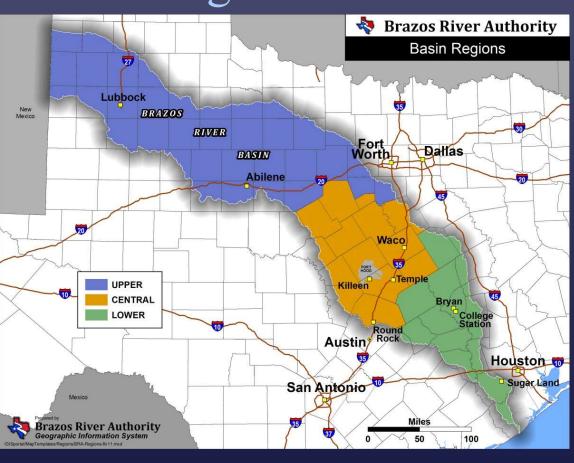
The Road to Accreditation: One Lab's Path to Success

Presented by Adrienne Tapia Brazos River Authority

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

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- 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?



VS



2007 2016

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!



Texas Commission on Environmental Quality



NELAP-Recognized Laboratory Accreditation is hereby awarded to

BRAZOS RIVER AUTHORITY CENTRAL BASIN LABORATORY (BRACBL) 3939 PALM VALLEY BOULEVARD ROUND ROCK, TX 78664-9443

in accordance with Texas Water Code Chapter 5, Subchapter R, Title 30 Texas Administrative Code Chapter 25, and the National Environmental Laboratory Accreditation Program.

The laboratory's scope of accreditation includes the fields of accreditation that accompany this certificate. Continued accreditation depends upon successful ongoing participation in the program. The Texas Commission on Environmental Quality urges customers to verify the laboratory's current accreditation status for particular methods and analyses.

Certificate Number: T104704326-09-TX Effective Date: 07/01/2009 Expiration Date: 06/30/2010

Executive Director

Texas Commission on Environmental Quality

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/index.php
 - http://www.nelac-institute.org/content/shop.php
- http://www.waterboards.ca.gov/drinking_water/certlic/labs/index.shtml
- https://www.epa.gov/quality/epa-quality-management-tools-organizations-and-programs

Questions?

