

# 2006 IMPROVE Network Field Audit Summary and Action Items

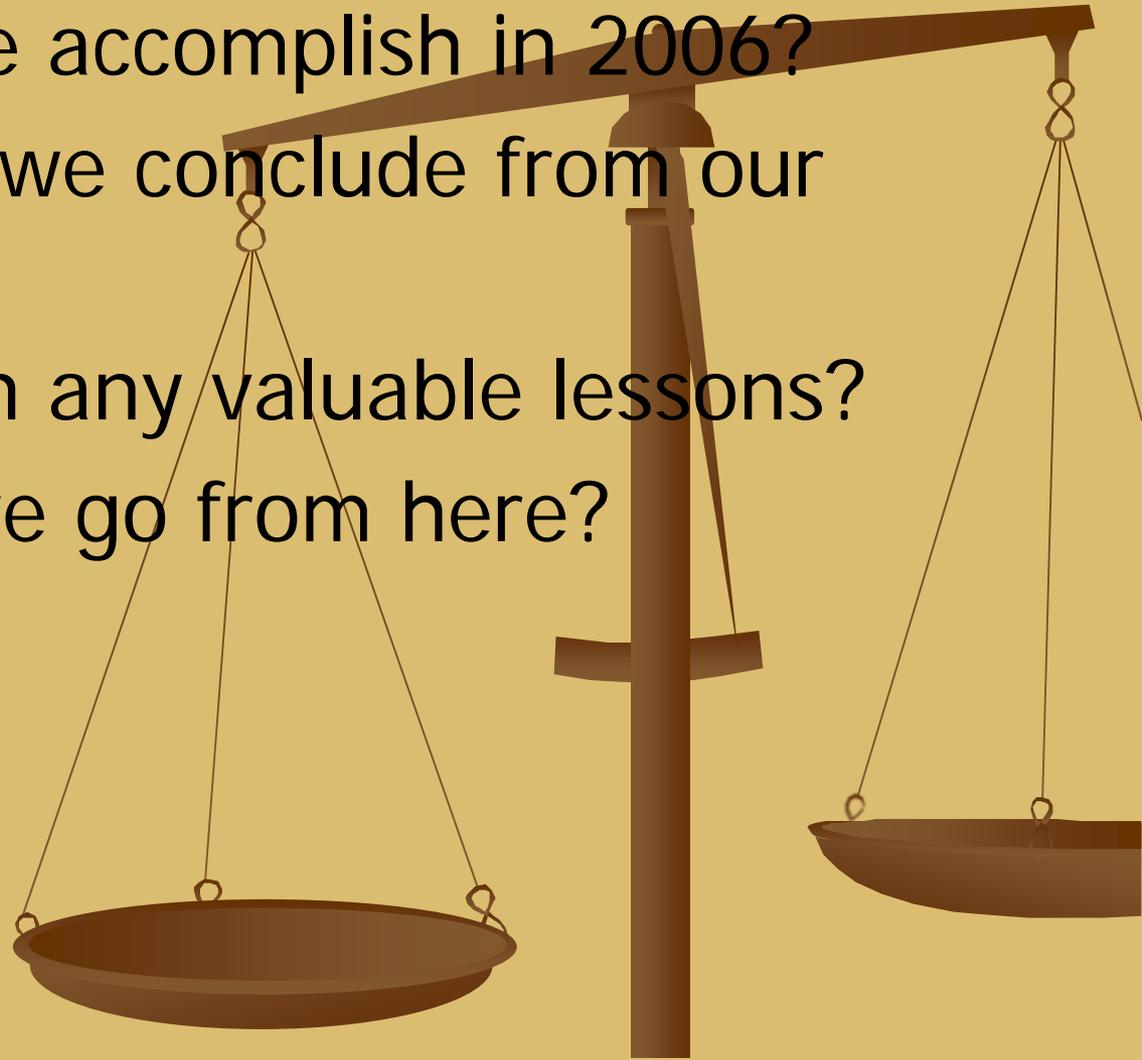
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Before the

**IMPROVE Steering Committee Meeting**  
September 5-7, 2007



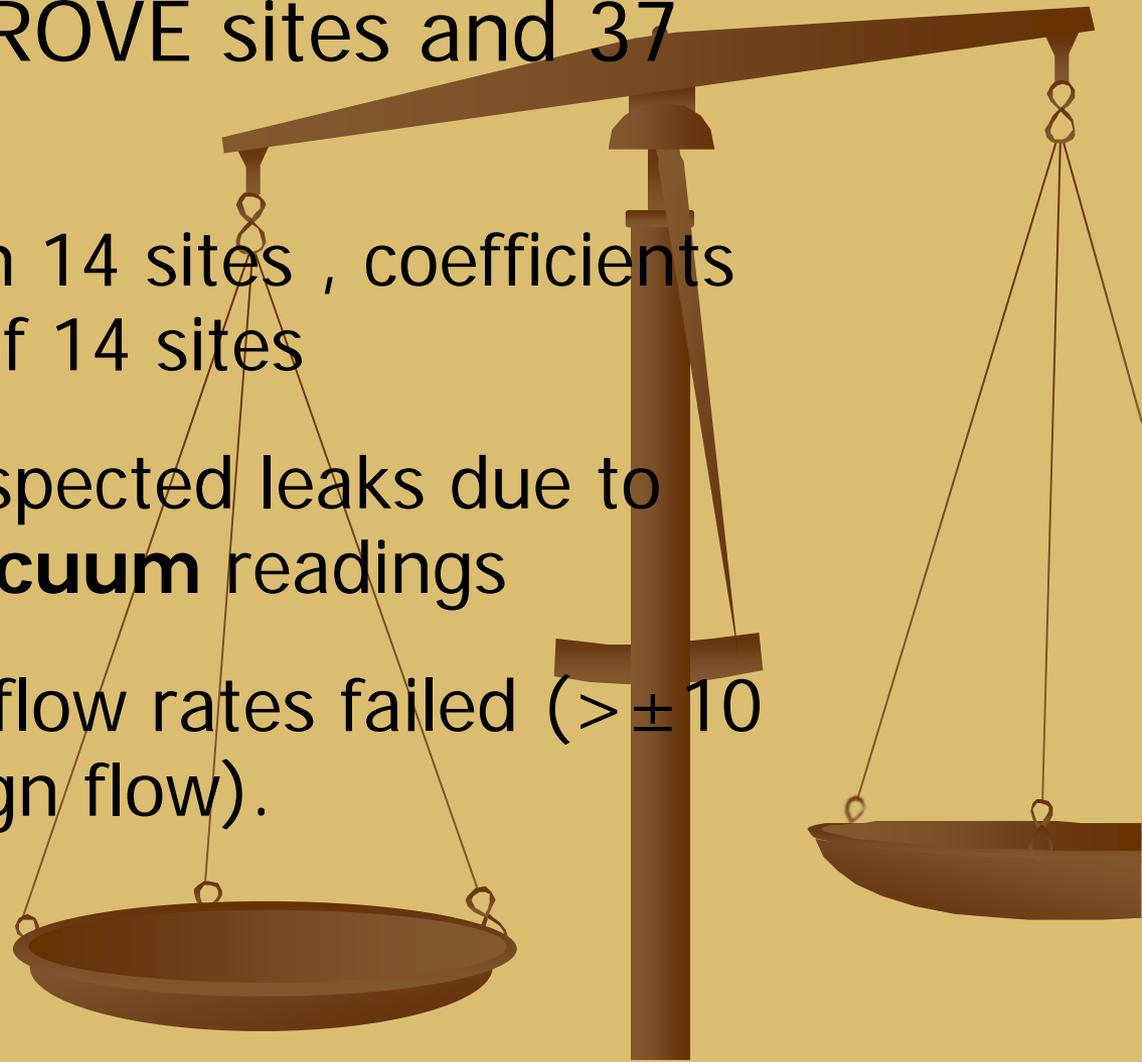
# Overview

- What did we accomplish in 2006?
- What could we conclude from our audits?
- Did we learn any valuable lessons?
- Where do we go from here?



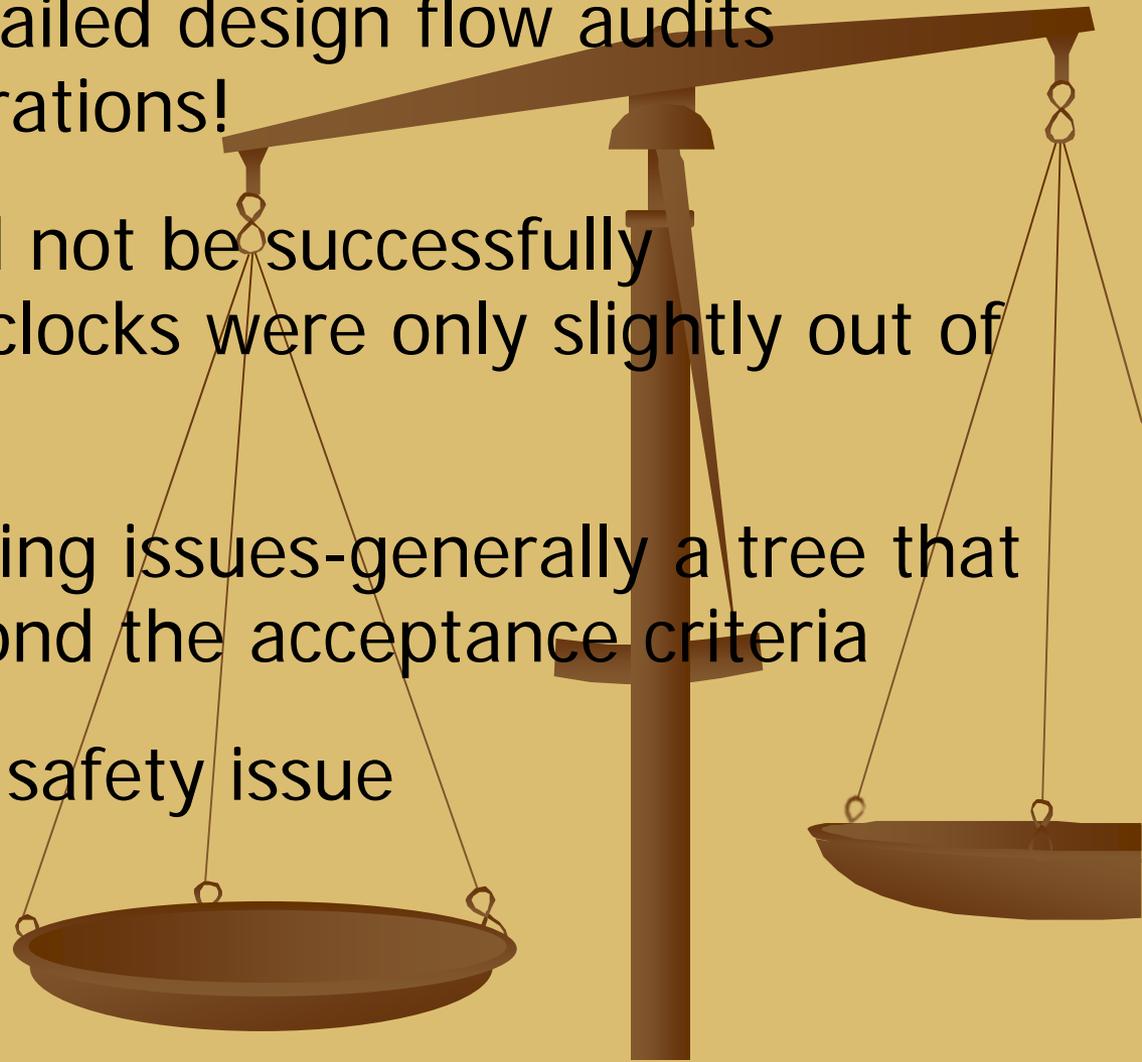
# How did we earn our pay?

- Audited 36 IMPROVE sites and 37 samplers;
  - ◆ Data missing on 14 sites , coefficients needed on 11 of 14 sites
  - ◆ On site with suspected leaks due to inconsistent **Vacuum** readings
  - ◆ Four samplers' flow rates failed ( $> \pm 10$  percent of design flow).



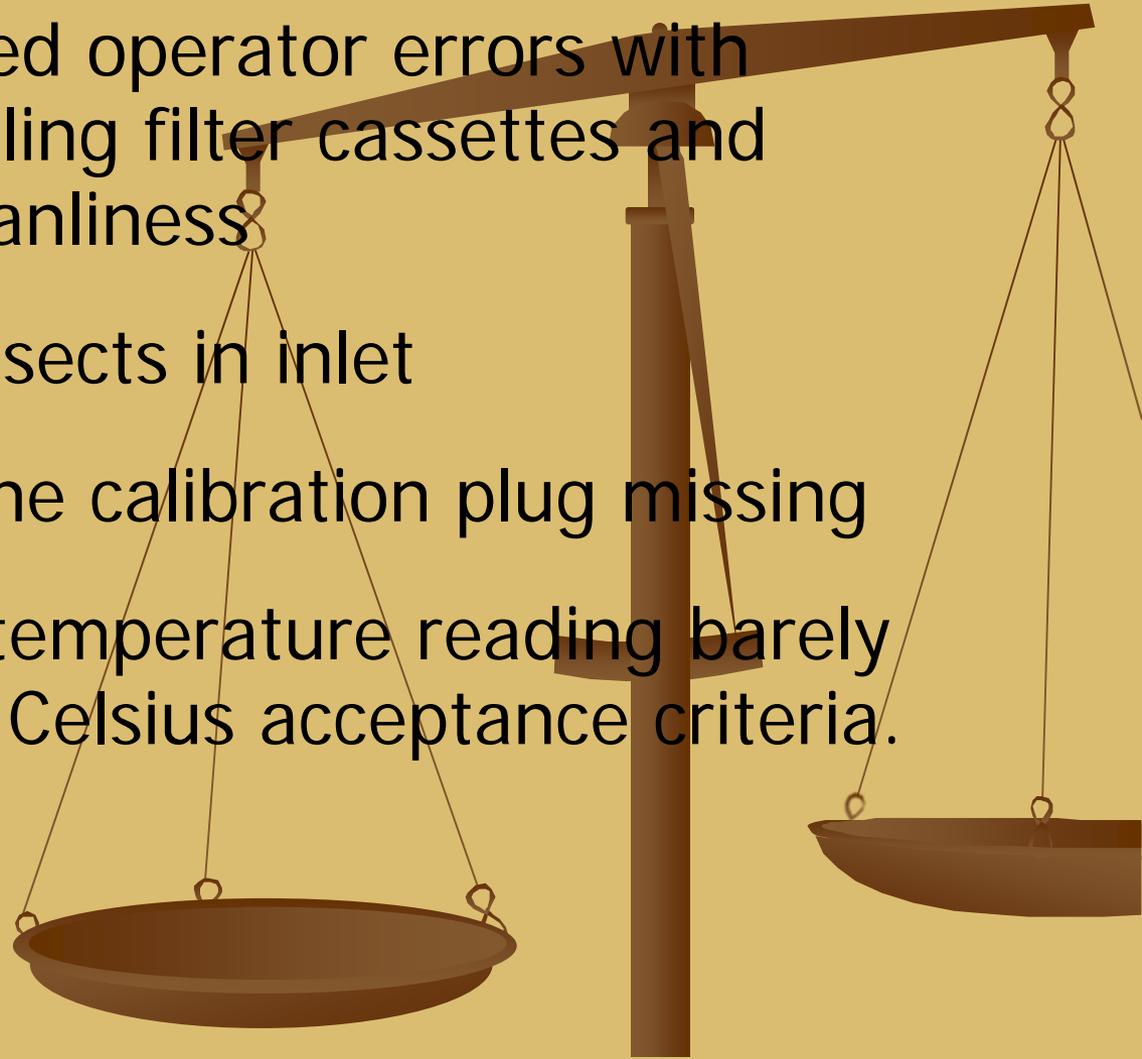
# How did we earn our pay? Cont.

- ◆ Two sites that failed design flow audits passed all calibrations!
- ◆ One clock could not be successfully recalibrated. 4 clocks were only slightly out of calibration
- ◆ Six sites had siting issues-generally a tree that has grown beyond the acceptance criteria
- ◆ One Significant safety issue



# How did we earn our pay? Cont.

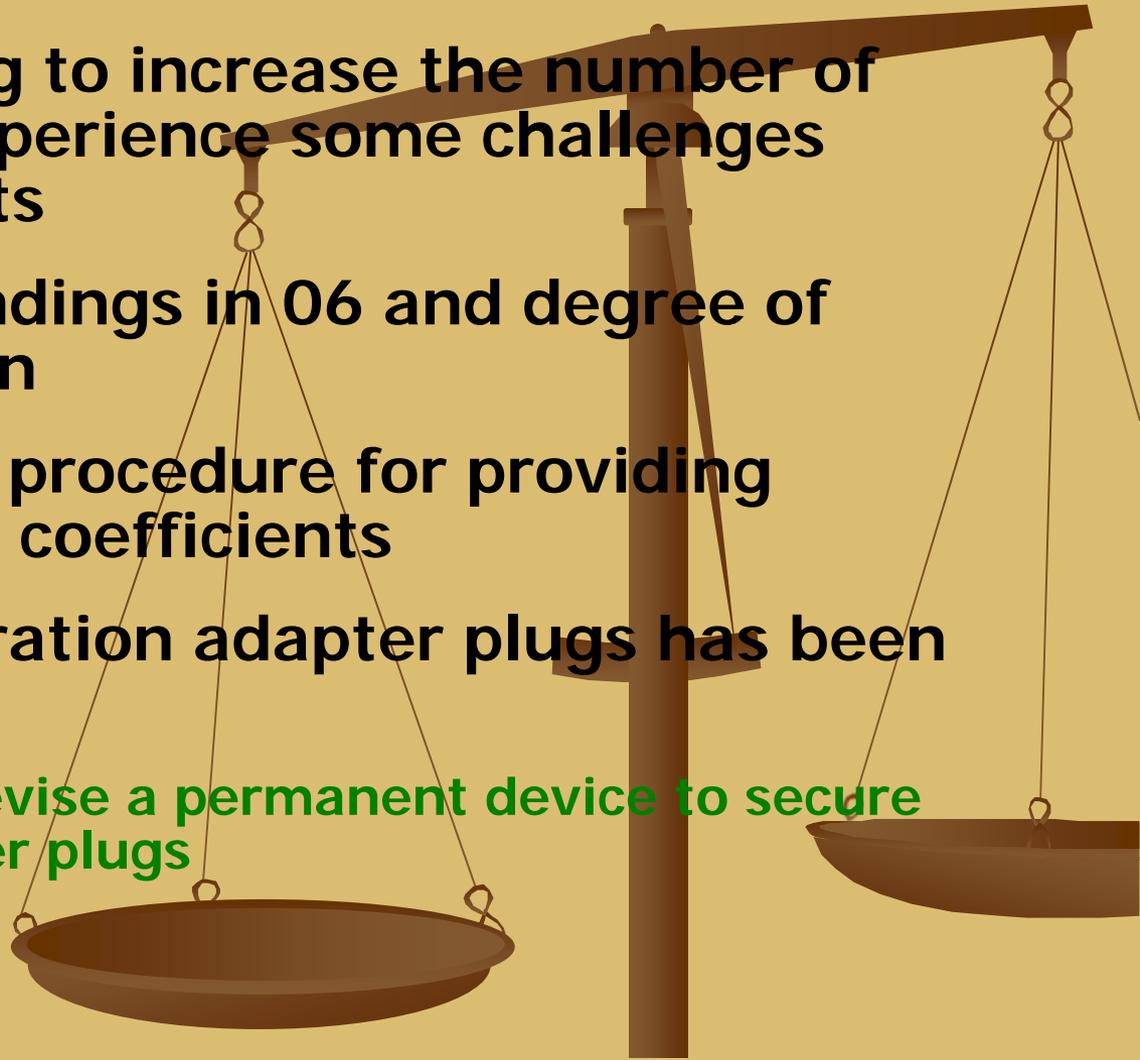
- ◆ One site reported operator errors with respect to handling filter cassettes and module box cleanliness
- ◆ One site with insects in inlet
- ◆ One site with one calibration plug missing
- ◆ Two sites with temperature reading barely  $> \pm 10$  degrees Celsius acceptance criteria.



# Conclusions, Recommendations & Results

- ◆ We are continuing to increase the number of audits but still experience some challenges getting the reports
- ◆ Fewer adverse findings in 06 and degree of severity was down
- ◆ We need a better procedure for providing auditors with site coefficients
- ◆ Duct taping calibration adapter plugs has been very successful

**IMPROVE should devise a permanent device to secure calibration adapter plugs**



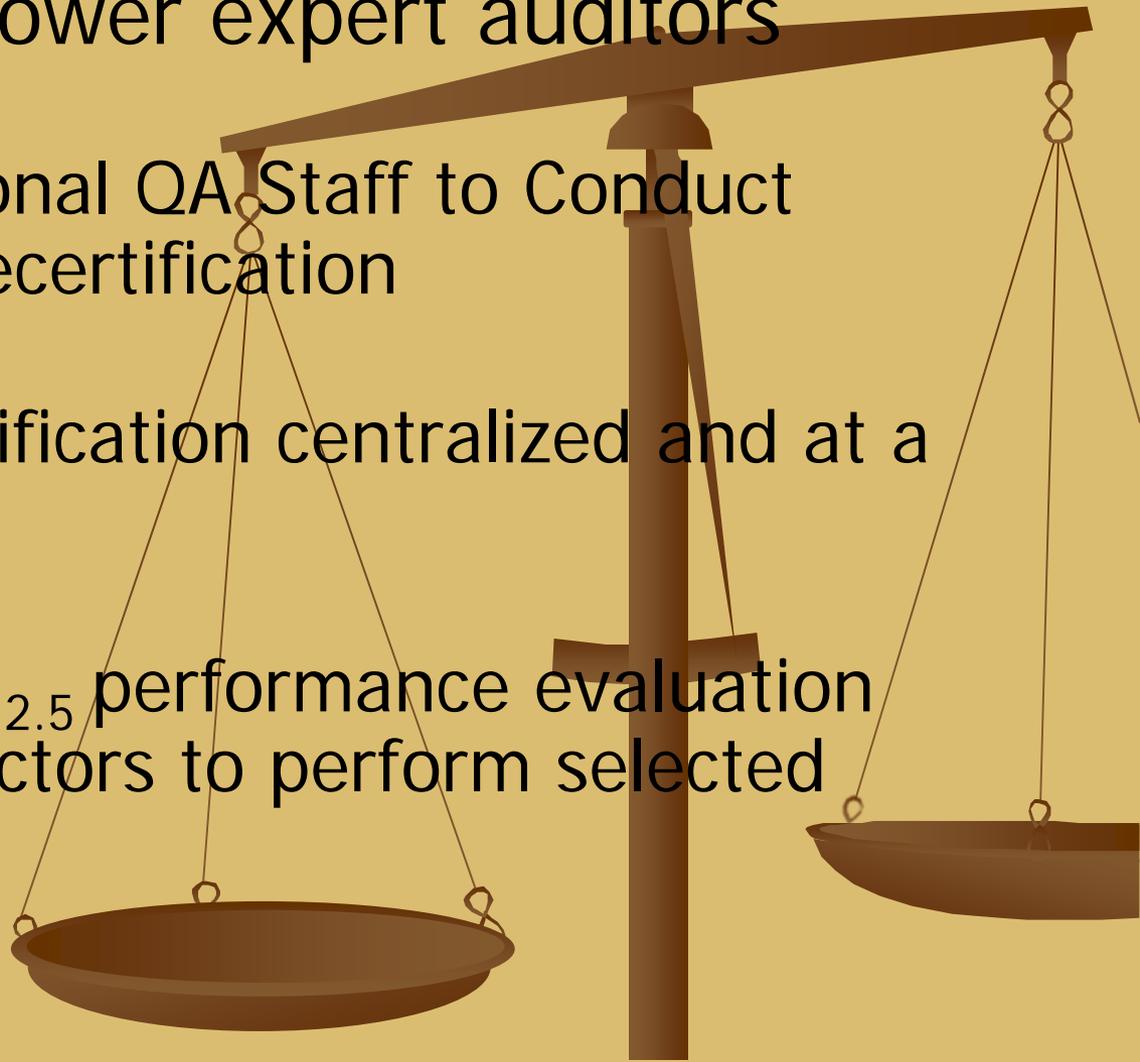
# Conclusions, Recommendations & Results

- ◆ **A better procedure to tracking follow-up actions is still needed!!**
- ◆ **The design flow vs the reference std flow rate is a useful tool in identifying calibration errors**



# Action Items

- Retain and empower expert auditors
  - ◆ Train EPA Regional QA Staff to Conduct local/regional recertification
  - ◆ Keep initial certification centralized and at a national level
  - ◆ Utilize EPA's PM<sub>2.5</sub> performance evaluation program contractors to perform selected audits



# Action Items

- Work with NPS and UC Davis to provide and house the coefficients for real time audits
- Maintain a current list of certified auditors
- Recommend revisions to the IMPROVE QAPP

