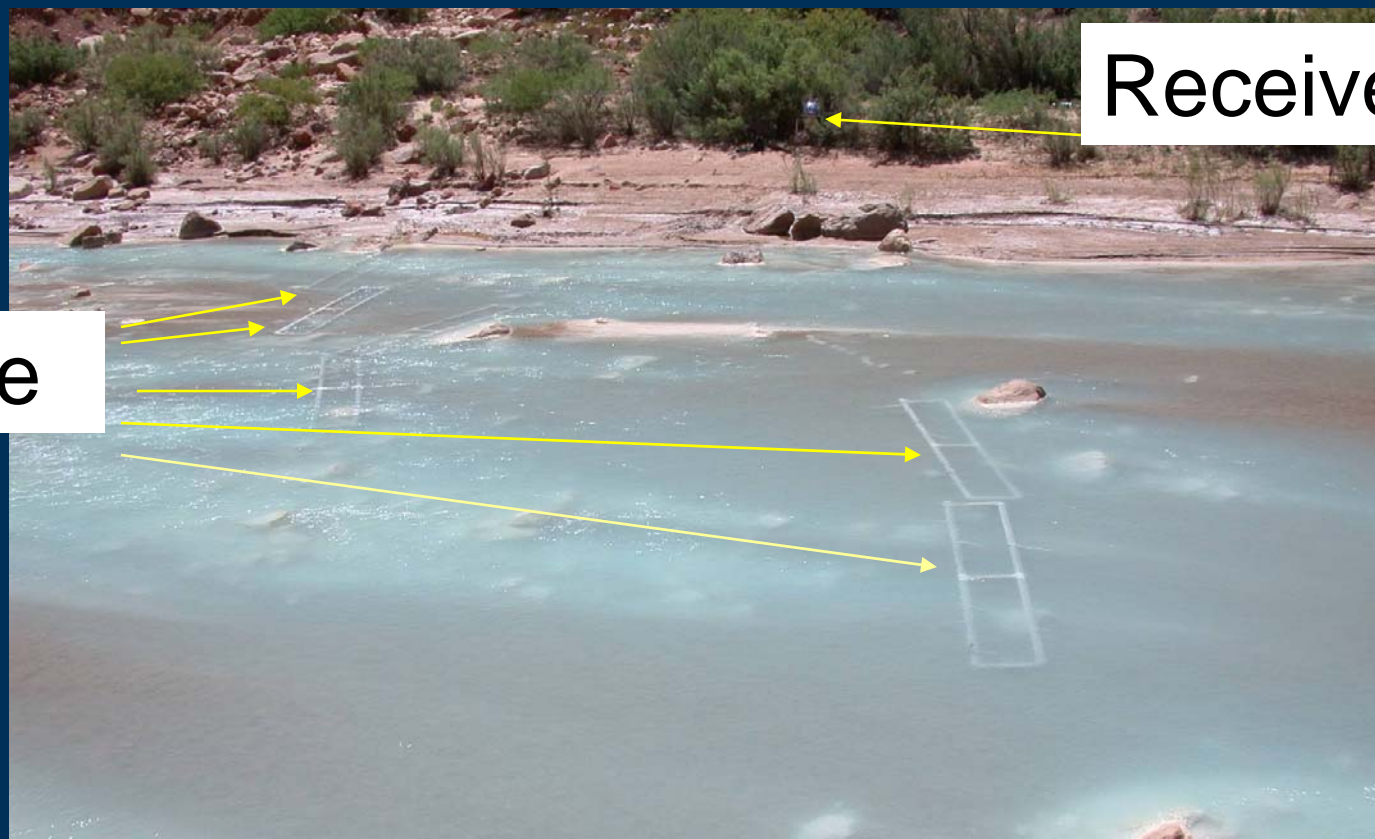
- **FY10:**
  - 2 spring e-shocking monitoring trips (Feb., Mar.)
  - 1 fall trammel net monitoring trip (Sep.)
- **FY11:**
  - 2 spring e-shocking monitoring trips (Feb., Mar.)
  - 1 fall trammel net monitoring trip (Sep.)
  - 1 fall seine and other net monitoring trip (Oct.)





# Remote PIT tag reading in LCR

- **FY10-11: Continue and expand**
  - **Additional antennas**
  - **Seek graduate student (O&M, analysis)**



Receiver

Antennae

# Lees Ferry Fishes Monitoring

- **FY10-11:**
  - 2 randomized e-fishing (RBT + nonnatives) trips
  - 2 early life stages RBT monitoring trips
  - 1 focused nonnative e-fishing trip
  - Integrate with AZGFD surveys on fishery performance (angler catch-rate, possibly satisfaction indices)





# FY10 Analyses and Next Steps

- USGS, USFWS, AZGFD will review fish monitoring data, particularly capture/recapture
- Meeting to review results January 2010 (annual reporting meeting)
- Recommendations for FY11 projects will be reviewed by Science Advisors