My Background

• Started in California
  • Many years employed in both public and private sectors
  • Lab analyst and QA Officer

• Moved to Texas
  • Lab analyst for City laboratory
  • QA Officer for BRA
BRA Background

- Created in 1929
- Brazos River basin
  - Dams and Reservoirs
  - Water and Wastewater Treatment Plants
  - Water Delivery Pipelines
- Self supporting
  - Occasional grants
  - Water sales
  - Treatment plant operations
Central Basin Lab Background

• Two BRA laboratories
  • Environmental Services Laboratory (ESL)
  • Central Basin Laboratory (CBL)
• CBL current location opened in 2007
• Onsite laboratory supporting several wastewater plants
• Process control and reportable samples
• Small staff
• Basic equipment
2007

• Inexperienced staff
• Non-laboratory equipment
• No LIMS
• No SOP’s or Quality Manual
• Inadequate QA/QC program
• Less than 6 months to complete application
How did we get here?
First things first

• Deadline of Dec 31, 2007
• QA Manual
• SOP’s
• PT studies
• Application
  • Quality Manual & Policies and Procedures Checklist
Now the fun begins!
What affects the entire laboratory?

- Refrigerators
- Glassware
- Dishwashers
- Equipment calibration
- Temperature tracking
- Sample bottles
- Chains of custody
Analysis-specific

• Types of QC and frequency
• QC limits
• MDL/LOD studies
• Second source standards
• Demonstration of capability
• Appropriate chemicals and equipment
Documentation

- Control charts
- Equipment list
- Sample disposal log
- Reagent and standard prep logbooks
- Equipment maintenance logbooks
- Analysis logbooks
- Signature/initial log
- Training logs
Analyst Training

• How to make standards/reagents properly
• How to correct mistakes
• QA terms and definitions
• How to review data
• How to document abnormal samples/situations
• How to perform QC calculations
What happens now?

• Notification of onsite audit
• Preparation for audit
• Onsite audit
• Audit report
• Response to audit report
• Certification!
Finally!
Advice

• Stay organized
• Hire someone
• Communicate
• Resources
• Other labs
• Upper management
Preparing for the audit

• You will receive notification in plenty of time.
• Scour through the checklist of the accrediting body.
• Prepare your staff.
• Write down any questions you may have for the auditors.
• Don’t panic.
Points to Consider

• There are absolute rules that must be followed.
• There are guidance rules that allow you to create your own criteria.
• Documentation is of utmost importance. You do not have to be perfect, but you have to explain why you are not.
• PT providers are very knowledgeable.
• The accrediting bodies are on your side.
• There will be findings at your on-site audit.
• Just like raising children, no one is ever completely prepared.
Resources

  - http://www.nelac-institute.org/content/shop.php
Questions?